

**A Critical Analysis of Antonovsky's Sense of Coherence
Theory in Relation to Mental Health and Mental
Disorder and the Effect of a Lifelong Learning
Intervention on the Sense of Coherence of Mental Health
Service Users**



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the requirements for the degree of Doctor of Philosophy (PhD)

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Dedication

I would like to dedicate this thesis to my parents, Alan and Jill Griffiths, who have always been there for me throughout my life.

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Finally I would like to thank my wife Laura for her unwavering love, support, and encouragement.

Abstract

The theoretical focus of this thesis is Antonovsky's sense of coherence theory, the research paradigm is humanistic existential and the main area of investigation is mental health. The context of this thesis is the EU's Empowerment of Mental Illness Service Users: Lifelong Learning and Action (EMILIA) project which sought to increase the social inclusion and empowerment of mental health service users through providing formal learning and employment opportunities.

Literature reviews were conducted on sense of coherence theory and on learning interventions for mental health service users. The sense of coherence literature review revealed a substantial level of research into the theory and its application. The investigation into learning interventions for mental health service users found that they can bring significant benefits.

The thesis considered how Antonovsky's sense of coherence theory related to mental health and disorder and it found that the underlying theory has relevance in understanding coping with and the existence, development and treatment of mental disorder. The analysis indicated the possible mental health benefits of seeking to strengthen sense of coherence. The implications of the findings are discussed in relation to topics such as health care and recovery.

A combined research methods approach was taken to the assessment of the EMILIA project. A quantitative study was conducted using the SOC-13 (Antonovsky, 1987) measure to assess whether participation in the EMILIA project strengthened sense of coherence. The results showed that involvement in EMILIA significantly increased sense of coherence. This result supports efforts to increase the social inclusion and empowerment of mental health service users through providing learning and employment opportunities. The results also revealed that there was a strong positive correlation between SF-36-v2 mental health related quality of life and SOC-13 at baseline, follow-up and change over time. These results are in line with the majority of previous studies conducted in this area. Qualitative thematic analysis was used to assess the mechanisms and processes that led to this result. This analysis helped demonstrate that the EMILIA project strengthened participants' ability to effectively respond to the needs and demands of their lives and it revealed insights into the mechanisms and application of SOC theory.

In response to Antonovsky's call to study the sense of coherence concept using methods other than his orientation to life questionnaire, qualitative research methods were employed. This thesis investigated how sense of coherence theory applied when mapped onto descriptions by mental health service users of how they deal with problems that they face in their lives. The thematic analysis revealed that sense of coherence theory mapped effectively onto the interview transcripts. The analysis identified various factors that can be considered to be general resistance resources in the sense of coherence model. It also revealed distinctions between concrete and relationship orientated problem solving that led to an enhanced model of sense of coherence theory.

This thesis proposes that SOC theory can be regarded as a theoretical framework for designing interventions for mental health service users that seek to enhance coping, adaptability, recovery, social inclusion, and empowerment. The results suggest that programmes similar to EMILIA style opportunities should be an integrated part of recovery focused provision.

Overall commonalities in the findings of the two thesis studies provided new insights into the factors, mechanisms and processes involved in coping and adaption that are essential to and intertwined with SOC strength, mental health and recovery. Social capital was identified as a key general resistance resource and the combined findings provide support for projects and interventions for mental health service users that seek to facilitate increased social capital.

Original Papers

- I. Griffiths, C. A. (2006). The theories, mechanisms, benefits, and practical delivery of psychosocial educational interventions for people with mental health disorders. *International Journal of Psychosocial Rehabilitation*, 11, 21-28.

- II. Stenfors-Hayes, T., Griffiths, C. A., & Ogunleye, J. (2007). Lifelong learning for all? Policies, barriers and practical reality for a socially excluded group. *International Journal of Lifelong Learning*, 27, 625-640.

- III. Griffiths, C. A. (2008). Sense of coherence and mental health rehabilitation. *Clinical Rehabilitation Journal*, 23, 72-78.

- IV. Griffiths, C. A. & Ryan, P. (2008). Recovery and lifelong learning: Interrelated processes. *International Journal of Psychosocial Rehabilitation*, 13, 51-56.

- V. Griffiths, C. A. (2009). The EMILIA project: The impact of a lifelong learning intervention on the sense of coherence of mental health service users. *International Journal of Psychosocial Rehabilitation*, 14, 35-50.

- VI. Griffiths, C. A. Ryan, P., & Foster, J. H. (2010) Antonovsky's sense of coherence theory and mental disorder. *Scandinavian Journal of Psychology*. In press.

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CHAPTER ONE

1.1. Introduction

1.1.1. Thesis Overview

Study Aims

The aims of the study were to investigate the following:

- The literature on sense of coherence (SOC) theory.
- The literature on psychosocial educational interventions for mental health service users.
- The literature on SOC theory specifically in relation to mental health/illness.
- The effects of the Empowerment of Mental Illness Service Users: Lifelong Learning and Action (EMILIA) project on participants' sense of coherence and mental/physical health related quality of life.
- Aspects of the EMILIA project that contribute to any changes in SOC and implications in relation to SOC theory.
- The application of SOC theory in descriptions by mental health service users of how they deal with problems that they face in their lives.

Thesis Research Studies

This thesis has two research studies:

- A combined quantitative and qualitative assessment of the EMILIA intervention in relation to SOC theory.
- A qualitative investigation of SOC theory.

These two strands emerge from a single base (the literature reviews of the SOC concept). The combined quantitative and qualitative assessment of the EMILIA intervention has a specific addition to the literature review base which links SOC and the EMILIA

intervention: chapter 4. The two thesis' research studies are based on separate data sets but draw from the same pool of the EMILIA project's participants. The first is an evaluation of the EMILIA intervention in relation to SOC theory and the second is an investigation of the application of SOC theory. The studies were run separately and commonalities between findings are discussed.

Contributions to the Field of Study Made by this Thesis

Contributions are made through the following:

- I have completed and published a literature review on psychosocial educational interventions for people with mental health disorders.
- I have jointly written and published a paper linking the process of lifelong learning and recovery.
- I have completed a literature review of SOC theory and mental health/illness. I have applied SOC theory to mental health recovery and to mental health rehabilitation, this has been published.
- I have described and reflected upon completing a PhD in a large European EU funded project.
- I have completed a combined quantitative and qualitative study to assess whether the EMILIA project participation strengthened meaningfulness, SOC and mental/physical health related quality of life of mental health service users. This has been published.
- I have completed a study into how SOC theory applies when mapped onto descriptions by mental health service users of how they deal with problems that they face in their lives and this has been accepted for publication.
- I have helped fulfil Antonovsky's vision of studying SOC theory with alternative methods to that of his orientation to life questionnaire through the use of a qualitative approach employing thematic analysis.

Originality

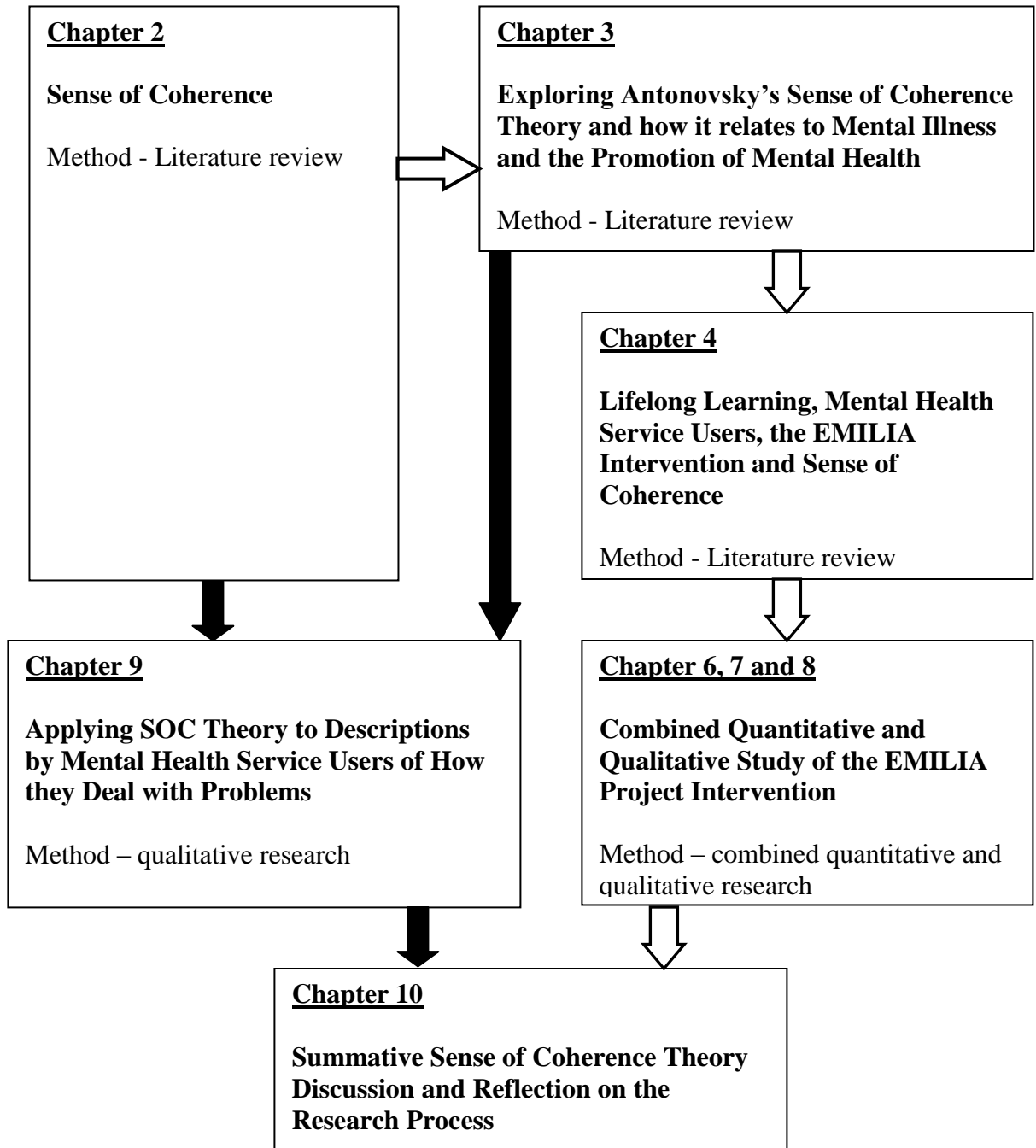
This thesis has originality in that it is the first to complete the following:

- A literature review of psychosocial interventions for mental health service users.

- A literature review of SOC related research and mental health/illness.
- A combined quantitative and qualitative study investigating the impact on SOC and health related quality of life of an intervention offering lifelong learning and employment opportunities to mental health service users.
- Qualitative analysis of how SOC theory applied when mapped onto descriptions by mental health service users of how they deal with problems that they face in their lives.

Diagrammatic Map of the Thesis

This map shows how the chapters of the thesis are related to each other. The arrows indicate the flow of information from one chapter to the next. Detailed explanation follows the diagram. The arrows with no fill indicate the flow of information for the first research study of the thesis which evaluates the EMILIA intervention. The solid arrows indicate the flow of information for second thesis research study which is the qualitative investigation of SOC theory.



Explanation of the Structure of the Thesis

Chapter 2 exams the history, development, developmental context, theory, criticisms, and research evidence for Antonovsky's SOC concept. Chapter 3 builds on chapter 2; it is a literature review of SOC theory specifically in relation to mental illness and mental health. This chapter when combined with chapter 2 forms the complete literature review for chapter 9's qualitative investigation of SOC theory. Chapter 4 expands on chapter 2 and 3; it is a literature review of learning interventions for mental health service users which also considers the EMILIA intervention in relation to SOC theory. Combining chapter 2, 3 and 4 forms the complete literature review for chapters 6, 7 and 8 – the combined quantitative and qualitative assessment of the EMILIA project intervention. Chapter 10 provides a summative SOC theory discussion and a reflection on the research process for both studies.

1.1.2. Explanation of Thesis Context: the EMILIA Project

Introduction

This section of the thesis will describe the context in which the research study is set. It will then define and discuss the key terms that it uses. As appropriate for the field of study the referencing style throughout the thesis is American Psychological Association (APA).

Key Acronyms

A full list of acronyms can be found in appendix 8. Here listed alphabetically are the key acronyms used throughout the thesis:

- EMILIA: Empowerment of Mental Illness Service Users: Lifelong Learning and Action
- GRD: General Resistance Deficits
- GRR: General Resistance Resources
- OLQ: Orientation to Life Questionnaire
- SF-36: Short Form Measure of Health and Quality of Life
- SOC: Sense of Coherence

Context

This research thesis is set in the context of the EMILIA (Empowerment of Mental Illness: Lifelong learning, Integration and Action) project. The participants for the research study element of the thesis took part in the EMILIA project intervention. This consisted primarily of providing participants with the opportunity to take learning modules specifically designed for the EMILIA project. In addition to these modules participants were given the opportunity to have paid employment at Middlesex University and the opportunity of carrying out research as part of a research module. The main aim of the EMILIA project was to facilitate social inclusion and empowerment of its mental health service user participants. The employment, learning, and social interaction provided by the project can all be considered to be important factors in generating a sense of hope, meaning, well-being and self-esteem (Borg & Kristiansen, 2008).

The following is a description of the project adapted from the EMILIA handbook (EMILIA, 2006a):

EMILIA is a Framework 6 European Union (EU) project, funded at €3.4 million over a four and a half year period in the thematic area of lifelong learning. The UK forms one of eight demonstration sites that are all based in different countries in Europe. One of the major innovations of the EMILIA project is in utilising a lifelong learning process to facilitate the social inclusion of mental health service users. This project seeks to empower mental health service users and it encourages mental health services to maximise mental health service user involvement in the training for, and delivery of, new and innovative services. Through achieving this it hopes to open up new employment routes for mental health service users. The EMILIA project employs innovative pedagogical strategies with a shift in emphasis away from knowledge acquisition to competence (capability development), implying new roles for teachers and learners.

My Role in the EMILIA Project

The EMILIA project provided half of the funding for my PhD; the other half was provided by Middlesex University. I have several roles in the project. Firstly, there was my role in working for Work Package 10: 'Lifelong learning strategy: process and policy report'. In

this role I have researched and written reports on pedagogic theories of learning and their application to lifelong learning for mental health service users. Secondly, I have been involved in collaborating with mental health service user representatives who are working on the project, specifically in the area of recruitment and data collection. Thirdly, I have been charged with collecting both the quantitative and qualitative data for the UK part of the project. Fourthly, I have helped accredit the EMILIA project's modules within Middlesex University's accreditation system. Lastly, I have been involved with coordinating the quantitative data collection across all demonstration sites in the EMILIA project and analysing this data. As a part of my overall role in the project I have delivered presentations describing different aspects of the EMILIA project at various European conferences.

1.1.3. Definition and Discussion of Key Terms

The following section defines and discusses key terms used in this thesis. There is a focus on EU definitions for some of the key terms as the EMILIA project is funded by the EU.

Lifelong Learning: Definition and Discussion in Relation to the EMILIA project

The EMILIA project was funded as part of the EU's promotion of lifelong learning. The learning intervention that was provided by the EMILIA project – which is the basis for this thesis – was designed to fit within the EU's lifelong learning vision and goals.

There are many definitions of lifelong learning but as EMILIA was funded by the EU it adopts EU definitions of lifelong learning and the related concept of active citizenship. An EU definition of the requirements for lifelong learning declares that: “a comprehensive approach to lifelong learning needs to emphasise learning throughout the lifetime from preschool to retirement encompassing the whole spectrum from formal, non-formal to informal learning” (COM, 2001a).

Active citizenship requires the empowerment and social inclusion of individuals and thus links to the goals of the EMILIA project. An EU definition of learning for active citizenship declares that:

Learning for active citizenship can be described as a process of critical accompaniment in which individuals are offered structured opportunities – at cognitive, affective and pragmatic levels – to gain and renew the skills of self-directed participation and to experience the negotiation of social purpose and meaning. By its nature, this learning process is a continuous one that is relevant to individuals throughout their lives, and also one which can and should take place in a variety of contexts. (COM, 2006, Learning for active citizenship, ¶ 1)

Combining aspects of these two definitions the EMILIA project handbook compiles the following definition: “All learning activity undertaken throughout life, with the aim of improving knowledge, skills, and competences within a personal, civic social and/or employment-related perspective” (EMILIA, 2006a, p. 2).

In the EMILIA project, and hence this thesis, the focus is on a formal learning intervention for adults who are mental health service users. In addition to this formal learning EMILIA project participants may also engage in related non-formal and informal learning as a result of their EMILIA project participation. There is an explicit declaration within the EMILIA project that it focused on competence rather than knowledge acquisition and that the project will employ innovative pedagogical strategies to achieve its learning goals. The EMILIA learning modules were chosen and designed in partnership with education specialists, mental health care workers and mental health service user representatives; they were designed to specifically target the needs of the mental health service users with twin goals of increasing social inclusion and empowerment.

Social Exclusion and Social Inclusion

One of the key goals of the EMILIA project was to reduce the social exclusion and therefore increase the social inclusion of mental health service users. There are many definitions of social inclusion and exclusion but as EMILIA was funded by the EU it utilises EU definitions. An EU explanation of social exclusion states that:

Social exclusion affects an individual's opportunity to find a good job, decent housing, adequate health care, quality education, safe and secure living conditions as well as their treatment by the legal and criminal justice systems. It becomes a chronic scarcity of opportunities and access to basic and quality services, labour markets and

credit, physical conditions and adequate infrastructure, and the judicial system. The complex problem of social exclusion is intensified for individuals belonging to multiple excluded groups (such as the mentally ill). As social exclusion so severely restricts access to the services and jobs needed for a minimal standard of living, there is a high correlation between poverty and social exclusion. Even when they are not the majority of the poor, the excluded typically constitute the poorest. (COM, 2004, p. 9)

mental health service users can be considered to be a socially excluded group. There are many aspects of their lives which can form part of this social exclusion:

- Only 20 per cent of those of working age in the UK who regard mental illness as their main disability are in employment – the lowest rate for any group with disabilities (Office for National Statistics, 2002).
- Mental health service users experience higher rates of unemployment than the general population which deprives them of social aspects of work such as social support (Nordt, Muller, Rossler, & Lauber, 2007).
- Only around 37 per cent of employers in the UK are willing to take on someone with a mental health problem compared to 60% willing to take on someone with a physical disability (Disability Rights Commission, 2003).
- There was very little increase in the proportion of adults with neurotic or psychotic disorders participating in the workforce in the UK between 1992-2002 despite a significant increase in the employment rate for the general population and for people with physical disabilities (Office for National Statistics, 2002).
- A lack of career progression and poor access to better paid work can be an issue because half of adults with mental health problems that are in employment in the UK are on a low income (Office for National Statistics, 2002).
- Adults with mental health problems in the UK are less likely than the general population to have strong family networks and access everyday goods and basic services such as health and banking services (Office for National Statistics, 2002).

- Caron, Tempier, Mercier, & Leouffre (1998) assessed satisfaction with social support in 60 psychiatric patients and they found less satisfaction than the general population on all components of social support.
- One survey suggested that approximately 90% of people developed mental health problems before they became homeless (Dean & Craig, 1999).
- Individuals with psychotic disorders are over three times more likely to be separated or divorced (Bates, 1996) and over twice as likely to be living on their own as those without (Office for National Statistics, 2000).
- Self-discrimination and self-stigmatisation experienced by mental health service users can be a major factor in social exclusion (Corrigan, 2005; Mezzina et al. 2006).

The opposite of social exclusion is social inclusion. The EMILIA project was evaluated partially by its effect on social inclusion. An EU definition of social inclusion declares that:

Social inclusion is a process which ensures that those at risk of poverty and social exclusion gain the opportunities and resources necessary to participate fully in economic, social and cultural life and to enjoy a standard of living and well-being that is considered normal in the society in which they live. It ensures that they have greater participation in decision-making which affects their lives and access to their fundamental rights. (COM, 2004, p. 9)

Employment and education – the two key parts of the EMILIA intervention – are considered essential for social inclusion (Bradshaw, Armour, & Roseborough, 2007). The relationship between SOC and social inclusion/exclusion is discussed in chapter 2 and 3 of this thesis. The social inclusion aspects of formal learning and the EMILIA project learning intervention are discussed in chapter 4.

Empowerment

Empowerment of mental health service users was one of the key goals of the EMILIA project and empowerment forms a crucial part of both an individual's social inclusion and SOC. Staples (1990) defined empowerment as: "the ongoing capacity of individuals or groups to act on their own behalf to achieve a greater measure of control over their lives and destinies" (p. 30). As Ralph et al. (2000) explained empowerment is about a

combination of internal and external factors, where internal strength is interconnected with external factors to empower.

Linhorst, Hamilton, Young, & Eckert (2002) make clear that empowerment can refer to both an outcome and a process. From this viewpoint an individual is empowered not only by the outcomes of the decisions that he or she makes, but also by being an active participant in the decision-making process. Staples described this empowerment process as: “a continuing development involving many changes whereby an individual or group is able to strengthen and exercise the ability to act so as to gain greater control and mastery over life. It is both thought and action which are dynamic and constantly evolving” (p. 38). A key point is that empowerment means different things for different people. It is interlinked with a person’s identity, value system, beliefs, and it is part of a constantly evolving process as the individual, society and the individual’s place in society adapts and changes.

This process can involve a number of empowerment related changes such as reassessment by an individual of his or her identity, changes in power relations, learning and acquiring new social roles, an increase in social networks, and an increase in participation in community life (Lord & Hutchinson, 1993, cited in Nelson, Lord, & Ochocka, 2001). All of these changes have a social aspect to them and Nelson et al. (2001) explained the importance of the social environment in empowerment’s connection to mental health and argued that: “there are transactional processes between individuals and their social environments, so that empowering factors at different ecological levels act in concert with one another to [positively] influence mental health” (p. 127). The changes listed can have a beneficial effect, and Linhorst et al. (2002) acknowledged that the benefits that mental health service users can derive from being empowered include increased self-confidence, self-responsibility, self-efficacy and quality of life.

Linhorst et al. (2002) defined the empowerment of mental health service users within mental healthcare services as personal control over all domains of life; this includes control over mental health care and decisions related to other important areas in an individual’s life such as vocation, residence and relationships. Nelson et al.’s 2001 study considered the role of power in relationships in mental health services and revealed the importance of equitable relationships to mental health service user’s empowerment. Building on their research findings Nelson et al. (2001) defined empowerment as: “opportunities for and conditions

that promote choice and control, community integration, and valued resources” (p. 127). Generally it is agreed that the empowerment of mental health service users is an important aspect of and goal for mental health services.

The importance of empowerment for mental health service users can be seen by examining the negative effects of disempowerment, an example of which is institutionalisation. The institutionalisation in large mental hospitals of people with mental health disorders caused severe disempowerment. This experience of disempowerment was one which could be described as constant powerlessness, arbitrariness and a lack of regard and respect, and where people are ‘processed’ with the label ‘victim’ (from Antonovsky’s [1979] referring to Lewis, 1970)]. The results of this disempowerment were that many individuals became incapable of fully looking after themselves and they lost self-confidence, self respect and self-esteem. Mental health services in the UK have learnt much from the failures and injustice of the past and, for the most part, operate within a community based set up. Nevertheless, there is still a need for mental health services to actively promote and engage in empowerment facilitation because disempowerment is often the outcome without this active promotion.

Numerous studies have shown that if mental health service users are provided with effective support they can become more empowered (Baxter & Diehl, 1998; Lord & Hutchison, 1993; Young & Ensing, 1999). Elements of this effective support include providing relevant knowledge, skill development, facilitating relationship building, and supportive community contexts (Lord & Hutchison, 1993; Staples, 1990). In addition to providing effective support Nelson et al. (2001) stated that integration in the wider community is a key part of empowering mental health service users. Lindström & Eriksson (2005) explained that the generation of health: “is not only a question of the person but an interaction between people and the structures of society” (p. 440).

Empowerment of mental health service users is also closely tied to the provision of valued material resources. Examples of material resources that may be valued by mental health service users and enable empowerment include housing, regular benefit payments, access to health facilities, provision of self help groups, leisure activities, employment, training, and access to legal and social security benefit advice. Mental health service users can be disempowered when they are discriminated against when trying to access these

resources, and they can become more empowered when they are given fair access and are provided with the help they require to achieve fair access.

The relationship between SOC and empowerment is discussed in chapter 2 of this thesis. The empowerment aspects of formal learning and the EMILIA project learning intervention are discussed in chapter 3.

Mental Health

The World Health Organization (WHO, 2005, p. 19) defines health as: "...a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." More specifically the WHO proposes that mental health is:

... a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. In this positive sense mental health is the foundation for well-being and effective functioning for an individual and for a community (2005, p. 19).

McCollam et al.'s (2008) paper for the EU describes mental health as encompassing an individual's abilities to function and develop emotionally, psychologically, intellectually, and socially. Mental health is therefore a measure of people's ability to think, feel, cope, adapt and function. Chapter 3 of the thesis describes Antonovsky's theories in relation to mental health.

Two other terms used in the thesis are mental health problems and mental health disorders. McCollam et al.'s paper for the EU provides definitions for both:

Mental disorders: cover a continuum of diagnosable conditions that affect cognitive and emotional functioning, including mood disorders (e.g. depression) and psychotic disorders (e.g. schizophrenia). Mental health problems: denote emotional and psychological difficulties, which cause distress and interfere with how people go about their everyday lives (2008, p. 19).

So mental health disorders can be viewed as the existence of a diagnosable disease and mental health problems are the difficulties which arise out of these in relation to their lives. The concepts of mental health recovery and rehabilitation are defined and discussed within chapter 3.

CHAPTER TWO

2.1. Sense of Coherence

This chapter describes and evaluates the SOC concept. At the heart of this thesis is the work of Aaron Antonovsky and so a brief biography is provided to provide an understanding of who he was and his work. This chapter will then move on to consider the history, development and developmental context of Antonovsky's SOC concept and in doing so it will describe some of the major influences on Antonovsky's theories. It will also explain in detail the notion of salutogenesis and the sense of coherence concept, define the concepts of stressor, stress, and coping in relation to SOC, explain the importance of life meaning in the SOC concept, examine the underlying mechanisms at work in Antonovsky's theories and consider concepts that have similarities to SOC theory. The research evidence for Antonovsky's SOC concept will be considered in relation to health, quality of life and social support. The last part of this section considers criticisms of SOC theory, evaluates how valid any criticisms are and assesses the implications of any valid criticisms.

2.1.1. The Salutogenic Paradigm

Aaron Antonovsky (1923-1994) – a Brief Biography

Aaron Antonovsky was born in the USA, the son of Russian Jewish immigrants, and moved to Israel in 1960. He had M.A. and PhD degrees in sociology and during his lifetime was Professor of Sociology at the University of Tehran, Professor of Medical Sociology at Ben Gurion University of Negev in Israel, a research fellow at the Harvard School of Public Health, a lecturer in the Department of Social Medicine at the Israel Institute for Applied Social Research in Jerusalem, Professor of the School of Public Health at the University of California in Berkeley, and Chairman of the Department of the Sociology of Health at Ben Gurion University of Negev in Israel. Antonovsky's first book, published in

1979, was called *Health, Stress, and Coping* and it described his salutogenic model and SOC concept. The follow-up to this book was published eight years later and was entitled *Unraveling the Mystery of Health*. This developed the salutogenic model further and reported on research carried out into the salutogenic model and SOC concept. In addition to writing these two books he has published many journal articles, spoken throughout the world at conferences and wrote articles in the wider media about the salutogenic model and the SOC concept.

Historical Background to the Sense of Coherence Concept

Although Antonovsky defined himself as a medical sociologist his work is also very relevant to psychology, psychiatry and mental health. He stressed the importance of the central nervous system in his SOC concept by stating: “it is the brain that co-ordinates the entire system” (Antonovsky, 1996b, p. 172). His work is part of the post World War II movement away from studying people who are unhealthy towards studying those who are healthy, and away from studying what it is that makes people unhealthy towards the study of what can help people live healthier, more productive and fulfilling lives.

Antonovsky’s focus on healthy individuals and how they cope, adapt and thrive successfully can be seen as part of the movement in psychology towards studying human potential for health, productivity and fulfilment that is labelled as humanistic psychology. It is generally accepted that the field of humanistic psychology was initially led by Abraham Maslow and Carl Rogers, and the work of these two pioneers remains very influential. Antonovsky himself referred to the work of Maslow and Rogers on numerous occasions in his own books, lectures and journal articles. Antonovsky’s work fits into an existential-humanistic paradigm (Glassman, 2000) due to its focus on subjective experience, the nature of human existence, and individual free will, action, choice, life meaning, and judgement. His work focused on theories related to human coping, adaption and health.

World War II and its aftermath caused many fundamental changes in areas such as the welfare state, social structure, national and international politics, and health systems. World War II also had a great impact on the lives of Aaron Antonovsky and a psychiatrist named Viktor Frankl. It influenced the development of their theories concerning health, stress, coping, and life meaning. After the horrors of the imprisonment and murder of

millions of people in the Nazi concentration camps both Viktor Frankl and Aaron Antonovsky asked the question: how did some people manage to survive despite the fact that they lived in constant fear of death, were often close to starvation, suffered constant beatings, were subject to physical and mental torture, lived in appalling disease ridden conditions, and suffered the loss of most or all of their friends and family? They both considered what factors contributed to an individual's survival during such adversity. They went on to apply this question to the context of the less extreme conditions normally encountered in every day life by asking: why do some people cope with stressful situations, while others do not? This section of the thesis will first of all consider the theories of Frankl.

In his book *Man's Search for Meaning* Frankl argued that people need to find the 'why' for their existence so that they can bear the 'how' (Frankl, 1992). Frankl (1985) stated that the main lesson that he learned from his three years imprisonment in the Nazi concentration camps of Terezín, Auschwitz and Dachau was that: "those most apt to survive the camps were those oriented toward the future, toward a meaning to be fulfilled by them in the future" (p. 37).

Before World War II Frankl gained doctorates in both philosophy and medicine and he worked as a psychiatrist. After the war he developed a psychotherapy entitled Logotherapy (the literal translation: health through meaning [Fabry, 1993]), which has at its heart the idea that for an individual to experience health, intellectual growth and happiness they need to discover meanings for their life. Frankl stated that meaning in life can be discovered in three ways: creating a work or doing a deed, experiencing something or encountering someone (e.g., experiencing love, beauty, goodness, or truth), and by the attitude taken by an individual towards unavoidable suffering. There is extensive research in support of his theories (e.g., Bower, Kemeny, Taylor, & Fahey, 1998; Debats, 1996; Folkman & Moskowitz, 2000; Schulenberg, 2004) and various scales have been used to measure a person's life meaning, for example, the Purpose in Life Scale (Crumbaugh & Maholick, 1964).

There are many similarities between the theories of Frankl and Antonovsky, for example, both stress the importance of self-responsibility. Frankl stated that people should respond to the demands of life by being responsible for their own lives. Antonovsky (1979)

stated that the work of Frankl influenced him in his development of the meaningfulness factor of his SOC concept. This influence can be seen in Antonovsky's work as some of the factors that Frankl described as providing an individual with life meaning, for example, relationships and creativity, form some of the resistance resources identified by Antonovsky. The two concepts also share similarities as explanations of stress response as they have both been described as stress buffer measures with low levels of meaningfulness and SOC producing vulnerability and strong levels providing resilience (Mascaro & Rosen, 2005).

Nonetheless, despite the similarities, in developing a type of psychotherapy (logotherapy) to help those experiencing problems Frankl adopted a more pathogenic (identifying what causes disease and seeking to treat it) focus than Antonovsky's salutogenic (identifying what contributes to health and promoting that which contributes to health) focus in his SOC concept. In addition Antonovsky's concept is broader than that of Frankl's; it has two more factors in addition to meaningfulness to explain individual stress reactions and coping. Antonovsky (1987) stated that life is like a collection of poems it is: "full of allusion, illusion, question, contradiction, open-ended alternatives, puns, despair, and love.... My own work has been devoted to studying the ways human beings cope with the reality of the poem that is social existence" (p. 170).

In his books Antonovsky talks about the process of his research and his investigation into how individuals deal with their experience of life. Using qualitative methods he investigated the adaptation of women to problems that they faced in their lives. He asked how it was possible for the women in his study, who had been in concentration camps in World War II and subsequently gone through all the problems of life in the newly created state of Israel, to be reasonably healthy and happy, to have successfully raised families, and continued to enjoy social and community activities. With these and additional interviews with others who survived Nazi concentration camps and victims of discrimination and poverty Antonovsky sought a common denominator that enabled people to cope with stressful situations.

In his book *Health Stress and Coping* Antonovsky describes a number of personality theories and how they informed his SOC theory. He stated that the work of Kardiner, Fromm & Eriksson provide a historical and cross-cultural perspective that underlies the

SOC concept. He entitled the multidimensional concept that emerged from his work as sense of coherence (SOC). In defining SOC he explained that it: “is a generalised, long lasting way of seeing the world and one’s life in it. It is perceptual, with both cognitive and affective components... It is a crucial element in the basic personality structure of an individual” (Antonovsky, 1979, p. 124). Adding to this definition he (1987) stated that SOC is:

A global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that stimuli deriving from one’s internal and external environments in the course of living are structured, predictable, and explicable; the resources are available to one to offset the demands posed by these stimuli; and these demands are challenges worthy of investment and engagement. (p. 19)

Over the last thirty years the work of Antonovsky has become very influential and many researchers working in the fields such as humanistic psychology, nursing, psychopathology, health psychology, and positive psychology have researched, referred to and employed his salutogenic theory and SOC concept. The SOC concept and salutogenic theories have caused fundamental changes in how we think about stress, coping and health, and they have been applied across many different disciplines to promote health.

Stressors, Stress, Coping and Sense of Coherence

The research literature on coping and stress is vast, and while this thesis will tap into it where appropriate an in-depth analysis of this topic is beyond its scope. This section provides definitions of key terms such as stress, stressor and coping, and it discusses stress and coping in relation to Antonovsky’s theories.

A stressor is anything that is potentially threatening and has the potential to cause strain or changes; it refers to an endogenous or exogenous occurrence that has the potential to cause stress (Lazarus, 1993). A stressor causes stress when it interacts with an individual to produce a damaging effect such as a harmful physiological response.

Lazarus (1966) defined stress as: “a stimulus condition that results in a form of disequilibrium in the system, producing a kind of strain and changes in the system.

Psychological stress is a threat, the anticipation of a future confrontation with harm, based

on cues which are appraised by cognitive processes” (p. 17). From this definition it is clear that two factors have to exist for stress to result: a stressor and a person susceptible to the stress causing potential of the stressor.

Susceptibility or vulnerability relates to the adequacy of the individual’s resources for dealing with adaptive demands, i.e. demands that, as part of their existence, they have to deal with (Lazarus & Folkman, 1984). Connecting stressors to possible health implications a pathogen must encounter a susceptible organism to cause disease (Lazarus & Folkman, 1984). Refining Lazarus’ (1966) definition, Lazarus & Folkman (1984) described psychological stress as: “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering his or her well-being” (p. 17).

Antonovsky (1987) expressed his support for this definition when he stated that an individual experiences stress when he or she is faced with demands to which there are no available or automatic adaptive responses. Aldwin (2000) provided a further stress definition when she stated that: “stress refers to that quality of experience, produced through a person-environment transaction that, through either over-arousal or under-arousal, results in psychological or physiological distress” (p. 22). The ‘over-arousal or under-arousal’ aspects of this definition align with Antonovsky’s (1987) suggestion that ‘load balanced’ experiences are necessary to prevent the generation of health damaging stress.

The specific part of these stress definitions that is the focus of Antonovsky’s SOC concept is that of the ‘person’ in the person/environment transaction: how properties of a person affect the degree of stress experienced. He labelled these personal properties as an individual’s SOC and his theories relate to the coping and personal health consequences of the person-environmental stressor interaction. These personal properties can be, for example, psychological, hormonal or immunological, and they have a bi-directional causal relationship with stressors (Aldwin, 2007).

These personal properties are deconstructed in the SOC concept into an individual’s level of comprehensibility, manageability and meaningfulness; and the resources and tools that enable people to experience their environment as comprehensible, manageable and meaningful are known as general resistance resources (GRRs) (Antonovsky, 1979).

Antonovsky (1979) stated that people are: “continually confronted with stressors and hence with the problem of preventing tension from becoming stress” (p. 196). All individuals face a battle in preventing stressors causing potentially health damaging physiological changes.

There is general acceptance of two fundamental parts of Antonovsky’s (1979) SOC model: that stress is an inevitable aspect of the human condition and that the concept of coping is crucial in the adaptational outcome (Aldwin, 2007). Two key words in the SOC model are adaptation and coping. Zubin & Spring (1977) defined adaptation as: “the extent to which an organism responds adequately and appropriately to life’s exigencies” (p.110); and Lazarus & Folkman (1984) explained that coping refers to an individual’s changing cognitive and behavioural efforts to manage external and internal demands that are perceived as challenging or exceeding his or her resources.

Another important term that is used in both the literature on stress and coping and by Antonovsky in explaining his SOC theories is that of coping strategies. Garcelán & Rodríguez (2002) provide a definition of coping strategies as: “behaviours subjects employ (consciously or not) in a planned and organised way to protect themselves from the demands of the environment or their own illness” (p. 28). The central aspect of Antonovsky’s theory is that SOC theory is crucial in understanding individual differences in stress reactions, coping and the deployment of coping strategies (Amirkhan & Greavessense, 2003).

Despite the focus in this section of the thesis on stressors, stress and coping with stress in his work Antonovsky, for the most part, talks of how people deal with life – all that is involved in living – rather than the narrower focus of how people deal with stress. He viewed a person’s SOC as determining more than just how a person copes with stressors and the experience of stress, he viewed it as a person’s global orientation towards how they deal with the experiences that they face in life and how this affects a person’s health.

Salutogenesis

This section will describe Antonovsky’s theory of salutogenesis, which forms a basis for SOC theory. Salutogenesis literally means the origins (genesis) of health (saluto). Antonovsky (1979) was the first to use the term salutogenesis and it is derived from the

Latin 'salus', meaning health and well-being. From his study and investigation into how human beings cope with the realities of life Antonovsky developed a salutogenic approach, i.e. investigating what it is that enables health and promotes health as opposed to pathogenesis which focuses on what it is that makes people ill and how to cure illness.

Salutogenesis theory and application to promote health is now well established in both medical circles and society in general, and its use and importance continues to grow throughout the world. Nevertheless, salutogenesis is not a stand alone model to guide health facilitation. Antonovsky (1993d) did not view the salutogenic model as an alternative or replacement for the pathogenic model. He viewed pathogenesis and salutogenesis as complementary approaches and that the best way to facilitate health in the population is to effectively combine and integrate the two. In this section the pathogenic and salutogenic models will be described, compared and contrasted, and the implications of a salutogenic approach will be analysed.

The pathogenic model proposes that disease is caused by factors such as microbiological agents, a lack of vitamins, physical stress, psychological stress, etc. The pathogenic model contends that homeostasis-maintaining and homeostasis-restoring mechanisms (for example, neuropsychological and immunological mechanisms) regulate an individual's biological system to return it to homeostasis (Korotkov, 1998). If these mechanisms fail to achieve this then disease is the result. However, the model does not fully explain the individual variation in the ability to cope with pathogenic factors such as stressors. To provide a greater explanation of the individual variation in the ability to cope with pathogenic factors Antonovsky (1979) introduced the concept of salutogenesis in the late 1970s.

Antonovsky (1979) challenged the reliance on the traditional pathogenic disease model within medicine and society as a whole, and he proposed alternative solutions that promote health. One difference between the two approaches is that the pathogenic paradigm is remedial and reactive in terms of stress and coping, whereas Antonovsky's salutogenic paradigm takes a preventative and proactive approach. It seeks to facilitate the development of an individual's self-protecting and self-healing powers. Antonovsky (1987) stated that one of the most important consequences of this salutogenic orientation is that it

enables and compels the formulation, advancement and employment of theories of adaptation and coping.

A second difference between the approaches is that the pathogenic approach seeks to rid the individual of stressors, whilst the salutogenic approach seeks to identify how an individual can cope with unavoidable stressors and enable more stressors to be salutary (Strümpfer, 1990). A third difference is that whereas the pathogenic model is characterized by the dichotomy between healthy and sick individuals, the salutogenic model places individuals on a healthy ease/disease continuum (Antonovsky, 1987). These differences help explain how Antonovsky's salutogenic approach is a paradigm shift from the traditional pathogenic focus.

Antonovsky proposed that there should be a greater degree of focus on studying the origins of health (salutogenesis) rather than on the origins of disease (pathogenesis). The salutogenic orientation asks: "Whatever the person's particular location at any given time on the health ease/disease continuum, what are the factors that facilitate his or her remaining at that level or moving towards the more salutary end of the continuum?" (Antonovsky, 1979, p. 196). According to Antonovsky's salutogenic model: "the underlying assumption governing human nature is not homeostasis, but dynamic heterostatic disequilibrium, characterised by entropy and senescence... Everyone is governed by the second law of thermodynamics, that is, an imminent heightened pressure toward entropy or chaos caused by various external and internal bodily stressors" (Korotkov, 1998, p. 53). This salutogenic paradigm focuses on the resources and strategies that are negentropic (order restoring) and enable successful coping with potentially pathogenic factors encountered in life (Korotkov, 1998).

Korotkov (1998) stated that there are a number of important implications when adopting a salutogenic orientation. Firstly, as previously stated, the pathogenic orientation classifies people on a healthy/sick dichotomy and the salutogenic orientation views individuals on a multidimensional ease/disease (i.e., healthy/unhealthy) continuum. The implication for research is that whereas in the pathogenic orientation only a small portion of the population – those who are sick – are studied, salutogenic orientated research is interested in studying everyone. This salutogenic approach also implies that wherever a

person is on the ease-disease continuum they can move in either direction. Even if a person has a condition that medicine cannot supply a cure for their health can still be strengthened.

A second implication, for both healthcare and society, concerns the allocation of resources. The pathogenic orientation is more interested in fighting factors that cause disease whereas the salutogenic orientation is interested in strengthening factors – in Antonovsky's theory defined as general resistant resources (GRRs) – that facilitate health. Thirdly, the pathogenic orientation views all stressors as potentially pathogenic whereas the salutogenic orientation contends that stressors can either be neutral, pathogenic or salutogenic depending on how a stressor is interpreted and dealt with by an individual; and this depends on, in Antonovsky's model, the strength of an individual's SOC and his or her deployment of GRRs (Korotkov, 1998).

The salutogenic orientation is concerned with the proactive successful adaptation by individuals to stressful environments that they are exposed to. It investigates what factors enable successful adaptation and how these factors can be enhanced to achieve the highest possible health level for any given individual on their ease-disease continuum. A fourth implication of the salutogenic model is that pathogenesis tends to focus on specific diseases whereas salutogenesis, in contrast, is interested in a person's whole well-being, both physical and psychological, due to its focus on movement towards the healthy end of the ease-disease continuum (Antonovsky, 1993).

A fifth implication is that the pathogenic orientation tends to use labels such as schizophrenic or manic depressive. This can have the effect that a person can be reduced – in their minds and the minds of others – from being all that they are as a human being, i.e. a father, a sister, a pianist, a great story teller, etc., into being a schizophrenic or manic depressive. The salutogenic orientation on the other hand treats an individual as a complex multifaceted entity and searches for salutary factors, such as personality strengths, compensatory factors, significant social roles, positive self images, etc., to negate the negative roles and identity associated with a diagnosis of schizophrenia or manic depression (Antonovsky, 1993). It does this to reveal, encourage and instil forces that aid the individual in combating disease and generating health regardless of the existence of any particular disease diagnosis (Antonovsky, 1993). The SOC concept acknowledges that if a person is on the 'sick' end of the ease-disease continuum and if they are viewed by others

as not being a whole complex individual who has a responsibility for his or her own care, then this will reinforce feelings of invalidity, non personhood and roleless status; and ultimately this can negatively affect his or her health (Antonovsky, 1993).

The final implication presented here of adopting a salutogenic approach is that it focuses on those who do not succumb when exposed to a pathogen as opposed to the pathogenic orientation which focuses on those who succumb to a pathogen (Antonovsky, 1993). Antonovsky's (1993) salutogenic question asks:

In light of the complexity of the tasks people face, in light of what I called the immanent process of entropy in human existence, how does anyone ever make it, maintaining her or his position on the continuum and even moving toward health?...My contention is that failure to adequately resolve these tasks has pathogenic consequences. My concern, of course, is: What enables people to be fairly competent at resolving the tasks they confront? (p. 5).

Salutogenesis is a 'what works' success orientated approach to increasing levels of health. The main differences between a pathogenic and salutogenic orientation are summarised and laid out in table 1 below.

Table 1. The differences between a pathogenic and salutogenic orientation

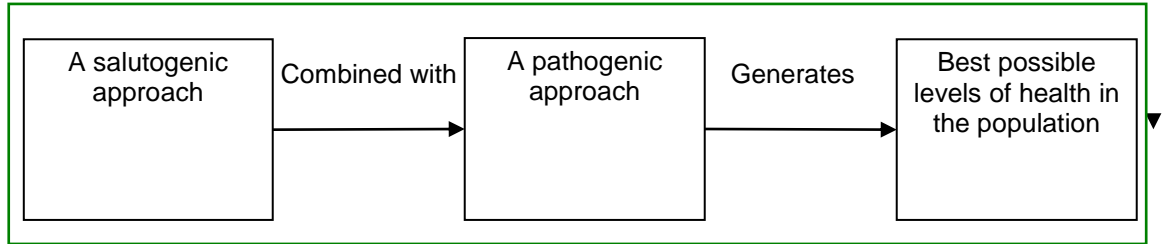
Pathogenic Orientation	Salutogenic Orientation
Takes a remedial and reactive approach	Takes a preventative and proactive approach
Seeks to rid the individual of stressors	Seeks to identify how an individual can cope with unavoidable stressors and enable more stressors to be salutary
Employs a dichotomy between healthy and sick individuals	Places individuals on a healthy ease/disease continuum and considers that everyone has the potential to move in either direction on this continuum
Only those who are sick are studied	Everyone is studied in relation to health
Interested in fighting factors that cause disease	Interested in strengthening factors that can facilitate health
Views all stressors as potentially pathogenic	Contends that stressors can either be neutral, pathogenic or salutogenic depending on how a stressor is interpreted and dealt with by an individual

Tends to focus on specific diseases	Focuses a person's whole well-being, both physical and psychological
Tends to use labels to identify people with particular diseases	Avoids the use of labels and treats individuals as a complex multifaceted entities
Focuses on those who succumb to a pathogen	Focuses on those who do not succumb when exposed to a pathogen

The pathogenic model has resulted in massive advances in medicine and it forms the basis of most healthcare services. Nevertheless, medical healthcare is very costly and is not able to provide the 'cure' for all diseases, and so within both medicine and society in general there has been a general shift in emphasis away from solely seeking cures for disease towards a greater emphasis on promoting health and individual's responsibility in his or her own health maintenance. Ickovics & Park (1998) suggest that this change in focus from illness cure to health promotion and generation represents a paradigmatic shift in theoretical psychological thinking: it changes the way human beings view themselves, each other and the world around them.

Antonovsky envisioned a future healthcare system that effectively combines pathogenic and salutogenic approaches to generate the best possible levels of physical and mental health. This is represented in figure 1 below. In mental healthcare in the UK there has been progression towards this vision with the closing down of mental health institutions; increased community based mental health promotion, support and care provision; the establishment of the strengths approach; more effective drugs and methods to assist drug regime adherence; and access to mental health wards where this is necessary. The continued challenge presented by the salutogenic model is to discover, promote and emphasise those factors, both intrinsic and extrinsic, that will both facilitate and result in individuals, communities and societies flourishing.

Figure 1. A combined pathogenic and salutogenic approach



Salutogenesis is part of the challenge of the EMILIA project. The main goals of the project, that of empowerment and social inclusion, have a salutogenic focus. The EMILIA project takes a salutogenic stance as it aims to promote learning, employability, skill acquisition, empowerment and social inclusion, all of which have the potential to positively impact on an individual's SOC and mental health recovery. Through the assessment of the EMILIA project, and the investigation of the connections between mental health and the SOC concept, this thesis will be attempting to discover factors that facilitate a strong SOC and increased health. The main research prediction of this thesis revolves around the potential of the EMILIA project to strengthen participating individuals' SOC and move individuals towards the healthy end of their disease/ease continuum.

Sense of Coherence Concept

Antonovsky (1979) proposed that the key element in salutogenesis at a personal level is an individual's SOC and that the origins of an individual's health are to be found in his or her SOC. He defined a strong SOC as: "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected" (Antonovsky, 1979, p. 123). Antonovsky assumes that the manner in which people construct their reality is a crucial factor in coping and hence health. Bengtsson-Tops, Brunt, & Rask (2005) explained that according to Antonovsky's theory: "SOC determines the subjective experience of health and is developed and maintained in a social context" (p. 280). This explanation emphasises the importance that Antonovsky placed on the social aspects of an individual's life to the strength of his or her SOC.

Expanding on Antonovsky's definition Skaggs & Barron (2006) stated that a strong SOC indicates that a: "person has a sense of social consciousness, a sense of order, a sense of personal identity, a reason for existence, a sense that life is meaningful, a belief that life is manageable, and a stable understanding of others, self and life" (p. 562). This definition of an individual with a strong SOC connects the SOC concept with the reality of human existence. The development of an individual's SOC is rooted in the psychological, social, cultural and historic context of his or her life, such as childhood experiences, social roles, idiosyncratic factors, genetic factors, parenting style and socioeconomic factors (Sullivan, 1993). The strength of an individual's SOC can change through his or her experiences of the reality of human existence even though underlying SOC is relatively stable by early adulthood (Antonovsky, 1979; 1987). The findings of Schnyder, Buchi, Sensky, & Klaghofer (2000) confirm Antonovsky's notion that the SOC concept is a general measure of a person's perspective on reality that, while relatively stable, can be altered by major life changing experiences. This section of the thesis will present and discuss research on the SOC concept, its underlying theories and components parts.

Wolff & Ratner (1999) stated that SOC is central to the regulation of psychophysiological response generated by potentially pathogenic stressors (life events and challenges); however, SOC does not refer to a particular coping strategy but to factors which enable coping with stressors (Antonovsky, 1993b). Antonovsky believed that focusing on the interaction between stressors and individuals, rather than on just the stressors, would produce a better understanding of the creation of health. The SOC model is designed to advance understanding of the relationships between stressors, coping and health (Antonovsky, 1993a). It focuses on factors for success, a salutogenic approach, rather than on factors that can cause failure, a pathogenic approach (Feigin & Sapir, 2005).

Every individual has resources which help them cope and adapt, these are labelled as general resistance resources (GRRs) in the SOC model. Antonovsky (1979) defined GRRs as:

Physical, biochemical, artifactual-material, cognitive, emotional, valuative-attitudinal, interpersonal-relational, or macrosociocultural characteristic, phenomenon, or relationship of an individual, primary group, subculture, [or] society that provides extended and continued experience in making sense of the countless stimuli with

which one is constantly bombarded and facilitates the perception that the stimuli that one transmits are being received by the intended recipients without distortion. (p. 158)

Antonovsky (1979) proposed that GRRs such as material resources, knowledge, ego strength, cultural stability and social support can maintain and strengthen an individual's SOC, and that general resistance deficits (GRDs), such as a weak immune system or a lack of material resources, knowledge and social support can weaken an individual's SOC. Support for this proposal comes from various sources, an example of which is Hart, Wilson, & Hittner (2006) who found that the SOC of their USA based undergraduate participants was positively related to various measures tapping psychosocial resilience and negatively related to various measures tapping psychosocial vulnerability.

Antonovsky (1979) stated that his theories relating to GRRs were influenced by Hans Selye's (1978) concept of the general adaptation syndrome. Selye's research affirms the general conviction that social and psychological factors are important in coping with stressors and in determining an individual's level of health and illness. Based partially on work by Selye and Antonovsky the fields of psychophysiology and medicine now accept the idea that host resistance to disease is important. It is now generally accepted that all disease could have biopsychosocial aetiology in a multi causal system.

In Antonovsky's model the focus is on the effect of GRRs, and GRRs can be physical (e.g., a strong physique, strong immune system, genetic strengths), artefactual (e.g. money, clothing, food, power), cognitive (e.g., intelligence, education, adaptive strategies for coping), emotional (e.g., emotional intelligence), social (e.g., support from friends and/or family), or macrosocial (e.g., culture and shared belief systems). If stressors are viewed as having the potential to increase disorder within the living being then GRRs facilitate the restoration of orderliness (Sullivan, 1993). They enable life events to be: "perceived as patterned rather than chaotic, meaningful rather than nonsensical, and lawful rather than randomly determined" (Sullivan, 1993, p. 1773).

If individuals have a low SOC then they tend to appraise situations as more taxing on their GRRs and this can lead to a greater degree of psychological stress and negative health consequences (McSherry & Holm, 1994). As human beings we are constantly calling upon our available GRRs to deal with the stressors that we all must face as part of our existence

in this world. Our situation/resource appraisals, level of resources and capacity to employ these resources have consequences for how we deal with the challenges of life and our level of health (Antonovsky, 1979; 1987).

Antonovsky's SOC concept has three interrelated components: comprehensibility, manageability and meaningfulness:

1. Comprehensibility

Comprehensibility refers to an individual making 'cognitive sense' of life events, i.e. the ability of an individual to be able to review reality to create cognitive order, clarity and structure, and to be able to find a degree of logic and consistency in life events (Antonovsky, 1979; 1987).

2. Manageability

Manageability refers to an individual's perception of having the necessary personal and social resources to cope with the demands and stresses of his or her life (Antonovsky, 1979; 1987). It involves the expectancy by an individual that they will be able to overcome adversity through the deployment of resources (Sullivan, 1993). Coping efficacy is partially determined by the belief that one has the strategies to cope (Antonovsky, 1979; 1987).

3. Meaningfulness

Meaningfulness refers to the conviction that the demands of life are worthy of cognitive and emotional investment and commitment (Antonovsky, 1979; 1987). Landsverk & Kane (1998) describe meaningfulness as: "an emotional connection that promotes motivation" (p. 422). People who are orientated towards meaningfulness seek meaning in the challenges that they encounter and discovered meaning provides motivation (Antonovsky, 1987).

Figure 2. SOC component interaction model

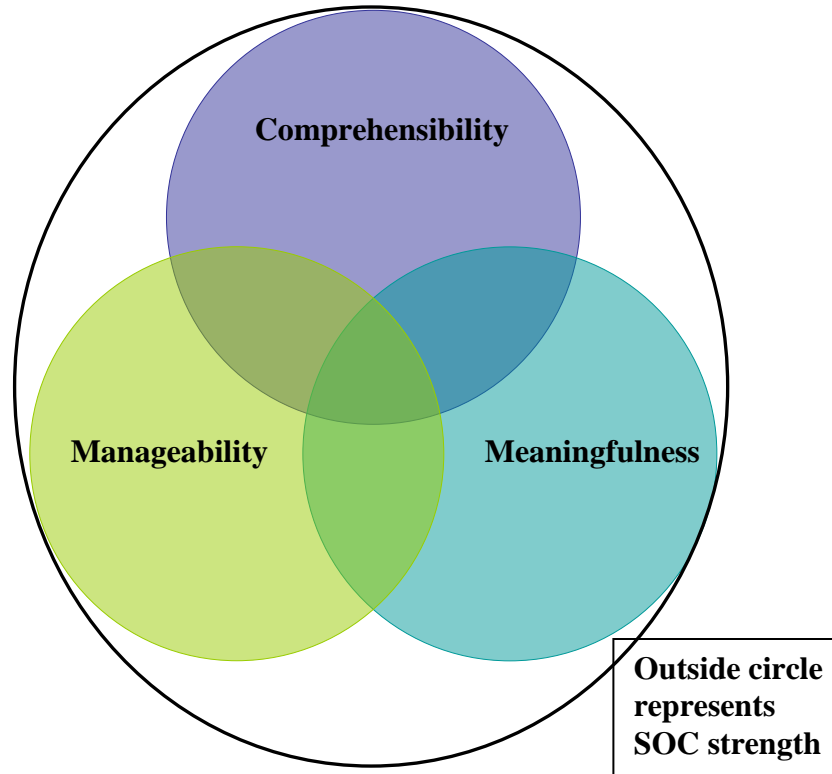
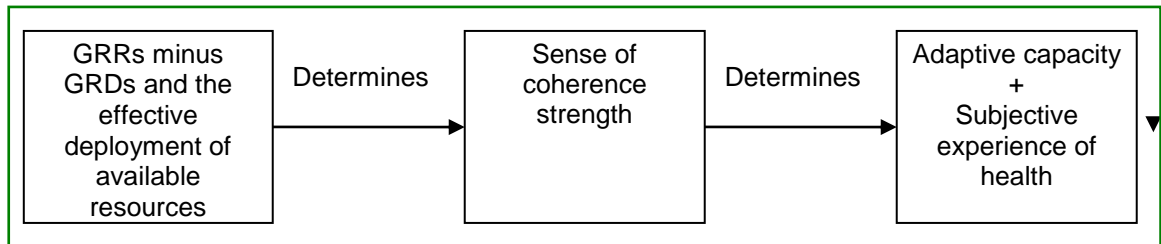


Figure 2 illustrates the three interrelated components that make-up every individual's SOC strength. Every individual will vary as to their own personal SOC component configuration and the relative contribution that each component makes to his or her SOC (Sullivan, 1993). As the strength of each component increases or decreases (inner circles in the diagram) SOC strength increases or decreases (outer circle in the diagram). Antonovsky (1987) argued that the strength of an individual's SOC, which results from the dynamic synergistic interaction of the three components, has: "direct physiological consequences and, through such pathways, affects health status" (p.154).

Antonovsky described the relationship between GRRs and SOC as dynamic, catalytic and reciprocal. This relationship can form a positive cycle with the perception of available resources to cope with stressors increasing SOC, the repeated exposure to life challenges

and successful management of these challenges due to a strong SOC results in the development and generation of GRRs, this consequently strengthens SOC and, in turn, a strong SOC enables the adaptive mobilisation of GRRs (Antonovsky, 1987). The focus of the application of Antonovsky's SOC concept is on the creation of this positive cycle to increase levels of health and other factors such as well-being and quality of life. The SOC model is represented by figure 3 below.

Figure 3. Sense of coherence theory model



To explain how the coping process involving the three SOC components works in reality Antonovsky (1996b) described how a person with a strong SOC deals with a life event: “The person with a strong SOC, believing that she or he understands the problem and sees it as a challenge, will select what is believed to be the most appropriate tool(s) (GRRs) for the task at hand” (p. 172). Antonovsky (1987) explained that strong SOC individuals have a more positive solution focused outlook, and that this outlook assists them in coping with life's challenges successfully. Antonovsky (1987) suggested that the coping reactions of a strong SOC individual will be more appropriate and adaptive. This suggestion is upheld by Pallant & Lae's (2002) literature review for their investigation of the construct and incremental validity of SOC. This review revealed that those with a stronger SOC are more likely to respond to a stressor with adaptive strategies. It is also supported by Fok, Chair, & Lopez (2005) who found that patients with a strong SOC who had experienced critical illness were more likely to take an active role in shaping their own health outcomes than those with a weak SOC.

Antonovsky also suggested that individuals with a strong SOC successfully cope through realistic appraisal, situational assessment and evaluation and appropriate deployment of resources. As Lazarus & Folkman (1984) explain: “If a person's appraisal of an encounter is to lead to adaptive coping and outcomes, the appraisal must be realistic; the

person needs to focus on adaptationally significant aspects of an encounter and evaluate coping options in relation to the actual demands of the environment and his or her actual coping resources” (p. 79).

Antonovsky’s proposed more positive outlook of strong compared to weak SOC individuals has also been supported by Pallant & Lae’s (2002) analysis of the SOC concept. Furthermore, the solution focused outlook of strong individuals with a strong SOC proposed by Antonovsky has been supported by the findings of Amirkhan & Greavessense’s (2003) experimental study into the mechanisms of the SOC concept. In this study, whose participants were undergraduate students, they found that those with a strong SOC: “actively attempted to resolve their problems” and had a: “pattern of non avoidant, problem-focused response” (p. 59).

This research is part of a large body of empirical research supporting the theory underlying the SOC concept and its measures and application. Reviewing this literature Feigin & Sapir’s (2005) found that: “the concept of SOC has a broad theoretical base and a growing and impressive body of empirical evidence supporting its utility” (p. 63). More specifically, the research findings of Feigin & Sapir’s study on the personal and psychological characteristics of substance abusers provides support for the idea that the concept of SOC is central in a person’s ability to cope with stressful stimuli and that a strong SOC contributes to health and psychosocial functioning.

Adding weight to the argument that SOC is central in the ability to cope with stress is a study by Marais & Stuart (2005). This study investigated the role of temperament in the development of post-traumatic stress disorder (PTSD) amongst journalists and its findings supported the idea that SOC influences the ability to cope with trauma. In addition, Feigin & Sapir (2005) study on drug addiction reported the importance of an individual’s SOC strength in coping with the prolonged process of abstaining from using illegal street drugs. They stated that the findings: “strengthen the idea that the resource of SOC plays a central role in coping with the stressful stimuli involved in the recovery process, and contributes to health and psychosocial functioning” (p. 69).

Furthering the evidence for the connection between SOC and stress and health, the literature review by Amirkhan & Greavessense (2003) revealed substantial evidence for the connection between a strong SOC and lower levels of stress, distress and symptomology. In

support of this Surtees, Wainwright, & Khaw's (2006) study, which used data from a large UK based longitudinal study of adults (age 41 to 80 years), found that SOC distinguishes adaptive capacity to adverse life event experiences. Specifically they found that adults with a weak SOC had not recovered from negative life events to the same extent as those with a strong SOC and that SOC strength was predictive of mortality.

Furthermore, the results of Pallant & Lae's (2002) evaluation of the SOC scale provide support for the notion that SOC is positively correlated with physical and psychological well-being and adaptive coping strategies, and that it is negatively correlated with a range of negative psychological states. In addition to this support for Antonovsky's theories in relation to SOC, stress and health there is extensive evidence for the universality of the SOC concept from validity research conducted in a large number of countries and diverse populations (Amirkhan & Greavessense, 2003).

It has been argued that SOC is a psychological factor that predicts adjustment to change, i.e. a strong SOC facilitates positive adjustment and a weak SOC is more likely to result in poor adjustment. Support for this link comes from Petrie & Brook's (1992) study of parasuicide hospital admissions in which they compared SOC with measures of depression, hopelessness and self-esteem. Their results revealed that low SOC was the best predictor of existing and future suicidal ideation and future suicidal behaviour in individuals who had previously attempted suicide; and the results have subsequently been supported by the findings of a Polish study of parasuicide by Polewka et al. (2001). This evidence demonstrates links between higher levels of suicidal behaviour and weaker levels of SOC.

The above research investigating SOC helps provide a greater understanding of and support for aspects of SOC theory. This section of the thesis has provided an introduction to the research evidence in relation to SOC theory. Further research evidence relating to SOC theory is described and evaluated separately in relation to health, quality of life, social support and empowerment under the title: 'Research Evidence in Relation to Sense of Coherence Theory' in chapter 2.

Antonovsky (1979) stated that his research on salutogenesis and the SOC concept is aimed at all those who are: "committed to understanding and enhancing the adaptive capabilities of human beings" (p. viii). This pronouncement provides a link between his

research and the aims of those who worked in the EMILIA project. The stated main aims of the EMILIA project are the empowerment and improved social inclusion of mental health service users. Embedded in these aims is the commitment to the understanding and enhancement of the adaptive capabilities of this group. The EMILIA project is part of the fulfilment of society's responsibility to create the conditions that promote the coping ability that is part of an individual's SOC strength (Antonovsky, 1979; 1987).

Life Meaning and Sense of Coherence

Korotkov (1998) reported Antonovsky's assertions that, of the three components that make up the SOC concept, meaningfulness is the most important because it provides the motivation for a person to make sense of their environment and that it empowers them to cope successfully. Taking the relative importance of the SOC factor of meaningfulness into account this thesis will place a greater focus on this factor. In this section it will consider the theory behind Antonovsky's meaningfulness concept and also investigate the work of Viktor Frankl and other contributors to 'meaning in life' theory. It will look at how having high levels of meaningfulness can contribute to individuals' physical and mental health and to their success in life; and it will also consider the negative effects of a lack of life meaning. Under a separate heading this thesis will also consider meaningfulness in relation to education and investigate the concept of LogoLearning (Parnell, 1994) – this section of the thesis helps connect the concept of meaningfulness to EMILIA's lifelong learning intervention

The terms 'meaningfulness', 'life meaning' or 'meaning in life' in this context refer to the focus of the individual on their purpose in life and reasons for existence, which is linked to goal directed behaviour and fulfilment in life. Meaning in life has been defined as: "the cognisance of order, coherence, and purpose in one's existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfilment" (Reker, Peacock, & Wong, 1987, p. 221). Frankl (1992) argued that meaning in life is a fundamental part of any individual's subjective phenomenological experience. Frankl (1992) believed a lack of meaning has negative consequences for both physical and mental health. He explained that an individual needs meaning for his or her life, and that an individual can have many concurrent and divergent sources of meaning in his or her life at

any one time. He argued that that these meanings evolve and are subject to change over time and from situation to situation.

Frankl (1992) argued that life can have meaning regardless of the circumstances of that life, and that everyone is capable of finding meaning in life even in times of severe stress, suffering and crisis. Possessing life meaning enables a person to cope in adversity: “There is nothing in the world... that would effectively help one to survive even the worst conditions, as the knowledge that there is meaning in one’s life” (Frankl, 1992, p.109). Frankl based his argument on evidence from survivors of World War II concentration camps and others who survived and prospered despite adversity. In alignment with Antonovsky’s SOC theory Frankl argued that meaning in life facilitates mental and physical health and serves as a buffer against stress. Frankl’s theories and subsequent research on those theories provide support for the idea that a lack of meaning in life is associated with mental health disorders and stress; that there is a strong association between meaning in life and well-being; and that people with a strong sense of meaning in life are more responsible, goal-directed, relationship-oriented and better adjusted (Schulenberg, 2004).

Frankl (1992) stressed the need for people to focus on the here and now, and that at any given moment there is only the specific meaning of a person’s life; this demonstrates the existential nature of his theory. Nevertheless, Frankl acknowledged that an individual’s meaningfulness is linked with both the past and the present. It is likely that he would have concurred with Clements, Focht-New, & Faulkner (2004) who stated that the: “lived experience is not a linear passage of time but is the way a person’s present is made meaningful by past experiences and future expectations” (p. 787). However, changing the term ‘future expectations’ in this quote to ‘future goals and expectations’ would capture better the motivational aspect of both Frankl’s and Antonovsky’s concepts. Frankl’s theory is in alignment with Antonovsky’s when he states that meaning is central to a life that is purposeful and goal directed (Frankl, 1992).

Frankl believed that it is essential for a person to have a gap between what he or she has achieved and what he or she feels they ought to accomplish: “What man actually needs is not a tensionless state but rather the striving and struggling for some goal worthy of him. What he needs is not the discharge of tension at any cost, but the call of a potential

meaning waiting to be fulfilled by him” (Frankl, 1946, p.106). A person requires worthwhile goals to provide drive, motivation, focus, and direction in his or her life. Frankl (1985) stated that: “being human is being always directed, and pointing to, something or someone other than oneself: to a meaning to fulfil or another human being to encounter, a cause to serve or a person to love” (p. 35).

According to Frankl (1962) the first and most important resource of the human spirit is the ‘Will to Meaning’ which is the strongest motivation for behaviour and living, and that this basic drive to find and fulfil meaning creates purpose in life. He believed that human beings are constantly searching for meaning, and becoming aware of meaning in life enables individuals to develop their inner strengths and endure suffering. This belief has similarities to Antonovsky’s view that meaningfulness provides motivation, facilitates the acquisition of GRRs and enables an individual to cope with stressors.

Meaningfulness can be generated through a number of processes and activities. As Frankl (1992) suggested, meaning in life can be discovered in three ways: creating a work or doing a deed, experiencing something or encountering someone (e.g., experiencing love, beauty, goodness, or truth), and by the attitude taken towards unavoidable suffering. According to Wong (1998, cited in Mascaro & Rosen, 2005) individuals derive meaning from: “achieving valued goals, engaging himself [or herself] in transcendent activities, perceiving a rough degree of fairness in the world, accepting their limitations, engaging in intimate emotional relationships with others, being social and well liked, having a relationship, and experiencing positive emotions” (p. 1006). Mascaro & Rosen listed additional concrete sources of meaning as being work, love, marriage, parenting, and engagement in independent, vocational activities. Mascaro & Rosen stated that the literature points to a connectedness or engagement with life as the key to existential meaning, and that perceived alienation from oneself, others and the world is the source of meaninglessness.

This suggests that if psychotherapy is to increase life meaning in a client then it would need to subvert the factors that block the experience of existential meaning. From a behavioural psychotherapy perspective individuals should be encouraged to engage in behaviours that allow opportunities to experience meaning in life. From a cognitive psychotherapy perspective therapists should focus on factors in attention and memory such

as automatic thoughts, core beliefs, schemata, or a lack of mindfulness that prevent the experience of meaning or that can lead to rigid and unfulfilling meaning. From a psychodynamic perspective a therapist should investigate unconscious avoidance of issues of meaning due to fear or inner conflict. Yet while these three different psychotherapies can achieve improvements in the level of meaningfulness it is not their main goal, the therapy with the pursuit of generating increased meaning in life as its core goal is that of therapy developed by Frankl: logotherapy.

Frankl's theory behind his logotherapy and his description of meaning and purpose in life was influential on Antonovsky's SOC theory. Frankl (1992) suggested that the ability to maintain a meaning saturated attitude in life provides an individual with a strong resilience to the stresses of life. Whilst Antonovsky (1987) put forward the argument that without meaningfulness powering and guiding an individual, and assisting in his or her understanding of the world and experience in it, he or she will struggle to cope with life's stressors and will not thrive as a human being.

To explain how a weak sense of meaningfulness can be de-motivating Maddi (1967) stated that when an individual holds the belief that life lacks meaning, or is meaningless, he or she experiences apathy, boredom and a general feeling of alienation from themselves and from society. Antonovsky (1987) proposed that the movement of a person along their SOC continuum is largely determined by the factor of meaningfulness, which acts as both a source of drive, energy and action potential. Antonovsky (1987) viewed each person's global life meaning as unique and that this causes them to respond differently to events in life that they encounter, and that this differing response has a differing impact upon their personal health.

Antonovsky's theories concerning meaning are supported by Lazarus & Folkman (1984) who stated that life meanings generate commitments, and that commitments are the expressions of a person's life meaning that can push a person towards ameliorative action and also help sustain hope (a sense that something desired might happen [Frydenberg, 2002]). Lazarus & Folkman (1984) explained that commitments can generate further life meaning: "the person who can make commitments will have a meaningful and productive life" (p. 63). Support for Antonovsky's theories relating to meaningfulness also come from

Debats (1996) who defined meaning in life as: “the presence...of the feeling that one can make sense of or find order or coherence in one’s existence” (p. 504).

Also aligning Antonovsky’s SOC theories concerning meaningfulness are Folkman & Moskowitz (2000) who stated that an individual’s life meaning enables them to estimate the relevance of a life event and to decide what resources to employ to deal with that life event. They suggested that successfully finding meaning in life events generates feelings of efficacy and situational mastery. Endorsing the SOC meaningfulness factor’s importance in Antonovsky’s overall theory that a strong SOC enables coping and facilitates health Mascaro & Rosen (2005) argued that the robustness of an individual’s sense of meaning is crucial in protection against stress and negative health consequences, such as depression and hopelessness. Mascaro & Rosen’s (2006) investigation of the buffering effects of a sense of existential meaning against the effect of stress on levels of depression and hope in college undergraduates found that meaning is inversely related to depression and positively related to hope.

In his work Antonovsky (1979; 1987) describes the mechanism whereby a strong sense of meaningfulness enables coping and facilitates health. Antonovsky (1987) suggested that an individual with a strong sense of meaningfulness will view problems as challenges, be determined to seek meaning in challenges and do his or her best to overcome challenges with dignity. To explain this process Davis, Nolen-Hoeksema & Larson (1998) put forward a two part mechanism of how meaning finding enables adaptive coping. They explained that an individual will attempt to make sense of an event through integrating it into their existing schema or adapting their existing schema to accommodate the event. The individual may then engage in benefit finding to seek out positive implications of the life event, or if the event is essentially negative they may then seek out any ‘silver linings’.

In support of this mechanism, Affleck & Tennen’s (1996) literature review of the experience of adversity due to ill health revealed the coping and health benefits of employing benefit-seeking behaviour. This type of behaviour links meaning finding and the other two SOC factors – manageability and comprehensibility – in an adaptive coping mechanism. An individual’s ability to be able to employ this method of adaptive coping can be seen as a GRR.

The ability to be able to find meaning in stressful life events can have a positive effect on another GRR: the immune system. Bower et al.'s (1998) longitudinal study found that HIV seropositive men who had lost a partner, but reported finding meaning in the loss, still maintained relatively high levels of CD4 T helper cells. This finding points to a direct link between Antonovsky's meaningfulness theories and an aspect of coping that is driven by an individual's GRRs, in this case his or her physical immune system.

Moomal's (1999) literature review revealed other GRRs and GRDs that have been found to be correlated with life meaning. They found positive associations with well-being (Reker et al., 1987; Zika & Chamberlain, 1987; 1992) sociability (Pearson & Sheffield, 1974), social participation, (Doerries, 1970; Yarnel, 1971), ego resilience (Tyron & Radzin, 1972), internal locus of control (Phillips, 1980; Reker, 1977; Sammon, Reznikoff, & Geisenger, 1985; Yarnell, 1971), satisfaction with self (Reker, 1977; Reker & Cousins, 1979) and negative associations with depression (Harlow, Newcombe, & Bentler, 1986), and dogmatism (Tyron & Radzin, 1972, all cited in Moomal, 1999). As well as these simultaneous associations with life meaning there may also be a retrospective effect of a strong sense of meaningfulness. Debats, Drost, & Hansen (1995), whose study combined qualitative and quantitative methods to investigate experiences in personal life meaning of students, found that a current sense of meaningfulness was associated with effective coping with the residual effects of stressful life events in an individual's past.

Many other researchers have investigated the theory behind and mechanisms involved in the concept of life meaning. Researchers have split life meaning into global and situational meaning. Skaggs & Barron (2006) defined global meaning as: "a person's generalized meaning in life pertaining to their purpose/goals, values and beliefs about what is important, and a sense that life is understandable and predictable" (p. 562). Beliefs are defined here as pre-existing notions about reality which serve as perceptual lenses for an individual's life experiences and values are defined here as core guiding beliefs and sentiments.

Global meaning is an individual's abstract generalised existential life meaning. It involves fundamental assumptions, beliefs and expectations about the world and the self in the world (Schwarzer & Knoll, 2003). Whereas situational meaning is concerned with the personal significance of life events in relation to an individual's global life meaning

(Schwarzer & Knoll, 2003). Expanding upon this definition, Skaggs & Barron (2006) defined situational meaning as: “a person’s interpretation of an event or situation perceived as important or significant and having an impact on their values, beliefs, commitments and sense of order in life” (p. 563).

Although the beliefs that contribute to situational and global meaning may be rational and realistic it is not essential that they are rational or realistic for them to be salutogenic (Smith, 2002). It is their contribution to an individual’s life meaning that is of salutogenic value. Beliefs, values, commitments, and sense of order are all part of the process of meaning generation. In this process people appraise the situation, search for meaning within the situation and compare any perceived meaning with their global meaning. Events that an individual encounters may either fit into or threaten his or her global meaning. If events are incompatible with or shatter an individual’s global meaning then he or she uses meaning making coping processes to make sense of an event. This can either lead to changes in the perceived meaning of the event (through reattribution or creating illusions) or changes in an individual’s global meaning (through positive reappraisal, problem solving coping or revaluing situations encountered) (Skaggs & Barron, 2006).

The evidence presented in this section of the thesis shows that if a person can find meaning in events that they encounter in life then this will be a motivating force, enable an adaptive world view and build personal coping resources to promote a strong SOC and health. The connection between the EMILIA project intervention and meaningfulness is discussed in the thesis section entitled ‘The EMILIA intervention and sense of coherence’ in chapter 4.

Mechanisms Underlying the Sense of Coherence Concept

The previous section of this thesis discussed a number of the mechanisms whereby SOC strength can affect the ability to cope with stressors and through this be a determinant in the level of an individual’s health. This section will expand on this discussion and take a more detailed look at the mechanisms underlying the SOC concept. It will detail Antonovsky’s description of SOC mechanisms and then describe a study by McSherry & Holm (1994) which investigated the psychological and physiological processes during and after a

stressful situation. Following this will be a report on Amirkhan & Greavessense's (2003) in-depth SOC centred investigation into the mechanics of a healthy disposition.

Antonovsky (1979; 1987) described SOC as being shaped by early life experiences, such as parental style, until it stabilises as a personality disposition in early adulthood, and he has put forward a number of theories and mechanisms through which a person's SOC influences their health and well-being. He has described SOC as having perceptual, cognitive and behavioural components. In support of a perceptual component he stated that SOC is: "a generalized and long-lasting way of seeing the world..." and that: "a strong sense of coherence involves a perception of one's environments, inner and outer, as predictable and comprehensible" (1979, p. 125). In support of a cognitive component he explained that a strong SOC can enhance cognitive processes of judgement and expectancy, and that a strong SOC enables a person to: "see reality, to judge the likelihood of desirable outcomes in terms of the countervailing forces operative in all life" (1979, p. 126). He also argued that SOC has a behavioural component that has an influence on coping behaviour and that: "one's sense of coherence, strong or weak, plays an important role in determining one's choice of remaining in or changing one's structural situation" (1979, p. 125).

To examine Antonovsky's SOC stress resistant construct McSherry & Holm (1994) conducted laboratory based experiments using undergraduate students split into three groups: high, low and medium SOC scores. In their experiments they considered psychological and physiological responses to a time-controlled stressful situation. The procedure involved participants completing personality, arousal, cognitive appraisal, coping and SOC measures before the stressful situation, repeating the arousal, cognitive appraisal and coping measures during the anticipation stage (when they had been told what the potentially stress inducing task they had to complete was), and then again repeating these measures and the personality measure during the recovery period (after the stressful task). Overall, McSherry & Holm's results showed that those individuals with a low SOC displayed more psychological and physiological distress, and that they appraised and coped with the stressful situation in ways that were less likely to resolve or eliminate their distress.

McSherry & Holm's results revealed insights into the SOC related processes involved in dealing with a stressful situation. For example, their findings differentiated between low

and high SOC individuals on their appraisal, coping and response to a stressful situation. More specifically the results provided an insight into both perceptual and cognitive SOC mechanisms as the low SOC individuals were significantly less likely to believe that they had the resources to cope with the stressful situation and were less confident that they could cope. In addition low SOC individuals took longer to appraise and to prepare to confront a time-constrained challenge.

McSherry & Holm suggested that these findings are evidence for conceptual pathways that connect SOC theory to cognitive appraisal, perceived social support, perceived self efficacy, and self-statements or attributions. In addition to these perceptual and cognitive mechanisms they reported evidence for a behavioural mechanism, as low SOC individuals were significantly less likely to use approach-oriented coping strategies than middle or high SOC scorers. The results of McSherry & Holm's study therefore provide support for Antonovsky's proposal that the SOC concept operates through perceptual, cognitive and behavioural mechanisms.

Discussion of Amirkhan & Greavessense's (2003) article: 'Sense of coherence and stress: The mechanics of a healthy disposition'

Amirkhan & Greavessense's (2003) study provides an in-depth analysis of perceptual, cognitive and behavioural mechanisms involved in the SOC concept. Amirkhan & Greavessense conducted three laboratory experiments and a field based investigation using undergraduate students to investigate the three mechanisms: perceptual, cognitive and behavioural, that Antonovsky suggested underlie SOC strength generation.

1. Perceptual Mechanisms

A perceptual mechanism is one that precedes in-depth analysis, involving only attention, recognition and classification. A crucial element of Antonovsky's (1979; 1987) theory is that an individual's SOC is involved in determining their perception and interpretation of external events. This proposal has been supported by the findings of Frenz, Carey, & Jorgensen (1993) which showed that subjects in psychotherapy displayed negative correlations between SOC scores and self-reports of perceived stress.

Amirkhan & Greavessense (2003) suggested that a strong SOC could tint: “perception in such a way that those with strong dispositions simply see stressors as more benign, and hence are less stressed by them” (p. 33). Such people could achieve this in two ways: either by assigning a larger proportion of events to benign categories (a relative mechanism with no fundamental difference in perception) or by perceiving more meaningfulness in stimulus encountered (an absolute mechanism embracing a fundamental difference in perception) (Amirkhan & Greavessense, 2003). Whichever mechanism is in operation this perceptual theory suggests that people with a strong SOC perceive more stimuli as being more coherent and meaningful and, consequently, they view life as less random, chaotic and stressful (Amirkhan & Greavessense, 2003).

Various theories, backed up by research studies, have described the importance of the perception of control in predicting coping distress and illness (see, for example, Lazarus & Folkman, 1984). Antonovsky (1979) argued that this perceived controllability is just one factor in the mechanism of an individual’s SOC. To find out whether coherence was a separate factor to controllability in the mechanism of SOC, Amirkhan & Greavessense (2003) designed an experiment to see if people with a strong SOC spontaneously invoked coherent versus non-coherent distinction, and they investigated whether the participants could differentiate between the properties of coherence and controllability when classifying stressful stimuli.

2. Cognitive Mechanisms

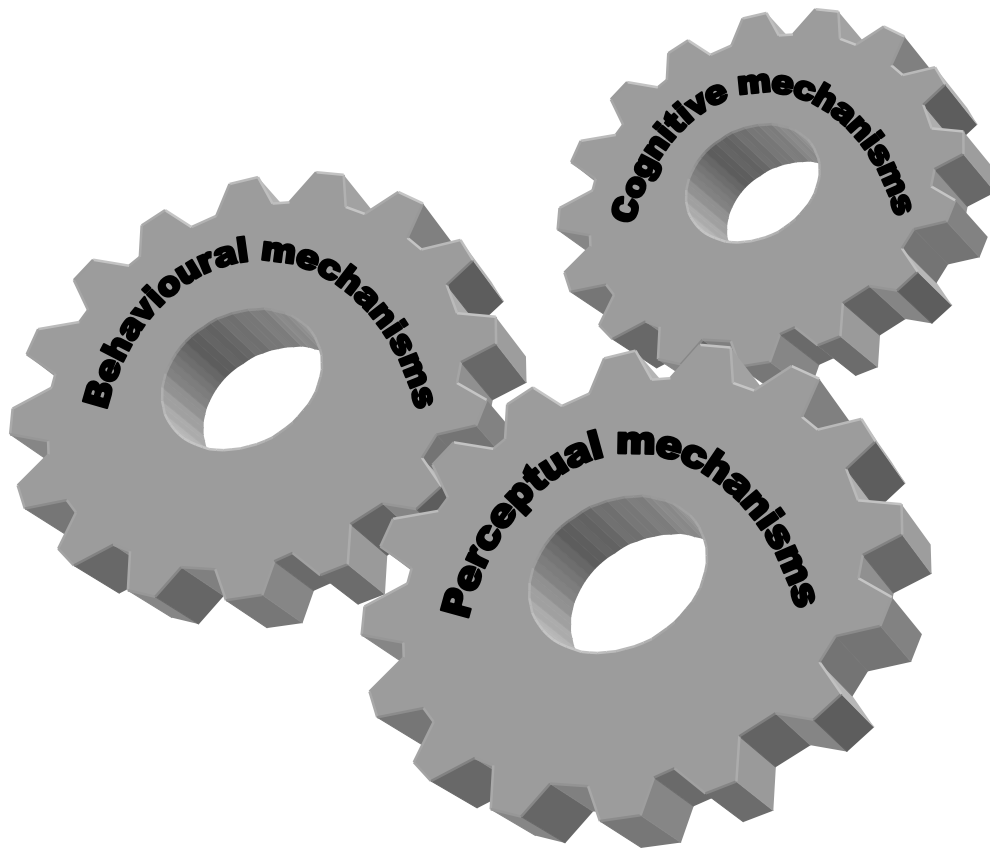
Amirkhan & Greavessense (2003) applied attribution theory to Antonovsky’s contention that a strong SOC can also enhance cognitive processes of judgement, prediction and expectancy. These processes could include analysis of causes, effects and possible recurrence of stressors, and also decisions regarding possible courses of action. Amirkhan & Greavessense suggested that people with a strong SOC use attributions to explain the problems they face that mitigate: “the emotional and pathogenic impact of those problems” (p. 34). They suggested that perhaps those with a strong SOC who are confronted with a stressor employ both universal attributions and a dimension of coherence to typify the stressor’s cause. If stressors are judged to have a coherent cause then they produce less emotional tension or more motivated responding. This would constitute an absolute

attribution effect. However, Amirkhan & Greavessense suggested that there could possibly be no alternate coherence mechanism, they put forward the hypothesis that strong SOC individuals employ universal attributions so that they judge causes as more stable or more controllable than those with a weak SOC. This would constitute a relative attribution effect. They conducted experiments to assess relative and absolute attribution effects.

3. Behavioural Mechanisms

A strong SOC may achieve its health benefits through behavioural mechanisms determining action. Antonovsky (1992) explained that people with a strong SOC: “tend to clarify the nature of the particular stressor confronted, select resources believed to be appropriate in the specific situation, and be open to feedback that allows the modification of behaviour” (p. 37). Solution focused strategies such as these have been found to be effective in reducing stress and stress-related pathology (Aldwin & Revenson, 1987; Amirkhan, 1988; Aspinwall & Taylor, 1992, all cited in Amirkhan & Greavessense, 2003). Whereas stress and stress-related pathology has been found to have been exasperated by problem-avoidant strategies (Aldwin & Revenson, 1987; Amirkhan, 1998; Billings & Moos, 1984; Felton & Revenson, 1984; Pakenham, 2002, all cited in Amirkhan & Greavessense, 2003). If strategies chosen by strong SOC individuals are more effective in dealing with stressors then it is likely that there is a behavioural mechanism underlying the SOC concept. Amirkhan & Greavessense designed an experiment to discover whether coping responses wholly or partially mediate the association between SOC and health.

Figure 4. Underlying mechanisms involved in sense of coherence theory



(Note: cog size differentiation is to provide the figure with a sense of perspective and has no relevance plus interconnections are variable, i.e. interconnections are not fixed as shown)

Summary of Amirkhan & Greavessense's (2003) article

The results of Amirkhan & Greavessense (2003) experiments upheld Antonovsky's theory that SOC operates through interrelated perceptual, cognitive and behavioural mechanisms (represented in figure 4 above). In respect to a perpetual mechanism they found that people with a strong SOC were more likely to view life experiences as coherent, and this supports both Antonovsky's theories and McSherry & Holm's findings. Furthermore, the results revealed a perceptual process which had diffuse and subtle effects on how people view stressful events. Amirkhan & Greavessense stated that: "SOC may color people's perception of stressful events, but it seems to do so without their conscious awareness" (p. 42).

A criticism of Amirkhan & Greavessense's study is that did not consider the effects of selective perception (Smith, 2002). Smith stated that the mind's ability to be able to manipulate awareness by selectively excluding stimuli that could threaten a person's SOC is crucial for functional salutogenic mechanisms. Nonetheless, the results of Amirkhan & Greavessense do provide evidence to support Antonovsky's theories that perceived coherence is not identical to perceived control over one's life because the results demonstrated the distinctiveness of these factors and that variance among the measures was not shared.

The resulting evidence for a behavioural process revealed that a person with a strong SOC utilised more problem solving and less avoidant behaviour; this provides support for McSherry & Holm's (1994) finding that strong SOC individuals use more approach coping strategies. In addition, the results revealed support for a cognitive process involving coherence rather than related control constructs, i.e. an absolute rather than a relative attribution effect.

Adding to this evidence for the three mechanisms underlying the SOC concept Amirkhan & Greavessense's (2003) study yielded a causal model showing that SOC can impact on both physical and psychological health status directly and indirectly via coping. Amirkhan & Greavessense explained:

This model verified the role of coping as a partial mediator of the relationship between SOC and health. SOC had a direct, powerful, and beneficial impact on the level of illness and depression experienced six months after job loss. But having a strong SOC also disposed participants towards problem-focused coping, which in turn protected them against illness. And a strong SOC discouraged avoidant coping, a maladaptive strategy that exacerbated illness and depression. (2003, p. 57)

It should be noted that the Amirkhan & Greavessense study had two major weaknesses. Its participants were made up solely of undergraduate students and the first three of its studies were conducted in a laboratory setting, and thus lacked ecological validity, i.e. it had a lack of similarity to real-life stressful events.

Aware of the limitations of laboratory based studies Amirkhan & Greavessense backed up their behavioural mechanism laboratory results with complementary field based investigations. To seek evidence for the influence of an individual's SOC on subsequent

coping and illness this investigation focused on the behavioural mechanism by examining reaction to a real-life crisis. These investigations confirmed the previous laboratory based findings. Amirkhan & Greavessense stated that their field based investigations additionally inferred causality between the SOC concept and health: “to substantiate an actual impact on health” (p. 59). More specifically they suggested that having a strong SOC was: “effective in preventing depression and stress-related illness” (p. 59).

In respect of interventions that may strengthen an individual’s ability to cope with stressors, Amirkhan & Greavessense recommended intervention via the behavioural mechanism through shaping stress response to mirror the coping style associated with a strong SOC. A criticism of both SOC theory and Amirkhan & Greavessense’s explanations is their underlying assumption that humans are rational in their thoughts and behaviour when this is not always the case (Sutherland, 2007), this criticism is discussed in relation to emotional coping later in this thesis (see: ‘Critique of the sense of coherence concept and theories’ in chapter 2).

Related Concepts to Sense of Coherence

There are many concepts related to Antonovsky’s SOC which deal with stress, coping, adaption and health. A quote from Lazarus & Folkman (1984) places Antonovsky’s theories and concepts in a historical research context:

Antonovsky emphasises integration and union of the self and the world, which is also reminiscent of the neo-Freudian writings of Rank (1952), Jung (1953) and Fromm (1955). The notion of coherence as akin to Kobasa’s (1979) notion of the hardy personality style... and the sense of mastery. (p. 67)

This section will consider concepts most closely related to SOC – specifically: hardiness, learned helplessness, locus of control and vulnerability. These concepts will be briefly described, compared and contrasted to SOC. Part of the goal of this section is to enhance the clarity of SOC concept.

Hardiness, Learned Helplessness and Locus of Control

In learned helplessness theory (Seligman, 1975) the outcome of an individual’s actions is seen as noncontingent on those actions: success or failure in any situation is perceived by

an individual as independent of his or her action or behaviour (Antonovsky, 1979). Antonovsky stated that learned helplessness is often acquired in childhood, particularly in the first six years of life, through exposure to an environment and events where any action taken by the child is fruitless. If children experience a constant lack of controllability then they learn to expect that nothing they do matters (Antonovsky, 1979). Children learn to survive by withdrawing from situations and conserving their resources because they come to believe that nothing they do will have any effect. This belief can result because either they are constantly exposed to intense stimuli that cannot be assimilated or because there is a lack of stimuli in their environment that might facilitate the development of adaptive coping skills (Schmale, 1972, cited in Antonovsky, 1979).

Antonovsky (1979) reported that Seligman (1975) described helplessness as a psychological state that results when events are frequently uncontrollable. In Antonovsky's theory this lack of controllability from either intense or a lack of stimuli means that individuals fail to exercise or develop their own GRRs and hence this results in a weak SOC. This weak SOC can then result in a person being more likely to give up instead of taking action to cope with a stressor (Antonovsky, 1987).

Antonovsky (1979) noted the link between learned helplessness and feelings of depression, and from the description of learned helplessness it is easy to imagine how it can lead to feelings of despondence and depression. Peterson, Maier, & Seligman's (1996) review brings together the research supporting this link between learned helplessness and depression.

Locus of control theory refers to the extent to which individuals believe that they have control over events affecting them (Rotter, 1966). Individuals who have a high internal locus of control believe that the events in their lives are generally the result of their own behaviour and actions. In contrast, individuals who have a high external locus of control believe that events in their lives are generally determined by chance, fate, or other people. Cummins (1988), Kobasa (1979), and Kobasa, Maddi, & Kahn (1982) found evidence to support the hypothesis that individuals with a high internal locus of control cope with stressors more effectively than those with a high external locus of control. The results of Kobasa, Maddi, & Courington (1981) and Kobasa et al. (1982) indicate that those with a high internal locus of control perceive less stress than those with a high external

locus of control; unfortunately, high levels of stress can erode this perception of control (see, for example, Pearlin, Menaghan, Lieberman, & Mullan, 1981).

Despite the research supporting the relationship between locus of control and stress Johnson's (2004) study indicated that a measure SOC has more significance for an individual's health than a measure of locus of control. In addition, Cederblad & Hansson's (1996) study, based on a Swedish population survey, found that SOC was a better correlate of health and well-being than locus of control.

Referring to the research of Rosenbaum & Jaffe (1983), Rosenbaum & Palmon, (1984), and Rotter (1966), Sullivan (1993) described learned helplessness and locus of control as possibly being part of the make-up of an individual's SOC. Furthermore, it has been suggested that an internal locus of control and hardiness can be viewed as being GRRs contributing to the overall strength of an individual's SOC (Antonovsky, 1979; 1987; Lightsey, 1996), and that learned helplessness can be viewed as a GRD weakening an individual's SOC (Antonovsky, 1979).

Despite these links between these concepts Schnyder et al. (2000) stated that hardiness, learned helplessness and locus of control as independent concepts were narrower in scope, more pathogenic in orientation and possibly more culturally bound when compared to the SOC concept. Schnyder et al. (2000) also described the SOC concept as being broader than either hardiness or locus of control concepts because of the SOC concept's emphasis on dimensions of meaningfulness that instil in a person the belief that demands are worthy of investing effort.

In spite of the stated differences to the SOC concept it is Kobasa's (1979) concept of hardiness has a greater similarity to SOC than either the learned helplessness or locus of control concepts. Through her hardiness concept Kobasa hypothesised that people remained healthier when they believed that they influenced and controlled life events, were committed to the people and activities they were involved with, and accepted change as a part of the challenge of life and as a stimulus for individual development. So, therefore, the concept can be seen to have SOC concept related manageability, meaningfulness and comprehensibility aspects to it. Antonovsky (1996) explained that the two concepts share: "the stress on the motivational dimension – the extent of the belief that coping 'makes sense' emotionally, that one wishes to cope" (p. 172). In hardiness those who accept

challenge in life seek out stimulating experiences, act as catalysts in their environment and develop flexible coping styles. In comparison, Antonovsky would view those with a strong meaningfulness factor as more likely to view life events as challenging rather than burdensome, and that this would contribute to manageability (Sullivan, 1993).

King (2004) stated that the basic human desire for meaning in life links the concept of SOC and hardiness as both of these factors can be strengthened through relationships, meaningful engagement in activities, and understanding oneself and the world. Nevertheless, while the hardiness concept does describe some elements of SOC, its factors of control, commitment and challenge are narrower than the more holistic manageability, meaningfulness and comprehensibility factors of SOC.

There are also clear links between SOC and locus of control concept, as a high internal locus of control has been found to be associated with a strong SOC (Bengtsson-Tops & Hansson, 2001; Johnson, 2004). Johnson stated that an internal locus of control helps create a positive outlook and this has importance for a strong SOC. Evidence for the relationship between locus of control and SOC also comes from Holmberg, Thelin, & Stiernstrom's (2004) study which found that job control was significantly correlated with a strong SOC.

In his book *Health Stress and Coping* Antonovsky explains the similarities and fundamental distinctions between SOC and locus of control. He explained that the SOC concept differs from the hardiness concept's element of control, and from the locus of control concept, in that it recognises that control does not always have to rest with an individual for it to be a positive factor. That is as long as that any control is viewed by the individual as being in the hands of a legitimate source. Antonovsky's (1979) argument was that if you give control over to another that you consider is legitimate and who you expect will act in your best interest, for example, a government, a deity, a manager or a doctor, then this will form part of your SOC. He argued that control over your existence is important, but that it does not have to rest with you as an individual to be salutogenic. In reality a person cannot have complete control over all aspects of his or her life; they must, to some extent, rely on the help, services and government of others. Human success is partially achieved through shared belief, cooperation, helping others and accepting help from others.

The relationship between control and SOC also works in the opposite direction. If a person has a strong SOC, and understands what is going on in their environment (related to the comprehensibility factor), then they have more control over outcomes that relate to them. If they have a weak SOC, and what is going on in their environment makes little sense, then they will feel little control over outcomes that relate to them and they will therefore anticipate that things will go wrong and that their needs will not be fulfilled. This reduces a person's level of hope. A person with a strong SOC is more likely to be able to judge the: "likelihood of desirable outcomes in view of the countervailing forces operative in all of life" (Antonovsky, 1979, p. 126). Their environment is consequently more predictable and, as a result, more controllable.

This section has described how the concepts of hardiness, learned helplessness and locus of control relate to the SOC concept. It has revealed that while hardiness, learned helplessness and locus of control do contribute to the understanding of coping and adaptation they are narrower in focus than the SOC concept. The SOC concept takes a more holistic, humanistic and meaning-fuelled view of individuals and their interactions in the world in which they live. Demonstrating the differentiation between SOC and related concepts – in relation to health determination – SOC strength has shown stronger correlations with measures of health and well-being (Pallant & Lae, 2002; Smith & Meyers, 1997). The SOC concept brings together elements of an individual's hardiness, locus of control and acquired coping strategies, and it describes a mechanism in which they interact with other personal factors and the environment to help determine stress resistance and hence levels of health.

Vulnerability and Sense of Coherence

This section of the thesis will define and describe the concept of vulnerability and it will examine the connections between the concept of vulnerability and the SOC concept.

In the vulnerability model the adequacy of the individual's resources for dealing with adaptive demands that they face determines how likely that individual is to experience ill health (Lazarus & Folkman, 1984). In comparison, under SOC theory the strength of a person's GRRs, their ability to deploy these and their level of GRDs forms a part of their ability to cope with the stresses of life, which in turn determines their level of health.

Lazarus & Folkman (1984) explained that vulnerability is: “a susceptibility to react to broad classes of events with psychological stress that is shaped by a range of person factors, including commitments, beliefs, and resources” (p. 51). This has similarities with Antonovsky’s (1987) explanation that SOC is determined by whether: “stimuli deriving from one’s internal and external environments in the course of living are structured, predictable, and explicable; the resources are available for one to offset the demands posed by these stimuli; and these demands are challenges worthy of investment and engagement” (p. 19). Both explanations of vulnerability and SOC have a focus on individual factors and resources to deal with stressors. It is clear that these two concepts have shared elements.

In clarifying the vulnerability model Lazarus & Folkman (1984) stated that a deficiency in resources only makes a person psychologically vulnerable when the deficit relates to events that are important to them, i.e. events that have consequences and meaning for that person. For example, if a person does not have the resources to cope with the conditions of being a soldier in combat, and they are exposed to this experience, they are likely to experience diseases such as PTSD. Therefore, a person’s vulnerability to experience ill-health depends on two factors: the intensity of elicited stress produced by challenges encountered and the threshold for tolerating this stress (Zubin & Spring, 1977).

The vulnerability mechanism that is involved in the process to explain resulting illness is contained in the diathesis stress model (Zubin & Spring, 1977). This model was originally designed to provide an explanation for the emergence of schizophrenia. In this model a person who has vulnerability (diathesis) to schizophrenia, determined by their genetics and life experience, will experience symptoms of schizophrenia if exposed to a level of stress that is beyond their psychosis related vulnerability threshold. This model has been influential both in schizophrenia research and research into other mental health disorders.

Providing evidence to support the connection between SOC and the vulnerability concept Hart et al. (2006) found that, in a sample of undergraduate students, a weak SOC level was positively related to various measures tapping psychosocial vulnerability. Also providing evidence for the connection between SOC and vulnerability is a Swedish population study by Bergha, Baigia, Fridlund, & Marklunda (2006). This study compared people who used primary healthcare facilities frequently with those who had normal

patterns of healthcare usage. It revealed that while the two groups did not vary significantly on reported stressful life events, negative experience of events or social support, they did vary significantly on levels of SOC. Those who attended frequently had a weaker SOC compared to the control group. This finding points to the frequent attendee group's increased vulnerability to disease.

Bergha et al. (2006) concluded that having inadequate coping strategies, as defined by a weak SOC, was a probable cause of individuals having higher levels of symptoms and disease, i.e. a weak SOC is linked to an increased level of vulnerability. The diseases and symptoms reported by participants were not only physical. Bergha et al. (2006) found that frequent attendees often had a combination of physical, social and psychological problems. This evidence provides a link between a weak SOC and a vulnerability to physical, social and psychological difficulties, and thus it supports Antonovsky's hypothesis that SOC strength is a determinant of health and it also provides evidence for Zubin & Spring's health relevant mechanism of vulnerability.

Exploring further links between the two models Wolff & Ratner's (1999) general population based study revealed that similar developmental factors are important in the emergence of both a weak SOC and vulnerability. They suggested that these shared developmental factors explain why a weak SOC and increased vulnerability to mental health disorders are linked. They found that respondents, who experienced childhood stressors such as parental divorce, family stress, physical abuse and parental alcohol or drug abuse, were most likely to have a weak SOC as adults. Many of these factors are known risk factors in the general population for later diagnosis of mental health disorders such as schizophrenia, depression, bi-polar disorder, and anxiety disorders (Bennett, 2003). These factors increase vulnerability to these disorders. A possible conclusion from this is that the same causal factors in the development of a weak SOC also produce vulnerability to mental health disorders.

The vulnerability framework has had a great deal of influence in theory and research in relation to the development of mental health disorders, especially in the area of schizophrenia spectrum disorders (Garcelán & Rodríguez, 2002). Vulnerability theory is a key part of Antonovsky's SOC theory; however, SOC theory has applications that go beyond providing a guide to how vulnerable a person is to illness. It also provides a guide

to the strength of a person's coping tools and resources to generate health and it is better able to explain a wider variety of coping situations (Antonovsky, 1979; 1987).

Although the SOC and vulnerability models are linked the focus within the vulnerability model – as described by Zubin & Spring (1977) and Lazarus & Folkman (1984) – is on inadequacies that produce ill health, it has a more pathogenic than salutogenic focus. Whilst the SOC model recognises inadequacies, and labels them as GRDs, its focus is on adequacies – labelled as GRRs – which produce health. There is a focus in the SOC model on reducing GRDs and strengthening GRRs to reduce vulnerability to possible disease, combat existing disease and promote health. In applying vulnerability theory practitioners have found that the prevention of illness and recovery from illness can be facilitated through strengthening a person's resources to reduce their vulnerability (Garcelán & Rodríguez, 2002). In this way there has been a move away from a pathogenic focus to a salutogenic focus, the vulnerability model has expanded to incorporate salutogenic aspects of SOC theory – a progressive move.

2.1.2. Research Evidence in Relation to Sense of Coherence Theory

The following section will consider research evidence on SOC in relation to health, quality of life, social support and empowerment. The EMILIA project assesses health related quality of life quantitatively and social support and empowerment qualitatively. This thesis compares SOC with health related quality of life using quantitative measures both before and following the EMILIA intervention. EMILIA qualitative questionnaires will be used to investigate the effect of the EMILIA intervention in relation to SOC and factors which include health, quality of life and of social support.

Health and Sense of Coherence

The World Health Organisation (2006) states that: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (p. 1). For individuals and for society, health, both mental and physical, have a significance that reaches into many areas of life. Health is important for positive social relationships,

cultural development, quality of life, and individual and societal creativity. Health is rooted in human dignity and the value of each individual. It needs to be individually determined and not be measured by intellectual capacity, economic productivity, or the absence of illness alone.

Whilst health is sometimes denoted as the opposite of disease or associated with feelings of vitality (Nilsson, Holmgren, & Westman, 2000) even when a person has severe disease they still have a level of health (Antonovsky, 1979; 1987). Eriksson & Lindström (2007) sought to construct a definition of health by integrating the principles of health promotion, the European Convention on Human Rights and Antonovsky's SOC concept:

Health promotion is the process of enabling individuals, groups or societies to increase control over, and to improve their physical, mental, social and spiritual health. This could be reached by creating environments and societies characterised of clear structures and empowering environments where people are able to identify their internal and external resources, use and reuse them to realize aspirations, to satisfy needs, to perceive meaningfulness and to change or cope with the environment in a health promoting manner. (p. 943)

This section of the thesis will make explicit the relationship between health and SOC, and how they influence each other.

The SOC scale does not seek to measure health itself but an individual's capacity to cope with the internal and external stressors of life which can affect health. The SOC concept views the level of an individual's health as dependent on the interaction between the individual and their environment. Antonovsky (1987) stated that an individual's health is determined by their ability to function in the face of changes both in themselves and in their relationships with their environment. In support of this statement Lazarus & Folkman (1984) reported that their various research studies into stress and coping revealed that ease (the opposite of disease) or disease is the result of the continually changing person-environment relationship. That health is affected through a mechanism that involves a person's ability to appraise and manage potential stressors that arise in their experience of the environment. The ability to cope and manage stress in a rapidly changing world is crucial for the maintenance and development of health (Eriksson & Lindstrom, 2007). Research supporting this view is provided by Nesbitt & Heidrich (2000) who found that the

effect of ill health was mediated by SOC in a cross sectional study employing a sample of older women.

Antonovsky (1987) argued that the dynamic inter-relationships of the three components of SOC have: “direct physiological consequences and, through such pathways affects health” (p. 154). Providing evidence for this connection between SOC and health Nilsson et al.’s (2000) Swedish population survey based study found that low SOC scores and poor perceived health were related; Konttinen, Haukkala, & Uutela’s (2008) population survey based cross sectional study found weak but not strong SOC was related to self reported measures of health (but not to clinical measures of health); and another study by Nilsson, Holmgren, Stegmayr, & Westman (2003), which employed a five year follow-up design based on a Swedish population survey, found physically active men and women (physical activity is linked with health) have a higher level of SOC than those who are inactive. In addition, Nilsson et al.’s (2003) study reported that people who experienced a loss of perceived good health over the study’s five year period had the greatest loss of SOC. Furthermore, Feldt, Kinnunen, & Mauno (2000) whose study, in relation to a work context, found that a strong level of SOC predicted fewer psychosomatic symptoms and emotional exhaustion after a year, and that changes in SOC strength led to corresponding changes in these health indicators. These findings provide evidence for the SOC theory hypothesis that a SOC is positively linked to perceived health (Antonovsky, 1979; 1987).

Building on findings of their literature review Pallant & Lae’s (2002) study into the construct and incremental validity of SOC concluded that the SOC-13 (Antonovsky, 1987) measure – and therefore the SOC concept – was useful in predicting both physical and psychological health. This conclusion was supported by Fok et al. (2005) who explored the relationship between SOC, coping ability and health related quality of life. They found that SOC was significantly and positively associated with both coping ability and mental and physical SF-36 (Ware, 2006) assessed health related quality of life. The stronger a person’s SOC was the higher was their level of self reported physical and psychological health. However, the generalisability of these results is limited due to the sample containing only Chinese patients who had experienced a critical illness.

Richardson & Ratner’s (2005) study utilising a Canadian population survey provides evidence for the connection between SOC strength and health. In this study, which focused

on data from those aged 30 and above, a strong SOC was found to buffer the impact of recent stressful events on self reported health status. Additional evidence supporting differences in stress response dependent upon SOC strength is provided by McSherry & Holm (1994). They conducted an experimental study into the strength of individuals' SOC and their physiological reaction to a stressor (in this study an unprepared videotaped speech applying for a job as a newscaster). They found that low SOC individuals reported considerably more stress, anxiety and anger than high SOC individuals. Importantly for the impact of stress on health is that while both high and low groups reported increases in stress prior to the stressful event, the low SOC individuals continued to have elevated levels of distress after the stress inducing task had ended.

Not all research supports Antonovsky's theories in relation to SOC and health. Konttinen et al.'s (2008) study investigated whether variation in SOC was more strongly related to health variables at the high or low end of SOC score distribution. They sought to test Antonovsky's hypothesis that a strong SOC, not just the absence of weak SOC, protected health. Whilst their results demonstrated some variation at the high end they showed stronger variation at the low end suggesting that having a weak SOC has a much greater impact on health than having a strong SOC.

Despite results linking SOC and health it is difficult for researchers to identify a causal relationship between SOC and health. This because many of the factors identified as promoting a strong SOC are directly related to health; these factors include access to health services, a strong physique and a strong immune system (Antonovsky, 1979; 1987). Veenstra, Moum, & Roysamb (2005) suggested that failing to control for such factors in longitudinal studies may cause substantial spurious associations.

The SOC concept views the health of an individual as partially dependent on the internal and external resources he or she has to draw upon. As explained earlier in the text Antonovsky described these as general resistance resources (GRRs) and he stated that these resources act as: "buffering, ameliorating or mediating mechanisms, thought of as blunting the invariably negative impact of stressors..." (Antonovsky, 1993b). Collectively, a person's resources provide the basis for their SOC strength. The stronger an individual's SOC is the better they are able to employ cognitive, affective and instrumental strategies to

cope with the demands of their life and hence maintain and improve their health status (Antonovsky, 1993b).

Endorsing this theory, Cederbald & Hansson (1996) – in their combined qualitative and quantitative study of adults who were considered at risk for psychiatric disturbances due to child psychiatric risk factors – found that the SOC model could be used to explain the mechanism by which environmental experiences can lead to differing levels of health. Also providing evidence for SOC theory McSherry & Holm's (1994) study of psychological and physiological response to a stressor found that those with a high SOC were more likely to use approach coping strategies (such as information seeking, preparing for action, accepting things as they happen, analysing the situation and preparing for things to come) than those with a low SOC. Nevertheless, even if a person has a low SOC, as is likely to be the case with the mental health service user participants of this thesis study, they still have a certain level of GRRs available, and their GRRs can be strengthened to facilitate the promotion of a stronger SOC level and hence raise levels of reported physical and mental health (Berger, 2003).

Many resource factors, including genetic factors, play a part in determining SOC and health. Antonovsky (1979) described health as both a dependent variable and an independent variable. Health is dependent on a person's SOC and stressors that they are exposed to; it is the: "final outcome in a long chain of phenomena" (p. 196). Health can also be viewed as an independent variable in three ways. Firstly, it can affect the extent to which a person is exposed to stressors. For instance, drugs to treat the symptoms of schizophrenia can have negative health related side effects, such as weight gain and sexual dysfunction. Secondly, health is a significant GRR that has the potential to: "foster meaningful and sensible life experiences" (p. 197) (sensible is defined here as experiences that can be made sense of). Thirdly, in the same way that other GRRs are interrelated, a strong health level can facilitate the acquisition of other GRRs. Endorsing this reciprocal relationship between health and SOC, Veenstra et al. (2005) stated that the results of their study of the structure of SOC in a cohort of people with chronic illness suggested the: "presence of reciprocal causality between SOC and all three domains of health" (the three domains of health in this study were bodily pain, physical functioning and social functioning measured using the SF-36-v2 [Ware, 2006]).

Bengtsson-Tops & Hansson (2001) examined the construct and predictive validity of SOC in a sample of patients with a diagnosis of either schizophrenia or schizoaffective disorder living in the community. They found that changes in SOC were positively related to general health and global psychosocial functioning over an 18 month period. Flensburg-Madsen, Ventegodt, & Merrick (2005) completed a systematic review of SOC and health. They concluded that SOC is highly related to psychological aspects of health but that there is not a strong association with physical health. They did not find the association with physical health predicted by Antonovsky (1979; 1987) and instead found that SOC was a weak predictor of physical health.

This section of the thesis has revealed the reciprocal relationship between health and SOC and it has described how health is important to both individuals and society as a whole. Without health our ambitions, social relationships, quality of life, and capacity for development and creativity are negatively affected and many of the things that we value become worthless. With health we are more able to realise our capacities and potential. In terms of SOC theory the EMILIA project can be seen to part of a process of health promotion. It seeks to empower and increase social inclusion and to achieve this it helps people to identify and effectively employ their internal and external resources to adapt, cope, recover, define personal goals and achieve ambitions.

In this thesis health is measured using the SF-36-v2 (Ware, 2006) and this will be compared to the results of the SOC measure with the aim of seeing if SOC and health are related. The SF-36-v2 does not provide scores for health overall, it specifically measures mental and physical health related quality of life. Based on the results of Bengtsson-Tops & Hansson linking changes in SOC and health, the research prediction is that change in SOC will be positively related to changes in mental health related quality of life at baseline and 10 month follow-up points. Based on the findings of Flensburg-Madsen et al. (2005) the research prediction is that mental health related quality of life and will be positively and significantly related to SOC at baseline and 10 month follow-up point. Following the results of Flensburg-Madsen et al. (2005) systematic review the research prediction is that SOC strength will not be significantly related to SF-36-v2 physical health related quality of life.

Quality of Life and Sense of Coherence

A widely used definition of quality of life is: “the degree to which a person enjoys the important possibilities of his/her life” (Raphael, Renwick, Brown, & Rootman, 1996). Possibilities result from the opportunities and limitations each person has in his or her life and they reflect the interaction of personal and environmental factors (Raphael et al., 1996). Another widely used definition, provided by the World Health Organisation (WHO), further stresses individual perception of quality of life. The WHO definition states that quality of life is an individual’s perception of his or her situation in life within the context of his or her culture and values, as well as his or her objectives, expectations, concerns and interests (WHO, 1993).

These two definitions highlight the subjective and dynamic relationship between the person and the environmental determinants of quality of life. The EMILIA project assesses quality of life both quantitatively (using the SF-36-v2 [Ware, 2006]) and qualitatively (using free response questions and in-depth interviews), and these measures are detailed in the research measures section in chapter 6. This thesis will focus on the SF-36-v2 results and utilise the qualitative analysis to interpret these. In using the SF-36-v2 this thesis utilises the SF-36-v2 construct of health related quality of life as part of the quantitative analysis. In this section consideration will be given to research investigating the links between quality of life and SOC.

Holmberg et al.’s (2004) study found a strong positive correlation between SOC and quality of life in a population of rural males across Sweden. In this study quality of life was measured using the Goteborg Quality of Life Instrument (Tibblin et al., 1990, cited in Holmberg et al., 2004), which measures self reported work situation, economic situation, housing, home situation, family situation, appetite, sleep, memory, physical capacity, mood, energy, and self-esteem. The researchers stated that many aspects of this measure of quality of life would have been described by Antonovsky as GRRs, and so it seems likely that the same would also be true of the components that make up other measures of quality of life. The reciprocal relationship between an individual’s SOC and GRRs already described indicates that, as components that make quality life measures could be seen as GRRs, a similar reciprocal relationship exists between SOC and quality of life components.

In support of this relationship between SOC and quality of life a strong positive correlation between these factors has been found in cross sectional studies on physical disease patient populations, e.g., Motzer & Stewart's (1996) study of survivors of cardiac arrest and Soderman, Bergenius, Bagger-Sjoback, Tjell, & Langius's (2001) study of patients with Meniere's disease. Furthermore, Fok et al.'s (2005) cross sectional study found SF-36-v2 physical and mental health related quality of life was positively related to SOC. But as stated previously, their sample was restricted to Chinese adults who had recently experienced a critical illness.

Only a few studies emerged which looked at the links between SOC and quality of life in those experiencing mental health disorders. One that did was Bengtsson-Tops & Hansson (2001) who investigated changes in quality of life over a period of 18 months in a sample of patients with a diagnosis of either schizophrenia or schizoaffective disorder living in the community. There was no intervention in this research rather it sought to examine the construct and predictive validity of SOC. They employed the Lancashire Quality of Life Profile (LQOLP) – which is specifically designed for use in a mental health disorder population – and a measure of global psychosocial functioning: Global Assessment of Functioning Scale (GAF). Results showed that changes in SOC were positively related to quality of life and global psychosocial functioning over an 18 month period. The conclusion of Eriksson & Lindstrom's (2007) systematic review of SOC's relationship with quality of life was that the stronger the SOC the better the quality of life and that SOC is a predictor of an individual's quality of life. They stated that the results from cross-sectional studies were supported by the results of longitudinal studies.

Based on the above evidence linking the strength of SOC and the level of quality of life the research prediction for this thesis is that quality of life at baseline and the follow-up point will be related to SOC strength. It is also predicted that changes in health related quality of life will be positively related to changes in SOC following the EMILIA intervention. However, based on the results of Flensburg-Madsen et al. (2005) described in the previous section this prediction is made in relation to mental and not physical health related quality of life.

Caution needs to be taken when interpreting any results in relation to previous studies utilising measures of quality of life. This is because there are so many different measures of

quality of life and the concept of quality of life is often poorly defined. SF-36-v2 utilised in this study is a health related quality of life measure which splits into mental and physical health related quality of life. It does not include many quality of life related factors such as socioeconomic conditions included in more general measures of quality of life. The SF-36-v2 is described in more detail in the research measures section in chapter 6. The discussion of results chapter (chapter 8) will take into account these factors when comparing results to previous research literature associated with the concept of quality of life.

Social Support and Sense of Coherence

Through studying the SOC concept paradigm, research on the SOC/social support relationship, and the results of the EMILIA project this thesis will consider the importance of social support as a beneficial resource, i.e. as a GRR. Strobe, Gergen, Gergen, & Strobe (1996) defined social support as having people in which we can confide and from whom we can expect support, help and concern. Social support from others can, for example, fulfil intimacy needs, help validate identity, foster competence, promote mastery of emotions (Caplan, 1974). It can also provide individuals with expressions of affection and affirmation, a sense of belonging, material support (financial and services) and cognitive support (e.g. information, feedback and advice); and, therefore, social support can form part of an individual's SOC. Antonovsky described social support as a crucial coping resource for developing and maintaining SOC (Antonovsky, 1987).

Mere networks of communication are, however, not enough to provide an individual with the benefits that can be derived through social support. It is the beliefs that are held about this resource that are crucial; a person has to feel that they are cared for, loved, esteemed and valued by others (Smith, 2002). There appears to be little requirement that the beliefs generated by having social support are valid, only that the persons themselves believe in this validity (Hollnagel & Malterud, 1995). If an individual has a high level of perceived social support then this can enable them to cope more effectively with stressors and it can reduce levels of stress produced by stressors (McSherry & Holm, 1994).

Possibly through this mechanism, perceived social support can provide protection from both physical (Sarason, Sarason, & Gurung, 1997) and mental illness (Milne, 1999). Further evidence for the link between social support and health is provided by the work of

Berkman (1977) and Berkman & Syme (1979, both in Antonovsky, 1979) who showed a linear relationship between scores on a social-network index and mortality, i.e. the larger the individual's social network support the lower their mortality rate. Antonovsky (1979) reports Berkman's assertions that social contacts provide tangible, appraisal and emotional support that are crucial in the generation and maintenance of good health.

Westen (2002) described two mechanisms that have strong empirical support to explain the beneficial effects of social support. The buffering hypothesis states that social support acts like a buffer or protector against the negative effects of stress, and therefore social support is viewed by an individual as a present resource that enables him or her to appraise events as not stressful. The second hypothesis contends that social support acts as a constant positive resource that helps ensure that an individual's primary appraisal of life events is less likely to be stress inducing, and as a result they are more likely to cope. Both of these mechanisms can co-exist and can be viewed as mechanisms through which social support can strengthen an individual's SOC and have a positive affect on health within Antonovsky's SOC concept theory.

There is substantial support for the importance of social support to a person's health and well-being. For example, Krol, Sanderman, & Suurmeijer's (1993) research on individuals diagnosed with rheumatoid arthritis found that social support played an important role in reducing stress and disease. In addition, Skärsäter, Langius, Ågren, Häggström, & Dencker's (2005) mixed qualitative and quantitative longitudinal study found that the factor of high quality social support was the cornerstone in the restoration of an individual's SOC and their recovery following a diagnosis of major depression. Adding to these findings social support has been positively related with well-being (Abbey, Abrams, & Caplan, 1985) and quality of life (Abbey & Andrews, 1985).

The link between social support and health/well-being is further demonstrated by studies into loneliness. Loneliness, in essence a lack of social support, is recognised as a stress factor in itself and studies have shown that it is associated with both psychological and physiological breakdown (Cacioppo et al., 2000).

If social support is good for our health and a lack of social support is bad for our health then there is the question as to why this is the case. In seeking an answer to this question research has shown that having social support increases people's ability to cope

with potential stressors in life as it provides people with the belief that their life has more meaning and is more manageable (Strang & Strang, 2001). This research confirms the positive effect of social support on SOC factors of meaningfulness and manageability. Wolff & Ratner (1999), who utilised a Canadian population health survey, provide an example of how social support can facilitate a strong SOC and hence health. They found that although respondents (people who reported that they experienced severe childhood stress, such as physical or sexual abuse) were more likely to have a weak SOC, the residual effect of these negative life events in adulthood could be buffered by currently having people to confide in and to make them feel loved, i.e. the effect of childhood stressors could be minimized through the presence of high quality social support in adulthood. Therefore, providing a supportive social environment can be essential for recovery (McGorry, 1992).

Providing further evidence for the relationship between social support and SOC Nilsson et al.'s (2003) Swedish population survey based study found an association between a decrease in the level of SOC and loss of perceived good health and social support; Krantz & Ostergren (2004) found that low social support and a lack of social anchorage were predictors of low SOC in adult women; Bengtsson-Tops & Hansson (2001) found social support was positively related to SOC in group of participants diagnosed with schizophrenia or schizoaffective disorder; Wolff & Ratner reported that perceived social support was positively related to SOC in their general population study; Volanen, Lahelma, Silventoinen, & Suominen (2004) found a positive relationship between SOC and social support in Finnish adults; and Nilsson et al.'s (2000) population survey based study found a relationship between low SOC scores and the factors of low social support and low emotional support (emotional and social support were measured using the Interview Schedule of Social Interaction and Availability of Attachment measures). Higher levels of social support have clearly been found to be related to stronger SOC and health.

Breier & Strauss' (1984) study provides an analysis of what social support and social interaction provides an individual with that strengthens their SOC and health. Breier & Strauss (1984) considered the specific ways in which social relationships were beneficial to 20 patients who had been hospitalized for a psychotic decompensation. From semi-structured interviews 12 categories of what social interaction provided an individual with

were identified. These were: reality testing, social approval and integration, constancy (connecting current identity with pre-hospital identity and giving roots to existence), motivation, symptom monitoring, problem solving, empathetic understanding, reciprocal relating (becoming an equal partner, able to share and be of assistance to others), and insight (acquiring more complete and accurate understanding of themselves). All of these beneficial factors of social interaction could be considered to be important in the growth, lifelong learning and recovery of an individual with mental health disorder. These are reciprocal beneficial factors: it is not just that one person in the social relationship gains from social interaction, all individuals involved in a social interaction have the potential to benefit.

Considering the connections between SOC and social support it is important to recognise that the relationship between these two factors is likely to be reciprocal; with good social relationships and support contributing to a strong SOC and a strong SOC facilitating the acquisition of social support and relationships (Volanen et al., 2004). This reciprocal relationship may lead to significant changes in SOC and a generation of a positive or negative cycle creating movement in either direction on an individual's SOC continuum. Within this reciprocal mechanism individual response to stressors can affect both SOC and social support.

An example of this reciprocal mechanism is where stress erodes an individual's social support because the individual reacts to stress with hostility, anger, violence, helplessness or withdrawal from his or her social contacts (Westen, 2002). A vicious circle can ensue, with stress leading to a reduced level of social support and this lack of social support then increases the exposure of the individual to the negative effects of stress. This can then result in a weakened SOC which can further weaken social support and a culmination of these effects can result in negative personal health consequences.

A graphic example of the negative effects of stress on social identity, social support and health is provided by the anthropologist Cannon and his reports of voodoo death (Antonovsky, 1979). Antonovsky relayed Cannon's reports that when an individual received a voodoo curse they became an outcast from society and were stripped of their social identity and support. At the same time the individual had to cope with the stressful effects of a curse that he or she believed would endanger his or her physical health. The

effects of this curse and the loss of social identity and support on an individual's physical and psychological health caused him or her to fall ill and possibly even die. A similar example to this is the use of torture, where extreme psychological stress is caused by enforced loss of social identity and social support, and this causes severe negative mental and physical health consequences. There have been many examples of the effects of this torture process from various wars, kidnappings and imprisonments throughout the world (see, for example, Gerrity, Keane, & Tuma, 2001). These extreme examples help demonstrate the importance of social support and social identity in everyone's life.

This section of the thesis has described the negative effects of a lack of social support and it shown that social support as a resource can provide protection against existing and future possible stressors and also against the residual effects of previous negative life events. Examining the results of Bengtsson-Tops & Hansson's (2001) study described above provides further insight into the relationship between SOC and social aspects of the life of an individual who is experiencing mental health issues. This study revealed that SOC is positively associated with adequacy of attachment (0.37), adequacy of social integration (0.33), availability of social integration (0.22), and availability of attachment (0.20) of the Interview Schedule for Social Interaction measure (ISSI) (Henderson et al. 1980, in Bengtsson-Tops & Hansson, 2001). One of the core goals of the EMILIA project is to increase social inclusion and this can impact positively on all of the social factors described.

Based on the findings of the above research linking SOC and health, if the EMILIA project intervention provides and facilitates high quality social support and increases levels of social inclusion then it can be expected to contribute to participants' GRRs and, through this mechanism, the EMILIA project has the potential to boost an individual's SOC level. These expected beneficial effects contribute to the research prediction that participation in the EMILIA project will cause a significant strengthening in participants' SOC levels.

Empowerment and Sense of Coherence

Antonovsky (1991) discussed the issue of empowerment within his work. He stated that empowerment occurs through increasing an individuals' connection to the wider world, treating the marginalised as persons not non-persons and by installing the belief that all

people are important, that they do count. He stated that linkages with the world are: “the *sine qua non*, the essential prerequisite for all salutogenic strengths” (p. 98). Antonovsky declared that two empowerment related factors are important in the strength of an individual’s SOC: power relations between the person and their environment and the degree of cultural integration experienced by an individual. He explained that: “the greater the power, the more one can take part in accepting or rejecting demands. The more the integration, the greater the ease in making sense of the messages” (p. 99).

Lindström & Eriksson (2006) stated that empowerment is about enabling people to have control and mastery over their lives partially through the development of abilities and coping skills. This links empowerment and the generation of a strong SOC since both abilities and coping skills contribute to a strong SOC. The EMILIA intervention has the potential to positively impact on these factors as it targets the strengthening of abilities and coping skills. Further issues on the relationship between empowerment, learning, SOC and the EMILIA intervention are discussed in chapter 3.

One of the goals of the EMILIA project was to increase empowerment of the mental health service user participants. The EMILIA project meets many of the criteria laid out by Nelson et al. (2001) to enable empowerment such as providing relevant knowledge, skill development, facilitating relationship building, and supportive community contexts. Therefore, it is expected that the project will enable the empowerment of its mental health service user participants and that this increased empowerment will be reflected in the project’s quantitative and qualitative measures. Whilst there is no specific quantitative measurement of empowerment within the EMILIA project any increases in empowerment due to participation in EMILIA are likely to be reflected both in the project’s qualitative measures of social inclusion and the measure of SOC levels. It is expected that increases in empowerment will contribute towards the thesis research prediction that involvement in EMILIA will increase SOC. If the project’s results reveal links between SOC and empowerment increases then this will provide support for Antonovsky’s (1987) suggestion that an individual’s SOC can be positively influenced through empowerment.

2.1.3. Critique of the Sense of Coherence Concept and Theories

Aspects of Antonovsky's SOC concept and measurement of that concept have been subject to criticism from both theorists and through empirical research. This section of the thesis will consider these criticisms, evaluate how valid they are and assess the implications of any valid criticisms.

The Role of Emotion in Sense of Coherence Theory

Emotions play a role in the processes involved in coping and adaptation. Emotions can be considered to comprise of experiential (affect, appraisal), physiological and behavioural components (Frydenberg, 2002). In his work on the SOC concept Antonovsky widely discussed emotions as a response to a stressor and how an individual's SOC strength can enable them to cope successfully with these emotions. Nevertheless, one of the criticisms of Antonovsky's SOC theory is the lack of attention it gives to the role that emotional elements have in the stress coping process (Geyer, 1997). In Antonovsky's work there is a greater focus on the use of rational reasoning in the way in which individuals cope with experiences in life (Geyer, 1997).

Antonovsky does at least acknowledge that emotions have a role in the coping process. For example, Antonovsky (1987) discussed how weak and strong SOC individuals differ in the way they deal with emotions as he explained that, as part of the coping process, a strong SOC person is less likely to repress emotions that are appropriate for a situation and so the emotions that are produced by events in life are less likely to produce stress. Furthermore, Antonovsky (1987) stated that strong SOC individuals will experience less affective impairment of their coping behaviour and have a greater awareness of their true feelings. Johnson (2004) stated this implies strong SOC individuals are more likely to display an emotionally detached coping style.

Specifically discussing emotions Antonovsky (1987) explained that the strong SOC individual:

...is more likely to be aware of his or her emotions, can more easily describe them, feels less threatened by them. They are more likely to be personally and culturally

acceptable; hence there is less need to disregard their existence. They are more appropriately responsive to the reality of the situation one is in. (p. 150)

This view is supported by Averill (1994) who stated that physical and mental health is partially derived from adaptive flexibility of emotional response. In this statement by Antonovsky he acknowledges the presence of emotions in the lives of people and that they can form a threat, i.e. that they can cause stress, but further detailed information is not provided in his work on the potential role of emotion to produce stress. From Antonovsky's point of view it is not the level of emotion that is produced by a life event that is of importance but how a person uses this emotion in an adaptive way to cope effectively and prevent or reduce stress and, consequently, to prevent or reduce the negative effects of stress.

Antonovsky (1987) asserts that: "the person with a strong SOC mobilises emotional and cognitive intra- and interpersonal and material resources to cope with problems" (p. 160). There is extensive research which details emotion as an organising force within intra- and interpersonal regulatory effects, and established constructs include emotional intelligence, emotional competence and emotional creativity (Frydenberg, 2002). Other researchers (see Lazarus, 1999; Lazarus & Folkman, 1984; Goleman, 2006) who have investigated stress and coping have given emotions a more central role in the coping process than Antonovsky. From this research it has emerged that emotions do have an important role to play in the coping process and so Antonovsky's lack of detailed theory in respect to this aspect can be viewed as a weakness to his SOC concept. He makes little reference to what Folkman & Lazarus (1980) describe as emotion-orientated coping, i.e. behaviours to regulate the emotional response elicited by a stressor. This aspect of the SOC concept requires further consideration and development. Its weakness in respect to this factor needs to be borne in mind in research on SOC theory and in the use of the existing measure of SOC strength: the Orientation to Life (OLQ) (Antonovsky, 1987).

Association of Sense of Coherence with Psychological Distress

The largest body of criticism of the SOC concept relates to correlations between SOC strength and psychological distress. Theories of depression such as Beck's (1967; 1987) cognitive theory and Abramson, Metalsky & Alloy's (1989) hopelessness theory suggest

that cognitive vulnerability is a factor in depression. It is to be expected then that SOC, which is partially a measure of cognitive resistance/vulnerability, is correlated with psychological distress such as depression. This relationship is reflected in the item overlap of the OLQ measure of SOC and measures of depression.

Despite this acknowledged relationship, one criticism that repeatedly comes to the fore in research carried out on Antonovsky's SOC concept is concerned with the size of the correlations between SOC and psychological distress (Breslin, Hepburn, Ibrahim, & Cole, 2006; Geyer, 1997; Kivimaki, Feldt, Vahtera, & Nurmi, 2000; Konttinen et al., 2008; Schnyder et al., 2000; Langeland & Wahl, 2009). More specifically that SOC loads onto the same factor as affect-related scales such as anger, anxiety, depression, and neuroticism (Amelang, 1997; Gruszczynska, 2006; Korotkov, 1993; Sandell, Blomberg, & Lazar, 1998) and/or that there is an underlying variable comprised of negative affectivity (anxiety, guilt feelings, tension, and depressive mood) that explain most of the variance in SOC (Bengtsson-Tops et al., 2005).

In relation to this criticism there are concerns surrounding operational confounding as Geyer (1997), Kivimaki et al. (2000) and Korotkov (1993) have suggested that items of the orientation to life (OLQ) SOC measure (Antonovsky, 1987) have similar content to that of depression scales. Korotkov found that naive raters judged 11 items of the 13 item OLQ measure to contain affective content and Breslin et al. (2006) found the stable components of distress and SOC were strongly correlated ($r = 0.86$). Nevertheless, there is disagreement in how to interpret these results partially because it is to be expected that SOC and psychological distress, especially psychological distress that includes negative affectivity, are inversely related. These associations can be interpreted as either that SOC is largely a measure of psychological distress and negative affectivity or that they are an indication of construct validity (Strümpfer, Gouws, & Viviers, 1998). The underlying mechanisms generating these correlations have been considered by several researchers.

Fredrickson's (2000) work on positive emotions for health and well-being revealed a possible mechanism that connects SOC and its three component factors to negative affectivity. Her suggestion is that negative emotional states are associated with narrow and negatively fixated thinking and action. Clearly narrow negatively fixated thinking and action can have a negative effect on an individual's comprehensibility, manageability and

life meaning, and hence the strength of their SOC. Breslin et al. (2006) also put forward several explanations for the correlations that have been demonstrated between SOC and negative affectivity. One of their suggestions was that the close links between SOC and affective traits could be the result of a reciprocal causal process. Antonovsky himself acknowledges this process but explains that it is only a piece of the jigsaw that comprises an individual's SOC strength.

Breslin et al.'s (2006) structural equation modelling of SOC utilising an adult population health survey suggested that distress level and SOC scores are outcomes of a common factor, i.e. that they may reflect a trait such as neuroticism or anxiety. In support of this notion SOC has been found to have strong negative correlations with trait anxiety in Frenz et al.'s (1993) and Hart, Hittner, & Paras's (1991) factor analysis of the SOC concept. Nevertheless, this seems to be an oversimplified explanation as both distress level and a person's SOC appear too dissimilar to each other to be derived from a single common factor. Breslin et al.'s (2006) review conclusion cast doubt on the operationalisation of the SOC concept, i.e. the OLQ (Antonovsky, 1987). Despite their conclusion they stated that this should not distract from the richness of SOC theory and the importance of protective factors identified in SOC theory that moderate stress response.

In contrast to the results of the research studies described above some studies have not found strong correlations between SOC and psychological distress or negative affectivity. Results of Antonovsky's (1996b) review of research evidence, Feldt, Leskinen, Kinnunen, & Mauno's (2000) longitudinal factor analysis of SOC in Finnish adults and Strümpfer et al.'s (1998) analysis of the SOC concept using four separate groups of adults suggest that SOC is a highly complex dispositional trait that reflects a variety of personality domains. Unlike depression, which can appear and disappear and change greatly over time, SOC behaves more like a trait and is more stable over time than psychological distress (Breslin et al., 2006). It has also been demonstrated that depression can occur in people with high SOC (Büchi et al., 1998) – it is not a simple equation of low SOC equals psychological distress and high SOC equals the absence of psychological distress. Moreover, Strümpfer et al. (1998) found that between 25 to 47 per cent of the variability in SOC was still to be explained following the removal of that aspect predicted by affect-related traits.

Adding weight to these findings Snekkvik, Anke, Stanghelle, & Fugl-Meyer's (2003) study of participants who had experienced an event involving multiple traumas found only a weak correlation of SOC with psychological distress, depression and anxiety. In addition, the results of Johnson (2004), who considered the health relevant status of SOC in a student population, suggested that SOC has a unique association to general health over and above the impact of negative affectivity, and that the concept is associated with dynamic dispositions such as active self-esteem structure and self-determination. Whilst Schnyder et al. (2000) did find strong correlations between SOC and anxiety and depression they also found that SOC can remain weak following a trauma event even if symptoms of anxiety and depression abate. They concluded that SOC was a general measure of a person's world view.

Furthermore, Pallant & Lae (2002) analysis of SOC construct and incremental validity found that SOC showed substantial correlations with measures of both positive and negative psychological states which they suggested implies that SOC strength contributes to enhanced well-being rather than just an absence of negative affectivity. This suggestion is further supported by Olsson, Hansson, Lundblad, & Cederblad's (2006) study of three different sample groups – parents, couples and students – which found that SOC is a multifaceted concept and much more than simply an expression of negative affectivity. Moreover, despite the high correlations between the SOC scale and measures of depression and anxiety that they found, Konttinen et al.'s (2008) use of structural factor analysis of the SOC of participants from a population survey suggested that it was possible to differentiate between SOC, cognitive depressive symptoms and anxiety variables in terms of various sociodemographic and health related factors.

In conclusion, while there are associations between SOC and psychological distress, negative affectivity and trait anxiety none of these factors fully explain SOC. SOC describes individuals' cognitive, emotional and social functioning in a broader wide reaching way than do theories concerned solely with psychological distress (Konttinen et al., 2008). This thesis has shown that SOC is correlated with many factors in addition to psychological distress such as quality of life (e.g., Holmberg et al., 2004), social support (e.g., Nilsson et al., 2003), personality factors (e.g., Maddi, Bartone, & Puccetti, 1987) and health related quality of life (Fok et al., 2005). SOC can, therefore, be viewed as being

determined by a multiplicity of factors in bi-directional causal processes – it can be considered to be a dynamic complex factor that helps explain individual resistance to stress and hence the level of health.

Lazarus & Folkman's (1984) Criticisms of the Sense of Coherence Concept

In their book *Stress Appraisal and Coping* Lazarus & Folkman (1984) criticise Antonovsky's SOC concept on a number of levels. This section of the thesis will consider these criticisms.

Lazarus & Folkman (1984) suggested that the concept is generally treated as a 'person fact' with no regard for the society in which the person lives. This criticism is surprising because the SOC concept partially emerged out of the conditions of society, i.e. the holocaust of the Second World War and situations of poverty. Antonovsky stresses the importance of the person/environment interaction which includes the person/society interaction.

Lazarus & Folkman (1984) do explain a mechanism involving SOC that is not detailed by Antonovsky. They present the example of Nazi Germany where maintaining a strong SOC often depended on suppressing conflicting basic values in order to remain part of the social order, obtain the benefits accrued by society, and avoid being imprisoned or killed. Lazarus & Folkman (1984) stated that to maintain a strong SOC, and hence health, individuals needed to sacrifice their individuality and autonomy. However, basic humanistic values can be considered to be a GRR and suppressing these reduces this resource which is valuable to individuals and society as a whole. To be a part of Nazi society people would have also needed to adopt principles of hate, discrimination and racism. Shared belief systems such as those held by people conforming to Nazi principles may be a possible GRR in Antonovsky's SOC model but it is clear that it does not exclude them from negatively affecting the GRRs of others.

Another criticism by Lazarus & Folkman (1984) concerns Antonovsky's view that SOC is a global orientation towards the experiences that a person faces in life. Lazarus & Folkman's (1984) claimed that the SOC concept: "implies a monolithic pattern of beliefs when in fact people often entertain many contradictory beliefs at the same time" and that the SOC concept suggests an: "image of a person with a unified or consistent belief

system...” (p. 68). While they may have been of the opinion that the SOC concept implies this, Antonovsky himself was not. He did not exclude the possibility of contradictory beliefs existing at the same time. His work suggests that he did acknowledge human being’s capacity to be able to do this, because part of the make up of the comprehensibility factor of the SOC concept is the ability to understand and incorporate the complexities, conflicts and complications of life (Antonovsky, 1979; 1987).

In their book Lazarus & Folkman (1984) go on to state that: “belief systems are too complex, rich, and contradictory to be massed into a simple unidimensional concept.” In defence of the SOC it is not a unidimensional concept – as can be seen from the evidence presented in previous chapters it is explicitly multidimensional – and so this criticism is not valid. Furthermore the SOC concept does not, as Lazarus & Folkman (1984) infer: “ignore the complex and changing relationship between people and their environments” as the person/environment dynamic interaction forms a fundamental part of the SOC concept.

Lazarus & Folkman (1984) also criticise the ability of global concepts such as SOC to be able to explain the coping ability and process of individuals in all situations they encounter in life. This criticism is difficult to defend against, not due to the strength of its validity but because Lazarus & Folkman (1984) do not provide detailed and specific examples in their criticism. While is a step too far to consider that SOC theory can precisely explain all coping abilities and processes, empirical research has shown that it is a good explanation of coping processes and ability in a variety of situations and that it has practical application (Pallant & Lae, 2002).

The Stability of SOC

There has been extensive debate about the stability of an individual’s SOC. The main debate surrounds whether SOC is relatively stable throughout life once an individual has entered adulthood or whether it varies dependent on personal, social, environmental and developmental changes and experiences. This debate is crucial in relation to efforts to strengthen and measure changes in individuals’ SOC.

According to Antonovsky (1987) and Sagy, Antonovsky, & Adler (1990) the level of most individual’s SOC develops throughout childhood, adolescence and young adulthood, and becomes relatively stable level by the age of around 30. If a person has developed a

strong SOC then their SOC level will be more stable than if a person has developed a weak SOC (Antonovsky, 1987). Research into Antonovsky's SOC concept has resulted in a great deal of debate about the validity of Antonovsky's declarations concerning SOC stability. For example, in the most recent longitudinal population survey based study to consider SOC stability it was found that a strong SOC was not more stable than an initial weak SOC (Volanen, Suominen, Lahelma, Koskenvuo, & Silventoinen, 2007).

In support for Antonovsky's suggestion that SOC is relatively stable past the point of maturity Veenstra et al. (2005) demonstrated the temporal stability of SOC in a two-year cross-lagged (statistical relation) study of patients with chronic illness, and Wolff & Ratner (1999) general population study reported that recent life events only accounted for a small percentage of variance in the SOC strength of adults. Schnyder et al.'s (2000) analysis of the research literature also indicates that SOC strength remains relatively stable over time. In contrast, Feldt et al.'s (2000) study based on a single occupational group in Finland found only moderate stability over a 12 month period and Breslin et al.'s (2006) general population study found only moderate stability over a four year period.

Many other studies have not found the stability suggested by Antonovsky. For example, Eriksson & Lindström's (2003) literature review of research on the SOC concept revealed that SOC tends to increase throughout the life span, i.e. they found that the older the population sample the higher the SOC level. Contrary to these findings, but still in opposition to Antonovsky's theory, Nilsson et al.'s (2003) longitudinal cohort survey of the Swedish population found a significant decrease in SOC over time (5 year period), especially in the oldest (45-74 years) age group.

Other studies that were not included in Eriksson & Lindström's (2003) review also bring into question the stability of an individual's SOC. For example, the results of a recent study by Neuner et al. (2006) who investigated the SOC of severely injured patients, the results of Wolff & Ratner (1999) who found that chronic stress can significantly weaken an adult's SOC, and the findings of Snekkevik et al. (2003) who reported that that SOC levels were not stable over a period of one to three and a half years following multiple trauma.

There is also evidence against Antonovsky's suggestion of the age at which SOC becomes relatively stable. The results of Feldt, Leskinen, Kinnunen, & Ruoppila (2003), who compared two age groups (a 25-29 age group and a 35-40 age group) in a 5-year

follow-up study of males in a single profession, showed that age did not play any role in the stability, level or mean changes in SOC. However, Feldt et al.'s (2003) study does have an important weakness in that the younger age group for comparison were almost at Antonovsky's predicted age of maturation at the start of the study, and by the end of the study all had reached that age or were up to four years over it.

Supporting Antonovsky's theory, Schnyder et al. (2000) found that there can be a significant change in SOC following major traumatic life events such as life-threatening accidents. Antonovsky was quite specific in his suggestion of the degree of possible variance in SOC level following maturation. He proposed that there would be a change of no more than $\pm 10\%$ in the measurement of a person's SOC, and that any change would return to a more stable level once the cause of the change had dissipated. Contrary to this proposal the results of Karlsson, Berglin, & Larsson (2000), who investigated change in SOC before and at a one year follow-up point following coronary artery bypass surgery, showed that SOC was changed more than $\pm 10\%$ in 41% of the patients. In addition, Smith, Breslin, & Beaton's (2003) Canadian national population based study, which examined changes in SOC and variables associated with these changes over a 4 year period, found that 58% of participants reported change greater than $\pm 10\%$.

Other studies have found evidence for the temporal stability of SOC but only in those who displayed high initial SOC scores. For example, Nilsson et al.'s (2003) Swedish population survey based five year follow-up study found that SOC was only stable for those with initially high SOC. They also found that the SOC level of those without a high initial SOC level were influenced to a greater extent by individual conditions and societal changes. Adding to the findings of Nilsson et al. (2003) the SOC stability of those with a high SOC level has been demonstrated among employed Finnish people (age range from 44-57 years) (Hakanen, Feldt, & Leskinen, 2007), when participants had experienced the loss of a family member (Larsson, Kallenberg, Setterlind, & Starrin, 1994), and when participants had experienced unemployment (Alm, 2001). These findings align with Antonovsky's (1979; 1987) view that major latter life crises are more likely to undermine the SOC of those with mediocre or weak SOC.

In conclusion, the empirical findings reported here show that following the proposed period of maturation the SOC level of a person can change by more than that predicted by

Antonovsky especially for those with weak SOC. The findings bring into question the stability of the SOC construct and they suggest that SOC strength reflects the impact of positive and negative life events over time. It seems that events in people's lives continue to shape their SOC past the proposed period of maturation and that life events contribute to change in levels of SOC over and above the $\pm 10\%$ predicted by Antonovsky. Nonetheless, Breslin et al.'s (2006) review of SOC stability literature concluded that although fluctuations exceed Antonovsky's predictions they are in line with other personality variables such as the 'Big Five' personality factors (openness, conscientiousness, extraversion, agreeableness and neuroticism) (Goldberg, 1981). It seems that, to some extent, changes due to internal or environmental factors can occur in all personality traits throughout adulthood.

Despite his belief in the relative stability of SOC Antonovsky (1979) stated that SOC: "is shaped and tested, reinforced and modified not only in childhood but throughout ones life" (p. 125). In support of this Volanen et al. (2007) found that SOC was dynamic rather than stable. The overall conclusion of the research presented here that SOC strength can change due to internal or environmental factors has both positive and negative consequences. It implies that to a relatively large degree individual's SOC strength can be negatively affected by adverse events and positively affected by favourable events. Applying the positive aspect of this review's conclusion raises the possibility that the EMILIA project intervention may have a significant positive impact on a participant's SOC especially if they have an initially low SOC strength.

Conclusions

This section of the thesis has outlined and analysed the core criticisms of the SOC concept. The SOC concept emerges from this in-depth analysis as being one which is valid, that has a role in explaining an individual's ability to cope and adapt and that is connected to levels of health. However, the analysis of the critique of the SOC concept has revealed that there are a number of important issues which have implications for the results of this present research. The main issues associated with the SOC concept in relation to this research can be listed as being: the strength of the correlation with psychological distress; the lack of consideration of the role emotion-orientated coping; and, in relation to the stability of the

concept, the extent to which it is possible to strengthen an individuals' SOC through targeting increased empowerment and social inclusion. These issues will be considered in the thesis' discussion of results.

CHAPTER THREE

3.1. Exploring Antonovsky's Sense of Coherence Concept and How it Relates to Mental Illness and the Promotion of Mental Health

This chapter builds on the literature presented in chapter 2. There have been a number of published literature reviews describing the relationship between physical health/illness and Antonovsky's SOC concept but none in relation to SOC and mental health/illness. This chapter of the thesis brings together the research evidence for Antonovsky's SOC theory in relation to mental health/illness. In doing so it considers the links between Antonovsky's SOC concept and mental health/illness.

The chapter starts by a focus on the SOC component of meaningfulness and mental health/illness because Antonovsky regarded meaningfulness as the most important of the three SOC components as it provides the motivation for a person to make sense of their environment and the drive for adaptive management and coherence. This chapter then moves on to investigate the research evidence in relation to the overall SOC concept and mental health/illness.

Also detailed here is research on how SOC relates to mental health recovery and mental health rehabilitation. The overall aim of this chapter as a whole is to seek to discover if Antonovsky's SOC theory has relevance in understanding the existence, development, treatment of, and recovery from mental health disorder.

3.1.1. Mental Health Disorder and Sense of Coherence Component of Meaningfulness

Antonovsky (1979; 1987) regarded meaningfulness as the most important of the three components of SOC because it provides the motivation for a person to make sense of their environment and helps to empower them to cope successfully. This section of the thesis

investigates meaningfulness in relation to the development, existence and recovery in and from mental health disorders. Consideration will be given in this section of the thesis as to how meaningfulness connects to mental health recovery, how the strength of a person's meaningfulness can affect mental health disorders and how mental health disorders can affect meaningfulness.

Frankl (1985) proposed that a strong sense of meaningfulness is vital to help achieve recovery in or from mental health disorder. Recovery in or from mental health disorders has been described as a process: "to re-establish a new and valued sense of integrity and purpose within and beyond the limits of the disability; the aspiration is to live, work, and love in a community in which one makes a significant contribution" (Deegan, 1988, p. 15). A sense of self, individual purpose, aspirations, contributions made to society and helping others are all tied to a person's sense of meaningfulness. A sense of self, i.e. who a person thinks they are, what they value, what they believe, etc., is a key factor for recovery.

Davidson & Strauss' (1992) study using interviews conducted with persons struggling to recover from prolonged psychiatric disorders suggested that the rediscovery and reconstruction of a sense of self is important to help achieve recovery. This study highlighted the importance in the facilitation of recovery of the personal history and social and cultural context in the reconstruction of an individual's SOC component of meaningfulness. In connection with this issue, Repper & Perkins (2006, p. 59) stated that the end point of recovery is not the recovery of a past state or situation but recovering so as to have: "meaningful valued lives whether or not ... [mental health disorder] problems can be eliminated."

Anthony (1993) clearly links increased meaningfulness and recovery when he states that: "it is a way of living a satisfying, hopeful, and contributing life even with limitations caused by the illness. Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness" (p. 13). Summarising this recovery process Ridgeway (2001) succinctly described recovery from mental health disorders as a journey from alienation to purpose.

In Carstens & Spangenberg's (1997) RCT investigating the association between depression and SOC in a group of participants diagnosed with major depression they found that, of the three SOC subscales, the meaningfulness subscale was the best predictor of

scores on depression in those diagnosed with major depression. Major depression can have serious negative health consequences; therefore, this finding in respect to the meaningfulness factor supports Antonovsky's belief in the importance of this SOC component above the other two SOC components in determining health. It also provides evidence confirming Carstens & Spangenberg's suggestion of similarities between the mindset and meaning construction of the clinically depressed and low SOC individuals. Furthermore, it upholds evidence that a sense of meaninglessness is prominent in the ideation of the clinically depressed (Van Selm & Dittmann-Kohli, 1998).

The findings of Carstens & Spangenberg also provide evidence for Antonovsky's (1979) suggested link between meaninglessness and a lack of energy and action potential, as both of these are common symptoms of major depression. In addition, Carstens & Spangenberg's findings provide support for Frankl's (1992) theory (which was very influential on meaning related aspects of Antonovsky's SOC theory) linking a lack of meaningfulness and the greater prevalence of depression. Carstens & Spangenberg results demonstrate the dynamic relationship between meaning in life and active engagement expounded by Yalom (1980) and Frankl (1985). Both these theorists argued that meaning is attained by active engagement with others and the world, and that this is a factor that is often lacking in the lives of those with major depressive disorder. Support for this position comes from Repper & Perkins (2006) who stated that meaning in life is connected to the roles and responsibilities we have in life and that mental health disorders can erode these.

Many other research studies have reported associations between meaningfulness and mental health disorder. For example, Debats et al. (1995) found that undergraduates who reported meaningless periods in their lives were more likely to have had psychological counselling. In consideration of the relationship between meaning and psychopathology in a clinical population of non-psychotic disorder (DSM-III criteria) patients Debats (1996) found that the level of meaningfulness predicted future symptom levels.

Returning to another study involving an undergraduate population, but this time considering positive associations between meaningfulness and mental health, Mascaro & Rosen (2005) found that US based undergraduates who score highly on measures of implicit and explicit meaning had lower levels of depressive symptoms and higher levels of trait (implicit) hope and state (explicit) hope. Crucially it is hope that provides the courage

to try, to change, to trust others and to start and remain on a journey towards recovery (Repper & Perkins, 2006). As outlined by Leete (1989): “having some hope is crucial to recovery [from mental health disorders]; none of us would strive if we believed it a futile effort” (p. 32). The above research, along with the results of other studies linking meaning negatively with depressive symptoms and positively with hope, such as Synder (2002) and Yalom (1980), strongly suggest that the strength of meaningfulness has a positive relationship with mental health and well-being.

Support for the positive link between meaningfulness and mental health also comes from Moomal (1999) who investigated the relationship between meaning in life and mental well-being. Although the study can be criticised for a lack of generalisability due to the university undergraduate sample employed, their results provide evidence for meaningfulness’ positive association with mental well-being and negative association with general psychopathology. They put forward the argument that a crisis of meaning in life is: “an underlying factor common to all the conventional forms of psychopathology” (Moomal, 1999, p. 40). This argument is reinforced by Addis, Truax, & Jacobson’s (1995) study which found that existential concerns were one of the eight main reasons listed by people as to why they were currently depressed.

In consideration of the process underlying these associations Mascaro & Rosen argued that meaningfulness can serve as a direct mediator of mental illness and mental health. They explained that if one’s meaning system is devalued this would presumably have a direct negative effect on an individual’s mental health and, conversely, if a person finds real purpose in life then it is likely that this would strengthen aspects of a person’s mental health such as hope, well-being and self-confidence. However, Mascaro & Rosen asserted that research is needed to directly test this hypothesis. Nonetheless, this argument finds support from both Repper & Perkins (2006) who stated that: “a sense of meaning and purpose fosters hope and the development of a positive sense of self” (p. 58) and from Green (2004) who stated that: “Hope, optimism and meaning provide the underlying motivation necessary for [mental health] recovery” (p. 300).

The overall conclusion from the research presented is that individual meaningfulness is an important factor in the understanding, development, presence and treatment of mental health disorders. This section of the thesis has shown that a positive relationship between

meaningfulness and mental health exists both in a clinical and non-clinical population, and that meaningfulness is an important factor in mental health recovery.

3.1.2. Mental Health Disorder and Sense of Coherence

Introduction

This section will consider the associations between SOC theory and mental health disorder with evidence from studies conducted on a non-clinical population, participants defined as at risk of mental health disorder, and participants who have been diagnosed with a mental health disorder. The conclusion of this section will describe the implications of emergent associations.

Discussion

Considering the relationship between SOC and mental and physical health separately, Eriksson & Lindstrom's (2006) systematic review found SOC to have a closer and more direct relationship to psychological well-being. Evidence for the link between an individual's SOC strength and the presence of mental health disorder is provided by Ristkari, Sourander, Ronning, & Helenius (2006) in their large scale study of young male military conscripts in Finland. The findings showed that weak SOC predicted anxiety, depression, substance abuse, and anti-social personality disorder. The generalisability of the results of this study is limited due to the sample employed; however, they have been backed up by studies conducted in the general population. For example, Breslin et al.'s (2006) Canadian population study using the Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987) and psychological distress items of the K6 scale (World Health Organisation, 1997, as cited in Breslin et al., 2006) found longitudinal negative correlations between SOC strength and psychological distress. Breslin et al. offered a number of explanations for these results: a reciprocal causal process, that distress and SOC are outcomes of a common factor, or that there was an overlap at item level, i.e. operational confounding.

A reciprocal causal process has relevance as an explanation. This process could involve the following: severe stress could lead to an individual to experience mental health

disorder and the resultant experience of mental health disorder could then lead to further exposure to mental health damaging stress. A person can be caught in a vicious circle: if they have a weak SOC then they are more vulnerable to stress, and this stress is more likely to cause mental health disorders which causes further stress; this can then further weaken an individual's SOC. Veenstra et al. (2005) study, which considered SOC and its relationship to both physical and mental health, provides evidence to support this reciprocity. The possibility that distress and SOC are outcomes of a common factor may also play a role in explaining associations between SOC and psychological disorder, and this possibility was investigated in a study by Eklund, Hansson, & Bengtsson-Tops (2004) (this study is described later in this section in connection with the development of mental health disorders).

Evidence supporting the negative correlations between SOC strength and psychological distress revealed by Breslin et al. (2006) is provided by the results of a study by Olsson et al. (2006). They found that SOC was significantly negatively related to psychopathological symptoms of hostility, depression, somatisation, anxiety, obsessive-compulsive disorder (OCD), poor interpersonal sensitivity, paranoid ideation, and psychoticism. The evidence from Ristkar et al. (2006), Olsson et al. (2006) and Breslin et al. (2006) demonstrating SOC's negative association with various types of mental health disorders within a general non-clinical population provides support for Antonovsky's theories in relation to SOC and mental health/illness, and it points to the possible mental health benefits of any actions that target the strengthening of an individual's SOC. Negative associations between SOC strength and mental health disorders has also been found to be present in those who have been diagnosed with a specific mental health disorder.

In Cederblad & Hansson's (1996) study the researchers found an association between a strong SOC and good health (which was determined by a measure of symptoms, quality of life, self reported health, and health focused interviews) and mental well-being in middle-aged participants considered to be at risk for psychiatric disturbances. Cederblad & Hansson (1996) stated that SOC was a superior measure in explaining health and mental well-being than either intelligence or temperament because they found it was the only item which contributed significantly to all measures of health and mental well-being. They

suggested that their results indicated that a strong SOC is a protective factor against psychiatric disturbances for those at risk.

This conclusion is strengthened by the findings of Langeland, Wahl, Kristoffersen, Nortvedt, & Hanestad's (2007b) study. They found that a strong SOC predicts well-being and life satisfaction and hence promotes health in a group of people living in the community who relied on mental health services. Cederblad & Hansson's and Langeland et al.'s (2007b) evidence that SOC strength explains mental well-being leads to the consideration of whether Antonovsky's descriptions of those with a weak SOC could be related to the experience of those who experience mental health disorders.

Carstens & Spangenberg's (1997) research study investigated the association between depression and SOC in a group of participants diagnosed with major depression. Their results revealed that SOC, as a global factor, was significantly negatively associated with scores on depression (measured with DSM-IV based interviews and the Beck Depression Inventory [BDI]; Beck, Ward, Mendelson, Mock, & Erbuagh, 1961) in both the control group and those with a major depression diagnosis. Carstens & Spangenberg suggested that the cognitive characteristics of major depressive disorder can be considered to be a GRD and can be used in the description of a weak SOC. The researchers stated that these characteristics include worthlessness, excessive or inappropriate guilt, indecisiveness, recurrent thoughts of death, diminished interest in activities that were previously enjoyed, and an inability to think or concentrate.

All three subscales of the SOC concept were also found to be independently significantly associated with depression, with the meaningfulness subscale being the best predictor of scores on depression in individuals diagnosed with major depression. The concluding arguments of Carstens & Spangenberg are strengthened if there is evidence that SOC increases as depression recedes. Findings from Skärsäter et al. (2008) provides this evidence as they found – in their four year longitudinal study – that SOC increases as their participants recovered from major depression.

Bengtsson-Tops et al.'s (2005) description of schizophrenia, in which they referenced Van den Bosch (1995), makes explicit the connection between the concept of SOC and the symptoms of schizophrenia: “the main features of schizophrenia include cognitive dysfunctions such as lack of coherence in thought, fragmentation and distortion of reality

and/or cognitive disorganization” (p. 280). This description could also be used to describe aspects of a weak SOC comprehensibility factor, and this description points to a link between psychopathology and a weak SOC in those diagnosed with schizophrenia spectrum disorders.

In their study Bengtsson-Tops et al. (2005) found a correlation between higher levels of psychopathology, measured using the Brief Psychiatric Rating Scale (BPRS), and a weaker SOC in a group of 120 patients with a diagnosis of schizophrenia or a schizoaffective disorder. This evidence of a link between a weak SOC in people diagnosed with schizophrenia spectrum disorders and their psychopathology may also apply to the psychopathology of other individuals with a different mental health disorder diagnosis who have a weak SOC. Further research is required to establish this link but support for this link comes from Langeland & Wahl (2009) who found a strong negative relationship (-0.56) between SOC scores and self reported mental distress (Global Severity Index of the SCL-90-R) in a sample of 107 mental health service users living in the community.

In McCann & Clark’s (2004) study many of their participants (young adults) stated that the experience of schizophrenic symptoms made his or her future life and prospects seem very unpredictable, and many also envisaged no future beyond the experience of schizophrenia. The researchers reported that this factor of uncertainty was for many very difficult to deal with; they no longer had the previous confidence of knowing their own mind. This future-orientated uncertainty has negative implications for the SOC factor of meaningfulness and the lack of knowing one’s own mind has negative implications primarily for SOC factor of comprehensibility.

Garcelán & Rodríguez’s (2002) literature review provides an insight into how GRRs and their deployment, and hence SOC strength, can be affected by the symptoms of psychosis. Garcelán & Rodríguez referred to the fact that people can have a high level of coping resources but may not be able to employ these resources due to the symptoms of their mental health disorder or the side effects of their medication. At certain times an individual may have a low level of symptoms and may be able to employ his or her resources effectively in problem solving, while at other times symptoms or side effects of treatment may interfere with problem solving to a greater degree.

Garcelán & Rodríguez revealed that a higher level of psychotic symptomatology is related to less use of cognitive coping strategies aimed at problem solving and more at emotion-orientated coping. Garcelán & Rodríguez suggested that this is because higher levels of psychotic symptomatology reduce the level of cognitive resources available and individuals can then only use strategies that have a low cognitive cost, i.e. those based on emotion. A criticism of Antonovsky's theories is that they focus mostly on cognitive coping strategies and pay little attention to emotion-orientated coping (Geyer, 1997). As a result, his theories are less applicable to an emotion-orientated coping strategy response.

Another coping strategy employed by those with symptoms of psychosis is that of 'acceptance'. Garcelán & Rodríguez's (2002) review reveals that the attitude of acceptance of symptoms of psychosis by those experiencing them may be considered a GRR in the SOC concept. They stated that: "subjects that do not fight the symptoms, and do not attempt to avoid them either, but rather to accept them, succeed in reducing the anxiety associated with the symptoms and living more comfortably, even without managing to make them disappear" (p. 37). However, this strategy does not work for all people experiencing symptoms of psychosis and so cannot be considered a possible GRR in all cases.

The attitude of acceptance may link to the SOC manageability component as Garcelán & Rodríguez stated that an individual deals with their symptoms by: "adapting oneself to them and incorporating them as just another event in one's life" (p. 37). Antonovsky (1979) stated that his salutogenic orientation is concerned with the proactive successful adaptation by individuals to stressful environments that they are exposed to. This coping behaviour reported by Garcelán & Rodríguez is clearly a proactive successful adaptation, and it is therefore salutogenic to use measures to enhance this strategy and promote it as a learned coping behaviour in those experiencing symptoms of psychosis.

In their conclusion Garcelán & Rodríguez (2002) stated that individuals deploy coping behaviours either with the aim of reducing or eliminating problems that they face or, if this is not possible, they adapt themselves to them. Garcelán & Rodríguez (2002, p. 36) explained that the effectiveness of coping and an individual's satisfaction with it depends on: "the use of multiple strategies for coping with the same problem, assessments of modifiability of a stressful event (primary assessment) and controllability of that event

with one's own resources (secondary assessment), and subject's level of awareness of the problem's antecedents and of suffering from a disorder.”

Converting this to the language of SOC theory: in the experience of schizophrenia the effectiveness of coping and an individual's satisfaction with it (satisfaction partially depends on elements of the meaningfulness component) depend on employing various coping strategies (related to manageability component), evaluation of the event and their own resource capability for dealing with that event (comprehensibility component), and ability to accurately review reality to create cognitive order, clarity and structure (comprehensibility component). SOC theory therefore applies – according to this interpretation of Garcelán & Rodríguez's description of it – to coping mechanisms employed by those dealing with psychotic symptoms.

SOC theory may also play a role in explaining the development of other mental health disorders. This is evidenced through the findings of Antonovsky & Sagy (1986) and McSherry & Holm (1994) that those with a weak SOC are more likely to report minor stressors to be a chronic source of stress. It is easy to imagine the negative spiral that an individual who has had his or her GRRs and hence SOC weakened through experiencing mental health disorder is trapped in: a weakened SOC leaves an individual vulnerable to the negative effects of even minor stressors (life events and challenges) that he or she previously managed well with, and that this lack of successful coping and management leads to further deterioration in GRRs such as self-confidence, coping skills, mental and physical health, well-being, capacity for independence, motivation, and self-esteem, and this can lead to a further weakening of their SOC strength. Evidence for SOC theory's role in explaining the development of mental health disorders is to be found in a study by Eklund et al. (2004).

In Eklund et al.'s (2004) study, which employed participants who were individuals diagnosed with schizophrenia and were using psychiatric outpatient care, they considered whether personality variables (measured by the Temperament and Character Inventory [TCI]) were related to aspects of psychological health measured by SOC. They found that self directedness factor of TCI – defined as how responsible, purposeful and resourceful a person is in working to achieve their goals and values – explained substantial proportions of the variation in SOC, psychosocial functioning and psychological health. Since

personality factors such as self directedness have been found to be predictive of schizophrenia (see for example: Smith, Cloninger, Harms, & Csernansky, 2008) this suggests that SOC strength could be a predictor of later onset schizophrenia (Eklund et al., 2004). Research is required to find out if this might be the case and, if it is, how strong a predictor SOC levels are.

SOC theory can also be applied in the case of the physical symptoms of various mental health disorders and treatment side effects. The physical symptoms of mental health disorders and medication for mental health disorders, such as lethargy, weight gain, akathisia, sexual dysfunction, or tardive dyskinesia, can have consequences that can damage a person's GRRs, increase their level of GRDs and, therefore, negatively impact on the strength of their SOC. In their qualitative study into the lived experience of young adults with schizophrenia McCann & Clark (2004) stated that the physical effects of mental health disorders, or the physical side effects of prescribed medication to combat a mental health disorder, can cause a loss of self because an individual's body may have changed in appearance or it may no longer act in familiar trusted ways.

There can also be a sense of grief for the loss of self and of a previous 'normal' life and this can lead to hopelessness and the realisation that previously held future plans may never materialise (Hensly, 2002; Horowitz, 2001 both cited in McCann & Clark, 2004). This loss of self has clear implications for an individual's SOC meaningfulness factor. In addition, the resultant sense of hopelessness can lead to high levels of boredom, alcohol and drug abuse, self harm, and/or suicidal intent; all of which can have negative consequences for all three SOC components and hence global SOC strength.

Furthermore, deterioration in physical appearance and functioning can lead to embarrassment, shame and stigma; all of which may increase social isolation and result in withdrawal as a way of coping (Hensly, 2002; Rudge & Morse, 2001; Usher, 2001 all cited in McCann & Clark, 2004). Stigma can lead to disempowerment, the negative effects of social isolation can lead to loneliness, and withdrawal as a way of coping is linked to learned helplessness. Moreover, disempowerment (Antonovsky, 1991; Lindström & Eriksson, 2005; 2006), loneliness (Cacioppo et al., 2000) and learned helplessness (Antonovsky, 1979; 1987; Peterson et al., 1996) are GRDs which can weaken an individual's SOC strength.

Conclusion

This review of research indicates that SOC strength is positively linked to mental health and negatively linked to the existence and/or severity of mental health disorder. As a measure SOC predicts psychopathology such as depression, anxiety, substance abuse, anti-social personality disorder, OCD, and psychotic symptoms in both general and clinical populations. SOC emerges from the above research as a factor in the existence, development and ability to cope with mental health disorder.

The emergence of SOC strength as a protective factor against the development of mental health disorder and as a predictor of coping with mental health disorder is significant both in relation to recovery from and prevention of mental health disorders. Evidence described here endorses care and treatment for those with mental health disorders that is based on salutogenic principles and that incorporate SOC strengthening goals.

The links between SOC strength and mental health indicate that strengthening SOC through interventions is likely to have positive effect on coping ability and mental health. Carstens & Spangenberg (1997) stated that their findings suggest that life skills programmes that focus on strengthening an individual's SOC can help prevent depression, and that those psychotherapeutic interventions with this same aim can reduce the level of depression in individuals diagnosed with major depressive disorder. Testing the hypothesis that a therapy to strengthen SOC can have positive effects Langeland et al. (2006) investigated the effect of talk-therapy based on salutogenic treatment principles. They found that this treatment – which sought to strengthen resources, awareness of resources and ability to use these resources to cope with the demands of their life – was useful in increasing coping in the recovery process among people diagnosed with various mental health disorders.

There are a number of other interventions that have been shown to increase the SOC of people who are experiencing mental health disorders. These include the following that employed a control group: 405 participants in psychoanalytic therapy for adults with mental health symptoms (Blomberg, Lazar, & Sandell, 2001) and 59 participants in talk therapy groups based on salutogenic principles for mental health service users (increase at immediate follow-up but not at six month follow-up) (Langeland et al., 2006); and the

following which did not employ a control group: 20 participants completing music therapy for mental health service users (Kørllin, & Wrangsjø, 2002) and 33 participants receiving health service treatment for major depression (Skärsäter et al., 2008). The close ties between SOC and mental health means that seeking to increase SOC is a desirable goal to positively impact on the mental health of those experiencing mental health disorders.

This section of the thesis has revealed that it is important for those who administer and provide care for those with mental health disorders to be aware of and take into account the negative consequences that the physical side-effects of mental health disorders and mental health medication can have on individuals in relation to their SOC strength. The results of McCann & Clarke's study showing that these physical effects can weaken an individual's SOC – and therefore possibly weaken their level of health – add weight to efforts to combat the negative effects of these physical difficulties.

Garcelán & Rodríguez's study highlighted a weakness of the SOC model (in relation to coping by those with mental health disorders) in that it fails to adequately take into account emotion-orientated coping. It is a cognitive resource-focused approach which may not be effective in explaining coping when cognitive resources are severely affected by mental health disorders or the side effects of mental health disorder treatment. However, Garcelán & Rodríguez did provide evidence that SOC theory applies to the coping mechanisms employed by those dealing with psychotic symptoms. The importance of SOC theory in relation to mental health disorders is clearly visible and further work at both a theory level and in practical research studies is justified.

3.1.3. How Antonovsky's Sense of Coherence Theory can be Employed to Promote the Recovery of Those with a Mental Health Disorder Diagnosis

Introduction

Antonovsky (1991) defined recovery as a constructive process in which the individual focuses on their own situation in a flexible, adaptive and future orientated way. This definition highlights the importance of the individual in their own recovery and provides support for the empowerment of individuals with mental health disorders to facilitate their

own recovery. This empowerment centred view of recovery is supported by Repper & Perkins (2006, p. 65) who stated that the aim of recovery: “must be to help people to... use their own resources in pursuit of their ambitions.” Antonovsky’s description of a focused adaptive individual in pursuit of their own recovery finds support from Ridgeway (2001) who described recovery from mental health disorders as active coping rather than passive adjustment.

Antonovsky’s definition also highlights the importance of providing individuals with the tools to enable recovery so as to allow them to focus on their own situation, be adaptive and imagine a positive future of their own creation. Recovery is an on-going constructive process that works well with the analogy of ‘constructing foundations’ in-built with flexibility and capability for change that utilises the guidance of a future orientated plan to provide motivation and direction: a SOC based recovery. A ‘construction’ analogy for the recovery process has not only been employed by Antonovsky, Repper & Perkins (2006) influential book *Social Inclusion and Recovery* used such an analogy when they stated that recovery involves rebuilding a meaningful and valued life.

The definitions of recovery by other mental health professionals have similarities to Antonovsky’s definition. In a link to Antonovsky’s ‘constructive process’ Spaniol, Gagne, & Koehler (1997) described recovery as involving the creation of a new personal vision of one’s self through acceptance and adjustment to changes and that it involves self discovery, self-renewal and transformation. Describing the outcome of this process Townsend & Glasser (2003, p. 83) stated that: “recovery is a process by which an individual recovers their self-esteem, dreams, self-worth, pride, choice, dignity and meaning.” Therefore they recover factors that could be considered to be GRRs that contribute to comprehensibility, manageability and meaningfulness in SOC theory.

This section of the thesis considers how the SOC concept and salutogenic related theories can be employed in understanding the recovery process and to enable the recovery of those with mental health disorder. It will consider aspects of recovery related to SOC theory in various mental health disorder diagnoses such as schizophrenia and alcohol/drug addiction.

Discussion

Bengtsson-Tops & Hansson's (2001) literature review of SOC research concluded that using a salutogenic approach to the care, support and treatment of individuals diagnosed with schizophrenia or schizoaffective disorder may be beneficial in terms of recovery. In their own subsequent study examining the construct and predictive validity of SOC Bengtsson-Tops & Hansson employed Antonovsky's (1987) OLQ measure over an 18-month period with 120 patients with diagnosis of schizophrenia or a schizoaffective disorder. They found that SOC was positively correlated to changes in overall quality of life, general health, global well-being, social integration and global psychosocial functioning; and negatively correlated to psychopathology.

Bengtsson-Tops & Hansson's findings demonstrate the importance of providing care, support and interventions that enhance the SOC of individuals with schizophrenic spectrum disorders. More specifically, Bengtsson-Tops & Hansson concluded that actions to help improve the cognitive abilities of individuals in this group will increase their SOC comprehensibility factor, i.e. their comprehension of their environment as predictable, structured and consistent. They also concluded that the manageability component of SOC can be enhanced through providing holistic care and support that matches the needs of an individual, and that this would require an effective needs and care assessment of that individual. Furthermore, they stated that an increased sense of meaningfulness can be facilitated through offering activities with a sufficient level of challenge and by the provision of a variety of social activities. Adding to this conclusion, the strong positive relationship between SOC and both social support and empowerment (described earlier in this thesis in chapter 2) also indicates that the level of meaningfulness can be increased through offering activities that have a high level of social interaction and that empower individuals to make decisions about their own care and lives.

In their final summary, Bengtsson-Tops & Hansson stressed that all of those who are involved in the care and support of those with mental health disorder can play an important role facilitating a stronger SOC in the individuals that they care and provide support for through helping to build an individual's resources and adopting a salutogenic approach. They expressed the view that highlighting and promoting the importance of the salutogenic approach and proactive measures to strengthen SOC can increase the effectiveness of care

and support, and that it can provide tangible improvements in the lives of those with symptoms of schizophrenia spectrum disorders. It is possible that Bengtsson-Tops & Hansson's results and recommendations may, to some extent, extend to groups of individuals with other mental health disorder diagnoses, although this speculation requires testing.

Many mental health disorders – including the schizophrenia spectrum disorders investigated by Bengtsson-Tops & Hansson – can be chronic in nature and this causes particular problems for those experiencing them. Clements et al. (2004) found that a sense of despair, hopelessness and entrapment in a potentially chronic illness caused participants to consider self harm or suicide. One quote from a participant in their study was: “It is very hard to see a future with this illness” (p. 789). By focusing on strengthening an individual's meaningfulness, comprehensibility and manageability it would be expected that feelings of despair, hopelessness and entrapment could be reduced, and a brighter and more recovery focused, life affirming and compelling future could be created and internalised (Clements et al., 2004).

Of particular importance in relation to feelings of despair, hopelessness and entrapment is the effect of efforts to strengthen the SOC factor of meaningfulness. Bäärnhielm's (2003) study demonstrated the complexity of this component. Bäärnhielm's (2003) qualitative study of a small group of Swedish females revealed that making sense of suffering caused by a psychological disorder was an interactive and ongoing process of restructuring meaning given to the disorder. Bäärnhielm's (2003) stated that treatment/psychotherapy that enabled an individual to reconstruct his or her life meaning to incorporate the effect of a psychological disorder needs to contribute to coherence in relation to previous life meanings and values, as well as to continuing changes in that individual's life.

Other research studies have considered SOC and the recovery of individuals with specific mental health disorder diagnosis. For example, Carstens & Spangenberg's (1997) RCT investigated the relationship between major depression and the salutogenic construct of SOC. They stated that the findings of their study suggest that life-skills programmes that focus on strengthening an individual's SOC can help prevent depression, and that

psychotherapeutic interventions with this same focus can reduce the level of depression in individuals diagnosed with major depressive disorder.

In another example of research investigating recovery Schmolke (2003) conducted a small qualitative study that considered the positive resources associated with the existential experience of living with schizophrenia. They found that individuals diagnosed with schizophrenia accumulated expert knowledge and developed regulation mechanisms to cope with their disorder and the needs of their daily life. In a clear link with the SOC concept and salutogenic theories related to recovery Schmolke encouraged an increased focus on existing and potential health related resources of those with a history of mental health disorder in order to improve potential recovery. They suggested that a combined pathogenic and salutogenic approach should be adopted in a holistic care approach. Schmolke's suggestion of this combined approach and a focus upon strengthening the resources of those with mental health disorder to aid recovery concur with Antonovsky own theories (1979; 1987).

Antonovsky (1979; 1987) took the view that everyone has a level of GRRs whatever their circumstances and that these GRRs can be strengthened. In support of this suggestion many existing therapies to enable recovery from mental health disorders target the strengthening of what could be considered to be GRRs in the SOC model. For example, Tarrier, Harwood, Yusopoff, Beckett, & Baker's (1990) Coping Strategy Enhancement (CSE) which employed training to enable psychotic patients to identify and use their coping skills more effectively.

Antonovsky (1979; 1987) also held the belief people are proactive in their response to life events and challenges and he emphasised individual responsibility. Confirming these beliefs in a mental health disorder population Garcelán & Rodríguez's (2002) literature review revealed that individuals diagnosed with psychosis are not passive in the face of life events and challenges but that they put into practice a series of personal coping strategies with the aim of feeling better. Garcelán & Rodríguez stated that individuals use personal resources to deal with the demands of the symptoms of psychosis and that these symptoms are intertwined with the demands of their environment (Garcelán & Rodríguez, 2002).

This links to Antonovsky's focus upon the person, their resources and ability to deploy these resources in the person-environment transaction. The findings of Garcelán &

Rodríguez provide support for methods to strengthen an individual's GRRs to improve their ability to cope with symptoms of psychosis. Effective methods to strengthen SOC depend on a number of factors, and those seeking to introduce and apply such methods can learn from studies that investigate the relationship between SOC and the experience of physical illness.

One example of which is Fok et al. (2005). They explored the relationship between SOC, coping ability and health related quality of life in patients who had experienced a critical illness. Based on their findings that SOC was correlated with quality of life and coping ability they suggested that interventions to promote a strong SOC could facilitate recovery in the critically ill. Although the participants in Fok et al.'s (2005) study were not assessed for mental health disorders the implications of their results may be extendable to those with mental health disorder. Their stated implications for healthcare services are that high and low SOC individuals will have different care needs, and require different support and treatment whatever physical or mental health disorder they are experiencing. Support to facilitate recovery of those with mental health disorders will also require a strong social support component to it.

Clements et al. (2004) considered how the GRR of social support of their participants was weakened. They reported that their participants, who had a variety of mental health disorders with the common factor of developmental disability, often disengaged from their existing social contacts because of a loss of self-confidence, the effect of paranoia destroying their trust in others, and/or the fear of bringing embarrassment on themselves. Projects and initiatives to combat these problems and strengthen social capital, such as the EMILIA project, are a step towards greater social acceptance and integration of those with mental health disorders. This will hopefully bring benefits for both those with mental health disorders and for society as a whole.

In Feigin & Sapir's (2005) study into the personal and psychological characteristics of substance abusers they reported that recovery is dependent on a number of factors. One of these is the recognition of the existence of a problem (which is tied to the SOC comprehensibility factor) either by the individual on their own or by through the initiative of another. Another is the availability of external resources to aid recovery, e.g., formal treatment, social care, housing support, etc. In Feigin & Sapir's study they were discussing

addiction but their findings may also apply to recovery from other mental health disorders. Feigin & Sapir stated that the main result of their study into illegal drug addiction was the emergence of the importance of an individual's SOC strength for coping with the prolonged process of abstaining from using illegal street drugs. Feigin & Sapir reported that Rahav et al. (1998) found that the use of psychoactive substances decreased when an individual's SOC was strengthened. They proposed that this demonstrates a link between drug use, health and psychological well-being (well-being was defined here as SOC).

Feigin & Sapir's (2005) findings provide support for active measures to strengthen the SOC of those who are abusing drugs so as to reduce addiction and facilitate recovery. They stated that the findings: "strengthen the idea that the resource of SOC plays a central role in coping with the stressful stimuli involved in the recovery process, and contributes to health and psychosocial functioning" (p. 69). Feigin & Sapir's findings provide support for methods to strengthen SOC to enable coping and recovery and they are important in relation to recovery for a large proportion of those with a mental health disorder diagnosis because of the high levels of dual diagnosis in this group.

Chen (2002, cited in Feigin & Sapir, 2005) also conducted research into SOC and recovery of individuals who abused illegal drugs. Feigin & Sapir reported that Chen found that individuals with the highest SOC at the beginning of the study were the ones who were most likely to remain 'clean' for a longer period of time. This finding supports methods and interventions to strengthen SOC before any other psychological or drug based interventions to stop or reduce illegal drug use are employed. Feigin & Sapir also reported that Chen found that interventions to strengthen SOC in this group were successful. Feigin & Sapir (2005) called for additional research to assess how much effect SOC strength has in initiating an individual to become involved in the recovery process and what role SOC plays in improving their chances of successful rehabilitation. They also called for investigations into the extent to which an individual's SOC can be reinforced over time through a treatment and rehabilitation process.

Conclusion

The research presented here has revealed the importance of SOC in the promotion of recovery in those with mental health disorders. It finds evidence that adopting a salutogenic

approach and enhancement of SOC can be beneficial in terms of recovery in the case of schizophrenic disorders, addiction and major depression. As Feigin & Sapir stated, an individual's SOC plays a central role in coping with stressors in the recovery process. This section has described the importance of personal history, social resources and other health related resources in SOC aspects of recovery. SOC theory helps to explain the process of recovery, and an understanding of the process of recovery is essential to the development of effective treatment, support and rehabilitation (Farkas, Gagne & Anthony, 2001).

The literature described in the section demonstrates that efforts to strengthen SOC related resources of individuals with mental health disorders can aid their recovery. It is clear that SOC theories relating to a salutogenic approach are of great importance in relation to the recovery of individuals experiencing mental health disorder, and that they should be applied in a comprehensive treatment programmes that are combined with a pathogenic approach. The research highlights various areas that require further investigation, one of which is consideration of the differing needs of high and low SOC individuals in the recovery process. Another is the possible development of specific SOC theory based recovery programmes.

3.1.4. The Role of Sense of Coherence Theory in Mental Health Rehabilitation

This section seeks answers to several questions. It poses the question of whether SOC theory has relevance in mental health rehabilitation (interventions instigated by health care rehabilitation professionals). More specifically it considers whether SOC theory supports rehabilitation principles such as empowerment and increased social inclusion, and it seeks out any ties between Antonovsky's theories and the process of rehabilitation. Furthermore, it asks what role Antonovsky's theories on GRRs have in mental health rehabilitation. Ultimately it seeks to determine if there is evidence for the proposal that recovery through rehabilitation is facilitated by the adoption and practical application of SOC theory and a salutogenic approach.

Kopelowicz & Liberman (2003) defined rehabilitation as interventions that: "target functional and cognitive disabilities during the stable recovery phases..." (p. 1491-1492).

In alignment to rehabilitation process definitions (Davis & Madden, 2006) Antonovsky's theory regards coping in life to be an active, dynamic and continuous process, and that a holistic approach that takes into account physical, social, psychological, cultural and environmental aspects of a person's life should be adopted in promoting recovery (Antonovsky, 1979; 1987).

The SOC concept considers challenge, adversity and engagement as natural parts of life (Antonovsky, 1979). Individuals who are going through a process of rehabilitation face constant challenges and setbacks, both small and large, and the success of their rehabilitation, at a biological, psychological and social level, is determined by their ability to cope with, overcome and recover from these challenges and setbacks. This ability depends on, according to Antonovsky's theory, the strength of an individual's SOC which is determined by an individual's GRRs and their effective deployment. SOC can be regarded as a crucial element in the structure of an individual's personality that facilitates the coping process (Antonovsky, 1979; 1987) and coping is a central part of an individual's rehabilitation (Anke & Fugl-Meyer, 2003).

The rehabilitation process involves rebuilding a meaningful and valued life (Repper & Perkins, 2006) and maximising: "...quality of life and social inclusion by encouraging ... skills, promoting independence and autonomy..." to provide hope for the future (Holloway, 2005, p. 8). A principle of rehabilitation is to convey hope (Dincin, 1975) and this can be achieved through strengthening SOC meaningfulness aspects of an individual's life.

Antonovsky (1991) emphasises the importance of providing individuals with the tools to enable recovery – a core principle of rehabilitation services. This then allows individuals to focus on their own situation, be adaptive and imagine a positive future of their own creation. This individual needs and strength focused process is in line with the rehabilitation principle that recovery through rehabilitation is best achieved by an individually tailored constructive process (Roberts, Davenport, Holloway, & Tattan, 2006). Research investigating SOC theory provides support for many of the 13 rehabilitation principles identified by Cnaan, Blankertz, Messinger, & Gardner (1990), for example, equipping clients with skills, facilitating and encouraging self determination, effectively

employing environmental resources, placing an emphasis on strengths and promoting social change.

All of those who are involved in the care and support of those with mental health issues can play an important role in enabling and facilitating an increase in SOC strength (Bengtsson-Tops & Hansson, 2001). Highlighting and promoting the importance of the salutogenic approach and proactive measures to strengthen SOC can increase the effectiveness of care and support, and it can provide tangible improvements in the lives of those with symptoms of schizophrenia spectrum disorders (Bengtsson-Tops & Hansson, 2001). SOC is an important factor in mental health rehabilitation and seeking to strengthen an individual's SOC can help facilitate and enable recovery. Strengthening SOC to help promote recovery can be achieved by targeting specific GRRs.

The process of generating a strong SOC is intertwined with the rehabilitation process and the principles on which rehabilitation services are based. Therefore the recovery of those in rehabilitation can be enhanced through rehabilitation practitioners seeking to strengthen SOC. Research on SOC theory supports the rehabilitation practice of focusing both on reducing obstacles preventing the highest level of personal and social functioning, and on building and strengthening external and internal resources. It also supports the practice of tailoring rehabilitation programmes to the individual client's holistic needs and their personal goals. SOC theory provides a theoretical base for all salutogenic practises of rehabilitation services.

SOC based theory and research has implications for rehabilitation services. It underlines the need to be creative in order to achieve the goal of recovery. SOC research suggests that clinical rehabilitation professionals should review their existing rehabilitation services to ensure that they incorporate SOC strengthening goals. SOC theory and research also supports the development of rehabilitation programmes with SOC theory as part of their foundation.

3.1.5. Contribution of this Chapter to the Thesis Research Predictions

The research study within this thesis does not measure symptomology, neither does it assess specific mental health disorders such as depression, and so it cannot compare SOC to these factors. What it does measure is mental health related quality of life, and the existence and level of mental health disorder forms part of a participant's mental health related quality of life. This literature review exists as part of the dissertations' contribution to knowledge in itself in bringing this information together for the first time. In addition, by revealing that SOC is related to mental health related quality of life factors - such as negative affectivity, psychopathology, and physical side effects of mental health disorders and medication for mental health disorders - it contributes to the research prediction that SOC will be positively related to mental health related quality of life.

By revealing that meaningfulness is linked to mental health related quality of life factors such as negative affectivity, psychopathology and recovery it contributes to the research prediction that the meaningfulness SOC factor will be positively related to mental health related quality of life. This literature review also details mechanisms involved in the generation of meaningfulness and overall SOC that can contribute to mental health related quality of life. The studies showing that interventions targeted at those experiencing mental health disorders can increase meaningfulness and SOC strength provide evidence for the research prediction that the EMILIA intervention will raise the meaningfulness and SOC levels of its participants.

CHAPTER FOUR

4.1. Lifelong Learning, Mental Health Service Users, the EMILIA Intervention and Sense of Coherence

This chapter of the thesis investigates learning for mental health service users and forms part of the literature review for the thesis' combined quantitative and qualitative study. It considers the benefits that mental health service users can gain from formal learning experiences and it considers their needs and issues that they face in relation to formal learning. The chapter then moves on to consider the concept of LogoLearning, which is linked to the meaningfulness component of SOC, and how this applies to learning for mental health service users and learning related to the EMILIA project. Expanding on chapter 2 and 3 of the thesis there is then a discussion of the EMILIA intervention and how it relates to SOC, including the possible effect that the EMILIA intervention could have on the SOC of its mental health service user participants. At the end there is a summary of mechanisms identified which lead to the research prediction of the thesis.

4.1.1. Learning: Its Benefits in a Mental Health Service User Context

Formal learning is typically considered to be that which is provided by an education or training institution, structured (in terms of objectives, learning time and learning support), has some kind of certification and is intentional from the learners' perspective (COM, 2001a). Involvement in formal learning can enable a mental health service user to feel less marginalised, fulfil their goals, gain life meaning, widen their social network, improve their employment prospects, and be a valuable member of, and contributor to society (Griffiths, 2006a). It can also result in the development of new areas of interest, which stimulate an individual's mind, enrich his or her life and result in feelings of personal satisfaction (National Institute of Adult Continuing Education [NIACE], 2004). Furthermore, it can

promote a greater understanding of mental illness within the public at large, and reduce the stigma and discrimination associated with it (Griffiths, 2006a).

Research into specific examples of formal learning has found that they can bring benefits to those with mental health issues on a wide variety of measures, for example, improvements in measures of coping skills, stress management, goal setting, quality of life and well-being (Griffiths, 2006a). Formal learning programmes can empower mental health service users to make active informed choices and decisions about their own alternatives, needs and wishes, and their feeling of control over their lives can steadily grow (NIACE, 2004). This empowerment can allow mental health service users to collaborate more with their healthcare providers in their treatment and rehabilitation (Landsverk & Kane, 1998). Furthermore, empowerment through lifelong learning programmes is an important factor in increasing mental health service user's wider social inclusion. A positive cycle can be created with formal learning participation producing the beneficial effects stated which leads to increased social inclusion, and this increased social inclusion can then lead to further participation in formal learning.

There are links between formal learning and mental health. Those people with a higher level of educational attainment are less likely to experience mental health disorders such as depression and less likely to commit suicide (see Bynner & Egerton, 2001; Hammond, 2002). On the other hand, they are more likely to experience eating disorders such as anorexia nervosa and there is evidence linking higher educational level and neuroticism (see Hammond, 2003). The equation is not as simple as a higher educational level equals less risk for mental health disorders.

However, education can have benefits in terms of mental health. Hammond's (2004) qualitative investigation of adult students and their teachers found that participation in formal learning had positive effects upon: "well-being, protection and recovery from mental health difficulties, and the capacity to cope with potentially stress-inducing circumstances including the onset and progression of chronic illness and disability" (p. 551). Hammond (2004) also stated that learning, through a process that is: "quintessential to learning", can have positive impact: "upon psychosocial qualities; self-esteem, self-efficacy, a sense of purpose and hope, competences, and social integration" (p. 551).

Adding to these findings Feinstein & Hammond (2004, p. 199), who conducted research through analysing data from the UK's National Child Development Study, found that: "participation in adult learning is a very important element in positive cycles of [personal and social] development and progression". Furthermore, the results of Preston & Hammond's (2003) study into the wider benefits of further education showed that: "self-esteem, self-efficacy, and the development of social networks are important benefits of FE (Further Education) and that purposive social interaction is a major factor in producing social benefits" (p. 211). Specifically related to recovery, Landsverk & Kane's (1998) review found that there is an: "increasing body of evidence of research showing education to be an effective component in a comprehensive treatment approach to serious mental illness" (p. 420).

This review will start by considering the needs of mental health service users when they take part in formal learning. The needs issues that will be considered include learning advice, learning setting, coursework, repeating courses, and accreditation. These needs will partially inform what constitutes the components of effective learning programmes. This literature review will then consider the practical components in the delivery of programmes of formal learning for mental health service users. It will consider the structure, format, content, delivery, social support and leadership of learning programmes to investigate what learning programmes should contain to be as effective as possible.

The review will investigate both learning programmes that target people with a variety of mental health disorders and those that target people with specific mental health disorders, for example, people with a diagnosis of schizophrenia. The learning programmes reviewed here vary considerably in their learning aims: some are specifically labelled as psychoeducation (education that provides information to people about their mental health disorder issues) while others would fit under a more general heading of psychosocial educational interventions or mainstream education.

4.1.2. Meaningfulness and Education: LogoLearning

Teacher and educational researcher Dale Parnell (1994) created and promoted the concept of LogoLearning. Parnell defined LogoLearning as: “an educational philosophy and an educational strategy that centres on enabling students to find meaningfulness in their education” (p. 11). Parnell stated that the work of Viktor Frankl was very influential on his research and theories, and the term ‘logo’ that is used both in Frankl’s (1992) Logotherapy and Parnell’s LogoLearning comes from the Greek *logos*, denoting meaning. It arises from the early Greek philosophical foundations of meaning, purpose and reason (Parnell, 1994). This section will detail and discuss Parnell’s theories and explain how they relate to the EMILIA project intervention and to this thesis.

Parnell explained that: “knowledge acquires meaning only when it sheds light upon purposes, judgements, and experiences” (p. 20). Parnell is not alone in placing great value on the meaning of knowledge in learning, Boeree (1991) stated that learning becomes easier, more natural and joyful when it is meaningful. Parnell argued that it is the task of the teacher to: “broaden the student’s perceptions so that meaning becomes visible and the purpose of the learning immediately understandable” (p. 11). Teachers need to enable students to see both the specific objectives of learning and the larger meaning as it relates to real-life issues and to students’ actual roles in life.

In presenting evidence to support his theories Parnell refers to the influential psychologist William James (1958); he reports that James stated that the mind acts in a purposeful way and that learning and experience that has a purpose will be remembered and applied. Also proving support for Parnell’s theories is the statement by Frankl (1992) that an individual will feel disconnected from, unmotivated by and disinterested in life – a life which includes learning opportunities and experiences – without having purpose, life meaning and goals.

If the formal learning that an individual is involved in does not have meaning, purpose and goals that are connected to that individual’s life then he or she is unlikely to be motivated by it, and he or she will become bored, disinterested and lose attention and focus (Parnell, 1994). If students view aspects of their learning as meaningless, or if students are taught things that have no relevance to their lives in the present or the future, then the

providers of that learning are in effect saying that they have no respect for the students' needs, preferences, ambitions, and goals (Parnell, 1994). If they are doing this they are not respecting the person's humanity and not treating or respecting that person as an individual (Parnell, 1994).

If the completion of the EMILIA learning modules is to lead to increases in the strength of the SOC of participants then according to LogoLearning theory the modules themselves must have meaning for those who complete them. The design and delivery of the modules should consider the question how the modules can be made meaningful for the students (Boeree, 1991). The modules must connect with an individual's needs, problems, preferences, real-world existence, goals and ambitions (Parnell, 1994). How meaningful the modules are to the mental health service user students will partially determine how successful the EMILIA project is and also how much an individual's SOC will be strengthened by his or her participation.

Antonovsky (1979) stated that if a salutogenic orientation is adopted and individuals are engaged in goal orientated behaviour that encourages success then this can strengthen an individual's SOC. The EMILIA project meets the requirements of the first part of Antonovsky's statement as its provision of learning modules has an underlying aim of increasing empowerment and social inclusion – GRRs which contribute to SOC and hence health. Referring to the second part of the statement, the teachers of the modules not only need to help the students to see the specific objectives of the modules, they also need to help students to understand how the information that is taught relates to real-life issues and the student's life goals and cultural roles (Parnell, 1994).

It is important that EMILIA students know how the learning modules connect with other knowledge, and the wider implications of the learning modules need to be made explicit to them. They should be shown real world demonstrations of practical application of the learning, and people's real world experience of putting learning into practice and succeeding. The EMILIA learning modules need to state their purpose before they are delivered in order to increase attention, motivation, application and goal directed behaviour. If the teachers can do this, then this will increase student motivation and learning retention (Parnell, 1994) and, as the thesis section 'The EMILIA intervention and

sense of coherence' in chapter 4 explains, increases in learning and motivation can lead to increases in the strength of an individual's SOC.

Part of the goal of the EMILIA project must be strengthening mental health service user students' motivation, optimism and hope for the future. It can do this by connecting to the student's needs, preferences, ambitions and goals, and by providing learning that meets these in order to generate an increase in life meaning. It is these factors that form part of the basis of recovery and greater self determination. In Antonovsky's (1997) case study of Norman Cousins he stated that Mr Cousins realised that the pain of the treatment for his illness was tolerable so long as the greater goals of increased health are realised. In a similar way the 'pain' associated with learning (time, effort, commitment, etc.) becomes tolerable – or even enjoyable – for a student as long the student believes that their goals can be achieved through the learning that is provided.

There are, however, downsides to creating a meaningful learning experience. As Boeree (1991) explained, for learning to be personally meaningful it needs to be highly relevant and loaded with affect. The EMILIA training touches on some very personal issues, such as uncomfortable past experiences, individual sense of recovery, and challenging belief systems, in order to make the learning experience meaningful and relevant. This creates the potential for students to experience both strong positive and negative emotions. These may be expressed openly in the group teaching, individually to fellow students or teachers or they may be repressed. Potential outcomes of these emotional experiences will need to be effectively managed by the module teachers to enable effective learning to take place in the classroom so that students feel that they have the support to deal with the emotions that they experience as a result of their learning.

The most meaningful and most valued learning experiences are often those which involve great pain or pleasure, sadness or happiness, distress or relief, or which affect the core beliefs of an individual (Boeree, 1991). The amount of emotion involved can be a measure of the meaningfulness of the learning (Boeree, 1991). If the EMILIA learning experience challenges the students, without overwhelming them, and the students are installed with the belief that they can take on the challenges and succeed, then they will become motivated and increase their chance of success. Teachers can boost students' hopes

and eagerness if they focus on goals and the benefits of achieving goals rather than merely the process of learning itself (Boeree, 1991).

If the EMILIA project is able to achieve the objectives related to meaning and education laid out here then, according to LogoLearning theory, the connection between the learning module's content and students' own meaningfulness will contribute to the research prediction that participation in the EMILIA project will strengthen the factor of meaningfulness and, through this, strengthen an individual's SOC.

4.1.3. The EMILIA Intervention and Sense of Coherence

Introduction

The next section will focus on how participation in the EMILIA project has the potential to directly and indirectly affect an individual's GRRs, manageability, comprehensibility and meaningfulness, and hence his or her SOC level. This section will assess the possible mechanisms involved in this process that might contribute to the research prediction that EMILIA will strengthen the SOC of its participants.

Discussion

A package of lifelong learning modules supplied through the EMILIA project can contribute to the knowledge, skills and social support of its participants, and all of these factors are recognised as GRRs that can contribute to a strong SOC. Formal lifelong learning such as the EMILIA learning modules has the potential to contribute to increased comprehensibility, manageability and meaningfulness and hence strengthen SOC (Landsverk & Kane, 1998).

A direct positive effect of formal learning on individuals' SOC has been shown by Suominen, Blomberg, Helenius, & Koskenvuo's (1999) Finnish based study which found that the degree of occupational training was strongly and positively correlated to SOC. SOC can be strengthened by factors such as teaching and reinforcing coping skills, the facilitation of social support and by enabling individuals to identify, access, and mobilize resources that are available to them (Landsverk & Kane, 1998); and participation in the EMILIA project has the potential to positively impact on each of these factors. It also has the potential to strengthen the five unique capacities put forward by Antonovsky (1991) through which a person learns: self regulation, symbolising, vicarious learning, forethought, and self reflection. These capacities are involved in a person's skills for learning to learn and developing these skills is an integral part of EMILIA training.

Shattell, Star & Thomas (2007) conducted a qualitative study of 20 mental health service users living in the community. The findings suggested that it is important to provide community activities and opportunities for involvement in the community to promote social integration/inclusion to reduce social isolation which can be associated with

experiences such as boredom, meaninglessness and symptoms of mental illness. Social aspects of the EMILIA project are crucial in generating stronger SOC. Involvement in the EMILIA project has the potential to increase an individual's level of social inclusion, integration, communication and interaction, and improve his or her quality of social relationships. Antonovsky (1987) suggested that these factors can enhance and strengthen an individual's SOC (see thesis section entitled 'research evidence in relation to sense of coherence theory' in chapter 2). Supporting this suggestion is a study by Langeland & Wahl (2009). This study examined the predictive value of social support on change in SOC over a one year period in a sample of 107 mental health service users living in the community using the Social Provisions Scale. They found that social support was positively correlated with SOC (.26), predicted change in SOC and that the social support factors of nurturance (providing social support for others) and social integration were the greatest contributors to the prediction. The results suggest that the social aspects of EMILIA can contribute to the research prediction that the lifelong learning and employment opportunities provided through EMILIA will increase participant SOC levels.

Additional support for the possible SOC related benefits of the EMILIA training is provided by Landsverk & Kane's (1998) consideration of the concept of SOC as the theoretical basis for the effectiveness of psychoeducational programmes. They proposed that one of the processes through which psychoeducation works is by maintaining and strengthening an individual's SOC. This proposal finds support from Hatfield & Lefley (1993) who declared that: "the most salutary form of illness management is found among persons who are well educated about their conditions, and who control their lives through self-monitoring of symptoms and treatment response" (p. 165). Two of the EMILIA modules: 'Empowering People in Recovery' and 'Strengths and Personal Development Planning', whilst not specifically psychoeducational in nature, had psychoeducational aspects to them.

Psychoeducation can be seen as a resource that strengthens the SOC linked factor of a sense of control and the SOC components of both manageability and comprehensibility. Webster & Austin (1999) found that a psychoeducational programme can lead to improvements in the level of commitment/challenge and in feelings of control. The specific SOC factor of comprehensibility has the potential to be strengthened by providing

knowledge to an individual about his or her illness; for example, the EMILIA training provided information and facilitated discussion on recovery.

A lack of knowledge will contribute to an individual's incomprehensibility and even knowing that the course of his or her illness is unpredictable can provide an individual with comprehensibility in an unpredictable future (Landsverk & Kane, 1998). Demonstrating the importance of the predictability in determining the comprehensibility factor of SOC, Holmberg et al.'s (2004) study found that SOC was negatively correlated with job security. Both 'Empowering People in Recovery' and 'Strengths and Personal Development Planning' modules have the potential to increase an individual's knowledge about mental illness, mental health and recovery and, therefore, hopefully contribute to the students' level of comprehensibility.

A literature review into specific examples of formal learning for people with a history of mental illness has found that they can bring benefits on a wide variety of measures (Griffiths, 2006a). For example, they can provide improvements in measures of coping skills (specifically associated with the manageability factor), stress management (again associated with manageability) and goal setting (which is associated with strengthening all three SOC factors). Formal learning programmes such as EMILIA can also empower mental health service users to make informed choices and decisions about their own needs and wishes, and their feeling of control over their lives can steadily grow (NIACE, 2004). A core goal of the EMILIA project was to facilitate the empowerment of its participants. Both the 'Leadership' and 'Strengths and Personal Development Planning' modules are directly aimed at achieving this.

The interrelated factors of empowerment and control over one's life have been found to be positively related to coping (Lazarus & Folkman, 1984) and they are GRRs involved in generating a strong SOC level (Johnson, 2004). Furthermore, empowerment is also an important factor in increasing individuals' social inclusion and social integration (Hammond, 2004) which are valuable GRRs in the SOC model. To facilitate empowerment, Hayes & Gantt (1992) stressed the importance of involving students in planning and choosing the content of a learning intervention so that it meets their needs and increases their commitment to the learning programme. Whilst EMILIA did not directly do

this it employed the EMILIA trainers, who were themselves mental health service users, to help choose and develop the learning material.

Exposure to EMILIA learning modules had the potential to lead to the development of new areas of interest for its students (NIACE, 2004), and this may stimulate an individual's mind (increasing comprehensibility), enrich his or her life (increasing meaningfulness) and lead to feelings of personal satisfaction (which can be important in a feeling of confidence which Antonovsky (1979; 1987) described as essential for strong SOC levels). These new areas of interest may motivate participants to seek out new opportunities for further learning and paid or voluntary employment. To meet this demand the EMILIA project provided some further learning and employment opportunities; it also supplied participants with news of other opportunities for learning and employment as they become available.

If the EMILIA training could increase participants' levels of comprehensibility then they will be better able to understand the complexities, conflicts and complications of their lives and this will contribute to a strong SOC. If this is the case then individuals will be more likely to accept that certain goals require great effort, for example, learning goals, goals of employment, social life goals, and an acceptance that failure and frustration are a normal part of life that allows the necessary lessons to be learned that can ultimately enable success (Antonovsky, 1979). What is important is that an individual has a strong belief that things will, for the most part, work out well (Antonovsky, 1979). The EMILIA training has the potential to contribute to this belief through increasing students' confidence, hope and resources such as knowledge, skills and social support.

In terms of the SOC factor of manageability this can be enhanced by providing an individual with information on how to manage his or her illness, and how to manage his or her interactions in the world in general. The EMILIA training modules that can provide this kind of information include those entitled: 'Empowering People in Recovery', 'Strengths and Personal Development Planning' and 'User Leadership and Advocacy'. What is more, the mental health service users who help deliver the learning modules can act as role models, allowing an individual mental health service user to see that others can cope with and be successful despite their mental illness (see Ascher-Svanum & Whitesel, 1999). This

may increase levels of hope which can contribute towards increased life meaning (Frankl, 2002).

Meaningfulness can also be enhanced by setting a tone of hopefulness and by focussing on empowering individuals in the learning situation itself (Landsverk & Kane, 1998). These were goals within the practical delivery of the EMILIA modules. Additionally, an individual's meaningfulness can be enhanced by other aspects of the EMILIA project, such as work on defining and setting personal goals, facilitation of new social networks, provision of employment opportunities, and by increasing the level of structure in an individual's life (increased structure can also enhance comprehensibility) (see Frankl, 1978; 1992; Mascaro & Rosen, 2005).

It is possible that the EMILIA intervention can increase its students' engagement with life and so it therefore has the potential to increase their level of meaningfulness. Engagement in more constructive activities may mean that individuals are less likely to engage in destructive activities such as drinking, drug abuse, passivity, or procrastination, and it can lead to further benefits such as more social inclusion. Connected with engagement with life Hammond's (2004) literature review revealed that learning can have a positive impact on an individual's sense of purpose and hope. This being the case, the EMILIA project may allow a person to defocus on what Frankl (1992) described as: "the vicious circle of formations and feed-back mechanisms" and to focus on the: "assignments and meanings to be fulfilled... in his [or her] future" (p. 98).

In addition, a focus within the EMILIA project on empowering an individual to take greater responsibility for his or her life and health can, according to Frankl's (1992) theory, be expected to strengthen an individual's life meaning. To put it another way Langeland, Wahl, Kristoffersen, & Hanestad (2007a) explained that increased responsibility: "emancipates resources and thus creates hope for the future (intentionality)" (p. 287). As Coleman (1999) stated in relation to recovery: "Recovery is not a gift from doctors but the responsibility of us all ... We must become confident in our own abilities to change our lives; we must give up being reliant on others doing everything for us. We need to start doing these things for ourselves. We must have the confidence to give up being ill so that we can start becoming recovered" (p. 7). Greater personal responsibility can positively affect SOC strength.

Antonovsky (1979) explained that the relationship between GRRs and SOC is similar to that of a feedback loop. GRRs enable an individual to manage to cope with life events and this coping and management can lead to increased SOC. Completing the loop, it is the resulting strong SOC that allows an individual to mobilise and utilise his or her GRRs more effectively. Formal learning can be a part of this positive cycle. As Feinstein & Hammond (2004) found, formal learning for adults: “is a very important element in positive cycles of development and progression” (p. 199). If there is a positive learning cycle generated by participation in the EMILIA project, then there may be a cumulative effect of the EMILIA programme on an individual’s SOC that will grow over time (see Landsverk & Kane, 1998).

The EMILIA project provided advice and support in areas such as information on what is involved in the project, attendance requirements and accreditation details and it provided ongoing assessment of participant needs, preferences and progress. In doing this it possibly aided participants’ success in the project and so improved the possibility that it strengthened their SOC. Part of the reason for providing advice and support was to help prevent failure, as failure could have a devastating effect on the self-confidence and self-esteem of an individual with a weak SOC. In addition, failure in the project could have made participants less likely to try new experiences in the future that may have the potential to strengthen his or her SOC.

The components and practical delivery of the EMILIA learning modules can also have an impact on its ability to strengthen participating individuals’ SOC. For example, EMILIA sought to meet participant expectations and adapt to them; it promoted peer to peer support; allowed learners to express and validate their concerns and questions; tried to create a cohesive learning group; employed a format that enabled participant interaction; sought to develop effective learner teacher relationships; and it employed teachers who believed in the learning potential of their students and who tried to instil hope and belief and be sensitive to the participants learning needs (see Ascher-Svanum & Emer et al., 2002; Hayes & Gantt, 1992; Mather & Atkinson, 2004; Whitesel, 1999).

The EMILIA learning intervention also sought to develop learning goals that were attainable to help facilitate success (Koplewicz & Liberman, 2003). It did this by allowing students to complete assessment at Middlesex University levels from zero (below 1st year

undergraduate), one (first year undergraduate), three (final year undergraduate), and four (post graduate). Furthermore, it sought to provide possible solutions to everyday concrete practical problems of the participants to connect with the participants' lives and goals through content grounded in the reality of participants' existence (Koplewicz & Liberman, 2003). The components and practical delivery of the EMILIA learning modules were aimed at motivating participants to succeed and therefore had the potential to add to their ability to manage, comprehend and find meaning in life.

The development and maintenance of GRRs which strengthen SOC is mainly through the exposure to and successful management of life events and challenges (Wolff & Ratner, 1999). Confirming this, Aldwin (2000) reviewed the research literature and found it suggested that successful coping can lead to the development of further adaptive coping resources. It is partially through this mechanism that exposure to the EMILIA project intervention has the potential to develop an individual's GRRs and through this strengthen his or her SOC level. An integral part of the EMILIA project was that it employed various support mechanisms to help ensure that participants successfully coped with and managed their participation, thus increasing the chances that they will reap the benefits that are predicted. If participants can successfully manage the challenges posed by their involvement, such as attending learning modules, opportunities to work for the university as trainers or assessors and possible research opportunities, then it is expected that their participation will strengthen their SOC levels.

In addition to the consideration of the practical components of the EMILIA intervention it is important to consider the underload/overload balance that is essential to improve an individual's SOC (Antonovsky, 1979). Under Antonovsky's SOC theory: "having consistent, load balanced, and individual choice making experiences" (Korotkov, 1998, p. 64) strengthen a person's SOC and can enable them to adapt to, and cope with, life stressors. If the level of the learning modules is set too high or too low then taking the modules can either not improve an individual's GRR's and hence their SOC, or it may even lead to a reduction. This is a difficult balance to achieve in a group that have various types and severity of mental illness and different levels of educational attainment, intelligence, ability, and experience.

Of crucial importance in respect to the underload/overload balance is the learning support that the EMILIA project provided its participants. There was a high tutor to student ratio and the EMILIA tutors actively sought to identify students requiring additional support and counselling during the training sessions. They also sought to verify that the students understood the material that was being delivered and that they understood any instructions that they had been given.

There are links between the process of learning and the process of dealing with problems which are potential stressors. Dealing effectively with problems can require the acquisition and application of new knowledge. When an individual is faced with a problem they can experience an emotional response, such as excitement, desire for a solution, fear, dread, etc. and the acquisition and application of new learning to overcome this can result in feelings of relief, joy and gains in self-confidence and self-esteem. In developing the ability to learn more effectively, i.e., increasing the learning capacities described by Antonovsky (1991) (self regulation, symbolising, vicarious learning, forethought, and self reflection), the EMILIA training may help develop individuals' capacity to acquire the necessary skills and knowledge to be deal more effectively with problems that they face in life. Through this it potentially strengthened resources and manageability.

Conclusion

SOC is applicable in the evaluation of projects providing learning and employment opportunities because of the connections between SOC and formal learning described above. Based on the research described above connecting SOC and the possible benefits of the EMILIA project the research prediction is that participation in the learning modules designed and provided by the EMILIA project will cause a significant strengthening in the SOC levels of participants. Thematic qualitative analysis is employed to evaluate if the potential mechanisms described are involved in the generation of SOC strength.

4.1.4. Summary of Mechanisms Leading to the Research Prediction

The main research prediction of this thesis is that the EMILIA project can strengthen a participating individuals' SOC and move individuals towards the healthy end of their disease/ease continuum. This thesis has identified various mechanisms whereby the EMILIA project can achieve this prediction. These mechanisms are investigated by a qualitative evaluation of the EMILIA intervention through semi-structured interviews, self reports and module feedback.

The project has the potential to achieve the research predictions through:

- connecting with the life meaning and goals of its participants
- the generation of a stronger sense of meaningfulness
- increases in the SOC factors of manageability and comprehensibility
- increased empowerment
- facilitating and generating an increased social inclusion, social integration, social attachment, number of social relationships and social support
- goal setting
- a learning/SOC positive feedback loop
- providing solutions to everyday concrete practical problems of participants
- providing a correct underload/overload balance
- providing effective advice and support
- providing access to further education, research and employment opportunities
- strengthening internal resources

CHAPTER FIVE

5.1. The EMILIA Project Intervention

This chapter of the thesis presents details of the EMILIA project's design, development and evolution and how that development and evolution has impacted on this thesis. The first part of the chapter deals with the positive and negative aspects of completing a PhD thesis within the constraints of the EMILIA project. The second part details the learning module design process. The third part details recruitment, research and ethical issues during the project. The fourth part considers what has been learnt from the experience of the EMILIA project that can be applied to future EMILIA style interventions. Finally, the last part of this chapter details consideration of the ethical issues involved in this thesis' research which are connected to the EMILIA project intervention.

5.1.1. Working within the Constraints of the EMILIA Project

There have been both advantages and disadvantages in having my PhD research tied to an EU funded project. First I will discuss the advantages.

As I have stated a key advantage for me was that the EMILIA project provides funding towards my PhD. Another advantage was that the project had an existing structure and timeframe which have helped provide my PhD with both structure and a timeframe. In addition, the EMILIA project employed experts to choose, design and/or develop both its qualitative and quantitative measures. These measures were all available for me to tap into and choose to use or not as I found appropriate. Furthermore, the project has allowed me to present some of the findings related to my PhD at a number of conferences in Europe.

Partly because of some of these important advantages there have been some downsides to my ties with the project. One of these is that my PhD is based on a project designed, to a large extent, before my involvement. As I had no input into the initial design

of the project it meant that both the quantitative and qualitative measures available had already been chosen for the project. I would have preferred to have chosen or designed my own measures throughout. For example, I might have chosen different quality of life and health measures and perhaps added a separate specific measure of empowerment and social inclusion. Nevertheless, the EMILIA project sought advice from respected sources and chose its measures carefully. Whilst I lay out criticisms of the EMILIA measures in this thesis, this is a procedure I would have followed even if I had chosen the measures; it does not mean that I think them to be inappropriate.

There have been many difficulties in the completion of my PhD surrounding the fact that EMILIA was a project that changed and developed considerably over the course of my involvement. The continuously developing nature of the project made it difficult to know at an early date exactly what I was working with in terms of both the participant profile and the intervention. The mental health diagnosis criteria of the participants – for inclusion in the Middlesex University based intervention – changed as a result of feedback from the mental health service user representatives that we were working with to help us to find our participants. It shifted from three specific ICD10 diagnostic groups (schizophrenia, schizoaffective disorder and bipolar disorder) to a more inclusive ‘severe and enduring mental illnesses’. This has meant that the mental health disorder profile of the participants changed considerably from my initial expectations.

The development of the intervention itself was very ‘organic’ in nature. This organic process produced an intervention which was of a very high quality and met specific needs of the participants. However, this organic development meant that I did not know the exact nature of the intervention for my PhD until much later than would have been preferable. The evolving nature of the project has caused much of the work for my PhD to be shifted to the end of my PhD timescale.

Some of the work that I have completed which was expected to form a part of my PhD has unfortunately fallen by the wayside or now has less prominence. For example, I was led initially to believe that one of the key measures of the EMILIA project was empowerment. I conducted extensive research into this area but subsequently found that there was no separate independent measure of empowerment in the EMILIA data collection set. This was despite there being empowerment measures available that could have been

used. Some of the components of empowerment were measured, i.e. employment, income, access to training, etc., but there was not a focused holistic measure of empowerment which would have allowed a direct comparison between changes in SOC and health related quality of life. If a specific measure of empowerment had been employed it could have provided very meaningful and enlightening comparisons. There will always be large sections of work completed for a PhD that are not included in the final submission, but having more control over the inclusion criteria, intervention, etc. would have minimised this paring process.

One of the core goals of the EMILIA project was to increase the social inclusion of it participants. Aspects of social inclusion were assessed (e.g., living situation and employment status) but no dedicated quantitative measure of social integration and attachment was employed. It would have been beneficial to have been able to measure social integration and attachment and compared this to the measure of SOC in assessing the relationship between SOC strength and social factors. The thesis could also then have investigated how the changes in SOC strength and social factors were related following the EMILIA intervention.

Another problem that I encountered was that EMILIA qualitative measures appeared not to be specifically designed to be able to capture a sense of all aspects of potential recovery. The qualitative measures also failed to capture many of the benefits derived by participants through their involvement in the EMILIA intervention. I was surprised and disappointed in finding this to be the case as I could have made more use of the EMILIA qualitative data in my PhD. However, the qualitative measures did provide some insights into recovery, social inclusion and empowerment changes. They also provided insights into the mechanisms and processes of the EMILIA experience. Nonetheless, I feel that questions more focused on the learning process, recovery, empowerment and social inclusion aspects would have yielded more and clearer insights.

Although I was able provide feedback on the follow-up the EMILIA project designed qualitative questions I was not able to influence the actual design of the questions. The feedback that I provided that was adopted was largely restricted to ensuring that the wording of follow-up questionnaires was cohesive and consistent with the wording of baseline questionnaires.

The project has experienced delays in starting the intervention and hence delays in completion of baseline and follow-up data collection. This has caused significant problems in completing my PhD in the initial allotted three year timeframe. Fortunately my director of studies succeeded in obtaining an extension for the completion of my PhD. Nevertheless, the delays were very frustrating as I completed the initial parts of my PhD, such as the literature review, well in advance of being able to obtain the research data.

There were also some practical data collection issues. During the interview I had a lot of information to collect for the EMILIA project. Some participants were clearly stressed and fatigued by the data collection process and this caused me not to ask my SOC related qualitative questions in a couple of cases. Whilst this is regrettable I had to make a judgement call based on the feedback that I was getting from each participant.

One of the criticisms of the quantitative research study within this PhD is the lack of a control group. Initially the project was to have a control group matching the research entry criteria that would not undergo the intervention, but this was not set up due to ethical, time and financial reasons. In hindsight a control group not undergoing the intervention would have not formed a suitable comparison group anyway because the actual participants selected themselves for the intervention and therefore would have had different characteristics to a non-self selecting control group.

A second cohort with delayed entry to the project was considered as a method of providing a control group but this idea was dropped by the project management due to time and financial constraints. My own preference would have been to have a delayed entry control group and I am aware that not having one is a limitation for my quantitative research results. A control group would have potentially allowed a greater degree of control over possible confounding variables.

There were also problems with insufficient participant numbers. The number of people taking part in the project based at Middlesex University was much lower than planned. There were a number of reasons for this: no second delayed entry control group, fewer applicants than hoped for, high drop-out rates and a few participants failed to complete follow-up measures. This had an effect on my PhD as the participant numbers were subsequently lower than I would have preferred for the statistical analysis. Although the numbers allowed me to use correlational analysis and t-tests I could not run multiple

regression analysis due to a lack of sufficient participant numbers. A solution to increase participant numbers for the study would have been to have had participants from other demonstration sites within the EMILIA partnership to complete the SOC measure – this proposal was not taken up by the project.

The biggest impact of the lower participant numbers was on the structure of the PhD. Initially it was to be primarily quantitative but lower participant numbers caused a shift, first to a quantitative study with a separate qualitative analysis of SOC theory and then to a combined quantitative/qualitative study and a separate qualitative analysis of SOC theory. The shift to an increased qualitative element has increased the richness of the results but it has produced a structure which is not ‘standard’ or as straightforward as is usually the case in a PhD thesis.

This section of the thesis has not been to determine whether the advantages outweigh the disadvantages, or the other way round, of having my PhD research tied to an EU funded project. It has been to describe some aspects of the design and process of EMILIA that has impacted on my experience of completing a PhD. Being involved with the EMILIA project was a learning and adaptation process that formed part of the journey towards my goal of achieving a PhD in mental health.

Those who are thinking of doing a PhD tied to a large European project should be aware of the potential pitfalls and impact that the project, and specifically the changing nature of the project, can have in terms of the design, structure and timescale of their PhD. A lack of control over aspects of a project which are crucial parts of a PhD can be very demoralising and frustrating. Supervisors need to be very active in trying to foresee problems and reduce the impact of problems/changes in the project on the progress of a student’s PhD.

5.1.2. EMILIA Learning Module Design Process

EMILIA project members designed nine learning module packages. Specialists from various countries in the project created these modules especially for the project and its chosen student group: mental health service users. From these nine packages the Middlesex University based demonstration site chose three core modules and one further module. The

four modules were chosen by EMILIA project representatives working in collaboration with mental health mental health service user representatives as part of the monthly EMILIA/CETL (Centre of Excellence in Teaching and Learning) advisory group meetings. A full description of these modules can be found in ‘the intervention’ section of the research methods for the combined quantitative and qualitative study chapter (chapter 6).

The module packages were adapted by the mental health service user trainers and a Middlesex University mental health professor to fit the four one day a week delivery schedule. The EMILIA project designed learning module packages formed the basis of the material delivered but the material was adapted by the trainers based on their own knowledge and experience and the continuous feedback provided by the students.

5.1.3. Recruitment, Research and Ethical Issues during the Project

In the early part of the EMILIA project various decisions were made in relation to the research tools and participant criteria. A criticism of the project could be that mental health service user representatives were not involved in these decisions during the early stages of the project. This lack of initial involvement by mental health service user representatives led to a number of issues in terms of recruitment and data collection at the Middlesex University demonstration site.

The Middlesex University EMILIA demonstration site sourced its participants primarily through the help of mental health service user representatives working with the project. These people were users of mental health services who worked in the community to represent other mental health service users and who played an active role in various community and charitable mental health organisations. They helped promote the EMILIA project, advised on various aspects of the project, were involved in project decisions, recruited participants to the project, helped design the learning modules, taught the learning modules, provided feedback on the project, helped disseminate the project’s results, and sought further funding to continue aspects of the project. The Middlesex University EMILIA demonstration site relied heavily on these mental health service user

representatives. It was of great importance for the success of the EMILIA project based at Middlesex University that these people believed in and supported the project.

The London based mental health service user representatives, who had not been consulted in the early stages of the project, expressed concern about a number of aspects of the project. One of their key concerns was with the choice of diagnostic criteria for inclusion in the project. The EMILIA project had decreed that all participants should meet an ICD-10 diagnosis of schizophrenia, schizoaffective disorder or bi-polar disorder. The argument for this choice was that these were generally regarded as the more severe diagnostic categories of mental health disorder and that they formed a homogeneous group. However, it is a criticism of medicalised attempts to construct a supposedly more homogeneous study population that mental health disorders other than psychotic disorders are often ignored (Ellis, Crone, Davey, & Grogan, 2007).

The mental health service user members of the advisory group were against what they saw as medicalisation of what was essentially a lifelong learning project. The mental health service user members of the advisory group expressed a dislike of these medical labels and put forward the arguments against the use of such labels. In the wider context of mental health literature there have also been many questions raised about the use of such labels as schizophrenia and bi-polar disorder; a key text in this debate is that of Bentall (2003).

One of the strongest arguments mental health service user members of the advisory group put forward against restricting participants to only these groups involved the position that this decision placed them in when they sought to attract participants. They were not prepared to explain the EMILIA opportunity to a group of mental health service users and then tell those that did not meet the criteria that they would be excluded from taking part. They stated that they were not prepared to raise the hopes of a vulnerable group – with the chance to take part in something that they might find beneficial – and then dash these hopes.

A compromise was made with the diagnostic criteria for inclusion in the training changing from the original ICD-10 categories to a more inclusive ‘severe and enduring mental health issues’. The mental health service user representatives agreed to the other EMILIA project participant inclusion criteria of having no meaningful employment and a minimum of three years contact with mental health services. Within the literature

promoting the EMILIA project to mental health service users no direct mention was made of the ICD-10 categories. Research data was collected from all the participants irrespective of whether they met the ICD-10 based criteria or not.

As stated in chapter 2 using such diagnostic labels can have the effect that a person is reduced from being all that they are as a human being, i.e. a father, a sister, a pianist, a great story teller, etc., into being, for example, a schizophrenic or manic depressive. The salutogenic orientation on the other hand treats an individual as a complex multifaceted entity and searches for salutary factors, such as personality strengths, compensatory factors, significant social roles, positive self images, etc., to negate the negative role and identity associated with a diagnosis of schizophrenia or manic depression (Antonovsky, 1993). It does this to reveal, encourage and instil forces that aids the individual to combat disease and that generates health regardless of the existence of any particular disease (Antonovsky, 1993). The SOC concept acknowledges that if a person is on the ‘sick’ end of the ease-disease continuum, and if they are viewed by others as not being a whole complex individual who has a responsibility for his or her own care, then this will reinforce feelings of invalidity, non personhood and roleless status; and ultimately this can negatively affect his or her health (Antonovsky, 1993).

This issue of inclusion criteria and labelling of mental health service users describes the tensions between the need to recruit mental health service users and the EMILIA project’s requirements relating to its proposal of rigorous research. A key point here is whether the EMILIA project’s ICD-10 based diagnostic categories and the ‘severe and enduring mental health issues’ criteria result in a homogeneous group. It is clear that the experience of a person labelled with bipolar disorder could be very different from that of a person labelled with having schizophrenia or schizoaffective disorder. It is also clear that the experience of two people labelled with schizophrenia could also be very different. An ICD-10 diagnosis of schizophrenia allows for two people to present with different symptoms but still be classed as having schizophrenia.

What united EMILIA participants as a group was that they had severe and enduring mental health issues and that this had implications for their lives (disempowerment, social exclusion, prejudice, stigma, etc.). Also uniting the participants was that they did not have full time employment – a key aspect of social exclusion. Another shared experience uniting

the participants is that they have at least 3 years contact with mental health services. The symptom related experience of participants who meet the EMILIA diagnostic criteria was more similar than those who come under the umbrella of ‘severe and enduring mental health issues’, but the focus of this project was on a socially excluded group rather than shared experience of symptoms. This project was not assessing changes in symptoms. My argument was that this thesis’ participants did form a homogeneous group for research.

To test this argument, independent sample t-tests were conducted to compare gender, age (above v. below median), and diagnosis (meeting EMILIA ICD-10 inclusion criteria v. others) group differences in scores at baseline for SOC, meaningfulness factor of SOC and the two SF-36-v2 sub-scores (mental and physical health related quality of life). The results are presented in chapter 7 in tables 4, 5 and 6. The results indicated that this study had a reasonably homogenous sample and that this provides justification for dealing with the sample as whole. The only significant difference detected was between groups above and below median age in terms of physical health related quality of life – which is a result that is to be expected.

Based on the above results, research and arguments put forward by mental health service user representatives this thesis adopted the inclusion criteria of severe and enduring mental health issues rather than the EMILIA project’s ICD-10 categories. This thesis used research data from all the participants whereas the EMILIA project only used research data from those participants who met its ICD-10 based criteria.

Another issue that arose during recruitment was to do with the requirements made by the project’s ethics board. Some mental health service user members of the advisory group stated that they did not like the fact that the project had been required by the ethics committee to inform the participant’s psychiatrist or GP of their participation in the project. EMILIA project organisers explained to the mental health service user representatives that this was not an attempt to ask for the doctor’s permission but a duty of care to inform the individual ultimately responsible for the health and well-being of the participant. Despite their reservations the representatives agree with the project’s need to do this.

There was also criticism expressed by mental health service user representatives in relation to the research tools. Points that were raised included the excessive length of the data collection sessions, the wording of some of the questions and the need to provide

adequate breaks. To address these concerns the research tools, the process of data collection and the need to collect the information were clearly explained to the representatives. It was agreed that one of the research measures would be significantly shortened. The mental health service user representatives were assured that adequate breaks would be provided and that the participants would be treated in a caring and supportive manner.

Overall the mental health service user representatives accepted the need to collect the research data from the participants to measure the project's success and to meet the requirements of the EU to ensure funding for the project. Without the energy, hard work, courage and belief in the EMILIA project demonstrated by the mental health service user representatives involved in the Middlesex University based EMILIA project it would not have been possible for EMILIA to be successful. This active involvement of mental health service users with EMILIA is part of the philosophy that those who have experience of the process of mental health recovery can help those who are at a less progressive stage of recovery (Green, 2004).

5.1.4. Ethical Awareness – A Vulnerable Adult Participant Group

This thesis was conducted in accordance with The Belmont Report (1979). It applied the report's three core principles: respect for person, beneficence and justice. In terms of respect for the person this thesis had a commitment to ensuring the autonomy of research participants and, where autonomy was diminished, it tried to ensure that any vulnerability was not exploited. The dignity of all research participants was respected in all cases. In terms of beneficence this thesis had a commitment to minimizing the risks associated with its research – including both psychological and social risks. It sought to maximize the benefits that accrued to research participants, for example, the training was offered free of charge to all participants and employment opportunities provided were paid at a competitive rate. Lastly, in terms of justice, the research was committed to ensuring a fair distribution of the risks and benefits resulting from the research. It will be the participants

and their representative group (mental health service users) who are expected to benefit from the knowledge derived from the research.

This thesis also adheres to two further ethical principles proposed by DuBois (2008). The first is the principle of nonmaleficence where humans are considered to be vulnerable to harm and are respected as such. Within this thesis it was acknowledged that having mental health disorder increases vulnerability and allowances were made to take this into account and to protect participants. Steps were taken to reduce the stress involved in data collection. In addition, the person ultimately responsible for the care of the participants, i.e. their GP or psychiatrist, was informed of their involvement in the project. The second, the principle of relationality, denotes respect for human beings in so far as they are essentially related to other human beings. In practice this meant respecting the social relationships that people have and how they impact on their lives in relation to the research. For example, respecting a person's right to seek the permission of their significant others (e.g. husband, wife, father, mother, etc.) to take part. In the project we experienced the situation where a person was financially dependent on their spouse and we respected the implications that this had in terms of the intervention and research data collection.

In overall terms this thesis respects the subjective nature of each individual's separate human reality. Each participant in this research is acknowledged as being a unique individual – having individuality in terms of their sexuality, religious or non religious beliefs, racial mix, cultural environment, life experience, values, physical attributes, abilities, etc. It is the infinite variety of human nature and the respect and acknowledgement of this which determines the richness of research findings. As Buber (2003) stated an existential position is open and sensitive to novelty and alive to uncertainty.

CHAPTER SIX

6.1. Research Methods for the Combined Quantitative and Qualitative Study

This chapter details the research methods, procedures and analysis relating to the combined quantitative and qualitative study that forms the first strand of research in this thesis.

6.1.1. Quantitative Study Design

This study employed a within groups design: a single case study follow-up. It considered the effect of participation in the EMILIA project case study (independent variable) using the Orientation to Life Questionnaire abbreviated version SOC-13 (Antonovsky, 1987) and the SF-36 version 2.0 (SF-36-v2) (Ware, Kosinski, & Dewey, 2000). The data was collected at baseline and at a follow-up point approximately 10 months after. The study did not employ a control group.

6.1.2. Combined Study – Humanistic Existential Paradigm

A humanistic existential paradigm is the basis of this thesis. The appeal of this paradigm is that it promotes research which can aid the further understanding the richness of being human. Existentialism begins with the idea that “existence precedes essence,” we are shaped by experience and choices we make. Humanistic existentialism focuses on existence of the individual person and his or her emotions, actions, responsibilities and thoughts, and it emphasizes individual responsibility as part of society (Cooper, 1999). Research conducted by existential humanists has the purpose of maximising the level of understanding that can promote the power of personal choice, and the care and effectiveness of social groups (Mastoro, 2000). Many of the areas of investigation of this thesis have a humanistic existential focus, for example: social inclusion, empowerment, recovery, coping and adaption.

In emphasizing action, freedom, meaning, and decisions it may appear that this paradigm opposes a quantitative approach. Human reason and rationality certainly has its limitations (Hong & Hong, 2000). However, humanistic existentialism is not dismissive of a quantitative approach: it accepts the value of intuitive as well as rational and empirical knowledge (Crumbaugh & Maholick, 1964). There have, for example, been attempts to measure existential concepts quantitatively. These measures have emerged out of an initial qualitative approach, e.g. through a process of interviews, thematic analysis and then a conversation of themes into questions which are rated by a responding participant using a Likert scale. Both the creation of the Purpose in Life (PIL) (Crumbaugh & Maholick, 1964) measure of Frankl's concept of meaningfulness and the Orientation to Life Questionnaire (SOC-13) (Antonovsky, 1987) measure of sense of coherence employed this approach. The SOC-13 measure employed in this study and the PIL measure have demonstrated reliability and validity (Gary & Reker, 2006 [PIL] and see chapter 6's discussion of research measures re SOC-13).

If this thesis had adopted a purely quantitative approach then the relevance of its results in a humanistic existential paradigm would have been limited. However, the approach taken is a combination of quantitative and qualitative. It is this approach which can allow a greater understanding of the individual person and his or her emotions, actions, responsibilities and thoughts than either a quantitative or qualitative approach alone. The humanistic existential paradigm adopted influenced the choice of a combined approach; it also meant that a greater weight was placed on the qualitative aspect of the research to provide a greater understanding of the richness of human experience. The influence of the existential approach on the qualitative analysis is described in the qualitative methodology.

6.1.3. Single Case Study - Combined Qualitative / Quantitative Design and Analysis

The case study approach was adopted to provide an in-depth investigation of a single event (EMILIA intervention) within a real-life context to, amongst other things, explore causation. The case study approach provides a statistical framework for making inferences from quantitative case-study data (Yin, 2009) and it provides a framework for in-depth

qualitative investigation. The approach allows for the collection of both quantitative and qualitative data which facilitates methodological triangulation. Flyvbjerg's (2004, p. 425) extensive review found that the case study approach was effective in testing hypotheses and that it can "be central to scientific development via generalisation as a supplement or alternative to other methods." Tellis (1994) stated that a case study approach is a valuable method of research, with distinctive characteristics that make it ideal for investigating the effects of community-based interventions.

This thesis is similar to Cederbald & Hansson's (1996) SOC research study in that it utilises a combined quantitative and qualitative design and analysis. As advocated by Todd, Nerlich, Mckeown & Clark (2006) a pragmatic methodological approach was adopted for this thesis. It was the concrete research problem or aim rather than the philosophical position which determined the design employed. The employment of a combined qualitative-quantitative approach meets the recognition among many researchers of the need to establish the qualitative grounding of empirical research in order to increase its scientific value (see for example, Henwood & Pidgeon, 1992).

Due to the differing theoretical stances of the quantitative and qualitative approaches some researchers do not consider quantitative approaches to be worthwhile or other researchers do not consider qualitative approaches to be worthwhile, and some do not consider that the two approaches are complementary (Todd, et al. 2006). However, these attitudes are changing. Quantitative and qualitative methodologies are now more likely viewed as different techniques which can be combined in order to cancel out their respective weaknesses and gain from the possibilities of each method (Hammersley, 1995). As Harrè & Crystal (2004) stated:

A judicious combination of statistical analysis using data expressed in numerical form, and semantic and narratological interpretations can be a very powerful method of revealing the sources of regularities in psychological phenomena, combining the virtues of numerical analysis while avoiding the errors of blanket and unexamined assumption of a causal metaphysics. (p. 61)

Todd (2006, p.12) proposed that "using a mixed-method approach forces researchers to consider difficult issues" within their research. Using both quantitative and qualitative approach can lead to greater theoretical understanding of data (Chilton et al. 2006). As

Jumah (2006) concluded, a combined approach can enable a fuller explanation of a phenomenon. It also can be considered to be a form of triangulation.

Cohen & Manion (1986) defined triangulation as an: “attempt to map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint” (p. 254). Triangulation allows the: “cross-checking data from multiple sources to search for regularities in the research data” (O’Donoghue & Punch, 2003, p.78). Assessing the EMILIA intervention in relation to SOC qualitatively and quantitatively forms a type of triangulation: methodological triangulation (Denzin, 1970).

This study employed sequential explanatory design which consisted of two distinct phases: quantitative followed by qualitative (Creswell & Plano Clark, 2007; Creswell, Plano Clark, Guttman, & Hanson, 2003). The qualitative data was collected and analyzed second in the sequence to help explain and elaborate on the quantitative results. The quantitative data and analysis provide statistical explanations and the qualitative data and analysis were undertaken to provide a better understanding of the intervention and its effects by exploring participants’ feedback, self-reports and face to face interviews of their experience in depth (Creswell et al. 2007; Creswell et al. 2003). The qualitative analysis is used to consider the story behind the raw statistics.

The qualitative analysis was also used to help explain the possible mechanisms and processes underlying the quantitative results and as a guide to potential future SOC theory and application research. One of the aims of the thesis is to examine the EMILIA project qualitative results in relation to the SOC concept in order to reveal statements that provide a richer understanding of the concept of SOC. One of the goals of the thesis is to take up Antonovsky’s (1993a) suggestion of utilising alternative data collection techniques from that of his Orientation to Life Questionnaire which is used to measure SOC strength quantitatively.

6.1.4. The Intervention

The EMILIA learning intervention was structured so that it actively sought to make everyone feel as though they were part of the learning group. It had an introduction and welcoming meeting where all of the participants met each other and the tutors in a

relatively informal setting. All the tutors made efforts to provide as much information as they could about the project and to be as approachable as possible. Within the learning setting itself efforts were made for it to be less formal than a traditional school setting, e.g., students were based around a large tables rather than individual desks. Group activities and discussion were an integral part of the teaching approach in order to facilitate social interaction. After the core series of modules had finished all participants were invited to attend a social gathering where attendance certificates were awarded.

The EMILIA project intervention provided the following:

- A set of 3 core learning modules and one additional learning module
- A certificate stating the participants completion of the learning modules
- Learning support
- Opportunity for future participation in a ‘User Advisory Group’ for Middlesex University
- Opportunities for paid employment at Middlesex University, these include – teaching on mental health nursing courses, assessment of mental health nurse students, and assisting in mental health nurse student selection. Participants could still complete the learning modules without taking up any of these opportunities
- Training for the above opportunities
- Links to local colleges of further education
- The option of academic assessment to obtain Middlesex University credits for the EMILIA learning modules
- Membership of the ‘EMILIA Society’ which meets once a month to discuss opportunities open to EMILIA participants

Core learning modules:

- Building on Strengths and Personal Development Planning
- Empowering People in Recovery
- Service User Leadership and Advocacy

Additional learning module:

- User Research Skills

Descriptions of Modules

1. Building on Strengths and Personal Development Planning

The overall aim of this component was to provide people with an understanding of the ‘Strengths Approach’ and how they can apply this in their recovery. Other aims of the module were to enable trainees to explore the concepts of stigma, normality, social exclusion, disempowerment, labelling, and recovery; to explore the ‘Strengths Approach’ and how this aid recovery; to learn how to apply ‘Strengths Principles’; to learn how to appreciate life achievements; and to learn how to map strengths, achievements, and personal aspirations. Advance preparations included familiarity with the training plan for each session and familiarity with the EMILIA ‘Personal Development Plan’ (PDP) and availability of satisfactory paper copies of the PDP for each session. Participants were encouraged to keep their PDP and bring it to each session.

2. Empowering People in Recovery

The overall aim of this component was to provide people with an understanding of empowerment and associated concepts and how this knowledge can be applied to enhance recovery. To this end it aimed to increase empowerment to enhance recovery, increase sense of control, provide tools to cope with stigma, and to improve awareness of positive resources. Relevant topics included ‘Recovery and Empowerment’, ‘Themes on Metaphors’, ‘De-stigmatisation’, ‘Responsibility’, and ‘Being Empowered or Empowering Oneself’.

3. Service User Leadership and Advocacy

The overall aim of this component was to provide people with long term mental illness with leadership and advocacy skills and to increase their ability to apply these skills – specifically to promote service user development, skills acquisition and active participation, and to develop strategies for promoting the service user voice, strategies to strengthen service user participation in quality monitoring and to learn how to set up consultations.

The five themes of Service User Leadership and Advocacy were: ‘Belonging to a World-wide Community’, ‘Speaking from Experience’, ‘Working in Partnership with Service Providers’, ‘Supporting Leaders and Advocates’, and ‘Where do we go from here? Developing Positive Futures’.

4. *User Research Skills*

The overall aim of this component was to provide students with an opportunity to develop skills, knowledge and experience in research methods and to gain relevant work experience through their involvement in research project work. Students examined different research approaches, designs and methods and they considered ethical issues. As part of the course students carried out a literature review and designed, developed and carried out (or contributed to carrying out) a research project.

6.1.5. Participants

The EMILIA research protocol stated that its participants (and therefore the participants of this study) are mental health service users with a history of long-term mental illness, aged 18-64 and who are: “unemployed and marginalised in their local social and cultural context” (EMILIA, 2006a). Specifically, the inclusion criterion for the EMILIA projects’ research study was a diagnosis of schizophrenia F20 (ICD-10), schizoaffective disorder F25 (ICD-10), or bipolar disorder F30-F31 (ICD-10) and at least three years of using mental health services. The EMILIA intervention excluded those who had ‘real world’ employment (regular paid work of more than 18 hours a week) and those with a diagnosis of learning disabilities or dementia. The participants for this research study matched that of EMILIA except in the case of mental health diagnosis. This study did not exclude those who did not meet a diagnosis of schizophrenia F20 (ICD-10), schizoaffective disorder F25 (ICD-10), or bipolar disorder F30-F31 (ICD-10), it included participants whatever their mental health disorder diagnosis.

There were 22 participants (detailed information is in the table 3 below). There were 8 males (36%) and 14 females (64%) and their ages ranged from 28 to 62 years, with an average age of 46. They were mostly of British birth (77%); other countries of birth

included Sierra Leone, Pakistan, Canada, and Ireland. The number of years of contact with mental health services ranged from 3 to 36 years, with an average of 14 years. There was a range of different mental health disorder diagnosis. The primary diagnosis split into the following: bipolar disorders (36%), schizophrenia disorders (23%), depression (18%), Anxiety (9%), PTSD (9%), and personality disorder (5%). The diagnosis was determined by asking participants what their primary mental health disorder diagnosis was and checking with participants that this was their current diagnosis.

The opportunity of participation in the EMILIA project was offered to mental health service users and the participants are made up of those mental health service users who expressed a wish to take advantage of the learning and employment opportunities offered. The participants are, therefore, purposively rather than randomly selected. Mental health service users were given the opportunity to participate through information provided by mental health service user representatives acting for EMILIA and through meetings held by EMILIA project representatives at mental health services in the North London area.

Thirty eight potential participants completed baseline measures for the EMILIA project. There was dropout at various stages. Some did not start the training and others only attended for one or two training sessions. Twenty seven participants attended at least the equivalent of one full module. Of those who did complete a minimum of one module, five dropped out of the study: the drop-out rate was 18% at follow-up. One of the participants reported having left the area and did not wish to complete the follow-up measures, one did not respond to any means of contact, and two repeatedly failed to turn up to follow-up data collection appointments. The majority of the participants (over three quarters) who provided information for the follow-up measures completed the entire set of the core learning modules and over half completed the additional learning module. At the time of follow-up only two of participants had started taking up the paid opportunities offered through the EMILIA project. These paid opportunities were as part of the final year assessment panel on Middlesex University's nursing degree.

Table 2. Participant information

Name (names changed to protect identity)	Mental health disorder diagnosis	Age	Sex	Marital status	Years of contact with mental health services	Country of birth
Alvita	Bipolar disorder	47	F	Single	7	UK
Cathy	Personality disorder + depression + anxiety	46	F	Married	29	UK
Dawoh	Bipolar affective disorder	51	M	Married	11	Sierra Leone
Eric	Schizophrenia	39	M	Single	18	UK
Freya	Clinical depression	41	F	Single	4	UK
Grace	Schizoaffective disorder	41	F	Divorced	16	UK
Hilda	Bipolar affective disorder	37	F	Single	8	UK
Isabel	Bipolar disorder	40	F	Single	12	UK
Jameela	Bipolar disorder	28	F	Single	3	UK
Kay	Schizoaffective disorder	43	F	Single	23	UK
Lokesh	Schizophreniform illness	55	M	Married	12	Pakistan
Maria	Anxiety	48	F	Single	6	UK
Norris	Bipolar affective disorder	35	M	Single	9	UK
Olive	Premenstrual dysphoric disorder (PMDD)	61	F	Married	36	UK
Paulette	Bi-polar affective disorder	48	F	Divorced	29	UK
Rena	PTSD	62	F	Divorced	20	UK
Steven	Bi-polar + clinical depression + anxiety	43	M	Single	18	Canada
Tracy	PTSD	51	F	Married	5	Ireland

Una	Schizophrenia	60	F	Single	15	UK
Vincent	Depression	43	M	Single	3	UK
Warren	Anxiety + depression	48	M	Married	10	Ireland
Zack	Depression + anxiety	53	M	Married	5	UK

6.1.6. Research measures

Client Social-demographic and Service Receipt Inventory (CSSRI – EU manual EMILIA)

The EMILIA project used the Client Social-demographic and Service Receipt Inventory (CSSRI – EU manual EMILIA) to collect information on costs to society, e.g. health service use; personal circumstances, e.g. living situation; mental health related information, e.g. mental health disorder diagnosis; and sociodemographic data. This had been modified to fit the needs of the EMILIA project. The following description of the CSSRI adapted from the EU manual EMILIA (EMILIA, 2006a):

The Client Socio-demographic and Service Receipt Inventory – European version (Chisholm et al., 2000), which itself is an adaption of the CSSRI (Beecham & Knapp, 1992), was developed as an instrument for international research and is primarily concerned with monetary costing, as such it measures the use of a range of healthcare, social care and other services and state benefits. It also collects participants' demographic data. From this measure unit costs for use of particular services can then be calculated to give the total costs associated with each individual's use of services.

This present research reported the sociodemographic data from this measure, specifically: age, gender, marital status and country of birth. It also utilised the mental health related information: mental health disorder diagnosis and years of contact with mental health services.

Orientation to Life Questionnaire

Antonovsky (1987) developed a definition of SOC through a pilot study involving in depth interviews and follow-up interviews based around the question: “tell me about your life?” From these interviews Antonovsky and his colleagues independently classified each respondent on a ten point scale of SOC strength and then the respondents were reassigned to three categories: weak, moderate or strong SOC. Antonovsky and his colleagues reviewed the interviews to find elements that were common to one group but absent in another. This gave him an idea of the language that people used to express the three SOC factors: comprehensibility; manageability and meaningfulness.

From this analysis Antonovsky developed questionnaire questions that related to each of the three SOC factors using a facet design (Guttman, 1978 in Antonovsky, 1987). The facets that he selected were: “the modality of the stimulus (instrumental, cognitive, or affective), the nature of the demand it posed (concrete, diffuse, or abstract), and its time reference (past, present, or future)” (p. 77). From this Antonovsky developed a bank of 81 questions which were distilled down to 29 through repeated testing and analysis of the results of the questionnaire. Antonovsky (1987) provides a full explanation of the process of development and testing of the OLQ in his book: *Unravelling the Mysteries of Health*.

Eriksson & Lindström’s (2007) systematic review described the measurement of SOC as applicable in the evaluation of education/training and for use with both healthy people and people with serious illness and disabilities. The SOC concept measure employed for this research is the Orientation to Life Questionnaire (OLQ) abbreviated version SOC-13 (Antonovsky, 1987, See appendix 1). The SOC-13 is measured on a 7-point Likert-type scale where each item has two fixed contradictory responses at opposing ends of the scale, for example, very often/very seldom or never. Responses were assigned values from 0 to 6, with possible scores range from the lowest, 0, indicating the weakest possible level of SOC to the highest, 78, indicating the strongest possible level of SOC.

Various versions of shorter scales derived from the original SOC-29 measure have been used in studies on the SOC concept, but the 13 item subset version is the generally accepted short version. The three subscales are included: meaningfulness (4 items), manageability (4 items) and comprehensibility (5 items).

Feldt & Rasku (1998) investigated the structure of this version and stated that it could be conceptualised as the single general expectancy factor: SOC, consisting of three interrelated first order factors: meaningfulness, manageability and comprehensibility. In addition, Flannery, Perry, Penk, & Flannery (1994) used principle component analysis to provide construct validity of the SOC scale. Their results supported Antonovsky's hypothesis that it is constructed of the three components: manageability, comprehensibility and meaningfulness. Feldt et al. (2003) reported that the SOC-13 (Antonovsky, 1987) measure has relatively high structural validity and high stability; Hart, Hittner & Paras (1991) reported high validity; and Antonovsky (1993a), Callahan & Pincus (1995), and Pallant & Lae (2002) all reported a high level of reliability and content, face and construct validity.

More specifically, internal consistency testing has shown Cronbach's alpha scores ranging from .74 to .95 (Antonovsky 1993a; 1996a; Gallagher, Wagenfeld, Baro, & Haepers, 1994; Lundman & Norberg, 1993; Post-White et al., 1996; Volanen, Suominen, Lahelma, Koskenvuo, & Silventoinen, 2006). In 1996(b) Antonovsky reported that the scale showed reliability and validity across social classes, different cultures, ethnic groups, ages and both genders; and this is supported by Carstens & Spangenberg (1997) who found the SOC scale to be universally understandable and meaningful in both men and women, across social classes and in various countries. The SOC scale has been used across many cultures and has been translated into over 14 languages. Furthermore, Eriksson & Lindström's (2005) systematic review of all the versions of the SOC measure found that they were reliable, valid, feasible and cross-culturally applicable. Eriksson & Lindström also reported criterion-related validity data for the SOC, with strong positive correlations of SOC with self-esteem, quality of life and optimism, and strong negative correlations with anxiety and depression. They also reported moderate to good correlations with health measures such as the General Health Questionnaire, Health Index, Hopkin's Symptom Checklist and the Mental Health Inventory.

The SOC measure has been used in populations with similar the inclusion criteria to that of the EMILIA project, for example, Bengtsson-Tops & Hansson (2001). Using structured interviews of 120 outpatients with diagnosis of schizophrenia or a schizoaffective disorder over an 18-month period Bengtsson-Tops & Hansson measured the

construct validity measures of the 29 item SOC scale. To do this they compared SOC results with Pearlin's mastery scale, Rosenberg's self-esteem scale, the Interview Schedule for Social Interactions (ISSI), and the Brief Psychiatric Rating Scale (BPRS). For calculations of the predictive validity of SOC they used two health related measures: the Lancashire Quality of Life Profile (LQOLP) which assess quality of life, global well-being, satisfaction with health, affect balance, happiness, and self-esteem and also the Global Assessment of Functioning (GAF) which assess psychopathology and social functioning. They found that SOC was positively related to all health measures and that changes in SOC during an 18-month follow-up was positively correlated to changes in overall subjective quality of life, general health, global well-being, and global psychosocial functioning; and negatively related to psychopathology. Their results provide strong support for the construct and predictive validity of the SOC measure in individuals suffering from a diagnosis of schizophrenia or schizoaffective disorder.

SF-36 Version 2.0 (SF-36-v2)

SF-36 version 2.0 (SF-36-v2) (Ware et al., 2000) was employed by EMILIA to measure health related quality of life. The SF-36-v2 is the most widely used Health Related Quality of Life (HRQoL) measure. The SF-36-v2 is a 36 question generic self-report measure of functional health and well-being, psychometrically-based physical and mental health, and preference-based mental and physical health (Ware, 2006).

The SF-36-v2 yields an 8-scale profile of functional health and has been translated in more than 50 countries. The eight health domains are as follows: Physical Functioning (PF), Role Physical (RP), Bodily Pain (BP), General Health (GH), Vitality (VT), Social Functioning (SF), Role Emotional (RE), and Mental Health (MH). The scales themselves form higher level structures such as the conceptual construct devised in the original Medical Outcomes Study (MOS) in which the scales are combined to produce a physical health concept score (PCS) and a mental health concept score (MCS) (Ware et al., 1998). The PCS and MCS both have contributions from all eight scales, but with higher weights for the first four scales in the PCS and for the last four scales in the MCS. The SF, RE, and MH health domains enter with negative coefficients in the PCS, and the PF, RP, BP, and GH scales enter with negative coefficients in the MCS. These scales have become widely

used and have been found to have high reliability and statistically independent (Schmitz & Kruse, 2007; Ware, 2006). The PCS and MCS are calculated as follows: $PCS1 = 50.42402PFZ + 0.35119RPZ + 0.31754BPZ + 0.24954GHZ + 0.02877VTZ - 0.00753SFZ - 0.19206REZ - 0.22069MHZ$. $MCS1 = 0.22999PFZ - 0.12329RPZ - 0.09731BPZ - 0.01571GHZ + 0.23534VTZ + 0.26876SFZ + 0.43407REZ + 0.4858MHZ$. These two scales will be used in this study.

The SF-36-v2 was introduced in 1996 is an improved version of the SF-36. The SF-36-v2 is well established and has proven reliability and validity (Jenkinson, Stewart-Brown, Petersen, & Paice, 1999; Ware et al., 2000). Using both internal consistency and test-retest methods most studies have exceeded 0.80 reliability scores and studies to date have yielded content, concurrent, criterion, construct, and predictive evidence of validity (Ware, 2006). Meijer, Schene, & Koeter (2002) found slightly lower range of alpha coefficients in four studies done with people with psychosis but they were still acceptable with a range of 0.71-0.89.

Leese et al. (2008) reviewed the usage of and completed a study using the SF-36-v2 and found it to be suitable for patients with schizophrenia, depression, bipolar disorder and other severe mental health disorders. Furthermore Reine et al.'s (2005) review of health related quality of health measures revealed that the SF-36 was relevant for individuals with schizophrenia. The SF-36 is not without criticism though, Foster (2006) criticises the SF-36 in that it fails to assess sleep and social isolation. Other factors that are included in many widely-used quality of life surveys but are not included in the SF-36 are: cognitive functioning, sexual functioning, health distress, family functioning, self-esteem, eating, recreation/hobbies, communication, and symptoms/problems that are specific to one condition (Ware, 2006). Ware (2006, Validity section, ¶ 3) explains that:

To facilitate the evaluation of concepts not included, the SF-36 user's manuals include tables of correlations between the eight scales and the two summary measures and 32 measures of other general concepts (Ware et al., 1993; Ware et al., 1994), as well as 19 specific symptoms. SF-36 scales correlate substantially ($r=0.40$ or greater) with most of the omitted general health concepts and with the frequency and severity of many specific symptoms and problems. A noteworthy exception is sexual functioning, which correlates relatively weakly

with SF-36 scales and is a good candidate for inclusion in questionnaires that supplement the SF-36.

The SF-36 is constructed to reproduce longer scales and relative to the longer MOS measures the SF-36 has been shown to achieve about 80-90% of their empirical validity in studies involving physical and mental health criteria (McHorney, Ware, & Raczek, 1993). The SF-36 is a relatively short HRQoL measure and it is generally regarded as a gold standard, nevertheless, being a relatively short HRQoL measure it cannot capture all concepts connected to health related quality of life.

Qualitative Tools

The EMILIA (2006a) project handbook stated that the project will take a qualitative approach to evaluation in the areas of quality of life, empowerment and social inclusion. The tools to do this took the form of self-reports and key informant service user interviews. They were developed specifically for the project by senior researchers within the project.

The research manual (EMILIA, 2006b) stated that the aim of the self reports and key informant interviews were to explore: “participating service user’s experience of their process of striving toward greater social inclusion through lifelong learning and employment. The focus is the individual experience of the service users.” The specific aim of the self report was: “to provide the user with a self-reflective tool through the different stages of the project” and to help: “map personal aims, achievements, setbacks, and outcomes” (p. 9). The specific aims of the key informant questions were to help: “create understanding on how the service users experience the project, lifelong learning and working in mental health settings” and to investigate: “service users’ views on issues like the quality of life and social inclusion” (p. 12).

Both the self-reports and key informant service user interviews had a series of ten open ended questions which were designed specifically for the project and these focused on education, training, employment, unpaid activities and social networks in the preceding 12 months and also on barriers, difficulties, problems, and goals in the present and future. See appendix 9 and 10 for the complete listing of the self-report questionnaires and key informant service user interviews. Also see appendix 3 for EMILIA procedural rules for the use of these measures.

The other qualitative information collected for the project were the anonymous feedback forms filled-in by the participants and collected after the core EMILIA modules had been completed. The forms comprised a Likert scale rating aspects of the course (not utilised for this study) and two questions: “Overall, what were they good things about the course?” and, “What could be improved?”

6.1.7. Procedure

The quantitative and qualitative data was collected at the same point in time from each participant in accordance with EMILIA procedural rules (see Appendix 3). All participants went through a written consent procedure prior to the baseline interviews. The participants were asked to read the ‘participant information sheet’ (see appendix 4), provide details of their G.P. or Psychiatrist and read and sign a ‘duty of care letter to G.P. or psychiatrist’ (see appendix 6) and read and sign a ‘participant consent form’ (see appendix 5). Participants completed measures at baseline and at the 10 month follow-up. The five participants labelled as ‘key informant service users’ participated in the additional key informant semi-structured interviews at baseline and at the 10 month follow-up.

After baseline and before follow-up all the participants took part in the EMILIA intervention which consisted of providing participants with specifically designed learning modules and employment opportunities. Anonymous module feedback was obtained following the completion of the core modules. At a point approximately ten months after baseline data collection all participants completed EMILIA follow-up measures and the SOC-13 measure, and the key informant service users again participated in structured interviews. All of the data was collected by the thesis author with no assistance.

Additional Procedural Information for the Qualitative Aspect of the Study

The follow-up data that took the form of self-reports and key informant service user interviews were collected over an eight week period during summer 2008. For the ‘key informant service user’ interviews the format employed was a digitally recorded face to face interview. Interviews lasted between 15 and 30 minutes and all of the data was

collected by a single interviewer (the author) with no assistance. The interview was semi-structured to encourage two-way communication and to enable fuller answers to be provided and clarification of any answers given. The interviewer asked the questions in order stated listed (see appendix 9 and 10).

When completing self-reports the participants were given the choice of writing the answers on a piece of paper, typing them into a computer or having their answers digitally recorded in a face to face interview. If an interview approach was chosen then the same procedure was employed as for the key informant service user interview. Once all the questions were completed the interviewer thanked the interviewee for their time and contribution.

The module feedback forms were collected after the three core modules had been run. They were collected anonymously.

Ethical Permission

Ethical permission to conduct this thesis research was obtained through The Institute of Psychiatry, King's College, London. The details of the thesis were sent to The Institute of Psychiatry, King's College, London and permission was granted for this present research to be conducted. Ethical approval documents are held by The Institute of Psychiatry but it is not possible to obtain copies of these due to a dispute between the EMILIA project and The Institute of Psychiatry. This project was given a favourable ethical opinion for conduct in the NHS and at Middlesex University by Barnet, Camden and Islington Research Ethics Committee on 3 November 2006 (see appendix 7).

6.1.8. Statistical Analysis

Statistical analysis utilising the software programme SPSS (SPSS for Windows, 2007) was conducted using the data from the quantitative measures. SPSS was chosen due to its accessibility, availability of printed manuals, ability to conduct the required analysis and because it is a very well established system for statistical analysis. Specific statistical techniques were chosen following the preliminary analysis of the data. The tests chosen were paired-samples t-test and Pearson product-moment correlation coefficient. P-values

were two-sided and considered significant at < 0.05 . In addition, the effect sizes were calculated by using eta squared effect size statistic.

Power analysis using Power and Precision (2008) Version 2 software was employed to estimate numbers of participants required to achieve statistical significance for a result which was outside of the p-value set. Power and Precision was chosen because of the researcher's previous experience of this system and because it is a well established programme which provides very clear presentation of results.

6.1.9. Qualitative Methodology

This section of the thesis will explain the qualitative methodology that was chosen and why I chose it. It will also provide clarity on the process and practical methods involved and how I conducted the analysis.

Method of Analysis

Thematic analysis was employed to analyse the qualitative data. Thematic analysis is a method for identifying, discovering, analysing and reporting patterns (themes) within data. Thematic analysis is essentially independent of theory and epistemology, and it can be applied across a range of theoretical and epistemological approaches (Braun & Clarke, 2006). Braun & Clarke (2006) stated that: "Through its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data" (p. 78). Thematic analysis is employed here to identify and provide a detailed account of themes related to SOC and the EMILIA intervention.

Advantages of thematic analysis (Braun & Clarke, 2006, p. 97):

- Flexibility.
- It can usefully summarize key features of a large body of data, and/or offer a 'thick description' of the data set.
- It can highlight similarities and differences across the data set.
- It can generate unanticipated insights.

- It allows for social as well as psychological interpretations of data.
- It can be useful for producing qualitative analyses suited to informing policy development.

Paradigm/Method

A gestalt holistic method of enquiry was adopted with an emphasis placed on the interdependence of factors in the data (Barber, 2006). The data was viewed holistically; as integrated and interrelated rather than dislocated separate parts.

There was an underlying belief in the interdependency of human existence within a humanistic existential paradigm. Central to humanistic existential philosophy is meaningfulness and our connection to cultural and social milieu (Merleau-Ponty, 1962). Humanistic existential philosophy contends that we co-exist with others and are situated players in open-ended social relationships (Merleau-Ponty, 1962). An existentialist paradigm/method is adopted whereby the experiences, meanings and reality of the participants are reported – thematic analysis is used to reflect reality (Braun & Clarke, 2006).

The assumption is made that language reflects and enables a participant to articulate meaning and experience. This study's participants were not considered to be neutral observers but rather that they express through language their lived experience. This is opposed to constructivist perspective in which meaning and experience are socially constructed (Burr, 1995).

Approach and A Priori Themes Identified

This research utilised a deductive 'top down' approach. No emergent categories were recorded in this analysis – only data that fitted into the a priori categories. A single theme was identified before the research analysis was conducted. This was SOC and the EMILIA intervention. This single theme was broken down into eight a priori sub-themes to ease the process of coding the data. These were identified from the literature review contained in chapter 4: Learning, Mental Health Service Users, the EMILIA Intervention and Sense of Coherence. The themes were as follows:

1. Learning, teaching and training

2. Employment
3. Social networks
4. Success
5. Failure
6. Mental health issues
7. Goals
8. Internal resources

A theme was considered to be: “an abstract entity that brings meaning and identity to a recurrent experience and its variant manifestations. As such, a theme captures and unifies the nature or basis of the experiences into a meaningful whole” (DeSantis & Ugarriza, 2000, p. 362).

A priori themes were developed from the researcher’s prior theoretical understanding of the phenomenon under study, from the characteristics of the phenomenon being studied; through literature reviews; and from the researchers humanistic existential orientation (Bulmer 1979; Strauss 1987; Maxwell 1996, in Ryan & Bernard, 2003). Ryan & Bernard (2003, p.88) stated:

Strauss and Corbin (1990:41–47) called this theoretical sensitivity. Investigators’ decisions about what topics to cover and how best to query informants about those topics are a rich source of a priori themes (Dey 1993:98). Unlike pure literature reviews, these themes are partly empirical.

This explanation of the use of a priori themes highlights one of the possible weaknesses of this approach: that it is, to some extent, subjective. It is vulnerable to bias: the creation of a priori themes is vulnerable to subjective interpretations. Another weakness is that an a priori approach is not always comprehensive. In some cases, it is simply impossible to incorporate all possible themes. Further possible weaknesses with this approach are discussed in the section entitled: ‘Limitations’.

The Level at Which the Themes are Identified

Themes are identified at both a semantic/explicit and latent/interpretive level (Braun & Clarke, 2006). In terms of the SOC mechanisms and GRRs/GRDs there was an attempt to

theorise the significance of themes and their meanings and implications in relation to previous research and theory (semantic approach). In terms of SOC theory there was an attempt to examine underlying conceptualisations (latent approach). This analysis was not just descriptive: it was already theorised. The SOC concept was theorised as underpinning what was actually articulated in the data.

Analysis Procedure

A five phase analysis in a recursive process based on the guidelines provided by Braun & Clarke (2006) was employed. There was a continuous process of cross referral between the data and the developing analysis (Mays & Pope, 1995; Stiles, 1993). Key standards of validity for this analysis included coherence of the final analysis (Stiles, 1993), its ability to account for all relevant data, its ‘theoretical validity’ i.e. connection with theoretical ideas, and catalytic validity (Guba & Lincoln, 1989), i.e. the utility of the analysis in identifying implications for research that can be tested in clinical practice and wider applications.

Phase 1: Data immersion

The self reports (when completed as recorded interviews) and key informant service user interviews were transcribed by the interviewer as soon as possible following the interview. As described by Lapadat & Lindsay (1999) this in itself was an interpretive act requiring meaning to be generated rather than the automated act of converting spoken word into written word. Careful attention was paid to ensure that the transcription was as true as possible to the original nature and meaning of what the interviewee was trying to convey. Any missing words and additional explanatory wording were added where necessary (using brackets to indicate addition). All of the data was repeatedly read by the researcher in an active way – making a note of any meanings, patterns, emergent ideas, etc. through memo writing.

Phase 2: Generating initial codes

The data was coded to identify meaningful segments of the data. Focused coding was generated in analyzing the interview data. The focused coding was guided by the a priori themes. Each coded section of data was examined to see whether it could be placed in

multiple categories or one category. Every line and page was numbered to facilitate the process. The 'find' function of the word processing programme was used to search the computer stored transcripts for key phrases. This process was repeated a number of times after reflecting on the findings made. This enabled comparisons and connections to be made between codes and from the codes to the themes (Charmaz, 2006). Memo writing continued throughout the analysis process.

Phase 3: Searching for themes

The codes were matched to appropriate pre analysis generated themes.

Phase 4: Reviewing themes

This involved reviewing at the level of the coded data extracts: reading all the collated extracts for each theme and considering whether they formed a coherent pattern. If they did form a coherent pattern the validity of the themes were considered in relation to the data set.

Phase 5: Writing up of analysis

The story of the data was explained using coded extracts as illustration. The extracts were chosen to be representative of information in the data and to illustrate relevance to SOC and the EMILIA intervention. Arguments were made in relation to the research question.

CHAPTER SEVEN

7.1. Results of Combined Quantitative and Qualitative Study

This chapter presents the results of the first research strand of this thesis: the combined quantitative and qualitative study. It starts by detailing the choice of parametric tests and results of preliminary analysis to determine whether the data met parametric assumptions. It then moves on to explain the consideration given to the use of non-parametric tests before presenting the quantitative results of the combined study. The chapter concludes by presenting the qualitative results of coding and analysis.

7.1.1. Introduction to Parametric Tests Employed

T-tests are suitable for small sample sizes such as in this present study because unlike z tests they compensate for the increasing uncertainty of small sample sizes. A two-tailed significance level of $p < .05$ was set for all tests. This study's data sets were screened to determine that they met parametric assumptions for paired-samples t-tests. Histograms and normal probability plots were checked for normal distribution, detrended normal Q-Q plots were checked for cluster points, boxplots were used to check for outliers, skewness and kurtosis figures were checked, and the Shapiro-Wilk test was used to check normal distribution.

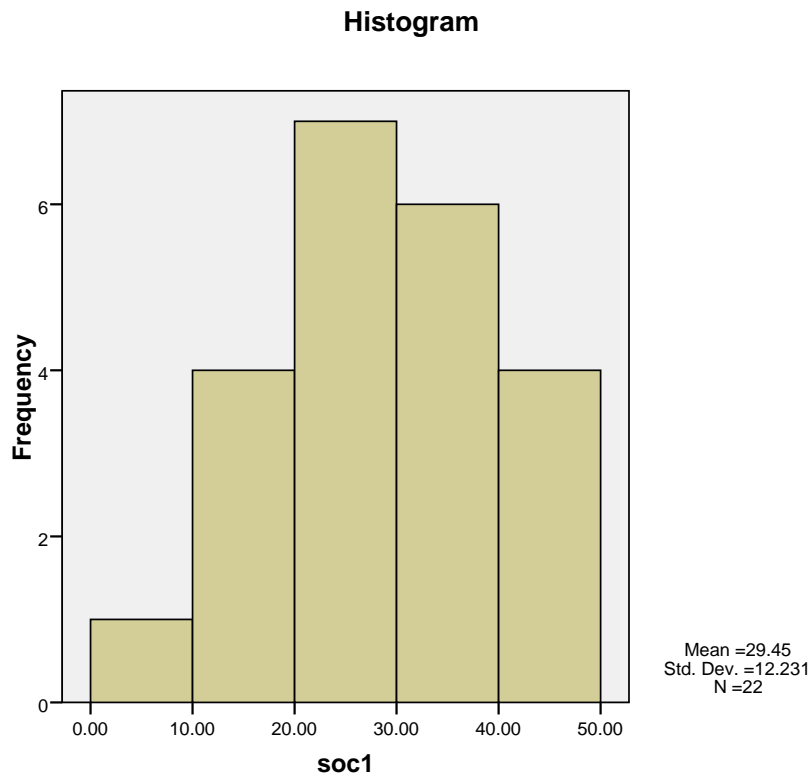
Pallant (2007) recommends using Shapiro-Wilk test in samples of 50 or below. In all cases the Shapiro-Wilk test showed significance bigger than .05, indicating reasonably normal distribution for the t-tests employed. The Shapiro-Wilk tests were as follows (baseline listed first and then follow-up result): SOC $W = .97, p = .63$ and $W = .98, p = .95$, meaningfulness $W = .97, p = .74$ and $W = .99, p = .99$, mental health related quality of life

$W = .97, p = .67$ and $W = .94, p = .15$, and physical health related quality of life were $W = .98, p = .84$ and $W = .97, p = .70$.

Preliminary analyses were performed to ensure no violation of the assumptions of linearity and homoscedasticity before Pearson product-moment correlation coefficients were calculated. This analysis included inspection of scatterplots for outliers and distribution of data points. The results revealed that the data set met assumptions required for Pearson product-moment correlation coefficients.

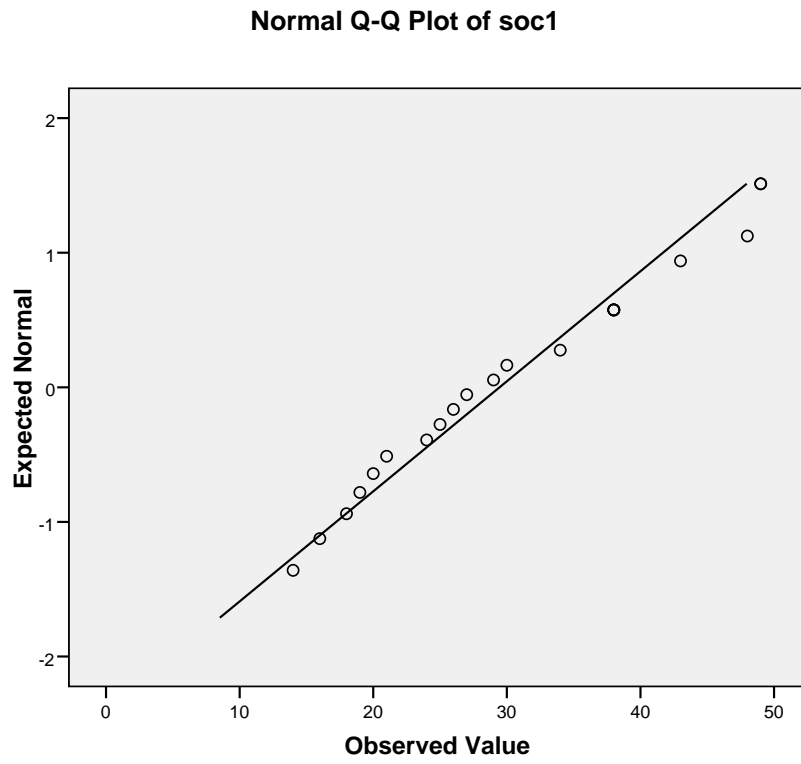
Examples of the preliminary analysis of SOC scores:

Figure 5. Histogram of SOC scores at baseline



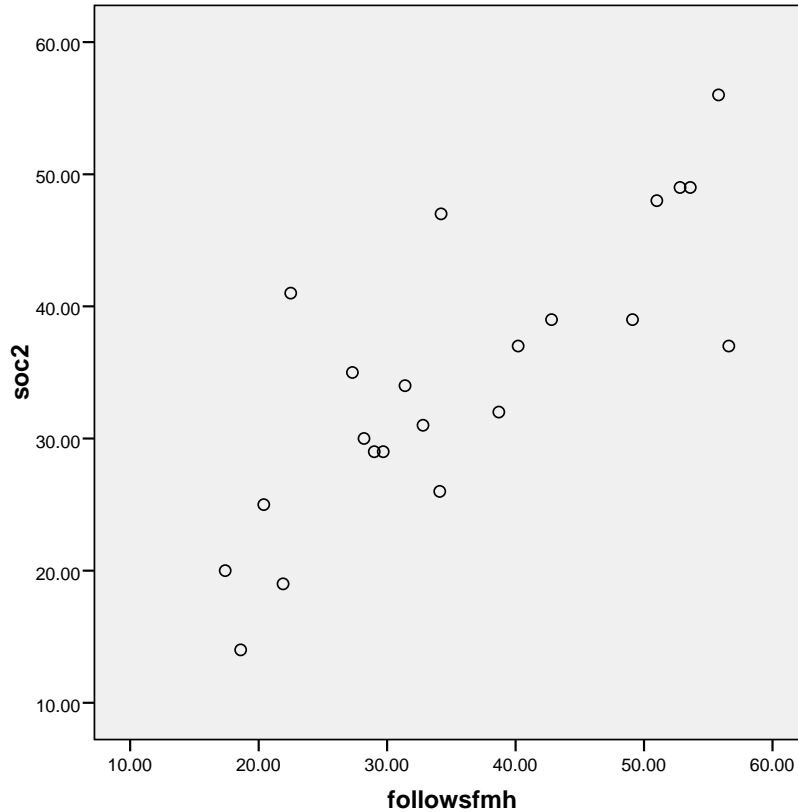
Graph label: **soc1** = SOC scores at baseline

Figure 6. Normal Q-Q Plot of SOC scores at baseline



Example of the preliminary analysis of SOC correlation with SF-36-v2 mental health related quality of life:

Figure 7. Scatterplot of SOC correlation with SF-36-v2 mental health related quality of life



Graph labels:

soc2 = SOC scores at baseline

followsfmh = SF-36-v2 scores for mental health related quality of life at follow-up.

7.1.2. Consideration of Non-Parametric Wilcoxon Signed Rank Tests

This thesis considered the use of non-parametric tests instead of parametric t-tests. It found that criticisms of non-parametric procedures included loss of precision and lower power (Pallant, 2007). When using nonparametric tests with data from a Gaussian population in

smaller samples the p values tend to be too high: the non-parametric tests lack statistical power with smaller samples (Motulsky, 1995). This is demonstrated by this present study's analysis. Non-parametric Wilcoxon Signed Rank tests were run on the main results (SOC and meaningfulness component of SOC), and although the test did detect significance in relation to SOC ($z = 2.30, p = .022$) it did not detect significance at .05 in relation to the meaningfulness component ($z = 1.76, p = .079$).

It was found that the t-test is considered to be robust in that it can be employed despite certain violations of parametric assumptions. Rasch, Teuscher, & Guiard (2007) stated: "the t-test is so robust against non-normality that there is nearly no need to use the Wilcoxon test in comparing expectations" (p. 2706).

7.1.3. Quantitative Results

Homogeneity

To evaluate sample homogeneity independent sample t-tests were conducted to compare gender, age (above v. below median), and diagnosis (meeting EMILIA ICD-10 inclusion criteria v. others) group differences in scores at baseline for SOC, meaningfulness factor of SOC and the two SF-36-v2 sub-scores (MCS and PCS). The results are presented in Tables 4, 5 and 6. Results indicated that there were no significant differences except in the case of age in relation to physical health related quality of life.

Table 3. Gender: results of homogeneity independent sample t-tests

	Mean: males	Std. deviation	Mean: females	Std. deviation	Df	T	Sig. (2-tailed)
SOC-13	33.25	11.84	27.29	12.34	20	- 1.11	.28
SOC-13 Meaningfulness	11.62	5.80	9.71	5.88	20	-.74	.47
SF-36-v2 scale – MCS	35.19	10.26	32.86	9.13	20	-.55	.59
SF-36-v2 scale – PCS	45.20	11.86	44.14	9.76	20	-.23	.82

Table 4. Age: results of homogeneity independent sample t-tests

	Mean: age above median	Std. deviation	Mean: age below median	Std. deviation	Df	T	Sig. (2-tailed)
SOC-13	30.82	10.41	28.09	14.20	20	.51	.61
SOC-13 Meaningfulness	11.73	4.84	9.09	6.56	20	1.07	.30
SF-36-v2 scale – MCS	36.26	8.85	31.15	9.59	20	1.30	.21
SF-36-v2 scale – PCS	39.38	9.25	49.66	8.89	20	- 2.66	.015*

*significant at >.05

Table 5. Diagnosis: results of homogeneity independent sample t-tests

	Mean: EMILIA ICD-10	Std. deviation	Mean: non EMILIA ICD-10	Std. deviation	Df	T	Sig. (2- tailed)
SOC-13	31.62	14.36	26.33	8.05	19.38	1.1	.29
SOC-13 Meaningfulness	10.92	5.84	9.67	5.98	20	.492	.63
SF-36-v2 scale – MCS	34.84	9.45	32.08	9.58	20	.67	.51
SF-36-v2 scale – PCS	45.16	9.08	43.60	12.38	20	.34	.74

Sense of Coherence

The impact of the EMILIA intervention on participants' scores on the abbreviated sense of coherence checklist: SOC-13 was evaluated. Results revealed that there was a significant increase in SOC-13 scores from baseline ($M=29.54$, $SD=12.23$) to a 10 month follow-up point ($M=34.82$, $SD=10.80$), $t(21)=-2.58$, $p=.017$ (two-tailed). The mean increase in SOC-13 scores was 5.36 with a 95% confidence interval ranging from -9.69 to -1.04. The eta squared statistic (.24) indicated a large effect size.

Meaningfulness

The impact of the EMILIA intervention on participants' scores on the meaningfulness component of the abbreviated sense of coherence checklist: SOC-13 was evaluated. Results revealed that there was a significant increase in the meaningfulness component of the SOC-13 scores from baseline ($M=10.41$, $SD=5.79$) to a 10 month follow-up point ($M=12.36$, $SD=5.70$), $t(21)=-2.19$, $p=.04$ (two-tailed). The mean increase in SOC-13 scores was 1.95 with a 95% confidence interval ranging from -3.81 to -0.1. The eta squared statistic (.19) indicated a large effect size.

Mental health related quality of life

The impact of the EMILIA intervention on participants' scores on the mental health related quality of life (SF-36-v2 scale – MCS) was evaluated. Results revealed that there was not a significant increase in the mental health related quality of life from baseline ($M=33.71$, $SD=9.38$) to a 10 month follow-up point ($M=35.82$, $SD=12.75$), $t(21)=-.72$, $p=.48$ (two-tailed). Power analysis was conducted on this t-test to reveal a sample size that would have possibly provided a significant result at $p > .05$ (power set at .95). Sample size analysis revealed that a sample size of a minimum of 563 participants would have provided a significant result at $p > .05$.

The relationship between sense of coherence (SOC-13 scale) and mental health related quality of life (SF-36-v2 scale – MCS) was investigated by using Pearson product-moment correlation coefficient. There was a strong positive correlation between SF-36-v2 mental health related quality of life and SOC-13 scores at both baseline $r = .689$, $n = 22$, $p < .001$ and follow-up $r = .792$, $n = 22$, $p < .001$. There was also a strong positive correlation in the between change in sense of coherence and mental health related quality of life $r = .511$, $n = 22$, $p < .05$.

The relationship between sense of coherence (measured by the SOC-13 scale) and the mental health (MH) component the SF-36-v2 scale was also investigated by using Pearson product-moment correlation coefficient. There was a strong positive correlation between SF-36-v2 mental health component and SOC-13 scores at both baseline $r = .809$, $n = 22$, p

< .0005 and follow-up $r = .805$, $n = 22$, $p < .0005$. There was also a strong positive correlation in the between change in sense of coherence and mental health related quality of life.

The relationship between sense of coherence component of meaningfulness (SOC-13 scale) and mental health related quality of life (SF-36-v2 scale - MCS) was investigated by using Pearson product-moment correlation coefficient. There was a positive correlation between SF-36-v2 mental health related quality of life and meaningfulness component of SOC-13 scores at baseline $r = .483$, $n = 22$, $p = .023$ and but not at follow-up $r = .329$, $n = 22$, $p = .135$.

Physical Health Related Quality of Life

The impact of the EMILIA intervention on participants' scores on physical health related quality of life (SF-36-v2 scale - PCS) was evaluated. Results revealed that there was a not a significant change in the physical health related quality of life from baseline ($M=44.52$, $SD=10.30$) to a 10 month follow-up point ($M=44.17$, $SD=9.62$), $t(21)=.21$, $p=.84$ (two-tailed).

The relationship between sense of coherence (SOC-13 scale) and physical health related quality of life (SF-36-v2 scale - MCS) was investigated by using Pearson product-moment correlation coefficient. There was not a significant correlation between SF-36-v2 physical health related quality of life and SOC-13 scores at both baseline $r = .311$, $n = 22$, $p=.158$ and follow-up $r = .101$, $n = 22$, $p=.655$.

The Eight SF-36-v2 Health Domains

Paired-samples t-tests were conducted to evaluate the impact of the EMILIA intervention on participants' scores on the eight SF-36-v2 health domains. Results revealed that there was not a significant change in any of the eight health domains, see table 7.

Table 6. Paired-samples t-tests: SF-36-v2 health domains

	Mean – baseline	SD – baseline	Mean – Follow-up	SD – Follow-up	t(21)	p (two-tailed)
PF	42.00	11.73	45.83	10.64	-1.58	.13
BP	45.77	11.87	43.45	11.69	1.01	.30
RP	40.09	11.96	37.68	11.41	.85	.40
GH	37.59	8.98	38.69	10.95	-.69	.50
VT	40.4	9.83	41.20	11.98	-.45	.66
SF	34.77	10.15	36.75	12.17	-.78	.44
RE	34.16	7.63	36.45	11.18	-.79	.44
MH	36.31	9.45	37.71	13.14	-.51	.62

Comparisons of SF-36-v2 score means are presented in Table 8. The first two SF-36-v2 health domains are for the mental and physical quality of life scores - both figures were lower than the set population norm. As was to be expected from the study's population the mental health quality of life score was lower than the mean physical health quality of life score. The SF-36-v2 health domains listed 1-4 comprise part of the physical health quality of life score (PCS) and health domains listed 5-8 comprise part of the mental health quality of life score (MCS) – all of these scores were lower than the set population norm.

Table 7. Comparison of SF-36-v2 means

SF-36-v2 domains of health ↓	US population (norm-based scoring)*	Participants baseline	Participants follow-up
Mental health related quality of life (MCS)	50	33.71	35.82
Physical health related quality of life (PCS)	50	44.52	44.17
1- Physical Functioning (PF)	50	42.00	45.83
2- Bodily Pain (BP)	50	45.76	43.45
3- Role Physical (RP)	50	40.09	37.68
4- General Health (GH)	50	37.59	38.69
5- Vitality (VT)	50	40.03	41.20
6- Social Functioning (SF)	50	34.77	36.75
7- Role Emotional (RE)	50	34.16	36.45
8- Mental Health (MH)	50	36.31	37.71

* Norms are based on data from the 1998 National Survey of Functional Health Status (NSFHS) and norm-based scoring (NBS) algorithms which were introduced for all eight scales with the introduction of version two of SF-36 (Ware et al., 2000). The UK norms for this instrument are not sufficiently robust for such a purpose (Bowling, Bond, Jenkinson, & Lamping, 1999). Following standard practise, the 1998 US national norms are used as the comparator for this instrument.

Comparison of Male to Female Sense of Coherence Scores

Comparison of SOC male to female score means is presented in table 9 and comparison of SOC male to female score means mean differences to the general population are presented table 10. Overall male SOC scores were slightly higher but the female SOC scores showed the greatest gains from baseline to follow-up.

Table 8. Comparison of sense of coherence means

	General population mean SOC*	Participants baseline mean SOC	Participants follow-up mean SOC
All participants	65.16	29.45	33.07
Male only	65.6	33.25	37.88
Female only	64.8	27.29	34.82

Table 9. Comparison of sense of coherence mean differences

	General population mean SOC*	Participants baseline SOC mean difference to general population	Participants follow-up SOC mean difference to general population
Male + female	65.16	-35.71	-32.09
Male only	65.6	-32.35	-27.72
Female only	64.8	-37.51	-29.98

* Population means are from Konttinen et al. (2008). This is a Finnish study and is the most recent large scale population study reporting SOC scores. The study comprised 2351 men and 2291 women aged 25 to 74. No recent large scale population figures were available from the UK.

7.1.4. Qualitative Results of Coding and Analysis

Sections of coded data were found relating to all of the a priori sub-themes. Table 10 summarises interview data that relate to each of the a priori sub-themes. The results of the thematic analysis are described in detail in relation to the overall a priori theme of ‘SOC and the EMILIA intervention’ in the next chapter (under the heading: Qualitative Results, Analysis and Discussion), and examples of extracts relating to each sub-theme are presented.

Table 10. Summary of coded extracts related to subthemes

Sub-themes	Coded extract summary
Learning, teaching and training	<p>The largest proportion of comments related to learning, teaching and training, for example comments relating to:</p> <ol style="list-style-type: none"> 1. Skills learnt and applied 2. Identifying, accessing and mobilizing resources 3. Components and practical delivery of the EMILIA learning modules 4. Overload/underload balance 5. Mental health service user led EMILIA training
Employment	<p>Many participants made comments relating to gaining employment or increased hours of employment and the benefits that they derived from this. References were made to:</p> <ol style="list-style-type: none"> 1. Paid employment 2. Voluntary employment 3. Self employment
Social aspects	<p>Comments related to social aspects of EMILIA included:</p> <ol style="list-style-type: none"> 1. Social support 2. Social networks 3. Friendships 4. Social interaction 5. Shared experience and knowledge between peers
Success	<p>There were references to success in relation to:</p> <ol style="list-style-type: none"> 1. EMILIA training 2. Recovery

	<ol style="list-style-type: none"> 3. Improved social aspects of life 4. Less in denial 5. Active engagement in life
Failure	<p>There were references to failures in relation to:</p> <ol style="list-style-type: none"> 1. Negative aspects of social contacts and interactions 2. Failure to engage fully in learning experience due to impact of mental illness and side effects of drugs to treat mental illness 3. Negative impact of EMILIA, e.g. increased stress and personality clashes
Mental health issues	<p>Comments included references to:</p> <ol style="list-style-type: none"> 1. Recovery 2. Support and counselling during the training 3. Impact of mental illness and side effects of drugs for mental illness on the learning experience
Goals	<p>Participants referred to many goals that they discovered, developed or focused upon through their experience of EMILIA, including:</p> <ol style="list-style-type: none"> 1. To succeed in education 2. Gain voluntary employment 3. Gain paid employment 4. Work in the field of mental health 5. To be more assertive 6. Build further social relationships 7. Acquire new skills 8. Make further progress in recovery
Internal resources	<p>Various internal resources were referred to:</p> <ol style="list-style-type: none"> 1. Confidence 2. Dignity 3. Sense of importance 4. Sense of self 5. Future orientation 6. Appreciation of the value of experience 7. Empowerment 8. Hope for the future 9. Purpose in life

CHAPTER EIGHT

8.1. Discussion: Combined Quantitative and Qualitative Study

The chapter discusses the results of the combined quantitative and qualitative study. Firstly a discussion of the quantitative results is presented, taking into account that there was not a control group for this study, and then the qualitative analysis is discussed in relation to the quantitative results. The conclusion to this discussion presents possible implications of the results and following this limitations pertaining to the research study are laid out. Finally this chapter moves on to discuss potential future research.

8.1.1. Quantitative Results Discussion

The results of this study showed that SOC significantly increased following the EMILIA intervention, this matches the research prediction and is the main outcome. This result suggests that SOC may be raised by an intervention with the goals of improving empowerment and social inclusion through the provision of lifelong learning and employment opportunities.

The literature review revealed that the SOC of those experiencing mental health disorder can be increased through psychoanalytic therapy (Blomberg et al., 2001), music therapy (Kørllin, & Wrangsjø, 2002), talk therapy groups based on salutogenic principles (Langeland et al., 2006), and health service treatment for major depression (Skärsäter et al., 2008). This present study's results suggest that an intervention providing lifelong learning and employment opportunities can be added to that list.

Even though the average SOC scores of participants in the present study increased significantly at the data follow-up point, the mean scores of the participants were still below the mean scores for a general population (Konttinen et al., 2008). Not one of the participants in the study reached the mean score for a general population. This indicates

that the EMILIA intervention is insufficient in itself to raise SOC of its participants to mean levels for a general population. It indicates that further SOC promoting interventions are required to raise SOC.

These results point to the continuing negative effect described in chapter 3 that having severe and enduring mental illness can have on SOC strength. It may be that in the future, as some of the participants continue along a road of improved recovery, levels of SOC will increase further. It is not possible to say whether some participants' SOC will reach a level of a general population mean nevertheless Antonovsky (1979; 1987) states the possibility of people to increase their SOC throughout their lives. However, other factors such as mental health relapses will possibly cause some participants to experience a weakening of their SOC.

The EMILIA project handbook (2006a) asserts that people with serious and enduring mental illness have the same rights as others to lifelong learning and employment opportunities and this study's results point to the possibility that these opportunities can be beneficial. The result suggesting that the EMILIA intervention can strengthen the SOC of its participants point to the possibility that formal lifelong learning such as the EMILIA learning modules can form part of increased GRRs. The results imply that the project may have enhanced participants' ability to manage potentially stressful situations. The results provide evidence for the direct positive effect of formal learning on individuals' SOC shown by Suominen et al. (1999).

In his final article Antonovsky (1996) looked towards the future. He believed that if participants experience an intervention that shows a statistically significant increase and an increase of five points or more in SOC-29 (participants in the EMILIA study showed an increase of over eight points when scores were converted to SOC-29 scores) then this would not just be statistically significant but also would be so in the substantive sense, i.e. significant to the lives of the individuals experiencing the strengthening of their SOC. As the designer and foremost expert on the SOC scale his view in relation to this helps confirm that results achieved by the EMILIA project may be substantial. The importance of such increases in SOC is demonstrated by Berg & Andersen's (2001) study into the mortality rates of substance abusers 5 years after detoxification and counselling. This showed that there was an increased risk of dying in the observation period with lower SOC scores.

This present study's results also suggest that the meaningfulness factor of SOC significantly increased following the EMILIA intervention, which matches the research prediction. As the literature review revealed, a strong sense of meaningfulness is connected with hope, motivation, personal responsibility, purpose in life, well-being, a sense of self and recovery. The literature review also revealed that the strength of meaningfulness is important in combating the emergence and negative effects of psychopathology (chapter 3). These associations point to the rise in meaningfulness seen as a very good indication of the possible positive effect of the EMILIA project.

Lifelong learning is very important in creating positive development cycles that allow an individual to progress in their lives (Feinstein & Hammond, 2004). The thesis' literature review described the links between the process of learning and the process of dealing with problems which are potential stressors. If the project helped develop the ability to learn more effectively, i.e. increasing the learning capacities described by Antonovsky (1991) (self regulation, symbolising, vicarious learning, forethought, and self reflection), then the EMILIA training may have helped develop individuals' capacity to acquire the necessary skills and knowledge to help them deal more effectively with problems that they face in their lives. The increase in SOC points towards the possibility that this was the case.

The research prediction that SOC at baseline and following the EMILIA intervention would be positively related to mental health related quality of life was supported. The result provides support for that of Fok et al. (2005) who found that SOC was significantly positively associated with SF-36 measured mental health related quality of life in patients who experienced critical illness. The result also partially (partial because it is a measure of health related quality of life not just health) supports the findings of a systematic review of the correlations between SOC and general health by Flensburg-Madsen et al. (2005).

The result strengthens the proposed relationship put forward by Antonovsky (1979) between SOC and mental health. In terms of quality of life the results provide partial support for links between SOC and quality of life in Motzer & Stewart (1990) (survivors of cardiac arrest), Holmberg et al. (2004) (rural males across Sweden), Soderman et al. (2001) (patients with Meniere's disease) and Bengtsson-Tops & Hansson (2001) (patients with a diagnosis of either schizophrenia or schizoaffective disorder living in the community).

Again it is only partial support for quality of life related research because the SF-36 measure employed here is a health related quality of life measure.

The present study's results also reflect the conclusion of Eriksson & Lindstrom's (2007) systematic review that the stronger the SOC the better the quality of life and that SOC is predictor of an individual's quality of life. This present study's result extends this review's findings of a relationship between SOC and quality of life to a population of mental health service users in relation to mental health related quality of life.

The research prediction that changes in SOC following the EMILIA intervention would be positively related to changes in mental health related quality of life was supported. This finding partially supports those of Bengtsson-Tops & Hansson (2001). However, it should be noted that Bengtsson-Tops & Hansson's study found that SOC changes were related to changes in quality of life, general health and global psychosocial functioning rather than mental health related quality of life. Their study also employed an 18 month follow-up rather than the present study's 10 month follow-up. This present study's result may help extend the relationship between SOC and health and quality of life to a group of mental health service users with a variety of mental health issues and it supports the predictive validity of SOC.

This study's findings suggesting a strong relationship between SOC and mental health related quality of life provides fuel for the debate concerning the measure of SOC and the strength of its association with psychological distress and specifically affective traits (Amelang, 1997; Breslin et al., 2006; Geyer, 1997; Gruszczynska, 2006; Kivimaki et al., 2000; Konttinen et al. 2008; Korotkov, 1993; Sandell et al., 1998; Schnyder et al., 2000; Langeland & Wahl, 2009). In analysing this debate the conclusion was that although there are strong associations between SOC and psychological distress this relationship does not fully explain SOC. Affective traits are a factor in mental health related quality of life; however, they are only one of many factors that determine mental health related quality of life. This study's finding of strong correlations between this measure and SOC supports the argument that SOC is determined by a multiplicity of factors. The result helps dispel the argument that SOC is merely a measure of psychological distress.

The results suggest that the meaningfulness component of SOC, as measured by SOC-13, is positively related to SF-36-v2 mental health related quality of life at both

baseline and follow-up. However, only the baseline result showed a significant correlation. It has not been possible to construct a valid reason why the strength of relationship between these two factors should be less at follow-up and not significant. Meaningfulness has shown a significant increase whilst mental health related quality of life has not. The results indicate that participants may have more meaning in their lives following EMILIA involvement.

The baseline results for the relationship between meaningfulness and mental health related quality of life results provide support for studies demonstrating a link between meaningfulness and various aspects of mental health and illness. These include Carstens & Spangenberg's (1997) RCT investigation linking depression and meaningfulness factor of SOC in a group of participants diagnosed with major depression; Debats et al. (1995) who found that undergraduates reported meaningless periods in their lives were more likely to have had psychological counselling; Debats (1996) study which showed that the level of meaningfulness predicted future symptom levels in a clinical population of non-psychotic disorder (DSM-III criteria) patients; Mascaro & Rosen (2005) who discovered that US based undergraduates who score highly on measures of implicit and explicit meaning had lower levels of depressive symptoms; Moomal (1999) who investigated the relationship between meaning in life and mental well-being in a university undergraduate sample and found a positive association between meaningfulness and mental well-being and negative association with general psychopathology; and Addis et al.'s (1995) study which found that existential concerns were one of the eight main reasons listed by people as to why they were currently depressed.

The research prediction that baseline, follow-up and changes in physical health related quality of health following the EMILIA intervention will not be positively related to changes in SOC was supported. This result for physical health related quality of life partially supports the finds of a systematic review of the correlations between SOC and overall health by Flensburg-Madsen et al. (2005). However, the result contradicts that of Fok et al. (2005) who found that SOC was significantly positively associated with SF-36 measured physical health related quality of life, and that of Pallant & Lae's (2002) literature review that found that the SOC concept was useful in predicting both physical health. Perhaps it is the case in this study's population that mental health is

disproportionally related to SOC – it is mental health issues which have more power in determining SOC. Whether this is the case or not, the results relating to both physical and mental health quality of life correlations with SOC align with findings of a systematic review that the relationship between psychological well-being and SOC is stronger and more direct than that with physical health (Erikson & Lindström, 2006).

The result of this present study in relation to physical health further questions the validity of Antonovsky's proposal that SOC determines the subjective experience of physical health. Perhaps it is the case that a weak association between SOC and physical health exists and that the contribution of the strong associations between SOC and mental health still validates Antonovsky's proposal that SOC determines the subjective experience of overall health. Antonovsky argued that the strength of an individual's SOC has: "direct physiological consequences and, through such pathways, affects health status" (1987, p.154). The pathway to mental health is supported; the pathway to physical health does not have support from this study and has mixed support from the other research evidence presented in this thesis.

There was virtually no change in physical health related quality of life (a very slight decrease was recorded) and there was not a significant increase in mental health related quality of life (a slight non-significant increase was recorded). No direct research predictions were made in relation to changes in physical or mental health related quality of life – only research predictions made were those described above in relation to the relationship between SOC and these factors. It is important to note that not one of the participants reached the set norm-based score for mental health related quality of life. This may reflect the effect of severe and enduring mental health issues. The low mean scores, in relation to both SOC and mental health related quality of life, shows the significant potential for further increase in these two factors and hence potential progress in mental health recovery for the participants.

The lack of a significant result in relation to mental health related quality of life could be partially related to the relatively small numbers of participants in this study. The EMILIA intervention is being run in seven other countries and it will be interesting to see if the combined results provide a significant increase in relation to mental health related quality of life. However, the power analysis conducted for this present study indicated that

this might not be the case. The analysis showed that if an increase in mental health related quality of life similar to the one found in this study was seen across all sites, then a sample size larger than that of the total number of participants from all EMILIA sites would be needed to achieve a significant result.

Another potential reason why the increase in mental health related quality of life did not meet levels at which they were significant could be because of a delayed positive effect of the increased SOC levels. A stronger SOC can have a positive effect on mental health related quality of life but it may not happen overnight. Increased levels of coping and adaptability will have a long term salutogenic effect. It could be that at a future follow-up point the levels of mental health related quality of life have increased to a significant degree. Nonetheless, there is no certainty of this as mental health related quality of life may not show any further increase as the core aspects of the EMILIA experience, that were a possible factor in the increase in SOC, come to a close.

8.1.2. Qualitative Results, Analysis and Discussion

Introduction

Eriksson & Lindström (2007) stated that the SOC concept can be applied to the process of learning – that the learning process is facilitated when it is structured, comprehensible and meaningful: “The salutogenic framework facilitates the learning process and simultaneously promotes health” (p. 941). The following discussion uses extracts from the qualitative analysis of participant interviews, self-reports and anonymous module feedback to investigate and reflect upon the impact of the EMILIA intervention on the SOC strength of participants. It does this in the light of the results suggesting that SOC and the meaningfulness component of SOC significantly increased. This section is structured with the following sub-headings: internal and external resources, components and practical delivery of the EMILIA learning modules, impact of mental illness and side effects of drugs to treat mental illness, and recovery. This discussion of the results is followed by a summary, limitations of the study and then an overall conclusion and consideration of future research. Note: names of the participants have been changed to protect identity.

Internal and external resources

There are a number of mechanisms and processes whereby EMILIA might have achieved an increase in SOC scores. For example, through teaching and reinforcing coping skills, enabling individuals to identify, access, and mobilize resources that are available to them and through the facilitation of social interaction and support. All of these factors have been identified as pathways through which SOC can be strengthened (Landsverk & Kane, 1998). Each of these factors will be considered separately and extracts from the qualitative analysis will be presented to examine the role of these factors.

The ‘Strengths and Personal Development Planning’ module helped identify coping skills, the ‘Recovery’ module helped build skills for coping during recovery and the ‘Leadership’ module helped build skills for coping in a leadership role. Identifying and building coping skills will have helped strengthen the SOC factor of manageability. One of the students made reference to some of the skills that they had learnt and applied:

Isabel: “And learning different things and challenging myself. Things that I never thought I would do. It is changing and it is a positive change.”

There was also evidence for EMILIA’s role in helping its participants to identify, access, and mobilize resources. Achieving this was a core part of all of the modules and the central theme of the ‘Strengths’ module. There are strong links between the philosophy behind EMILIA’s ‘Strengths’ module and SOC theory. As Green (2004, p. 304) concluded, helping mental health service users to: “look for, recognise, facilitate, understand, and catalogue competencies...” is an opportunity to enhance recovery beyond a focus on: “dysfunction and illness based identities”. One student stated that:

Rena: “Doing the EMILIA course has given me more confidence in myself and I’ve realised I can do things even though I struggled [at times]. But I kept going along [to the classes] and did a presentation to the group at the end despite my fears.”

Having confidence is clearly a valuable resource which enables an individual to mobilise and access other resources. Also within this quote is the mention of persistence: a

coping strategy which is often vital to ensure success in life. Persistence is positively linked with confidence, hope and an active optimistic style labelled as ‘fighting spirit’ (Olason & Rodger, 2001). What's more, fighting spirit is linked to adaptive health behaviour and coping with disease (Pettingale, Morris, Greer, & Haybittle, 1985; Spiegel, 2001), and positively correlated with SOC (Johnson, 2004).

In terms of internal resources another student mentioned an increase in dignity and a sense of importance:

Una: “I think that it [EMILIA training] has given me some dignity in my situation [having mental difficulties] and I absolutely hate receiving benefits and I think that it [EMILIA training] has given someone in my position the dignity to feel a bit important anyway.”

A sense of dignity is an essential part of being human, of feeling that you should be respected as a valued human being. It is part of the human need to achieve and maintain various forms of integrity and it is linked to a sense of importance, intrinsic worthiness and self-esteem. Linking to this, a sense of self-esteem has been found to be positively related to SOC in a population at risk of psychiatric disturbance (Cederbald & Hansson, 1996). Deegan (1988, p. 15) described mental health recovery as a process: “to re-establish a new and valued sense of integrity...” Dignity is an internal resource that can be viewed as forming a part of a person’s SOC. It is part of a person’s sense of self which is connected to hopefulness (McCann & Clark, 2004) and tied to a person’s sense of meaningfulness.

As Davidson & Strauss (1992) suggested, the rediscovery and reconstruction of a sense of self is important to help achieve recovery. One student revealed an insight into how the EMILIA experience changed her sense of self:

Isabel: “I thought I had a lot of things down in my mind about how I was and how I came to be here but I didn’t really.”

The final factor mentioned by Landsverk & Kane (1998) is that of social support. EMILIA provided opportunities for relationship building and increased levels of social

communication and interaction. It employed a learning format that facilitated participant interaction. One of the key factors that participants relayed through their EMILIA module feedback was the importance to them of the social aspects of the project and the friendships that they had built out of it. Representing the sentiment of many students one student simply stated that:

Ben: "I have made more friends."

Another student in answer to a question about what had gone well in their lives replied:

Rena: "...EMILIA and the social contacts I have made through it..."

Further positive comments relating to meeting and interacting with fellow mental health service users were also expressed:

Alvita: "...it was good to meet other people in the same position as well. From all areas of life. ...I think that for everybody was in the same boat and you could just be yourself. Do you know what I mean? And that was very very important. You know, yeah. Definitely."

Allowing mental health service users to come together and share their knowledge and experience was one of the key parts of the project. However, meeting and interacting with fellow mental health service users was not a positive experience for everyone:

Grace: "I have had a 'social headache' mixing with 'my own kind' as it were. Socially the gossiping and conjecture and assumption that goes on has left me in a state of withdrawal."

Nonetheless, even this participant benefitted from meeting and interacting with fellow mental health service users:

Grace: "However, I see for me I am now less in denial and can hear what others say is true about themselves..."

There are many different aspects of the social contacts facilitated through EMILIA that could have had beneficial effects for the students and their SOC strength. These include interpersonal support from study peers, opportunities to express and validate concerns and questions, and being able to understand that you are not alone in your experience of mental illness (Ascher-Svanum & Whitesel, 1999). Another is being able to draw on the support of the mental health community. The following student expressed the feelings of many when they expressed that EMILIA was very useful in terms of:

Dawoh: "...drawing on the support and strengths within the community"

The following student expressed the value to them of the social interaction with other mental health service users that contributed towards more positive feelings and their recovery:

Norris: "I consider my participation in the EMILIA project to have gone well and enabled me to meet and interact with people with similar mental health issues in a positive and constructive way, that at the time it was happening made me feel better in myself and better able to face up to life in general."

This statement supports Mezzina et al. (2006) who found doing activities, spending time and feeling a sense of belonging with a new group of people can cause increased awareness of desires and abilities to take a more active role in life and the community.

Social gatherings outside of the learning environment that were organised by EMILIA were well attended. Many EMILIA participants continue to see each other outside of the learning and employment opportunities offered by EMILIA. The project's contribution to improving social contacts and interaction is for many participants on going and long-term. As has been described in the literature review (chapter 2), social interaction and support are very important in determining SOC strength. In relation to this the qualitative evidence points to social interaction and support as a factor in the finding that participants in the EMILIA intervention reported higher SOC. The evidence links to the positive relationship found between SOC strength and social support (adequacy of attachment, adequacy of

social integration, availability of social integration, and availability of attachment) found by Bengtsson-Tops & Hansson (2001) in their study of a group of individuals diagnosed with schizophrenia who were living in the community.

The evidence also points to social interaction as a factor in the reported higher meaningfulness result. Aligning with the theories of Frankl (1992), Mascaro & Rosen, (2005) stated that: "...interpersonal connectedness is a primary source of meaning" (p. 1009). Furthermore, the results of this present study support Preston & Hammond's (2003) research into the wider benefits of education that revealed: "the development of social networks are important benefits of FE [further education] and that purposive social interaction is a major factor in producing social benefits" (p. 211).

Collins et al. (2000), who conducted research into supported education programmes for those with mental illness, found that social support is a core factor in attaining educational and vocational goals. The EMILIA project tried to motivate its students to pursue and complete the learning programme by connecting the intervention with an individual's personal goals. Many of the students described aspects of this, for example:

Dawoh: "It's all positive stuff. I found that very very useful in terms of focusing and setting my goals and stuff. It helped to firm up my ideas and goals, I found it very useful."

Alvita: [Did EMILIA help you to achieve your goals?]. "Yeah it has."

The qualitative analysis revealed many comments which reflected an increase in motivation and this is positively linked to the SOC meaningfulness factor (Antonovsky, 1979; 1987):

Alvita: "It gave me more of a push to achieve as well. It was great [the EMILIA experience]."

Alvita: "[The EMILIA experience was] very useful, it has made me want to try to learn new things."

Isabel: [Motivation] "It developed, it progressed during the training."

Paulette: "It helped give my weeks a purpose and a structure."

Steven: "[EMILIA gave me] more motivation to pursue and maintain new social contacts."

Jameela: “I’ve started to properly look for a job...”

Alvita: “Yeah it [EMILIA] has opened up a lot of things because I would not [have taken the opportunity] to have gone to another hospital to work. I just went and it was great.”

These comments are a possible indication of the rise in meaningfulness and SOC seen in this study because a sense of meaningfulness helps provide the motivation for a person to make sense of their environment (Antonovsky, 1979; 1987).

Many students had developed or found goals related to the mental health issues explored in the training.

Ben: “I want to do some voluntary training in order to eventually get paid employment in the mental health field.”

Isabel: “I may do something in mental health in the future because I am so passionate about it, you see.”

Norris: “[I would like] to do more work, earn more money... Make a positive contribution back into the EMILIA project or [a mental health charity] in some way.”

Rena: “[I would like] to be more assertive and more involved with [a mental health charity].”

Paulette: “[I would like to] Succeed in the research with [a mental health charity] and consider doing more if I enjoy it.”

Whilst no claim is made that the project helped establish all of the goals mentioned in the preceding and following extracts it did help many participants to discover and set their own goals. The EMILIA teachers helped students to understand how the information taught related to real-life issues and the student’s life goals and roles. This aspect of the project is likely to be part of the contribution towards the stronger meaningfulness factor (see Antonovsky, 1979; 1987; Frankl, 1978; 1992). Deegan (1988) stated that mental health recovery partially evolves through: “the aspiration to live, work, and love in a community in which one makes a significant contribution” (p. 15). Recovery in and from mental health

disorder has been described as a journey from alienation to purpose (Ridgeway, 2001). Goals that were referred to included the following:

Dawoh: “I would like to be a politician.”

Eric: “[I would like to] possibly do some teaching work through EMILIA.”

Grace: “I would like to apply to college to complete a degree course...I would like to complete the Research Module now undertaking.”

Jameela: “I would like to get my driving license, as well as a part-time job.”

Norris: “[I would like] Explore learning opportunities elsewhere. Get on with running my business and working day to day.”

Steven: “[I] would like to gain full time employment, whether employed full time by others or gain more self-employment, pursue forming a long term relationship and have somewhere of my own to live.”

Una: “... I just want to make more of an impression and show how serious I can be [in continuing to recover].” [To try to make the best of yourself?] “Yes.”

A person requires worthwhile goals to provide drive, motivation, focus, and direction in his or her life. Commitment to goals can push a person towards ameliorative action and also help sustain hope and meaningfulness and result in a life that is more productive (Lazarus & Folkman, 1984). Antonovsky (1979) stated if individuals are engaged in goal orientated behaviour that encourages success then this can strengthen their SOC.

Connected to the formulation of goals is future orientation. Frankl’s (1985) work demonstrated the importance of being: “oriented toward the future, toward a meaning to be fulfilled... in the future” in order to be able to successfully adapt and cope in life (p. 37). A person’s sense of meaningfulness is determined by past and present experiences and future expectations (Frankl, 1985; Clements et al., 2004). The project may have reduced the negative effect of future-orientated uncertainty caused by the experience of mental health disorder (McCann & Clark, 2004). There were a number of extracts in relation to future orientation:

Ben: “I started to think: ‘what do I need to do in the next year or so?’”

Alvita: “Yeah. I’m thinking more about my future career now... I am more hopeful for the future.”

One student provided a direct reference to increased meaning in their lives that had emerged from their experience of the EMILIA project:

Alvita: “It [EMILIA] has made me feel that what I went through was not in vain if you see what I mean. Because I went through what I went through and I was lucky enough to come out the other end I can help others and that is where I’m from if you see what I mean...”

Helping to achieve a realisation that the experience of mental illness had provided participants with strengths, coping skills, and expert knowledge of the health system that can help them in their lives, and also that they could use this experience to help others in their recovery, was one of the core themes of the ‘Strengths’ module and a goal of the project overall. The importance of mental health service users being made aware of their strengths and being given the opportunity to use these strengths to help others is vital because research reveals that essential turning points in recovery emerge in the development of mutual helping relationships (Borg & Kristiansen, 2004).

The mention by several participants of utilising the knowledge and skills that they have acquired through the experience of mental illness and mental health services to help nurture others is likely to be a factor in the strengthening of participants’ SOC. For example: “It felt good assisting and supporting others in the group” (Alvita). This is because Langeland & Wahl (2009) found that mental health service user’s social support factor of nurturance was the largest predictor of positive change in SOC in their study examining the predictive value of social support on change in SOC. Nurturance is characterized by the mental health service user being the provider rather than the recipient of assistance and the value obtained from such a relationship is in the belief that others need or rely on the individual, thus enhancing self-esteem (Langeland & Wahl, 2009).

The social support factor of nurturance also links to meaningfulness. Felton (1990) described nurturance as an outer world directed provision requiring a certain level of energy and this links to Fankl’s (1985) idea that: “being human is being always directed,

and pointing to, something or someone other than oneself: to a meaning to fulfil or another human being to encounter, a cause to serve or a person to love” (p. 35). Statements made by participants in relation to nurturance indicate a shift from a more introverted self focused perspective and being a receiver of social support to more mutual relationships with others.

The increase in meaningfulness and SOC recorded in this study could also be partially due to the psychoeducational aspects of two of the EMILIA modules: ‘Empowering People in Recovery’ and ‘Strengths and Personal Development Planning’. As Landsverk & Kane proposed, one of the processes through which psychoeducation works is by maintaining and strengthening an individual’s SOC. One of the students provided anonymous feedback stating that: “The course covered mental health issues that were relevant.” This psychoeducation does not have to be formal for it to be effective as individuals can gain information about their illness by interacting with and listening to their peers (Ascher-Svanum & Whitesel, 1999). This kind of informal psychoeducation is likely to have played a part in EMILIA participation:

Alivta: “...it was good to meet other people in the same position as well.”

In addition, the increase in SOC and meaningfulness recorded could also be partially due to increases in empowerment as all of the modules were to some extent aimed at achieving this. Empowering an individual to take greater responsibility for his or her life and health can strengthen an individual’s meaningfulness factor (Frankl, 1992). Furthermore, taking action to help to develop agency and empowerment can facilitate recovery (Green, 2004). There were several comments made in relation to empowerment, for example:

Steven: “I have been able to begin to break the social restrictions I grew up with, and take ownership of my life, to build healthier boundaries.”

Isabel: “And also being honest with myself and being able to ask for help when I need it. Because I never used to do that.”

Una: “I think that it [EMILIA training] has given someone in my position the dignity to feel a bit important anyway.”

Increased empowerment may have enhanced self directedness (defined as how responsible, purposeful and resourceful a person is in working to achieve their goals and values) and this factor has been found to explain variations in SOC (Eklund et al., 2004). Empowering an individual to take greater responsibility for his or her life unlocks resources and helps create hope for the future (Langeland et al., 2007a). One participant expressed the following: “Yeah. I am more hopeful for the future” (Alvita).

As the chapter 3 literature review revealed, a sense of hope is vital for recovery and hope is positively related to meaningfulness (Mascaro & Rosen, 2005). “Having some hope is crucial to recovery [from mental health disorder]; none of us would strive if we believed it a futile effort” (Leete, 1989, p. 32). Employment, learning, and social interaction are all important factors in generating a sense of hope and meaningfulness (Borg & Kristiansen, 2008). As Boeree (1991) in his LogoLearning theory explained one mechanism by which hope could have been increased is through the EMILIA teachers focusing on goals and the benefits of achieving goals rather than merely the process of learning itself.

In addition to a potential rise in levels of empowerment and hope the increase in SOC may also be partially due to the positive effect that EMILIA had on the confidence and feelings of success and optimism of its students. For example:

Dawoh: “It’s all positive stuff.”

Rena: “Doing the EMILIA course has given me more confidence in myself.”

Alvita: “I think it was a good achievement.”

Alvita: “The training that I did with EMILIA was a very positive experience.”

Jameela: “I am pleased with my attendance at EMILIA and have started to work on a research project.”

Grace: “...I have enjoyed taking part and feel that it has gone well.”

Warren: “...I enjoyed most of it. I did learn a lot from it. I felt it was good.”

Self-confidence and feelings of success, hope and optimism are all internal resources that are part of an individual's SOC strength. This positive effect of EMILIA participation could also have contributed to a stronger belief that things will, for the most part, work out well – which is an important part of SOC strength (Antonovsky, 1979).

Other aspects of the project that may have contributed to the increased SOC scores include the training for the project's paid employment opportunities and the employment itself. Employment can play a crucial role in mental health recovery. Reports by service users' illustrate that starting or returning to work is one of the most significant milestones as part of the pathway to recovery (Deegan, 1988; Marwaha & Johnson, 2005; Ridgway, 2001; Secker, & Gelling, 2006; Secker, Membrey, Grove, & Seebohm, 2002).

How much contribution that this employment has made to the change in SOC score of the group is questionable because at the time of the follow-up only two of the participants had been involved in EMILIA generated employment. However, many of the participants referred to employment gained outside of the project, both paid and voluntary, in the 10 months from baseline. For example, four of the participants reported that they started to play an active role in a specific mental health charity, one became an administrator, trustee and legal advisory to a major mental health charity and another successfully helped set up a mental health related social firm. Some of the participants provided comments in relation to their employment:

Isabel: "I am a trustee of [a mental health charity], I sit on the board. And I make decisions on the running of the charity along with my other fellow trustees."

Paulette: "Now I have an enjoyable and meaningful voluntary job at a children's theatre group local to me and I will be helping to take a research project for [a mental health charity]..."

Rena: "Working on a voluntary basis for [a mental health charity]."

Dawoh: "We have established a social enterprise [firm]."

One participant described the benefits that they derived from this work:

Grace: "...it is all about getting back to the helping aspects and I like that. If I do something good in the day it makes me feel good. It makes me feel better."

Although the EMILIA project did not directly create these meaningful activities it did provide contacts with services and mental health service user representatives to help facilitate many of them. EMILIA is not simply an intervention which comes to an end once its core activities have finished; the process of change and opportunities that it has helped create and set up are on going. In addition to these meaningful activities for participants – which emerged indirectly out of EMILIA activities – some participants obtained, returned to, increased their hours, or progressed in competitive employment. For example:

Alvita: "Yeah it [EMILIA] has opened up a lot of things because I would not [have taken the opportunity] to have gone to another hospital to work. I just went and it was great."

Employment (voluntary or paid) can increase social integration. An increased level of social integration through voluntary or paid employment is likely to be a factor in the increase in participants' SOC because Langeland & Wahl (2009) found that social integration of mental health service users is positively associated with SOC and predicts positive change in SOC.

Although it is one of the core goals of the EMILIA project to increase social inclusion through increased levels of employment it is difficult to say for sure that EMILIA contributed to the increased levels of competitive employment seen. However, this increase in the level of employment may have contributed to increased SOC strength (Neuner et al., 2006). This is because paid employment has been shown to have a strong positive association with SOC (Volanen et al., 2004). Employment can contribute towards many different SOC strengthening resources such as increased income, higher self worth, the facilitation of social networks and increased level of structure in an individual's life (Linhorst, 2006). So the increase in employment levels reported is a possible factor in the increased SOC strength. Employment is also a concrete source of meaning and helps explain the rise in meaningfulness seen (Frankl, 1992; Mascaro & Rosen, 2005).

The analysis revealed that exposure to the EMILIA project has led to the development of existing and new areas of interest for many of its participants, for example, interest in the mental health service user movement, mental health research, and the process of recovery. The following extracts illustrate this:

Isabel: “I may do something in mental health in the future because I am so passionate about it, you see.”

Anonymous: “User movement [content] was interesting too.”

Alvita: “It [EMILIA] was very interesting to me. Yeah, I did get a lot out of it, yeah it was good, yeah.”

This is likely to have stimulated minds (increasing comprehensibility), enriched lives (increasing meaningfulness) and led to feelings of personal satisfaction (which can be important in a feeling of confidence which Antonovsky described as essential for strong SOC levels). It is likely that the development of new areas of interest will have made a contribution to the finding of increased SOC strength (Antonovsky, 1979; 1987).

Many of the extracts in relation to goals, empowerment, and areas of interest provide evidence that the EMILIA teachers were able to get students to see both the specific objectives of learning and the larger meaning as it relates to real-life issues and to students’ actual roles in life. This is what Parnell (1994) describes as essential in effective teaching. It also demonstrates that the modules had meaning for those who completed them, that they connected to the participants’ needs, problems, preferences, real-world existence, goals and ambitions (Boree, 1991; Parnell, 1994).

Increased levels of employment, working towards goals and new areas of interest are all a part of active engagement in life. There is a dynamic positive relationship between active engagement in life and meaningfulness (Carstens & Spangenberg, 1997; Frankl, 1985; Mascaro & Rosen, 2005; Yalom, 1980). The extracts above which reflect an increase in active engagement help to explain the significant increase in meaningfulness and SOC that emerged out of this thesis.

Increased levels of employment, working towards goals and new areas of interest are also connected to purpose in life. As Mascaro & Rosen’s (2005) investigation of the

buffering effects of a sense of existential meaning discovered, if a person finds increased purpose in life then it is likely that this would strengthen aspects of a person's mental health such as hope, well-being and self-confidence. Repper & Perkins (2006) stated that a sense of: "purpose fosters hope and the development of a positive sense of self" (p. 58). An increased sense of purpose helps explain the increased meaningfulness and SOC found following the EMILIA intervention as it is linked to meaning in life (Antonovsky, 1979; 1987; Frankl, 1985; Yalom, 1980).

Many of the participants' extracts related to meaningfulness help confirm Hammond's (2004) literature review which revealed that learning can have a positive impact on an individual's sense of purpose and hope – key factors in meaningfulness. Factors such as increased meaningfulness and hope are crucial in the process of recovery, because: "hope, optimism and meaning provide the underlying motivation necessary for [mental health] recovery" (Green, 2004, p. 300).

The results suggesting that the meaningfulness component of SOC increased following EMILIA participation point to the importance of setting a tone of hopefulness within the classroom and focussing on empowering individuals in the learning situation itself. As Green (2004) stated: "we can help ignite the forces that fuel the recovery process" if we help foster: "hope and optimism [and] beliefs that a meaningful life is possible" through: "mechanisms for supporting participation in truly meaningful activity" (p. 302). Student feedback comments included the following:

Anonymous: "Tutors very encouraging."

Anonymous: "[Tutors were] generally very friendly, approachable, encouraging and enthusiastic."

Components and practical delivery of the EMILIA learning modules

The increase in SOC found in this study points to the value of various components and practical delivery of the EMILIA learning modules. Eight different examples of this are described:

1. EMILIA's efforts to develop effective learner teacher relationships:

Anonymous: “Excellent interaction with group. Tutors and the Professor were also part of the group and ease of delivery as well as taking part noted!”

Isabel: “Meeting [an EMILIA trainer]. Because he is so down to earth and all of the people connected with him and all the trainers and the other service users as well. Everybody was so normal and so nice and so welcoming. And interested in each individual. They didn’t group us all together, everybody was speaking to us separately.”

2. Allowing learners to express and validate their concerns and questions:

Anonymous: “[Quality of teachers was] excellent. Patient teachers who valued all that was said by all of us.”

3. Creating a friendly supportive environment:

Anonymous: “An enjoyable experience, and educative, in a friendly environment and atmosphere.”

Alvita: “...Yeah it was good. It was good because I didn’t feel well one time and I did get support there. And it is nice that you can have that. It is important to be in a safe environment because if it wasn’t, then no one would want to do it.”

4. Providing constructive feedback:

Anonymous: “Feedback [provided] has been very encouraging.”

Anonymous: “Feedback [provided was] rewarding. I would recommend [the course] to my friends and associates.”

5. Providing opportunities for self reflection through which a person can learn and build SOC strength (Antonovsky, 1991).

Anonymous: “[Division of time between activities was] well spaced for reflection and a good ending.”

6. The project’s efforts to take into account the needs of mental health service users by allowing frequent breaks during the training:

Anonymous: “I enjoyed the cigarette breaks...”

Anonymous: “Having regular short breaks help...”

7. The size of the group, which students generally responded well to:

Anonymous: “Size of group was brilliant.”

Anonymous: “The size of the group was not too daunting, just ok for me.”

8. EMILIA group teaching style (see, for example, Emer et al., 2002) and its use of variety of methods of delivery of material (see, for example, Hayes & Gantt, 1992) can also be viewed as part of its effectiveness:

Anonymous: “Versatility and use of [different] ways of learning and try[ing] different modes of learning.”

In addition to these practical components of the training the project enabled participants to gain formal accreditation. All of the project’s modules were accredited at Middlesex University and the students could obtain Middlesex University credits through formal assessment if they chose to. The positive response from some of the students is reflected in the following statement:

Anonymous: “The fact that you get credits [for the modules] is encouraging and [that you can] go on to teach is a great incentive.”

Although, as expected, only a few students submitted for accreditation it was important in increasing the credibility of the training in the minds of the students. In addition to the option of formal accreditation every student was given a certificate for completion of the core modules. This was a goal and a major achievement for many students.

It is difficult for a course of learning modules such as provided by the EMILIA project to strike the right balance in terms of its material as it had students with a variety of different levels of educational experience and achievement, and who were at different stages in their mental health recovery. This problem was expressed by the opposing comments of a couple of the students:

Anonymous: “There needs more thought given to the structure and content of the strengths and recovery modules – both seem very slow to progress and not contain very much.”

Grace: “Again the pace of others is very oppressive. I become frustrated and lose interest.”

As recommended by James (2005) EMILIA training organisers wanted to make sure its modules were not too challenging and difficult to reduce the risk of mental health service user participation having a negative effect on self-confidence, self-esteem and mental health. The EMILIA project’s plan for the training employed a design which allowed a progression from one module to the next; each more challenging than, and building on the one before. This progression is reflected in the following students comment:

Anonymous: “The course did start slow but built to a challenging conclusion.”

As was suggested in NIACE (2004) the EMILIA project gave its students an opportunity to progress towards their full potential in terms of both their learning and social skills.

The qualitative analysis also highlighted the positive effects of employing mental health service users as trainers. The results of the qualitative analysis align with those of Rummel et al. (2005) who found peer led psychoeducation to be effective. Mental health

service user trainers may have acted as role models, allowing service user students to see that others can cope with and be successful despite their mental illness (see Ascher-Svanum & Whitesel, 1999). Young & Ensing's (1999) literature review found that learning through role models and peers with a similar experience can have an especially large positive effect on recovery.

The feedback from the students revealed their positive view towards the use of mental health service user trainers and the comments indicated the possible SOC strengthening benefit of having mental health service user role models.

Anonymous: "The versatility and variety of tutors and the fact that we were all mental health service users."

Anonymous: "[A good thing about the course was] the bringing together of service users."

Anonymous: "The different subjects were good and the fact that the teachers are service users is genius."

Alvita: "It was good that the teachers were in the same position as us as well [i.e. mental health service users]. That was very good. I think that that helped [us] to open up. I think that if the teachers hadn't experienced mental ill health I think that I would have probably opened up but perhaps some other people may not have done. That was a very good [aspect to the training]. It gave me more of a push to achieve as well."

Of particular importance in relation to group learning is the mention of being able to 'open up'; feeling secure enough to share within the learning situation enables students to learn more about themselves and from each other.

Other key aspects of the project were the high tutor to student ratio and that the EMILIA tutors actively sought to identify students requiring additional support and counselling during the training sessions. An example of this was the fact that one of the three members of the teaching team could speak to a student away from the group lesson, providing that student with extra support whilst allowing the teaching of the group to continue. One student stated:

Alvita: “I didn’t feel well one time and I did get support there. And it is nice that you can have that. It is important to be in a safe environment because if it wasn’t, then no one would want to do it.”

This support and high tutor to student ratio are resources which can be considered to be GRRs contributing to a stronger SOC with the SOC model (Antonovsky, 1979; 1987).

Impact of Mental Illness and Side Effects of Drugs to Treat Mental Illness

The support and encouragement provided by members of the project was vital as a number of students expressed how their mental illness and side effects of drugs for mental illness negatively impacted on their EMILIA learning experience:

Eric: “For myself I was not very focused. I didn’t take much in.”

Eric: “I was a bit cloudy much of the time. I withdrew from the group at one point but came back into it after a while.”

Una: “I have tried to contribute but I do have other problems [mental health and side effects of medication for mental health issues].”

Una: “The side effects that I experience are very bad, even though they have reduced this drug right down I still get – it is called Parkinsonism side effects. So that is difficult.”

There can be existential psychopathology that emerges out of peoples’ experience of mental illness, or the side effects of drugs to treat mental illness. This can block a person’s engagement in activities that could provide meaning or it can inhibit the awareness of the meaningfulness of activities in which a person engages (Mascaro & Rosen, 2005).

It is likely that many of the students had high levels of coping resources but may not have been able to utilise these due to their mental health issues (Garcelán & Rodríguez, 2002). For example, they may have a high level of intelligence but mental health disorders or drugs to treat these disorders have caused confusion or a lack of motivation. This may mean that the person could not employ their intelligence to be able do as well as they may have in the learning modules. This can clearly be frustrating and demotivating. One student relayed the following:

Norris: “I have felt demotivated and lethargic and blamed this on my medicine.”

It may be that learning and mental health disorder treatments are involved in a reciprocal process that facilitates recovery. To recover an individual may require the correct level of medication to reduce symptom levels and minimise side effects to allow new adaptive learning to be acquired. Newly acquired learning may then result in improved recovery and this may lead to a lower dosage of medication requirement and hence fewer side effects. New learning may also lead to improved medication regime adherence which can also provide recovery gains (Kopelowicz & Liberman, 2003).

Recovery

There is evidence from the qualitative analysis that EMILIA had a positive effect on mental health recovery. The positive relationship between mental health related quality of life and SOC that emerged in the results of this study, which aligns with the previous research literature results described in chapter 3, points to mental health recovery as being a possible factor in the strengthening of SOC. Evidence illustrating this from the qualitative analysis was as follows:

Dawoh: “EMILIA had an [positive] impact. It came at a time when I was transitioning and it helped with the transition. The EMILIA strengths training help[ed] with my transitioning and focus on positive goals drawing on community supports.”

Norris: “I consider my participation in the EMILIA project to have gone well... that at the time it was happening made me feel better in myself and better able to face up to life in general.”

Steven: “I have been able to begin to break the social restrictions I grew up with, and take ownership of my life, to build healthier boundaries.”

Isabel: “Sharing in the group activities, learning things about myself that I didn’t know. I thought I had lot things down in my mind about how I was and how I came to be here but I didn’t really. And learning different things and challenging myself. Things that I never thought I would do. It is changing and it is a positive change.”

Aspects of these recovery associated extracts support the findings of Borg & Kristiansen (2008) that employment, learning, and social interaction are all important in generating a sense of hope, meaning, well being and self-esteem. The extracts also reflect the core recovery processes identified by Green (2004): development, learning, healing and adaption. Mental illness brings about many changes to a person's life and new learning is required to enable adaption to this change. Recovery requires new lifelong learning and lifelong learning both enables recovery and is added to through the experience of recovery. Lifelong learning and recovery are both part of the process of forging a meaningful and coherent understanding of the experience of mental health disorder.

Strengthening SOC can play an important part in the mental health recovery process. Charmaz (1991) describes recovery as involving the development of an understanding of abilities and limitations (comprehensibility factor), making adaptations and day-to-day life management decisions (manageability factor) and setting long term goals that take into account the reality faced in terms of strengths and capabilities (meaningfulness factor).

The results of this thesis and qualitative evidence presented here links recovery, lifelong learning and SOC. They add to the findings of Hammond (2004) that learning can have positive impact: "upon psychosocial qualities; self-esteem, self-efficacy, a sense of purpose and hope, competences, and social integration" (p.551). They also connect to the findings of Feinstein & Hammond (2004) that: "participation in adult learning is a very important element in positive cycles of [personal and social] development and progression" (p. 199).

As Green (2004) stated, to foster recovery mental health services need to: "understand how to help people maintain resources, how to facilitate resource development, or how to help people prevent and stop loss spirals" (p. 305). It follows that there needs to be an understanding of how to generate 'gain spirals': positive spirals in which people gain GRRs and hence strengthen their SOC. This present study's results suggest that lifelong learning and employment opportunities can help provide possible gain spirals through increased GRRs and SOC. The results help suggest that the EMILIA intervention may: "provide opportunities for developing necessary competencies" in the recovery process (Green,

2004, p. 302). This study's results indicate that recovery, the strengthening of SOC and lifelong learning can be viewed as interlinked processes.

Despite extracts reflecting recovery gains, taking part in EMILIA training was not easy for many of the students. The following comments illustrate this:

Eric: "Pressure. Stress. Travelling to Archway in London to do the EMILIA project. [I found that] the travelling is a learning process."

Una: "Well I found the EMILIA training interesting but I haven't found it to be easy. [You found it quite challenging?] Yes."

Rena: "But I kept going along [to the classes] and did a presentation to the group at the end despite my fears."

Ben: "Well the first two sessions were very difficult for me. I was struggling for weeks afterwards when I stopped doing it – feeling quite ill in fact. I still went to work but I sought out the help of my doctor. And eventually when I settled down back into the same routine [I started to feel better]. But I was very upset. It turned positive in the end."

Challenge and overcoming challenges is crucial in the development of a strong SOC (Antonovsky, 1979; 1987; Wolff & Ratner, 1999) and in recovery. Research suggests that successful coping can lead to the development of further adaptive coping resources (Aldwin, 2000). Most students stuck with the project despite the challenges and problems which they faced, demonstrating that the learning experience was not overwhelming to most of the students.

The above extracts may reflect the downsides to creating a meaningful learning experience (Boeree, 1991). EMILIA training touched on some very personal and challenging issues for its participants – past experiences, recovery, challenging belief systems, etc. – in order to make the learning experience meaningful and relevant. These factors can be loaded with affect and cause distress.

Summary

Through highlighting the potential mechanisms and processes involved in the EMILIA learning experience the qualitative results strengthen the argument that participation in the

EMILIA project was involved in the increase in SOC seen. The results help demonstrate that EMILIA strengthened mental health service users ability to effectively respond to the needs and demands of their lives. The results reflect EMILIA participants' increased ability to be flexible, to generate alternative solutions and to be self-directed in the experiences that they face in their lives (Antonovsky, 1979).

Development processes, which formal learning and employment opportunities are a part of, can lead to increased SOC strength: "people gather experience and knowledge, acquire support systems that can be [for the most part] relied on, and leave behind people, places and situations that cause them harm" (Green, 2004, p. 297). This thesis' results extend the possible application of the SOC model to the provision of formal lifelong learning and employment opportunities. The results add weight to the findings of Feigin & Sapir's (2005) literature review that: "the concept of SOC has a broad theoretical base and a growing and impressive body of empirical evidence supporting its utility" (p. 63).

SOC theory emerges from this present research as having a role in explaining the positive contributions made by the EMILIA project. It helps explain how challenge and engagement in life can produce beneficial effects in areas such as social inclusion, recovery, empowerment and life meaning.

List of identified factors for SOC strengthening

The knowledge gained from the qualitative analysis can be utilized when setting up and running training programmes for mental health service users. In relation to increasing SOC strength through a programme of formal learning and employment opportunities, the qualitative analysis highlighted the value of the following:

1. Employing trainers who can act as role models to the students.
2. Having trainers with whom the students can identify with and respect as having similar life experiences to them.
3. Employing trainers who can identify and respond effectively to a situation where a student is feeling unwell.
4. Using a variety of teaching styles and materials in the classroom
5. Facilitating peer to peer learning.
6. Creating a friendly and supportive learning environment.

7. Having classroom exercises which allow the students to become more orientated towards the future.
8. Setting a tone of hopefulness with the classroom and encouraging increased levels of hope.
9. Helping to develop knowledge and skills that connect to the lives of the students.
10. Helping to develop knowledge and skills that the students can apply in their lives.
11. Facilitating opportunities where the students can draw on support from the local community.
12. Constructing opportunities where the students are able to consider, imagine and set future goals.
13. Allowing the students to consider practical and realistic steps towards achieving goals set.
14. Enabling students to realise that their experience of mental illness and mental health services has provided them with strengths, coping skills and expert knowledge that they can use in their lives and to help others.
15. Facilitating increased individual responsibility.
16. Showing the students how they can have increased levels of empowerment
17. Enabling the students to be more self-directed.
18. Facilitating opportunities for social interaction.
19. Making the students aware of opportunities for increased social inclusion and integration.
20. Encouraging feelings of self-confidence, success, and optimism.
21. Facilitating classroom exercises that allow the students to realise how they have progressed in terms of learning and recovery.
22. Enabling the students to develop and find further opportunities for developing new areas of interest.
23. Facilitating and helping the students to find opportunities for increased engagement and purpose in life.
24. Developing effective student/teacher relationships.
25. Allowing the students to express and validate their concerns in the classroom.
26. Providing constructive feedback to students.

27. Providing opportunities for student self reflection.
28. Providing the option of formal accreditation for the course of study.
29. Pitching the course of learning at an appropriate level for the students and allowing students to progress to higher levels of achievement throughout the course.
30. Identifying and creating opportunities for employment (voluntary and paid).

These factors could be formed into a checklist which could be utilised to see if a course of training for mental health service users is maximising its potential to positively impact on their SOC.

8.1.3. Conclusions

A strong SOC is vital because it indicates that a person has a life with a positive social element; a sense that life is ordered and structured; a sense of personal identity; a reason for existence through an awareness that his or her life is meaningful; a belief that life is comprehensible; a relatively clear understanding of others, self and life as he or she experiences it; and a life that is manageable and relatively stable (Antonovsky, 1979; 1987).

Efforts to strengthen SOC cannot have an impact on the genetic factors that can contribute to the emergence and existence of such disorders as major depression, OCD, bipolar disorder and schizophrenia. Genetic factors are part of an individual's SOC strengths or weaknesses but they cannot be changed by the individual or through the efforts of others. All of the other factors that make up an individual's SOC can be strengthened. It is this possibility for strengthening SOC and the relationship that exists between SOC strength, mental health and recovery that provides individuals experiencing mental health disorder with a pathway towards achieving their fullest potential in life.

Perhaps seeking to strengthen SOC is of particular importance for mental health service users because of the strong association between SOC and mental health suggested by this and previous research described in chapter 3. The factors that make up SOC – meaningfulness, manageability and comprehensibility – are likely to have been negatively affected due to the effects of mental health disorders. In addition, resources that contribute to SOC, such as social inclusion, social support, material resources, employment, and engagement in life are likely to have been ravaged over time through the experience of mental health disorder. This is demonstrated by the very low average SOC scores seen in this present study at baseline and the fact that even after the EMILIA project average SOC scores were still well below general population mean scores. An existing weakness in SOC or a weakening in SOC due to, for example, loss of employment, bereavement, or physical health problems can be involved in the occurrence of mental health disorder. Conversely, progress along the path to recovery in or from mental health disorder can be through the restoration of such resources as learning and employment opportunities and therefore the strengthening of SOC.

This thesis has shown that people may make progress in terms of aspects of recovery in or from mental health disorder through the strengthening of aspects of their SOC. The analysis conducted in this thesis has laid out the connections between recovery, mental health and SOC and some of the routes towards recovery, social inclusion, empowerment, and meaningfulness. It has shown that providing lifelong learning and employment opportunities with the core aims of increasing social inclusion and empowerment may help bring a strengthening in SOC. The results are in alignment with the WHO's proposal that mental health generation involves "... the ability to realize one's intellectual and emotional potential" (WHO, 2003, p.7). The research carried out has provided insights into the factors, mechanisms and processes involved in lifelong learning, employment and associated meaningful activity that are essential to and intertwined with SOC strength, mental health and recovery.

The findings suggesting the importance of meaningfulness aspects of life, and the suggestion by Mascaro & Rosnen that meaningfulness, or the lack of it, can serve as a direct mediator of mental health and illness, are of value in treatment to facilitate recovery in mental health disorder. The causal influence of meaningfulness on mental health disorders requires further investigation to establish more precise mechanisms but the results presented here point to the value of Frankl's Logotherapy and other therapeutic methods to strengthen the meaningfulness to facilitate the strengthening of mental health. The findings have implications for the attitudes of mental health workers; Repper & Perkins (2006) stated that they need to promote and be optimistic about the possibilities for meaningful and valued lives of people with mental health disorders to facilitate their recovery.

This study, in highlighting the value of SOC theory to explain the development of mental disorder and potential recovery routes, has implications for mental health services. In terms of helping to protect people's SOC Antonovsky emphasised the need for "facilities for early detection" (p. 218). As Antonovsky explained, it is important to: "positively affect the sense of coherence..." by reaching "out to person's at high risk of damage to the senses of coherence" (p. 217, Antonovsky, 1979). Antonovsky proposed trying to identify those at risk due to increased level of stressors. For example, the loss of a job, the death of someone close, a relationship breakdown, or drug use. All of these factors can negatively impact on mental health and SOC. He suggested structured lines of communication between

populations and health services. One example of such structured lines of communication is mental health early intervention services.

SOC theory could be directly applied to early intervention services. Those at risk of mental health disorders or showing initial signs of mental health disorder could receive assistance and support specifically targeted at strengthening their SOC to help combat the emergence and development of mental health disorders. Some of the actions of early intervention services do strengthen the SOC of individuals that they target (for example through providing resources such as advice, support, and access routes to medication), and SOC theory could be used to underpin and facilitate development of these aspects of early intervention services.

The evidence from the present research that SOC theory has a role in explaining the possible positive contributions made by the EMILIA project opens up the possibility of developing learning and employment based interventions founded on SOC theory and salutogenic principles. Those designing and implementing educational and employment based interventions for mental health service users should be aware of the importance of SOC and the salutogenic model so that they can enhance positive outcomes. SOC theory may also be regarded as a theoretical framework for designing interventions for mental health service users that seek to enhance recovery, social inclusion, empowerment and meaning in life. It describes the mechanisms of adaption and coping and how peoples' ability to adapt and cope can be strengthened.

Mental health service users, for the most part, live within the community. For individuals to fully prosper within, take part in and contribute to the community they require access to lifelong learning and employment opportunities. This study has revealed some of the social inclusion benefits of providing increased access to lifelong learning and employment opportunities. The results that have emerged out of the EMILIA project have provided evidence that mental health service users can make progress in terms of recovery through increased participation in and contribution to society provided or initiated through the EMILIA experience.

Caron, et al.'s (1998) qualitative study of 60 psychiatric patients found less satisfaction than the general population on all components of social support. They suggested that lower satisfaction with the personal-intimate dimension indicates

deficiencies in social support. The results of this present study suggest that EMILIA has helped combat some of the negative social factors experienced by mental health service users such as social exclusion, isolation and a lack of social support. For example, part of the success of the EMILIA project is that it helped increase social integration through facilitating an increase in social relationships where there are shared interests and concerns.

This study's results highlighting the significance of social factors in the increase in SOC seen provide support for Shattell, et al.'s (2007) qualitative study of 20 mental health service users living in the community. This study helped reveal the importance of providing mental health service users with activities and opportunities for involvement in the community in reducing social isolation associated with experiences such as boredom, meaninglessness and symptoms of mental illness. The results of this present study emphasize the value of facilitating improvements in social aspects of the lives of mental health service users.

Projects such as EMILIA provide an opportunity to participate in a normalising activity and thus can help to reduce the problem of social marginalisation experienced by so many people with severe and enduring mental health issues. The finding that the EMILIA intervention may have significantly strengthened participants' SOC provides evidence for continued and embedded use of the modules designed for the EMILIA project and for extending EMILIA's underlying principles and practical application to further groups of mental health service users.

Essentially the intervention in the EMILIA project was the provision of lifelong learning and employment opportunities. A key question for this thesis was: what can we attribute its apparent success to? This leads to answering the question of what can be applied in future projects.

It was a pioneering project in many ways and many involved in it felt that it had a certain 'magic' in terms of promoting recovery, social inclusion and empowerment. Davis (2010) considered why some projects worked (aided recovery, social inclusion and empowerment) and others did not. He discovered that the common ingredients of successful projects were collaborative relationships between project workers and mental health service users and a commitment by project workers to respecting service users and believing in the real benefits of collaboration. These were key parts of the EMILIA project.

Crucial factors identified by Davis (2010) were also identified by this present research project as crucial factors for recovery. These included: respecting mental health service users for who they are, have been and could be in the future; offering hope and understanding; acknowledging effects of social exclusion and disempowerment; sharing or transferring power and resources; providing opportunities where people can use and develop their skills, knowledge and intelligence; valuing the identity and experience of service users; and keeping in contact and providing motivation during times of difficulties.

The present study's results provide support for the implementation and extension of projects such as EMILIA across and beyond Europe. The results highlight the need to adapt currently existing lifelong learning policies and strategies to ensure that they permanently employ specific strategies necessary to engage with mental health service users. They also highlight the need to facilitate and to encourage the development of the innovatory role of mental health service user lifelong learning trainers.

The focus in this study is on the situation in the UK but mental health issues are prevalent throughout the world. Much can be learnt and applied across the world from the experience of EMILIA both in the UK and in the other seven countries where it was delivered. The results presented here support the need for there to be a universal assumption of a return, following illness, to full participation in society, defined on an individual basis, including participation in learning and employment. Connected to this, the results support the need for universal awareness and acceptance of the implications of the recovery model: that people recover despite having long term illness.

Antonovsky (1979) stated that his research on salutogenesis and the SOC concept is aimed at all those who are: "committed to understanding and enhancing the adaptive capabilities of human beings" (p. viii). It is therefore aimed at everyone who is involved in the care and treatment of mental health service users. Consequently the results of this present study are of great importance for those involved in the care and treatment of mental health service users to enhance the effectiveness of care and treatment that they provide. These people include mental health nurses, psychiatrists, social workers, care workers, clinical psychologists, mental health rehabilitation professionals, people who care for relatives with mental health disorder, and people working for mental health charities such as MIND and ReThink.

The results of this study are also important to individuals experiencing mental health disorder and the people in a variety of organisations who represent mental health service users. Knowledge of the benefits of formal learning and employment opportunities can motivate people to seek them out. This knowledge can also help empower mental health service users and their representatives to demand greater access to learning and employment opportunities and to seek funds to support and sustain these opportunities. One of the outcomes of the EMILIA project is that it has facilitated this process. Mental health service users and their representatives from the project are involved in seeking access to various learning and employment opportunities and are also seeking further funding for training from such sources as the UK's National Lottery.

This study's results support the funding and delivery of programmes such as EMILIA which can be considered part of the responsibility of society to create the conditions that promote SOC strength (Antonovsky, 1979; 1987). Such projects may have the added benefit that they will pay for themselves in the long term due to the possible reduction in social security payments and healthcare expenses. Eriksson & Lindstrom (2007) consider such interventions to be a way of promoting equity in society. They can also be a part of the vision of a salutogenic society (Antonovsky, 1979; 1987).

The existing route for a many people who experience serious mental health disorders in the UK is that they obtain treatment (usually psychopharmacological treatment) and other forms of care for their mental health issues whilst being placed on benefits: incapacity benefit, housing benefit, etc. People in this situation have a given amount of money to live on but the lack of a job can be socially excluding and disempowering. They are in the so called 'benefit trap': fear of losing benefits is a barrier to employment, education and training (Secker, Grove & Seeborn, 2001). There should be an underlying assumption of a possible return to employment and there needs to be incentives and visible easily accessed route to achieving that.

Mental health service user's experience of unemployment can deprive them of social aspects of work such as social support (Nordt, et al. 2007). This present study has highlighted the importance of social aspects of a mental health service user's life for their recovery and SOC strength. Mental health service users can experience social decline through loss of employment due to the onset of mental illness followed by prolonged

unemployment and severe difficulties in gaining employment despite a desire to return (Nordt, et al. 2007). Efforts to keep mental health service users in work or facilitate a return to work are of great importance for recovery and SOC strengthening.

In addition to the EMIIA project there are a number of other examples of attempts to facilitate a return to formal learning and employment for mental health service users. For example there are various regional supported employment programmes throughout the UK (see, for example, Kent Supported Employment [2009]). In terms of supporting a return to formal learning one example is 'Back on Track' (Ringland, 2007) which is a project for young adults (16-25) who have had their education disrupted by mental ill health. This project provides coping skills training, academic skills training and personal tutor support to facilitate a return to formal education. Ringland (2007, Another team from Portsmouth could be Wembley bound, ¶ 1) explained:

Our course combines a gradual introduction, incorporating keeping well and relapse prevention strategies taught by health professionals, alongside literacy, numeracy and other academic work. In this way, young people who once perhaps saw themselves as mental health patients or service users now see themselves as students. Our interim evaluation shows that there has been a massive leap in the students' social confidence, with nearly all of them planning to enrol in mainstream courses in September.

There are plans for expansion of the availability of the course through working with healthcare and education services and through seeking further funding. A permanent and expanded version of the course entitled 'Mind the Gap / Getting Connected' (2009) is proposed for Highbury College and funded by the Learning and Skills Council (LSC) and the National Institute of Adult Continuing Education (NIACE).

Programmes similar to the above and other EMILIA style opportunities could be an integrated part of health services. A mental health service user, once they are stable and feel that they are able to, could be offered a choice of different learning modules, and on completion of these they could be offered help in finding further education or a job and supported in any further formal education or employment found. This support whilst in employment is vital as Secker et al. (2001) discovered that mental health service users are just as concerned about keeping employment as they are about finding it.

To provide embedded EMILIA style opportunities requires adequate funding, cooperation between health services, education providers, etc. It also requires integrated and progressive systems that are sensitive to the individual, their needs and their right to be socially included in terms of learning and employment. It is vital that a positive relationship between mental health service users, health care professionals and professionals involved in learning employment services is generated to best enhance the prospects for recovery. People who provide these services also need to be supported to ensure that they can provide the best quality of service possible and to ensure that they do not experience burn out.

Bergstein, Weizman, & Solomon (2008) explained the: “necessity of an integrative biopsychosocial treatment approach, which would include interventions aimed at enhancing elements of SOC, particularly during periods of remission” (p. 288). Lifelong learning and employment projects such as EMILIA could be part of a comprehensive, coordinated, compassionate, mental health service user-oriented and mental health service user involved integration of treatment, rehabilitation and support for mental health service users. This integration should be based on a combination of salutogenic and pathogenic principles (Antonovsky, 1979; 1987).

8.1.4. Limitations

There were a number of limitations associated with the combined quantitative and qualitative study. The sample size was relatively small at only 22 participants which limit its generalisability due to a lack of statistical power. A replication of these results in a larger group is needed to strengthen the findings. Countering this weakness was the use of triangulation: the qualitative results helped provide support for the quantitative results.

There were also some differences in the demographic make up of the sample compared to the population which they represent. There were substantially more females than males which needs to be born in mind when generalising the results to other populations of mental health service users. The prevalence of severe and enduring mental illness in men and women is quite similar despite disparities in different diagnostic categories. It is difficult to locate a reason for the higher proportion of females to males in the sample. However, one possibility is the fact that the majority of participants came to know about

EMILIA through two of the project's female mental health service user representatives. There may have been more men if the majority of participants became aware of the project through male mental health service user representatives, but this may not have been the case.

Considering the two largest ethnic communities in Britain the ethnic mix of the group was fairly similar to the ethnic mix of the area of North London from which the sample was drawn. The research sample was made up of 18% Black/Black British and Asian/Asian British and these groups comprise 18.7% of the population of Camden and 18.3% of the population of Barnet (two of the areas from which the sample was drawn) (Barnet Council, 2001; Camden Council, 2001). However, there were differences between the sample and the population from which it was drawn in terms of the numbers of people born outside of UK and Ireland. In the sample 14% of the participants were born outside of the UK and Ireland and 2001 UK Census statistics for Camden and Barnet show that 26.8% of the people living in Camden and 20% of the people living in Barnet were born outside of the UK and Ireland. The most likely possible reason for this is that the numbers of people living in but born outside of the UK has risen over the past 10 years and these people are more likely to be younger than the average for this study's sample group. For example, the average age of the EMILIA population was 46.5 years whereas 43% of Camden's population are aged 20-39.

The participants can be considered to be reasonably representative of the mental health service user population but the self selection is likely to mean that the participants tended to be more stable, empowered, and socially included, and have higher self-confidence and self efficacy than the average mental health service user. It is possible that there would have been a different result in terms of changes in SOC and meaningfulness in a sample of more unstable, socially excluded, disempowered mental health service users with lower self-confidence and self efficacy. As such the results are not generalisable to mental health service user who, compared to the EMILIA sample, are more disempowered, socially excluded, have very low self-confidence and self efficacy, and whose mental health is very unstable. The participants were also more likely than the average mental health service user to have been moving in the right direction on their road to recovery.

This is likely to have positively impacted on changes in SOC and mental health related quality of life outside of any effect of the EMILIA experience.

The participants of this study chose to join the EMILIA project after being presented with details of it. The self selective method used to recruit mental health service users to the intervention is likely to have meant that the sample was skewed to those who had more of an interest in learning and employment than the average mental health service user. This means that the participants were more likely to be motivated to do well, complete the training and take up employment opportunities than the average mental health service user. This meant that it was likely that they would be more positive about the experience when asked to provide feedback. However, countering this is the fact that this self selection is the usual way that people enter formal education. It is rare that people are forced into formal education after the age of 16.

There is also a concern with the length of time between the intervention and follow-up. Although it is stated that the EMILIA project follow-up point is ten months after baseline those participants in the second cohort had a follow-up of around six months from baseline. It is difficult to say what effect this would have on the results. This thesis was restricted to a relatively short follow-up period and tracking changes in SOC over a longer period would provide clues as to whether the SOC increases were sustained, continued to increase further, or declined.

There was no control group which raises the possibility that these results were due to factors other than the intervention. This weakness is partially negated by the use of methodological triangulation through a combined quantitative and qualitative approach. The advantage of the case study approach adopted for this thesis is that it takes into account the context of the intervention under investigation rather than trying to 'control out' the context as in a randomised controlled experiment (Yin, 1994). Nevertheless, delayed entry control should be employed in future similar research to strengthen the internal validity.

One factor that may have influenced the results is the change in the relationship between the participants and the data collector. At baseline the two were strangers whilst at follow-up they were not, a level of rapport had developed to a varying extent. The participants may have been more or less open, truthful, or trying to please the researcher.

Another limitation revolves around the SF-36-v2 tool – the advantages and disadvantages of this tool have been described in the ‘research measures’ section of the research methods chapter (chapter 6). In addition to these advantages and disadvantages is the fact that it measures something very specific: health related quality of life. The measure does not split into a measure of health and quality of life but into physical and mental health related quality of life. Unfortunately, except for one study, the research literature splits into either health or quality of life. Within this thesis the SF-36 is used to compare the thesis results to results measuring either health or quality of life. The SF-36 is taken as a measure of health and also as a measure of quality of life. Clearly this limits the value of comparisons with measures specifically targeted at measuring either health or quality of life.

There are disadvantages to the qualitative approach taken. The research used a deductive a priory approach. The disadvantage with creating and using a deductive a priory only approach is that it does not allow for themes to emerge. Allowing emergent themes may have provided results which did not fit a priory themes created and this approach may have resulted in themes that contradicted a priory themes. This is an acknowledged disadvantage of the deductive, top-down, or theory-hypothesis-investigation approach (Green & Thorogood, 2004).

Furthermore there are weaknesses in terms of the qualitative analysis. Due to the nature of a PhD thesis all of the qualitative data collection and analysis was conducted by a single researcher. This has some advantages in terms of cohesion and a single focus; however, there are disadvantages in terms of the lack of interater reliability. This is a limitation in the methodology of the research although it can be argued that the richness of the data and its consistency with the theoretical framework tends to reduce these limitations.

8.1.5. Future Research

There are a number of areas where further research could test the results of this present study and build on what has been learnt. This section lays out possible future research.

Based on the research reviewed in chapter 3 and the results of the thesis' research linking mental health and SOC strength it has been shown that Antonovsky's Orientation to Life Questionnaire can be a useful measure for interventions seeking to bring recovery benefits to those experiencing mental health disorders. It could also be employed to assess mental health service user's strengths, deficiencies and needs in terms of their meaningfulness, manageability, and comprehensibility, which could then inform biopsychosocial treatment offered. This suggestion requires further investigation and research in terms of feasibility and effectiveness. The main disadvantage of the questionnaire being the slightly complex wording and level of thought required to provide accurate answers possibly making it unsuitable for those with more severe cognitive impairment. In applying this measure a researcher needs to be aware that cognitive impairment in a mental health service user can be permanent or temporary and may vary due to mental health issues and side effects of drugs to treat both physical and mental health issues.

This present study could be replicated in future research in different cultures (e.g. cultures with alternative cultural interpretations of mental health disorders), different countries (both inside and beyond Europe), in different settings (e.g. community based learning rather than university based used in the present study), with a focus on different age groups (e.g. young adults [16-18] or people above 65 years old) and with sufficient number of people from diverse diagnostic categories. This research would test the external validity of the results. A qualitative aspect to this research could also help determine if there are any differences in the mechanisms and processes involved in SOC strength associated with learning and employment opportunities in these alternative populations. Such research would expand knowledge about the application of SOC theory.

In terms of future research into the mechanisms and processes involved in the generation of SOC strength – through learning and employment opportunities – the results of this study's qualitative analysis could be used to help form a structured questionnaire. The present study has helped to identify factors of a project providing learning and employment opportunities that contribute to SOC strength (listed on page 212). Questions could be formed around these factors and employed in a qualitative study to help provide a deeper understanding of the underlying mechanisms and processes, and to

find out more precisely how these factors contribute to SOC strength. This information could then be used to improve the effectiveness of interventions offering learning and employment opportunities.

This thesis' results suggested that the strength of a mental health service user's SOC is positively related and vital to the generation of mental health. This finding supports the justification for the future application of SOC theory and research based on its application.

There are also implications for future research in similar projects to EMILIA. These implications emerge out of what has been learned from the experience of EMILIA which is detailed in chapter 5.

In future projects it would be beneficial to use a measure of empowerment, for example, the Empowerment Scale (Rogers, Chamberlin, Ellison, & Crean, 1997) which is a consumer-constructed scale to measure the empowerment of mental health service users. It would also be useful to employ a measure of positive mental health well-being. For example, the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Tennant et al., 2007) which is intended to support mental health promotion initiatives. Furthermore, a measure of social integration and attachment such as The Interview Schedule for Social Interaction (ISSI) (Henderson, Duncan-Jones, Byrne, & Scott 1980) could also be employed. The scores on these measures could be used to see if the factors that they assess are correlated with scores on a measure of SOC.

Any future similar projects should try to steer clear of the medicalisation of the research with specific ICD-10 or DSM-VI diagnostic categories to avoid the problems faced in EMILIA. Furthermore, future projects should involve mental health service users right from the very start of the planning and design of the project. There would also need to be an extensive qualitative research aspect to capture the reality of the experience of the participants. As has been seen in this research, the qualitative instruments employed by EMILIA provided many useful insights into the experience of the project and its effects.

Within its research methods section this thesis details various positive and negative criticisms of the SF-36-v2 health related quality of life measure employed in this research. Alternative quality of life measures should be considered for future evaluation of projects similar to EMILIA. Despite the advantages of the SF-36-v2 there are many other valid and reliable quality of life measures designed for a general population and also a number which

have been designed specifically for use in a mental health service user population. The later variety includes the Oregon Quality of Life Questionnaire (OQLQ), Lehman Quality of Life Interview (QOLI), and Lancaster Quality of Life Profile (LQOLP) (see Lehman, 1996).

In summary, any further such projects should consider employing a measure of empowerment, positive mental well-being, social integration and quality of life as well as qualitative research measures, and they should actively involve mental health service users from the start and avoid using diagnostic categories.

CHAPTER NINE

9.1. Applying Sense of Coherence Theory to Descriptions by Mental Health Service Users of how they Deal with Problems

This chapter contains the second strand of the thesis' research: a qualitative investigation of SOC theory. It is based on the literature review provided by chapters 2 and 3. This research was conducted to investigate how SOC theory applies to descriptions of how mental health service users deal with problems that they face in life. The chapter starts by introducing the study and the method of analysis chosen. It then moves on to describe the research question, research prediction and the methodology. The results and discussion are then presented together, followed by a conclusion. Following this the limitations pertaining to the research study are laid out and then the chapter moves on to discuss the results in relation to potential future research. Finally, the chapter concludes the thesis with a few final words.

9.1.1. Introduction

In response to Antonovsky's call to study the SOC concept using methods other than his Orientation to Life Questionnaire a qualitative study method was employed. This qualitative approach investigated how SOC theory applied when mapped onto descriptions by people of how they deal with problems that they face in their lives. Using qualitative analysis allowed the researcher to study the application of SOC theory in reports related to everyday situations. A review of the available qualitative research and analysis methods was conducted. This process involved reading qualitative research text books to identify possible methods and then investigating further any methods which seemed appropriate for this thesis' research. Thematic analysis emerged as the most appropriate method to analyse the data set. Thematic analysis was chosen because it offers an accessible and flexible

approach to analysing qualitative data which can provide a rich, detailed and complex account of the data (Braun & Clarke, 2006). The analysis was conducted based on the guidelines provided by Braun & Clarke (2006).

Research Question

Based on Antonovsky's call to study the SOC concept using methods other than his orientation to life questionnaire the following research question was devised for the qualitative study: How does SOC theory apply when mapped onto descriptions by people of how they deal with problems that they face in their lives?

Research Prediction

Based on the literature described in chapters 2 and 3 showing the relevance of SOC theory, the research prediction is that SOC theory applies to descriptions by people of how they deal with problems that they face in their lives. Taking into account Braun & Clarke's (2006) review of the effectiveness of a thematic approach it is predicted that studying SOC theory using a thematic qualitative approach will provide a deeper understanding of SOC theory and how the three SOC components, GRRs and GRDs interact to determine SOC strength.

9.1.2. Methodology

Method of Analysis

As in the first thesis study this second study uses thematic analysis. The section will detail aspects which differ from the first study.

Approach

This research utilised a deductive 'top down' approach and in doing so it employed a theoretical thematic analysis. It took SOC theory and mapped it onto to the data set. To achieve this 15 a priori themes were created based on SOC literature. Codes that did not fit pre-designed themes were examined to see if they would form new SOC theory related

themes; this was completed to enable a deeper understanding of SOC and to provide possible theoretical development.

The Level at Which the Themes are Identified

Themes are identified at both a semantic/explicit and latent/interpretive level (Braun & Clarke, 2006). In terms of the SOC mechanisms and GRRs/GRDs there is an attempt to theorise the significance of themes and their meanings and implications in relation to previous research and theory (semantic approach). In terms of SOC theory there is an attempt to examine underlying conceptualisations (latent approach). This analysis is not just descriptive: it is already theorised. The SOC concept is theorised as underpinning what is actually articulated in the data.

Themes Identified

Fifteen themes were identified before the research study was conducted. These themes were identified through a review of the research into the SOC concept contained in chapter 2 of the thesis. This review sought to find GRRs that were identified and described within the work of Antonovsky and others who have studied the concepts of meaningfulness and SOC. The themes are laid out below and a referenced description of each is provided.

1. Structure in life

Antonovsky, (1987) stated that SOC is: “a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that stimuli deriving from one’s internal and external environments in the course of living are structured, predictable, and explicable...” (p. 19). The SOC component of comprehensibility refers to an individual making ‘cognitive sense’ of life events, i.e., the ability of an individual to be able to review reality to create cognitive order, clarity and structure, and to be able to find a degree of logic and consistency in life events (Antonovsky, 1979; 1987).

2. Predictability in life

Antonovsky, (1987) stated that SOC is: “a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that stimuli deriving from one’s internal and external environments in the course of living are structured, predictable, and explicable...” (p. 19).

3. *Social support*

Antonovsky (1979) reports Berkman’s (1977) assertions that social contacts provide tangible, appraisal and emotional support that are crucial in the generation and maintenance of good health. Having social support increases an individual’s ability to cope with the stressors of life as it provides them with the belief that their life has more meaning and is more manageable (Strang & Strang, 2001). Brier & Strauss’ (1984) qualitative study identified 12 benefits that social interaction and support provided an individual with: reality testing, social approval and integration, constancy (connecting current identity with pre-hospital identity and giving roots to existence), motivation, symptom monitoring, problem solving, empathetic understanding, reciprocal relating (becoming an equal partner, able to share and be of assistance to others), and insight (acquiring more complete and accurate understanding of themselves).

4. *Coping strategies*

Garcelán & Rodríguez (2002) provide a definition of coping strategies as: “behaviours subjects employ (consciously or not) in a planned and organised way to protect themselves from the demands of the environment or their own illness” (p. 28). Antonovsky (1979) proposed that the effectiveness of a coping style depended on how high it is on three variables: rationality, flexibility, and farsightedness. Antonovsky stated that the higher a coping strategy is on these three variables the more effective it is as a GRR but this study does not seek to make any effectiveness assessment.

5. *Life meaning*

Landsverk & Kane (1998) explained that meaningfulness is: “an emotional connection that promotes motivation” (p. 422). Antonovsky (1987) described meaningfulness as a crucial factor in mobilising resources: “Confronted with a stressor a person is more likely to feel a

sense of engagement, of commitment, of willingness to cope with a stressor” (p. 139). Meaning in life has been defined as: “the cognisance of order, coherence, and purpose in one’s existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfilment” (Reker et al., 1987, p. 221).

6. *Responsibility*

Langeland et al. (2007a) explained that increased responsibility: “emancipates resources and thus creates hope for the future (intentionality)” (p. 287). There is a strong association between meaning in life and well-being, and that people with a strong sense of meaning in life are more responsible, goal-directed, relationship-oriented, and better adjusted (Schulenberg, 2004).

7. *Comprehension*

Antonovsky (1979; 1987) described comprehension as reviewing reality to create cognitive order, clarity and structure, and to be able to find a degree of logic and consistency in life events.

8. *Expression of confidence*

Antonovsky (1987) stated that: “a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that stimuli deriving from one’s internal and external environments in the course of living are structured, predictable, and explicable; the resources are available to one to offset the demands posed by these stimuli...” (p. 19). Confidence is referred to in Antonovsky’s (1979) definition of SOC as ‘as well as can reasonably be expected’. It is not that a person is blinded by confidence, it is that they enter with a positive view of the likelihood of desirable outcomes based on the reality of the situation; a sense of confidence that things will, by and large, work out well. In discussing confidence as a GRR Antonovsky (1987) wrote: “...the underlying confidence that things will work out, that one has the resources to cope, that the confusing will become comprehensible, that the potential for tension resolution exists – this confidence in and out of itself is a relevant resource” (p. 135-136).

9. *Challenges worth investing time and effort*

The SOC factor of meaningfulness is partially determined by the belief that: “demands are challenges worthy of investment and engagement” (Antonovsky, 1987, p. 19).

10. *Health/Illness*

Within SOC theory everyone has a level of health which can be measured on a continuum. In terms of mental health this can range from severe psychological debilitation and devastating emotional pain which disrupts well-being or functioning at one extreme, to a very strong and full sense of psychological and emotional well-being which facilitates functioning at the other (Antonovsky, 1987). According to Antonovsky’s theory the strength of an individual’s SOC determines their subjective experience of health. An individual’s SOC strength is itself determined by their level of GRRs, one of which is the level of health (Antonovsky, 1979).

11. *Future orientation*

Frankl (1985) stated that the main lesson he learnt from his three years imprisonment in the Nazi concentration camps of Terezín, Auschwitz and Dachau was that: “those most apt to survive the camps were those oriented toward the future, toward a meaning to be fulfilled by them in the future” (p. 37). Frankl (1946) wrote that: “It is a peculiarity of man that he can only live by looking to the future... And this is his salvation in the most difficult moments of his existence, although he sometimes has to force his mind to the task” (p. 97).

12. *Past orientation*

Frankl acknowledged that an individual’s meaningfulness is linked with both the past and the present. He would have concurred with Clements et al. (2004) who stated that the: “lived experience is not a linear passage of time but is the way a person’s present is made meaningful by past experiences and future expectations” (p. 787).

13. *Positive, solution focused outlook*

Antonovsky (1987) explained that strong SOC individuals have a more positive, solution focused outlook and this outlook assists them in coping with life’s challenges successfully.

The proposed more positive outlook of strong compared to weak SOC individuals has been supported by subsequent research, for example, Pallant & Lae (2002). The solution focused outlook of strong SOC individuals proposed by Antonovsky has been backed up by the findings of Amirkhan & Greavessense's (2003) experimental study on the mechanisms of the SOC concept. In this study they found that those with a strong SOC: "actively attempted to resolve their problems" and had a: "pattern of non avoidant, problem-focused response" (p. 59). Antonovsky (1996b) described how a person with a strong SOC deals with a life event: "The person with a strong SOC, believing that she or he understands the problem and sees it as a challenge, will select what is believed to be the most appropriate tool(s) (GRRs) for the task at hand" (p. 172).

14. Emotional connection

Meaningfulness refers to the conviction that the demands of life are worthy of cognitive and emotional investment and commitment (Antonovsky, 1979; 1987). Landsverk & Kane (1998) describe meaningfulness as: "an emotional connection that promotes motivation" (p. 422).

15. Ensuring that you are justly treated

Meaningfulness refers to the conviction that the demands of life are worthy of cognitive and emotional investment and commitment (Antonovsky, 1979; 1987). Stating that you try to ensure that you are justly treated reflects, to some extent, a strong sense of meaningfulness.

Analysis Procedure

As for the first research strand this study used guidelines provided by Braun & Clarke (2006) but instead of a five phase analysis this second study used a seven phase analysis. This is detailed below:

Phase 1: Data immersion

The interviews were transcribed by the interviewer as soon as possible following the interview. As described by Lapadat & Lindsay (1999) this in itself was an interpretive act

requiring meaning to be generated rather than the automated act of converting spoken word into written word. Careful attention was paid to ensure that the transcription was as true as possible to the original nature and meaning of what the interviewee was trying to convey. Any missing words and additional explanatory wording were added where necessary (using brackets to indicate addition). The data was repeatedly read by the researcher in an active way – making a note of any meanings, patterns, emergent ideas, etc. through memo writing.

Phase 2: Generating initial codes

The data was coded to identify meaningful segments of the data. Open and focused coding was generated in analyzing the interview data. The focused coding was guided by the a priori themes. Each coded section of data was examined to see whether it could be placed in multiple categories, one category or did not fit theme categories. Every line and page was numbered to facilitate the process. The ‘find’ function of the word processing programme was used to search the computer stored transcripts for key phrases. This process was repeated a number of times after reflecting on the findings made. This enabled comparisons and connections to be made between codes and from the codes to the themes, and the consideration of possible emergent themes (Charmaz, 2006). Memo writing continued throughout the analysis process.

Phase 3: Searching for themes

The codes were matched to appropriate pre analysis generated themes and any codes that contained meaning beyond pre-analysis generated themes were recorded as such.

Phase 4: Reviewing themes

This involved reviewing at the level of the coded data extracts: reading all the collated extracts for each theme and considering whether they formed a coherent pattern. If they did form a coherent pattern the validity of the themes were considered in relation to the data set.

Phase 5: Defining and naming themes

In this analysis phase any codes that emerged that contained SOC related meaning beyond a priori themes were grouped into new themes. A minimum of two independent coded sections of data were required to constitute a new theme. The essence of what each theme was about was identified and described in terms of what aspect of the data each theme captured. Each theme, both a priori and emergent, was analysed and the story that it told was described. What was of interest about them and why they were identified was described.

Phase 6: Placing all themes within the existing SOC model

All of the themes, both a priori and emergent, were then placed within the existing SOC model. The themes were listed under GRRs, GRDs, meaningfulness, manageability, and comprehensibility. From conducting this process a new enhanced SOC model emerged and this was laid out in diagrammatic form.

Phase 7: Writing up of analysis

The story of the data was explained using coded extracts as illustration. The extracts were chosen to be representative of information in the data and to illustrate relevance to SOC theory. Arguments were made in relation to the research question.

Participants

The participant sample was slightly different to the participant sample for the first research strand of this thesis. This was the last questionnaire of data to be collected in the single session process. A total of 20 participants who took part in the EMILIA project completed the face to face digitally recorded interviews. There were 8 males (40%) and 12 females (60%) and their ages ranged from 28 to 62 years, with an average age of 48. They were mostly of British birth (70%); other countries of birth included Sierra Leone, Pakistan, Canada, and Ireland. The number of years of contact with mental health services ranged from 3 to 39 years, with an average of 16 years. There was a range of different mental health disorder diagnosis. The participants' primary diagnosis split into the following: schizophrenia disorders (35%), bipolar disorders (30%), depression (15%), Anxiety (10%),

and PTSD (5%). The diagnosis was determined by asking participants what their current mental health disorder diagnosis was.

The opportunity for participation in the EMILIA project was offered to mental health service users through active promotion by EMILIA representatives. Mental health service users were given the opportunity to participate through information provided by mental health service user representatives acting for EMILIA and through meetings held by EMILIA project representatives at mental health services in the North London area. The participants were made up of those mental health service users who expressed a wish to take advantage of the learning and employment opportunities offered. The participants were, therefore, purposively and self selected rather than randomly selected.

Table 11. Participant information

Name (names changed to protect identity)	Mental health disorder diagnosis	Age	Sex	Marital status	Years of contact with mental health services	Country of birth
Alvita	Bipolar disorder	47	F	Single	7	UK
Ben	Paranoid schizophrenia	50	M	Single	39	Ireland
Dawoh	Bipolar affective disorder	51	M	Married	11	Sierra Leone
Eric	Schizophrenia	39	M	Single	18	UK
Freya	Clinical depression	41	F	Single	4	UK
Hilda	Bipolar affective disorder	37	F	Single	8	UK
Isabel	Bipolar disorder	40	F	Single	12	UK
Jameela	Bipolar disorder	28	F	Single	3	UK
Kay	Schizo affective disorder	43	F	Single	23	UK
Lokesh	Schizophreniform illness	55	M	Married	12	Pakistan
Maria	Anxiety	48	F	Single	6	UK
Olive	Premenstrual		F	Married	36	UK

	dysphoric disorder (PMDD)	61				
Paulette	Bi-polar disorder	48	F	Divorced	29	UK
Quinton	Schizophrenia and Asperger's syndrome	41	M	Single	41	UK
Rena	PTSD (previously Borderline Personality disorder)	62	F	Divorced	20	UK
Steven	Bi-polar + clinical depression + anxiety	43	M	Single	18	Canada
Tracy	PTSD	51	F	Married	5	Ireland
Una	Schizophrenia	60	F	Single	15	UK
Warren	Anxiety + depression	48	M	Married	10	Ireland
Zack	Depression + anxiety	53	M	Married	5	UK

Questionnaire Design

The questionnaire was open ended, semi structured and was designed around Antonovsky's – and others who have studied the SOC concept – descriptions of the mechanisms, components and resources involved in SOC theory (which is laid out in Chapter 2 of this thesis). As can be seen in appendix 2 the questions were based on different aspects of Antonovsky's SOC theory. The aim was to try and get a reasonably even spread of questions related to definitions of manageability, comprehensibility and meaningfulness (the three SOC components) as well as asking two questions specifically around the GRR of social support. There was a focus on the resource of social support due to the importance placed on this resource in SOC theory.

From the base of literature described above the questionnaire design process began with a draft series of questions. Over a period of several months these questions were developed into the final questionnaire with the aid of feedback from my director of studies, supervisor and academic colleagues.

Procedure

The data was collected over an eight week period during summer 2008. The format employed was a digitally recorded face to face interview. The interviewee was informed that all of the information that they provided was confidential and would be kept anonymously. Permission to conduct the interview was obtained from the interviewee. Interviews lasted between 10 and 20 minutes and all of the data was collected by a single interviewer (the author) with no assistance. The interview started with the interviewer explaining what the interview would relate to, i.e. how the interviewee responds to and deals with problems/challenges in life that they face. A concrete problem was described and the interviewee was asked if they could relate to this. If they could not then alternative problems were discussed until one was found that the interviewee could relate to. The interview questions were then asked based initially around this problem and then the focus was expanded to more general problems faced in life.

The interview had a semi-structured style. The semi-structured interview was chosen to encourage two-way communication and to enable the pursuit of new avenues of interest not originally envisaged. It was used not only to obtain answers but the reasons for the answers. The scripted questions avoided sensitive issues but if the respondent brought up a sensitive issue then the semi-structured approach allowed for a discussion of these sensitive issues. The interviewer asked the questions in order unless the respondent touched on another question in one of their answers and it seemed appropriate to ask that question which was touched upon. Prompts were used where necessary to obtain fuller answers and the interviewer also sought clarification of answers where necessary.

The interview began by deciding upon a concrete problem that the interviewee could relate to so that the interviewee had a problem in mind around which to base their answers. The interviewer started with a suggested concrete problem: that the interviewee had received a bill through the post and that bill was incorrect, that they had been unjustly overcharged. If they could relate to this then the interview continued based on this concrete problem. All but a few interviewees could relate to this but if they could not then an alternative situation that they could relate to where they had been unjustly overcharged was found.

The study purposely did not start with a relationship oriented problem due to the possibility that thinking about such problems might cause the interviewee to become anxious or upset. However, a couple of interviewees mentioned that they viewed relationship orientated problems differently from non-relationship orientated problems. So, after the first few interviews, towards the end of the interview schedule such questions as ‘would you feel an emotional connection to a relationship orientated problem?’ and ‘do you feel the same level of competence dealing with relationship orientated problems?’ were introduced. This was done to see how dealing with relationship oriented problems differed from dealing with non-relationship orientated problems in relation to SOC theory. Once all the questions were completed the interviewer thanked the interviewee for their time and contribution.

9.1.3. Results and Discussion

The overall impression from the thematic analysis was that SOC theory mapped effectively onto the transcripts. Mapping SOC theory revealed how different SOC related resources were involved when people in the study expressed how they dealt with problems that they faced. It also revealed insights into how the three components of SOC interact with and overlay one another. Applying SOC theory provided a clearer understanding of the complexity of human coping, adaptability and problem solving.

A Priori Themes

Sections of coded data were found relating to all of the a priori themes and this demonstrates that SOC theory maps effectively onto transcripts of people describing how they deal with problems that they face in life. This lends support to the relevance of SOC theory in coping and adaption processes. Sections of coded data relating to each a priori theme will now be described:

1- Structure in Life

Antonovsky, (1987) explained that SOC is: “a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that stimuli

deriving from one's internal and external environments in the course of living are structured, predictable, and explicable..." (p. 19). This following statement may express that 'feeling of confidence' in relation to structure:

Lokesh: "There is always some kind of order. [I would look for] the logic."

Knowing that there is structure in life is of great importance to individuals. It is clear from the following statement that the participant placed great value in there being structure in her environment:

Una: "There is a structure in the EMILIA project which is one of the nice things about it and it means facing structured situations. It is all under control in the EMILIA project."

Perhaps it is the case that other parts of her life do not have the structure that she desires and do not provide the feelings of control that are necessary for her to feel at peace, safe, or that enable her to focus on the tasks in hand.

The SOC component of comprehensibility refers to an individual making 'cognitive sense' of life events, i.e. the ability of an individual to be able to review reality to create cognitive order, clarity and structure, and to be able to find a degree of logic and consistency in life events (Antonovsky, 1979; 1987). The following participant appears to be describing this process of comprehension of a situation that they face to enable them to find the structure within it:

Ben: "But generally when you sleep on it or think about it for a few hours or so then you know that there is some structure to it. Yeah."

2 - Predictability in Life

Antonovsky, (1987) explained that SOC is: "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable..." (p. 19). The confidence the following participant has in the predictability of their environment is made clear. This person knows what to expect, realises when something is not as it should be and can take action to put it right:

Dawoh: “Call them up and say: I am not expecting this, I have checked my bills, I have checked my... this is not right.”

Rules allow life to be more predictable. Acceptance that rules are generally made to be beneficial helps people predict what is going to happen and what they should do.

Eric: “But the rules are the rules.”

If an environment that a person finds themselves in is unfamiliar or unpredictable then it can increase the strain on a person’s coping ability. A familiar or predictable environment can help reduce this strain.

Eric: “A familiar environment helps me to cope.”

3 - Social Support

Social contacts can provide social support and many other benefits. Social support has many different aspects to it in terms of its application as a coping resource; an individual needs to be able to match appropriate aspects of their social support resources to the demands of the environment (Cutrona & Russell, 1987). The SOC components of manageability, comprehension and meaningfulness all play a role in the ability of a person to be able to do this effectively. For example, an individual needs to decide what meaning a situation has to their lives, accurately interpret the situation and effectively deploy appropriate social support resources.

Sometimes just knowing that there are people who can be contacted for advice can allow a person the breathing space and thinking time to work problems out for themselves:
Ben: “[I would contact] my sister or my uncle. Just to ask them what to do about it. They might not offer any advice but by which time my brain probably be working on it.”

The availability of social support may act as back-up resource. It may provide a person with the confidence to attempt a problem in the knowledge that they have someone to call upon if they get into difficulties:

Dawoh: “So first I have a go at it, then I think – if I can’t handle it – then I go to find help.”

Perhaps having social support is most important when you are facing great difficulties in your life. It is often family that can be relied upon to see you through difficult times and stick by your side when you are feeling most vulnerable:

Dawoh: “[Support from family members] Yes. It is very key to anybody’s life. I think especially if you have got mental health issues that you get support and that your family understand your condition and is able to be there when you need it. That is a very important bit of my life.”

Friendships can be quite superficial and not provide the kind of support an individual requires. The friends and family who are of greatest value are the ones who are there for the person in times of need and who have a deeper understanding of that person’s problems and needs:

Dawoh: “Well friends, there is an ambivalence with friends. Some understand some don’t really understand enough about things, you know. There are friends and relations that I could speak to if I needed advice to be able handle most things.”

Friends who enable a person to ‘get out of the house’ are vital to many people. They can, in many cases, provide an escape from problems and allow a person to engage in sports, hobbies, conversation, etc. that do not centre on problems that they face. Referring to his social life with friends the following participant stated that:

Eric: “Yes I have friends that see at least 3 nights a week.”

Practical help is also vital, for example, with shopping, transport, repairing things, etc. and a ‘listening ear’ is what many people need and desire as this provides people with a belief that others care about them and value them:

Eric: “My friends do provide practical support and a listening ear.”

Warren: “I haven’t got friends but there are people who I can talk to. Not advice but... we give each other support and that... like counsel each other in a way. And others along the way as well – [like] people that I drive [for] sometimes.”

The following participant is aware of the time constraints of her sister but clearly values her opinion and feels she can go to her when the need arises:

Isabel: “The first person I will go to is my sister. But she is very busy.”

This same participant also feels that they have support from their friends and are aware that they should not over use this resource:

Isabel: “They support me as much as they can. And I try not to ask too much of them...”

This participant feels that she cannot keep contact with some of her friends due to her mental illness and she feels as though she needs to protect her best friend from knowledge about how bad she feels. This is possibly a strategy that she employs because she does not want to scare her friend away:

Isabel: “I don’t tend to go too deep about myself with my friends. I have a lot friends that I don’t keep in contact with because of the way that I feel but I have a best friend that I speak to but I don’t know if she knows that I don’t tell her everything. Because I don’t want her to be affected by [sometimes] how I feel.”

The following participants expressed similar concerns:

Maria: “[Support from friends] Now [yes]... the friends that I have got now I don’t tell them everything it is kind of quite sad really. I quite keep my anxiety and my trauma to my self.”

Rena: “[Friends]. Sometimes. [are there friends that you can go to?] No not always because I don’t like to put upon people because that’s how you lose friends isn’t it?”

Having at least one person who an individual can go to is often vital in times of distress:

Maria: “Well I have a large family and out of my large family I have one who is particularly very understanding. The rest of them wouldn’t understand.”

Paulette: “[Friends] I have got one best friend who I talk to about everything really [who provides you with support and advice?] yes.”

It is important that if people do not have friends that can provide them with support in helping them with their problems, that they seek out friends who can.

Steven: "I'm learning to make friends who do do that... I'm learning to find friends who are good for me."

The need for human physical contact that demonstrates support, love and affection is a deeply routed part of being human:

Warren: "I have no family. [what about your wife?] Sometimes she can be [supportive], sometimes. If I get emotional now she may put her arm on me or touch me or something like that."

Many people expressed a lack of social support and sometimes this was due to their mental health issues:

Lokesh: [Do you have support from your friends that is adequate to help you deal with problems that you face?] "No not really I have lost contact with many of my professional friends."

Una: "...I very much miss not having a friend on my side and having people to ring up and discuss things with. Gradually over the period of my ill health which has gone on for 15 years I have just gradually lost [friends]... people have sort just of peeled away."

Most people place great value on long term friendships, this description by Una of a depletion of long term friendships represents a loss of an important resource.

4 - Coping Strategies

A wide variety of coping strategies were described by participants to resolve the concrete problem which was explained at the start of the interview, most answers followed a similar pattern to the following two quotes:

Alvita: "Well I would have to ring them up. And see how it could be sorted out."

Jameela: "If it was a phone bill I would check the numbers and make sure nobody else in the household has been making those calls. I suppose the first thing that I would do is ring

up the phone company. And I guess if I didn't get a good response from them then I would have to write a letter."

A lack of money was clearly an issue for many participants and the following participant took an upfront approach to dealing with a funding issue:

Dawoh: "And if you don't have the money to pay it you can always say: hey look I can't pay it. I need time to pay."

A participant explained the effects of his mental illness and the strategies he employed to cope with them:

Eric: "I get very confused at work at the weekend. For the first 20 minutes I try and escape away from movement so that I can recover. The traffic affects me [in my journey to work]. I need [time] to settle down."

Eric: "I take tablets to stabilise the emotions and I try to take the advice of others. I can be both reactionary and defensive. Going to the gym helps me cope with my emotions."

The stigma of mental illness can be very disempowering and it means that people have to employ novel coping strategies:

Freya: "Even though I don't need an advocate I have used one because people will hear them over me."

Isabel: "I may... it actually might send me to bed. I know that sounds a bit weird. But if I find that things are too much or if I come off the phone and I'm in just like such a state, I have to go to bed. And I will kind of sleep it out. And then wake up and think ok lets start again."

Isabel: "My mum always used to say to me, if you are doing something and you are not getting anywhere then you have got to leave it and then come back to it."

Focusing on what you have control over rather than worrying about what you do not is clearly an effective coping strategy:

Tracey: “But if we are talking about fairness and justice and things there is a lot of unfairness in the world so at the end of the day I have to go with myself what is going on with myself, what is going on for me.”

This next statement is a clear visual description of the strategy: ‘if one thing doesn’t work try something else’:

Warren: “It is more to do with other people’s behaviour. And challenging it. It is like corner posts in football, I push them down and if they come back up I try something different. [You try different strategies?] yes exactly, that is what it is.”

5 - Life Meaning

Landsverk & Kane (1998) explained that meaningfulness is: “an emotional connection that promotes motivation” (p. 422). In the following extract an emotional connection to family drives the need to ensure that the person does not lose out financially:

Isabel: “Yes because it’s about money. I mean I will let lots of things go but when it is going to directly impact on me or my son then I have to fight.”

Antonovsky (1987) described a strong sense of meaningfulness as a crucial factor in mobilising resources: “Confronted with a stressor a person is more likely to feel a sense of engagement, of commitment, of willingness to cope with a stressor” (p. 139). You can see aspects of this in the following statement; the participant knows that life is full of challenges but they have the motivation (driven by meaningfulness) to deal with the challenges that they face.

Isabel: “Yeah. Another thing to have to deal with. Another fight to fight. Another struggle to get through. Another burden, you know. It adds to it but then that is what life is all about.”

Meaning in life has been defined as: “the cognisance of order, coherence, and purpose in one’s existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfilment” (Reker et al., 1987, p. 221). This following participant described working with hospitalised older people, their job clearly providing their life with meaning.

She feels as though it is worthwhile and she clearly feels a connection with the fellow human that she is dealing with:

Alvita: "... and see it from their point of view. If someone is being rude you have to think to yourself 'well what is it? Their illness – they have got all of these tubes.' I mean wouldn't I feel miserable if I was in a position? And things like that. But I'm always on their side really."

6 - Responsibility

There were lots of expressions by people in this study showing that they take responsibility for their own lives:

Alvita: "I always think that I can work [if I need extra money]."

Ben: "I think I'm very up on fighting for my rights."

Dawoh: "I go for it. I am more proactive now than I was before in terms of what I do in terms of equal opportunities. Yes definitely."

Eric: "I'm working towards legitimacy where I might be paying my own way, earning my own crust."

Isabel: "I will try and use the skills and resources that I have."

Kay: "I try to act fairly myself because often there is a reason that you're not treated fairly. And I have learnt that the hard way."

Olive: "I'm a person who likes all my money problems solved and I pay everything [bills] even if I have got to live off bread and jam I pay my rent, electric and gas. I feel that paying bills is more important so that I don't create problems for myself. [so that you don't get into debt] yes."

This participant discusses both individual responsibility and shared or community responsibility:

Tracey: "I think it is about accountability and responsibility, it is not about control it is about where is the line between about who is responsible and accountable for what and I have my part in that just as you have yours as other people have theirs. Whether we sit on the fence and do nothing, whether we get actively involved, whether we are supporting on the sidelines or whatever and it is about accountability and responsibility and influence but

I don't like the word control because there are very few things that we have control over – even ourselves. [We all need to be responsible?] absolutely, and it is about shared responsibility.”

The next extract describes how mental illness can take away an individual's right and desire to be responsible for his or her own lives:

Isabel: “And also I find with the mental health problems they think ok I'm going to fix this and they don't always listen to you. They just do what they think is best. They act for me.”

This type of situation can be very disempowering and may negatively affect SOC strength.

7 - Comprehension

Antonovsky (1979; 1987) described comprehension as reviewing reality to create cognitive order, clarity and structure, and to be able to find a degree of logic and consistency in life events. This is sometimes possible and sometimes it is not, as expressed here:

Tracey: “I tend to look at things from... I would start with my perspective. I try and make sense of other people's perspective although sometimes that is impossible because some situations or some people may not be logical and I might not be logical myself at times.”

These two following participants feel as though they do, to a large extent, understand or comprehend the world in which they live in, the world that they experience:

Dawoh: “[Do you feel as though you understand the world in which you live in?] To a certain extent yes, we all operate on different levels and so on the practical pragmatic level I think yes I appreciate what is happening around me and what is going on. You have go to live in the world that you live in. I just do things.”

Lokesh: “Yes I have a good understanding of the world in which I live in.”

Many participants expressed a lack of understanding and comprehension in answer to the following question: ‘Do you feel as though you understand the world in which you live in?’

Ben: “No. It can be a bit confusing sometimes.”

Eric: “Yes, if I’m not under pressure. I’m not very good with pressure, it slows me down. I get frantic; feel frantic which leads to confusion.”

Quinton: “No, I think I have got a very poor understanding. My understanding of the social world and political world is based on what I have seen on the TV and what I have read in newspapers.”

Una: “And I bought a mobile phone not so long ago. And then I found I could not understand how to make it work. [Even though] I read all through the instructions. And everything: the oven, the hob... In general I am not very much part of this age because it doesn’t come easily to me. And I would like a computer and I would like to email people. But it is so bad that when I got the actual thing and I can’t work out how to make it work.

Expressions of a lack of comprehension were also related to participants’ internal thoughts, feelings, ambitions, etc:

Warren: “I don’t know what is stopping me [from moving on in life].”

8 - Expression of Confidence

In discussing confidence as a GRR Antonovsky (1987) wrote: “...the underlying confidence that things will work out, that one has the resources to: cope, that the confusing will become comprehensible, that the potential for tension resolution exists – this confidence in and out of itself is a relevant resource” (p. 135-136). The participants presented a variety of descriptions of the type of confidence referred to by Antonovsky:

Ben: “I feel I have [the resources]. I am fairly capable of dealing with it.”

Dawoh: “Yes I do believe that there is no problem that is insurmountable or that cannot be resolved.”

Lokesh: “I think that I am very resourceful. I personally feel that. I am confident and feel that I can do a lot that is useful.”

Lokesh: “Yes I have a lot of belief in myself.”

Paulette: “Yes I am quite good at writing letters to people. I have experience of that. I have quite a good level of articulation and ability to explain myself in writing as well as orally.”

However, confidence for some participants was quite fragile:

Rena: “I feel sometimes that I have got confidence to get over problems. But when it comes to the crunch I go to pieces and my confidence gets shattered.”

9 - Challenges that are Worth Investing Time and Effort

The SOC factor of meaningfulness is partially determined by the belief that: “demands are challenges worthy of investment and engagement” (Antonovsky, 1987, p. 19). A feeling of enjoyment of challenge can contribute to the belief that challenges are worthy investing time and effort into, but mental health issues can detract from this:

Zack: “I enjoy challenges – yes I do. When I’m feeling on form [i.e. not depressed] yes I do.”

This participant is expressing the view that they see no alternative but to sort out the problem in hand:

Jameela: “Yes if you are being overcharged for something then obviously you have to pay and if you don’t have the money or if it is going to cause you a lot of difficulties then you need to sort that out really.”

The next participant describes the importance of dealing quickly with any challenges that come along because of the potential consequences of not doing this:

Kay: “I think that it is very important because things can spiral out of control just because you ignored a letter.”

10 - Health/ Illness

According to Antonovsky’s theory the strength of an individual’s SOC determines their subjective experience of health. An individual’s SOC strength is itself determined by their level of GRRs, one of which is the level of health (Antonovsky, 1979). One aspect of this relationship between SOC and well-being/health is described by one participant:

Dawoh: [Would there be an emotional connection?] “Oh but there is – definitely. We are all emotional beings. And it is how we cope with different emotions that impacts on our mental well-being.”

The next two extracts relating to the impact of mental illness describe other aspects of this relationship. Mental illness can impact on the response that individuals get from others, in SOC concept terms it can impact on: “stimuli deriving from one’s internal and external environments” (Antonovsky, 1987, p. 19).

Freya: “Because people hear mental ‘oh you’re the mental one’ and actually treat me different.”

Depression can negatively affect a person’s belief in their ability to overcome problems that they face in life:

Paulette: [Do you hold the belief that you will be able to overcome problems such as this?] “Yes, most of the time. If I am not depressed, which I don’t tend to get these days.”

The need for respect as a human from others, especially when an individual is experiencing mental illness, is clearly expressed here:

Eric: “A bit of humanity would be helpful [in dealing with these situations] when you are not well.”

Despite their mental illness many people in the study believed that they cope well in life:

Eric: “...she is not well but she copes. Hopefully people think the same of me – he is not well but he copes.”

11 - Future Orientation

Frankl (1946) wrote that: “It is a peculiarity of man that he can only live by looking to the future...” (p. 97). A couple of the participants mentioned looking to the future by referring to their future goals, for example:

Una: “And I would like a computer and I would like to email people.”

One participant talked about how they were going to resolve a problem in their lives in a way that would move them forward in a constructive way.

Alvita: “Me and he are going to family therapy and that is one way forward.”

12 - Past Orientation

Frankl acknowledged that an individual's meaningfulness is linked with both the past and the present and Clements et al. (2004) stated that the "lived experience is not a linear passage of time but is the way a person's present is made meaningful by past experiences and future expectations" (p. 787). People therefore need to have an understanding of how they were in the past to be able to understand how they have progressed and improved:

Kay: "Not really. It is getting better. It hasn't been good in the past."

Maria: "I have been known to give up but I don't do it now."

Steven: "... In the past it has been the other way or I have been too dependent on people who have other agendas and who are manipulating."

13 - Positive Solution Focused Outlook

Many participants described their positive solution focused outlooks:

Ben: "Well when problems arise... as one of my friends said there is no such thing as a problem there is only solutions. You have just got to think positively."

Dawoh: "Yes I do believe that there is no problem that is insurmountable or that cannot be resolved. You only need to have a go at it and if you can't do it yourself there is always someone who can help you."

Zack: "I don't know if it is called confidence but I have always believed that if there is a problem there is a resolution. It is just looking for it. If I'm talking about the same type of thing as you are talking about [i.e. concrete problem]. If the car breaks down I don't start pulling my hair out wondering what it is, I go and try and seek what the problem is and go and try and get it sorted."

Even though this following participant finds life hard and demanding due to their mental health issues they still maintain a positive outlook:

Isabel: "But no I find that life is quite hard and very demanding but I'm not negative about it. But I do feel as though it is quite a struggle really."

14 - Emotional Connection

Landsverk & Kane (1998) describe meaningfulness as: “an emotional connection that promotes motivation” (p. 422). This emotional connection that provides motivation is expressed here:

Lokesh: “I take every problem as my personal problem. I take a keen interest in that and that can involve an emotional involvement in that.”

Maria: “I think that I am better [at dealing with problems] when I am actually angry than when I am calm. When I am angry I breath in and I can actually do something. But if I am calm and everything I tend to get too soft.”

Mental illness and the side effects of drugs to treat mental illness can have a negative effect on the emotional connection a person feels to life and hence their motivation:

Una: [emotional connection?] “Yes but the drugs that I am taking one of them is sodium valproate which is a mood stabiliser. I think that some of the combinations of drugs actually prevent me from being as volatile as I am normally, if you can call it normal. But I am an emotional person and I do feel rather stamped on in that way. [I can feel flat sometimes] very flat and I don’t have access to that part of myself because it has been altered. [and that can be very important because that provides motivation for things that you do?] yes for art and everything.”

However, emotional connection can be a double edged sword. The effects of emotion can also negatively impact an individual’s ability to comprehend, manage and find meaning in a situation:

Alvita: “But that sort of thing really it is horrendous to me. It is being emotionally involved [that is difficult].”

Ben: “If I was presented with this problem first of all I would think – what is going on? There is no structure there is just absolute panic.”

Rena: “I just panicked upon receiving this bill.”

The following participant realised the importance of managing emotions so that they do not have a negative impact:

Dawoh: [Would there be an emotional connection?] “Oh but there is – definitely. We are all emotional beings. And it is how we cope with different emotions that impacts on our mental well-being.”

15 - Ensuring That You Are Justly Treated

Meaningfulness refers to the conviction that the demands of life are worthy of cognitive and emotional investment and commitment (Antonovsky, 1979; 1987). Stating that you try to ensure that you are justly treated reflects, to some extent, a strong sense of meaningfulness. Many participants did try to ensure that they were justly treated in different situations in their lives:

Dawoh: [make sure that you are justly treated?] “Ah of course all the time. I go for it. I am more proactive now than I was before in terms of what I do in terms of equal opportunities. Yes definitely.”

Freya: “It depends what it is actually. Some things... I should say yes – even over small things. I have thought ‘trivial let it go’ over many things. But everything that I had let go had become an issue. Even, it seems, little things it is not good to let [them] go.

Steven: [and make sure that you are justly treated?] “I’m learning to [do this]. I’m beginning to challenge other people’s views [that] aren’t necessarily true. So I challenge their views. Just being more assertive, yes.”

Una: “Yes I think I do, I think that I have quite a strong sense of justice in relation to myself and others. Yes. [Is that important because it is a motivation in itself?] yes.”

Another participant took a non-assertive approach through seeking reciprocal just treatment from others:

Zack: “No I don’t try to make sure that I am justly treated I just try to treat other people how I wish to be treated in the basic belief that if I do that I will be treated fairly.”

In an example of where the SOC comprehensibility and meaningfulness factors interact there is often a judgement call about whether it is worth spending time and effort to ensure you are justly treated in different situations:

Quinton: “Probably not as much as I should do. Sometimes I will and sometimes I can’t be bothered [if only a small amount of money is involved].”

One participant expressed his concern that he and other mental health service users receive just treatment:

Ben: “I am a great believer in justice for disadvantaged people like myself who have been ill. Or who haven’t had it easy in work situations, [who have] been treated [poorly] by employers and that. I think I’m very up on fitting for my rights.”

Emergent Themes

No themes emerged that did not fit the SOC model. This is not an unexpected result due to the universal nature of the theory in relation to coping and adaption, and the extensive support for the model and lack of previous research findings showing aspects of human adaption and coping behaviour that did not fit the model. Key additional SOC GRR related themes that emerged were as follows: hope, acceptance as a coping strategy, persistence, keeping things in the right proportion, and self awareness. Thematic analysis was applied to help understand these themes in terms of SOC theory and to integrate them into the SOC concept.

All of these emergent themes are what Antonovsky referred to as GRRs. They are all psychological GRRs. In Antonovsky’s (1979) “Mapping-Sentence Definition of a Generalised Resistance Resource” (p. 103) model the themes would be considered to be cognitive and valuate-attitudinal (coping styles) properties of the individual that are effective in combating (dealing with and overcoming) a wide variety of stressors. They are all coping styles driven by cognitive capacity and adaptability.

Identifying these emergent GRRs does not advance the SOC model; rather it provides a deeper understanding of the mechanisms and resources involved in the SOC model. It strengthens the premise that we can, based on Antonovsky’s definition, identify cognitive coping strategies that serve as GRRs in the SOC model.

It is not a criticism of Antonovsky’s SOC theory that the emergent GRR themes identified here were not explicitly mentioned in his work, as he did not set out to construct a list of all possible GRRs. He recognised that such a list would never be definitive due to

the changing nature of human/environment interactions, and therefore he instead provided a definition and examples. His definition provides a criterion for identifying GRRs which was found to be effective when applied in this analysis.

An additional emergent theme beyond the GRR emergent themes identified was that relationship orientated problems are distinct from non-relationship orientated problems. The nature of this theme in terms of SOC theory is described after the description of the GRR related themes.

Hope

Despite there not being an a priori theme for hope this concept does exist within SOC theory but not in an overtly explicit way. Antonovsky makes little mention of it within his SOC theory, nevertheless, hope (a sense that something desired might happen [Frydenberg, 2002]) forms an important part of the SOC component of meaningfulness. This is due to the fact that Antonovsky's theory associated with the meaningfulness component was partly based on the work of Viktor Frankl, and Frankl (1946; 1962; 1985) discussed hope in relation to life meaning (described in chapter 2).

A strong sense of meaningfulness generates hope through increased commitment and motivation (Lazarus & Folkman, 1984) and hope can contribute to a stronger sense of meaningfulness and hence SOC through a belief or confidence in a positive outcome. Consequently a lack of hope can have a negative effect on an individual's SOC and health: "Those who know how close the connection is between the state of mind of a man – his courage and hope, or lack of them – and the state of immunity of his body will understand that the sudden loss of hope and courage can have a deadly effect" (Frankl 2002, p. 97). In this quote Frankl was referring to the consequences of a loss of hope in an inmate of a concentration camp but loss of hope can negatively affect health in many more everyday circumstances. Without hope people often give up and this can cause the immune system to be less effective (Everson et al., 1996). A glimmer of hope, a belief in a light at the end of the tunnel, helps sustain health.

One participant hoped that they would be provided with the structure that they needed to help them solve the concrete problem that had been set.

Ben: “And hope that they would give you the structure that you need to sort the problem out.”

In a SOC theory sense they hoped (meaningfulness factor) for increased information (a GRR) to enable increased comprehensibility.

Another participant relayed that they hoped that they did have the necessary skills and resources to be able to solve the problem set and move on in their lives. In a SOC theory sense they hoped (meaningfulness factor) that they had GRRs to enable increased manageability.

Acceptance as a Coping Strategy

In relation to the EMILIA project learning intervention that they took part in a participant explained that:

Una: “But I don’t feel as though I have done very well. I don’t know how much I have contributed. I have tried to contribute but I do have other problems (mental health and side effects of medication for mental health issues). I would do it again...”

This links to Antonovsky’s (1979) statement that an acceptance of failure and frustration as normal parts of life allow the necessary lessons to be learned that can ultimately enable the achievement of success.

Another example of this acceptance is expressed here:

Tracey: “I tend to look at things from... I would start with my perspective. I try and make sense of other people’s perspective although sometimes that is impossible because some situations or some people may not be logical and I might not be logical myself at times.”

Another participant describes the acceptance, on a personal level, that they have health problems (in this case, mental health disorder) that impact negatively on their life.

Freya: “In the last year I have kind of accepted that may be there is something wrong [mental illness]. I have looked at others and I have looked at myself and accepted that yeah there is a problem in certain situations.”

This may link to Garcelán & Rodríguez's (2002) description of an 'acceptance' coping strategy employed by those with symptoms of psychosis. Garcelán & Rodríguez's (2002) review revealed that the attitude of acceptance by those with symptoms of psychosis may be considered to be a GRR in the SOC concept. They stated that: "subjects that do not fight the symptoms, and do not attempt to avoid them either, but rather to accept them, succeed in reducing the anxiety associated with the symptoms and living more comfortably, even without managing to make them disappear" (p. 37). This may be part of the SOC manageability component as Garcelán & Rodríguez stated that an individual deals with their symptoms by: "adapting oneself to them and incorporating them as just another event in one's life" (p. 37).

Antonovsky (1979) declared that his salutogenic orientation is concerned with the proactive successful adaptation by individuals to stressful environments that they are exposed to. This coping behaviour reported by Garcelán & Rodríguez is clearly a proactive successful adaptation and this type of acceptance may be present in the coping strategies of people with a mental health disorders other than psychosis.

This type of acceptance may also link Antonovsky's definition of recovery. Aligning with Antonovsky's (1991) description of recovery as a constructive recovery process, Spaniol et al. (1997) described recovery as involving the creation of a new personal vision of one's self partially through acceptance of changes. Change is a natural part of human existence and the ability to accept this change is a GRR that can enhance comprehension, meaningfulness, and manageability, and therefore enhance SOC.

There are some aspects of an individual's life that they have little or no control over, i.e. government decisions or the behaviour of people outside their influence of control. Worrying and becoming distressed about those things that are out of a person's control is fruitless and possibly damaging to their well-being. One participant stated the following: Tracey: "And that it is a huge problem for me because that is not in my control or power or influence."

The participant was clearly very distressed by this problem. Sometimes it is difficult to accept that something important to you is out of your control and that you need to focus on what you do have control over. It is likely that this distress about things beyond her control would have a damaging affect on her SOC and health. It is often the case that

humans are not completely rational in their thoughts, behaviours and actions. Many people seek reassurance by placing their trust in the judgement of unseen omniscient powers that form part of their spiritual belief system.

Tracey: "...it depends what perspective that you come from doesn't it because if I am speaking from a spiritual perspective then my understanding is what will be, will be."

Antonovsky (1979) argued that placing control of aspects of an individual's life into the hands of another that they consider to be legitimate and who they expect will act in the correct way, for example in a deity, will form part of their SOC strength. This coping style may allow a person to cope with some of the more unpleasant sides of human existence.

Persistence

Persistence is a coping strategy which is often vital to ensure success in life. It is also linked with confidence (having the confidence that pursuing something is worthwhile), and hope (the belief that you will eventually be successful). Several participants revealed that persistence is a part of how they deal with problems that they face:

Hilda: "...So if the person can't help me 'I need to speak to your supervisor'. And I would go up and up and up. If it wasn't working then I would get names or something. I don't know how exactly I would do it. Then I would write and set up a paper trial. This is what I say I would do but...you know. And I would hopefully sort it out that way."

Maria: "Until I speak to someone actually who is actually important enough to speak to and in the meantime I would be crying and screaming at home. I'd have a bit of a breakdown with it [laughs]. I have been known to give up but I don't do it now."

Una: "Well yes it is all I can do – just keep ploughing on."

Persistence is linked to an active optimistic style labelled as 'fighting spirit' (Olason & Rodger, 2001). This has been found to be linked to adaptive health behaviour and coping with disease (Pettingale et al., 1985; Spiegel, 2001). Fighting spirit and SOC have been found to be positively correlated (Johnson, 2004). It is fighting spirit that helps motivate people to push forward (Strang & Strang, 2001) and it forms part of a person's SOC.

Keeping Things in the Right Proportion

Keeping things in the right proportion is linked to comprehension: the ability to review reality to create cognitive order, clarity and structure, and to be able to find a degree of logic and consistency in life events (Antonovsky, 1979; 1987). As can be seen from the example below, accurate judgement and assessment of situations is clearly a key part of a person's comprehension and ability to deal effectively with a problem.

Steven: "Yes, perhaps I think too much and I have exaggerated it [the problem] too much. And I have thought disaster, whereas really I should try and put it into perspective and then I can see it just as a small thing."

Self Awareness

This is a psychological GRR which is part of two of the three SOC components. It links to comprehensibility in that it aids a person's ability to review reality to create cognitive order, clarity and structure, and to be able to find a degree of logic and consistency in life events (Antonovsky, 1979; 1987). It also links to Reker et al.'s (1987) definition of meaningfulness as: "the cognisance of order, coherence, and purpose in one's existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfilment" (p. 221).

A simple admission by a participant that they realised that they can be both reactionary and defensive enables them to be able to identify where they are going wrong, where they are ineffective at dealing with both non-relationship orientated and relationship orientated problems.

Eric: "I can be both reactionary and defensive."

This participant's self-awareness allows them to decide on an effective coping strategy:

Eric: "I need management. I've learnt to manage myself a bit and pace myself. But I kind of over-shoot sometimes. And wear-out and over-do-it. I have to sit myself down some sometimes [and think things over]. Just sitting down and watching EastEnders or something I can find boring, it is just necessary sometimes."

9.1.4. Theory Development

The Distinction between Relationship and Non-Relationship Orientated Problems

This emergent theme is different from the others in that it is not a GRR. Rather it provides an insight into the process and mechanisms involved in coping and adaption. Participants repeatedly described a clear split between how they thought about, approached and dealt with relationship orientated problems compared to non-relationship orientated ones.

There was a clear distinction between participants' belief, confidence and ability to deal with non-relationship orientated problems compared to relationship orientated problems. Virtually all those who expressed an opinion stated that they generally had the belief, confidence, skills and resources to deal with non-relationship orientated problems but that they had less belief, confidence, skills and resources to deal with relationship orientated problems.

It seems that elements of an individual's SOC may be effective for dealing with non-relationship orientated problems but weak for dealing with relationship orientated problems. It may be that a different set of resources are required for dealing with relationship orientated problems or perhaps that they require more resources. Alternatively it could be due to a lack of control, i.e. relationship oriented factors are less likely to be under a person's control. People are more unpredictable and often irrational and it is less easy to find structure, logic, or reason when dealing with relationship oriented problems compared to non-relationship orientated ones. This is apparent in the following quote:

Kay: "I find the emotional ones [problems] more difficult. When somebody has behaved in an unpredictable way I'm not so good handling that. If it is a [problem with a] bill [then that is ok]."

Relationship orientated problems can possibly increase an individual's level of physiological stress which may interfere with their ability to comprehend, manage and find

meaning in relationship orientated situations. The following participant may be expressing aspects of this effect:

Isabel: “I feel sometimes...I find it hard to deal with people sometimes because I see things one way and [another] person will see it a different way. And it just sometimes it drains all my energy to have to explain or, you know... I find that can be difficult for me.”

Part of the reason that participants found relationship orientated problems to be more difficult appeared to be the increased emotional connection and hence the high levels of emotion involved. This may connect to the above explanation of more physiological stress involved. This type of problem clearly had more meaning than non-relationship orientated problems for the individuals concerned: individuals attached more importance to them.

Alvita: “But that sort of thing really it is horrendous to me. It is being emotionally involved [that is difficult].”

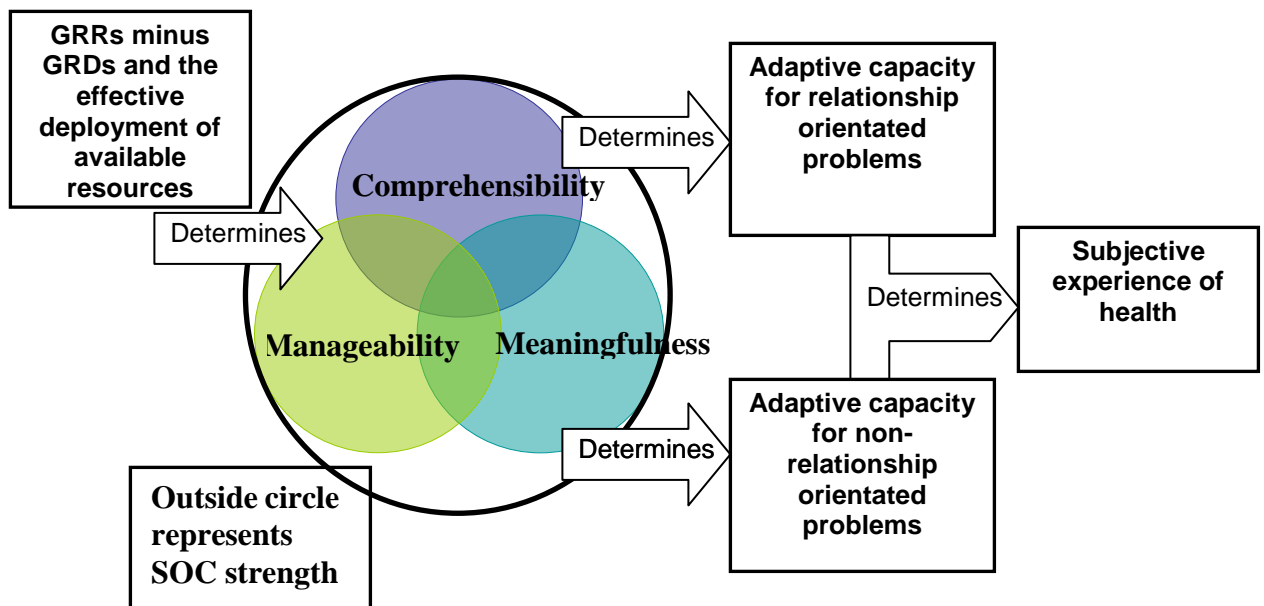
This type of emotional involvement is a motivating force that is part of meaningfulness: “an emotional connection that promotes motivation” (Landsverk & Kane, 1998, p. 422). Emotional involvement is a double edged sword in terms of SOC strength, it can provide meaning and motivation but it can also be a source of health damaging stress. Whether this emotional involvement has a positive or negative effect depends how appropriately an individual responds to emotions aroused and this depends on aspects of SOC strength (Antonovsky, 1987).

Antonovsky (1987) stated that the strong SOC individual: “is more likely to be aware of his or her emotions, can more easily describe them, feels less threatened by them. They are more likely to be personally and culturally acceptable; hence there is less need to disregard their existence. They are more appropriately responsive to the reality of the situation one is in” (p. 150). Nonetheless Antonovsky’s theory is more focused on rational reasoning and it is a weakness of the theory that it does not describe behaviours involved in the regulation of emotions in the coping and adaption process (Geyer, 1997).

Expanded Model of SOC Theory

From the discovery of the distinctions between individuals' experiences in dealing with relationship and non-relationship orientated problems a new expanded model of SOC theory was constructed (original model is laid out in chapter 2 in figures 1 and 2). What is new about this model is that it separates general adaptive capacity into adaptive capacity for relationship orientated problems and adaptive capacity for non-relationship orientated problems. The model suggests a very different set of resources and combination of comprehensibility, manageability and meaningfulness is required for dealing with relationship orientated and non-relationship problems. The new model is constructed to highlight the realisation that people do not have a single adaptive capacity which can be applied with equal effectiveness to all situations that they face in life.

Figure 4. Model of sense of coherence theory



Model explanation: GRRs minus GRDs and the effective deployment of available resources determine an individual's comprehensibility, manageability and meaningfulness and hence overall SOC strength. A different set of resources and combination of comprehensibility, manageability and meaningfulness determine adaptive capacity for relationship orientated problems and adaptive capacity non-relationship problems. These two combined adaptive capacities help determine subjective experience of health.

9.1.5. Conclusions

In line with the research prediction this study finds that SOC theory can be applied to descriptions by mental health service users of how they deal with problems that they face in their lives and that studying SOC theory using a qualitative approach provides a deeper understanding of SOC components, GRRs and GRDs and how they interact. The study provides insights into SOC theory and its role in explaining coping and adaptability of people, in this case a group of mental health service users. A deeper understanding of how mental health service users adapt and cope and the resources that they employ to achieve this allows others, such as healthcare workers, to provide better support, care and advice to facilitate adaption, coping and recovery. The table below details areas that the thematic analysis highlighted the value of for mental health service user's coping and adaption and it lays out possible implications for mental health services.

Table 12. Implications for mental health services

Highlights the value of:	Implications for mental health services
Structure in life	Seek to encourage and facilitate increased structure in life for mental health service users e.g. help mental health service users to identify how they can increase structure within their lives and assist them in finding and participating in structured opportunities such as formal education.
Predictability in life	Help mental health service users to understand the course of their mental health disorder and what they can expect, e.g. through psychoeducation. Negotiate rules with mental health service users for structured situations. Meet mental health service users in environments that are familiar to them.
Social support	Facilitate opportunities for mental health service users to help find, build and develop friendships and social support. Increase mental health service awareness of the value of social support as a multifaceted resource.
Coping strategies that	Facilitate group discussion for mental health service

mental health service users employ	users to share coping strategies that they find to be effective.
Meaningfulness to provide motivation, goals and an emotional connection to experiences	Facilitate opportunities for increased meaningfulness, e.g. social events, learning opportunities, employment opportunities, and goal setting exercises.
Negative effects of stigma	Work with own organisation, outside organisations and society at large to reduce the stigma associated with mental disorder.
Past orientation	Help mental health service users to understand the value of what they have experienced and learnt in the past that can assist in coping and adaptation, e.g. employing a strengths approach. Use exercises to help show mental health service users how far they have progressed in their recovery.
Personal responsibility	Help to build a sense of personal responsibility and aim to not reduce personal responsibility where this is possible, e.g. encourage mental health service users to take control of their lives and to do as much as possible for themselves.
Positive, solution focused outlook	Encourage and facilitate a positive, solution focused outlook, e.g. through employing the strengths approach.
Emotional connections in life	Helping mental health service users to understand the positive value of emotional connections in life, e.g. using logotherapy principles. Help mental health service users in dealing with the negative aspects of emotional connections, e.g. through therapy group discussions. Help mental health service users to understand and deal with the effect of psychoactive drugs on emotional connection, e.g. through psychoeducation.
Acceptance as a coping strategy	Set up group discussions around the topic of when and/or whether acceptance is an effective coping strategy in dealing with mental health disorder issues.
Keeping things in the right proportion	Assist mental health service users in putting the problems and issues that they face into perspective, i.e. helping mental health service users to realise that issues and problems are rarely as big and insurmountable as they first seem.
Self awareness	Assist mental health service users to be more aware of themselves, how they act, and respond to problems and other people so that they can more effectively cope and adapt. E.g., through reflective exercises and self-awareness education.

The finding that, in SOC theory terms, dealing with relationship orientated problems is, in many ways, distinct from dealing with non-relationship orientated problems highlights the importance of a biopsychosocial approach to understanding the issues faced by mental health service users. This present analysis shows how the biological, psychological and social aspects of a person's life interact; it confirms that a holistic individualised approach to care and support is vital.

The evidence revealing that relationship orientated problems have such influence and importance in the lives of mental health service users points towards the significance of interpersonal resources (family, friends, etc.) and intrapersonal resources, such as emotional intelligence (see Goleman, 2006), and to the value of therapy that targets social issues such as family therapy, social therapy and inter-personal therapy. This evidence also points to the value of social aspects in an individual's life for their SOC strength proposed by Antonovsky (1979; 1987); and it supports the links between social support (adequacy of attachment, adequacy of social integration, availability of social integration and availability of attachment) and SOC found by Bengtsson-Tops & Hansson's (2001) study of individuals diagnosed with schizophrenia living within the community.

Human beings are social creatures and relationships with other humans can be a source of joy, hope, relation, motivation, contentment, security and health, or misery, despair, demotivation, discontentment, insecurity and illness. Social relationships can be both an aid to recovery and a barrier to recovery. Mental health service users may require help to understand the effect of their social relationships on their health and recovery. They may also require help to change their existing relationships so that they are a positive force in their lives or they may require opportunities and assistance to build new supportive and positive relationships. The evidence from this analysis points to the value of projects and interventions for mental health service users that seek to facilitate increased social capital and inclusion.

To best enhance social aspects of mental health service user's lives mental health professionals need to adopt a person centred approach and try to understand the whole person rather than viewing that person as a user of services or as 'schizophrenic' or 'bi-polar'. Langeland & Wahl (2009) stresses the importance of mutuality in the

professional/client relationship: where both parties have opportunities for nurturance and recognising shared strengths, weaknesses, possibilities and limitations.

This research thesis fulfils Antonovsky's desire for his SOC concept to be studied with methods other than his Orientation to Life Questionnaire. Taking a qualitative approach has meant that SOC theory could be explored through peoples' reflections on how they cope and adapt with everyday problems that they face in their lives. It has provided a clearer understanding of how SOC theory applies.

9.1.6. Limitations

The extracts provide information about how mental health service users cope with problems that they face. It is not the case that the results presented here represent only those who are experiencing a mental disorder. As Antonovsky (1979) explained people cannot be grouped into either sick or healthy dichotomies, everyone has a level of health which can be measured on a continuum. While much of this information will apply to how people in general cope with problems that they face, the generalisability of the analysis is nevertheless restricted due to the mental health service user sample.

The sample was relatively small at 20 participants and the interviews were fairly short due to time constraints. There were also some differences in the demographic make up of the sample compared to the population which they represent. There were substantially more females (60%) than males (40%) which should be taken into account when generalising the results to other populations of mental health service users. The prevalence of severe and enduring mental illness in men and women is quite similar despite disparities in different diagnostic categories.

The use of a questionnaire design allowed participants to reflect upon how they dealt and coped with previous problems that they faced. However, this design does not allow the researcher to observe how people deal and cope with simulated problems in a 'laboratory' situation or real problems in the real world. Self reported dealing and coping with problems may differ from actual dealing and coping with problems, i.e. the actual strategies and resources which people employ, how they employ them and what motivates them.

There are disadvantages to the qualitative approach taken. An approach in which the questionnaire and the data are theorised restricts the possibility of alternative explanations of findings – a weakness which is partially negated by reporting emergent themes. The disadvantage with creating and using a priori themes is that they may block or mask other themes which therefore prevent them from emerging. The creation of a questionnaire based on a priori themes restricts the questions asked, if you ask questions based on a set of themes then you will generally get answers based on these themes. The themes and questions were decided upon through a careful and extensive process of literature review and reflection. However, the use of a non-structured interview style may have provided results which did not fit a priori themes created; this approach may have resulted in more emergent themes and themes that contradicted a priori themes.

Furthermore there is a weakness in terms of the qualitative analysis. Due to the nature of a PhD thesis all of the qualitative data collection and analysis was conducted by a single researcher. This has some advantages in terms of cohesion and a single focus; however, there are disadvantages in terms of the lack of interater reliability. This is a limitation in the methodology of the research although it can be argued that the richness of the data and its consistency with the theoretical framework tends to reduce these limitations.

9.1.7. Further Research

The finding that dealing with relationship problems is distinct from dealing with non-relationship orientated problems could be investigated further. The focus in this study was on mental health service users and how they coped with problems that they faced in life. Other populations could be studied to test the model to see how dealing with relationship problems in their lives is distinct from dealing with non-relationship orientated problems. These other groups could include general population samples, populations from different cultures and countries (both inside and beyond Europe), and populations from alternative age groups to the present study (i.e. people below the age of 18 and above 65 years old).

Additional research could also be undertaken to provide further the understanding of how people deal with relationship orientated problems in terms of SOC theory: the mechanisms involved and the resources that they use. This could provide answers as to the

question of whether it is a different set of resources that are required for dealing with relationship orientated problems or whether that they require more resources, or a combination of both. Research questions could include: how are they different and what implications do differences have for efforts to strengthen SOC?

A deeper understanding of how people employ their resources to deal with relationship orientated problems and how the three factors of SOC are involved in this process would allow for targeted strengthening of the identified GRRs. An examination of the research literature on dealing with relationship orientated problems could lead to the formation of a series of questions relating to SOC theory and relationship orientated problems. These questions could be used in a variety of populations: mental health service users, general population, etc. The qualitative analysis of the answers to these questions could reveal valuable insights that would further advance SOC theory and how to facilitate SOC strength.

Further research could also investigate the question of control in relationship orientated problems. The suggestion made in this thesis is that relationship orientated problems are more difficult to deal with because of the lack of control a person has over relationship issues, and that dealing with this lack of control has implications for an individual's SOC strength. A clearer understanding of how people deal effectively with control issues in relationship oriented problems will provide valuable information for those who struggle to effectively deal with control issues in relationship oriented problems. This information could be used to help strengthen individuals SOC through, for example, social skills therapy.

However, investigating how people deal with relationship orientated problems is not without its problems. Part of the reason that the present study started with a concrete problem was because of the emotion that is attached to relationship orientated problems. Asking interviewees questions about relationship problems that they have faced or are facing is likely to bring up painful emotions for many people. Dealing with the effects of these emotions, which often have deep-seated roots, in the interview situation is difficult and potentially traumatic for both the interviewee and interviewer. In the present study one interviewee became very emotional when discussing a relationship orientated issues in their

life and was given the option of ending the interview. Naturally adequate support and precautions would need to be in place when investigating such sensitive issues.

The questionnaire based results presented here could be tested through observing how people deal and cope with problems. This could be in 'laboratory' situation where participants are presented with a number of differing problems and asked to seek solutions. This could be through acting out various set scenarios. In addition or alternatively the results could be tested through observing how people cope with real problems in the real world. This 'fly on the wall' research presents many ethical and practical issues for researchers but has the potential to provide the most naturalistic results.

CHAPTER TEN

10.1. Summative Sense of Coherence Theory Discussion and Reflection on the Research Process

10.1.1. Summative Sense of Coherence Theory Discussion

The main focus of the thesis was SOC theory. Both of the thesis research studies provided a deeper understanding of SOC theory and revealed insights into mechanisms that determine SOC strength. This discussion brings together theoretical insights and implications of results from both the research studies in a summative discussion. It is not intended as a detailed review of SOC theory literature in the light of the thesis' research findings, this has been completed. This section seeks to identify where the two sets of result combine – it draws together overall connections between the two.

It is valid to bring these results together and form a discussion for a number of reasons. Both studies were conducted with the EMILIA project's mental health service user participants, both emerge out of the same SOC literature review, and both investigated - in different ways - the application of SOC theory. Conducting and analysing the independent thesis' studies separately has allowed this post study consideration of the similarities in the results. This consideration generated this present summative SOC theory discussion.

Both studies clearly reveal the link between the level of resources (GRRs) and the ability to adapt and cope (SOC). This combined evidence supports Antonovsky's (1979; 1987) theory that the amount of resources and ability to deploy these resources determine SOC strength. Knowledge of the strength of the equation that greater resources and the ability to utilise these resources facilitates increased adaption and coping, and the possible positive health benefits of this, can encourage individuals and society to seek to build personal general resistance resources and reduce personal general resistance deficits. The results support the application of this equation by individuals and society, for example, in health promotion and in the promotion of resilience.

This equation is especially important in the light of the thesis' quantitative analysis finding of the positive relationship between SOC and mental health related quality of life. Through this relationship mental health related quality of life can be positively affected by promoting, providing and building GRRs. Seeking to do this is perhaps especially of importance in relation to mental health service users whose mental health related quality of life has been negatively impacted by mental illness and the subsequent loss of GRRs.

Using a qualitative approach in both studies has provided a deeper understanding of the three SOC components (meaningfulness, manageability and comprehensibility), GRRs and GRDs and how these factors interact. This research has provided insights into the factors, mechanisms and processes involved in coping and adaptation that are essential to and intertwined with SOC strength, mental health and recovery. Each of the two studies analysed data extracts relating to the three SOC components: manageability, comprehensibility and meaningfulness. Both studies revealed insights into how the three components of SOC interact with and overlay one another. They have provided an in-depth and clearer understanding of the complexity of human coping, adaptability and problem solving.

The thesis' two studies involved mental health service user participants and they provide a deeper understanding of how mental health service users adapt and cope and the resources that they employ to achieve this. Much of this understanding of coping and adaptation also applies beyond the participant group of 'mental health service users' to humans in general. Having the label of 'mental health service users' does not fundamentally change how people cope and adapt.

Antonovsky's (1979; 1987) definition of GRRs and GRDs provides a criterion for identifying GRRs which was found to be effective when applied in the analysis conducted in both the thesis' studies. The results help confirm that we can, based on Antonovsky's definition, identify GRRs and GRDs that form part of the SOC model. There were various GRRs and GRDs that were identified in both of the research studies. These were as follows:

1. Feelings of confidence
2. Structure in life

3. Social capital
4. Coping strategies
5. Life meaning
6. Responsibility
7. Health as a resource
8. Future orientation
9. Past orientation
10. Positive solution focused outlook
11. Emotional connection
12. Hope
13. Persistence
14. Self awareness
15. Illness as a deficit

This indicates that people draw on many resources from many sources in seeking to adapt and cope in their lives. Except the GRD of illness as a deficit, all of these factors listed above can be involved in mental health recovery; they not only facilitate resilience they can also help people to recover from set-backs and challenges that they face (Antonovsky, 1979; 1987).

One of the major themes that emerged out of both research studies was the importance of social factors in the lives of mental health service users. Social capital was indentified as a key GRR in the two studies. In both studies there were links found between social capital factors (social support, social integration and social inclusion) and the positive factors of empowerment, meaningfulness, nurturance, resource sharing, goal directed behaviour, mutual relationships, hopefulness, self confidence, optimism, well being, engagement in life and recovery. The relationships between social capital and these factors were detailed in the analysis discussion in the two thesis' studies, which related results to research described in the literature review. The combined evidence from the two studies provides support for projects and interventions for mental health service users that seek to facilitate increased social capital.

A humanistic existential paradigm was the basis of this thesis. Social factors lay at the heart of human experience and the importance of social factors were highlighted in the emergence of humanistic existential psychology in the 1960's. Humanistic psychology stresses the importance of societal progression to sustain human development; it suggests that individual freedom can be enhanced by recognition of our interdependence with society and our responsibilities to one another and to the future. This thesis found evidence of the importance of social interdependence at an individual and societal level. The discussion and conclusions of the two thesis' studies advocate the progression of society in various areas associated with human development, for example, in facilitating learning and recovery.

This thesis extended the application of the SOC model to a lifelong learning and employment opportunity based intervention for mental health service users and to how mental health service users report that they cope with problems and challenges that they face in their lives. The thesis has found that SOC theory can be used within research both as a theoretical basis of an assessment of an intervention and to investigate coping and adaptation in a population of mental health service users. The combination of the results and analysis of the two thesis' studies add to the findings of Feign & Sapir's (2005) SOC literature review that: "the concept of SOC has a broad theoretical base and a growing and impressive body of empirical evidence supporting its utility" (p. 63). The results help demonstrate that SOC theory is as relevant today as when it was first proposed.

10.1.2. Reflection on the Research Process for both Thesis' Studies

In addition to explaining the consent and withdrawal procedures I began each data collection session by thanking the participant for agreeing to be a part of the research data collection. I emphasised the importance of the data collected for the project and for my PhD. This was done to show the value that we placed on the data given by the participant and to explain how it might be used to disseminate findings. Most participants were supportive of the research although some required greater clarification of the need for their contribution to the research. By the follow-up interview many participants expressed that

they valued being part of the project and that they had a belief in its importance and effectiveness. This taught me that many of the participants had embraced the project and its ambitions and values, as well as contributed greatly to it.

The qualitative tools created an opportunity for the participants to express how they felt about the EMILIA training, how it had affected their lives. It also provided an opportunity to discuss goals and ambitions which, by a mostly positive reaction, the participants seemed to appreciate, and this is perhaps a rare example of an opportunity for people to be able to discuss goals and ambitions. The interview process appeared to help people reflect upon their experiences, goals and ambitions and it perhaps helped clarify and crystallise these in the minds of the participants. This reaffirmed my belief that expressing thoughts to others is a way of grappling with life's experiences and challenges and making decisions.

Most sessions were relatively formal, going through the process of completing the quantitative measures and asking the interview questions in the semi-structured style adopted. Each question was asked and a response given, and clarification sought where necessary. However, some participants were less 'task focused' and the semi-structured style allowed for more open discussion. This discussion allowed participants to more freely express themselves and it provided greater insight into their lives, their experience of the EMILIA intervention and their goals, hopes and ambitions. I realised that allowing this freedom of expression provided some of the most insightful comments.

A couple of the participants were less keen to answer specific questions and they wanted to discuss challenges and problems that they had had and that they were facing in their lives. In these sessions the style became more like an informal counselling session. I used a Rogerian based approach of non-judgement and sought to understand the individual, their frame of reference, their situation and their point of view. I sought to reflect back to the participants their answers and their understanding of situations described. I tried to be supportive and calm throughout the session. I introduced questions in a sympathetic way whilst engaging in aspects of conversation initiated by the participant. This process allowed me to use and realise the value of my previous counselling training.

There were several 'ah-ha' moments for me during the interviews for the first study. One of these was related to the focus of the EMILIA training on strengths: past, present and

future strengths. Many of the participants revealed how they had been able to recognise and use their strengths, skills and experience through the opportunities provided by the project. This connected directly to SOC theory in terms of resources, meaningfulness, manageability and comprehensibility. The process of EMILIA ignited SOC related previously held and new goals, ambitions and life meaning. I came to realise in a more focused way that all people need opportunities to use and develop their skills and knowledge to be able to recover and to grow, that this is a fundamental part of being human. Other 'ah-ha' moments were related to the social aspects of the EMILIA project. Social support, community involvement, peer to peer learning and expanded social networks were all factors which emerged out of the interview transcripts as vital resources in the lives of the participants and in their SOC levels. Humans are social beings, we need social attachments and connections and the benefits that they bring to be able to survive and prosper.

Asking the questions for the second study presented separate problems to the first study. It started with a hypothetical situation and most participants could think about a hypothetical situation and relate this to their experience. One of the participants could not do this. The questionnaire based interview turned into a semi-structured discussion or conversation that I brought back to the interview questions where I could. This made me appreciate the effect of mental illness in terms of cognitive capacity and the impact that this can have on comprehension, concentration, and communication – and hence on SOC. In interviews with other participants there were instances where interviewees overcame the effects of symptoms of mental illness and symptoms associated with medication for their mental illness to attend interviews and answer interview questions, and this made me appreciate the bravery and determination of many of the participants.

The main 'ah-ha' moment during the questions for the second study was the distinction between concrete and social problems. As explained earlier in the thesis this led to a very early adaption of the questionnaire to ask questions specifically in relation to social problems. Asking these questions provided insights into SOC theory but also, in some cases, gave rise to deep seated emotions. Although I found it difficult to handle these expressed emotions in the interview situation it made me realise the importance and value of emotional connections in life. Although some emotions can be distressful, emotions are

essential to the full existential experience of being human. They provide energy, drive, and feedback and allow the expression of passion, anger, love, hate etc.

My main regret is the lack of time that I had for the qualitative interviews. If I were to run the data collection again I would allocate more time to the qualitative interviews. However, at the time the demands of the data collection for the project prevented this. There will always be constraints associated with data collection and careful planning is always required to allow the researcher to maximise the quality of the data collected.

In completing the qualitative analysis in both studies the theory and the data came together in a very satisfying way, and it enabled me to make connections that I had not previously seen. I enjoyed discovering and making these connections. In both qualitative studies I found the thematic analysis process provided by Braun & Clarke (2006) to be effective. In the first study I think that the combination of the quantitative and qualitative results was one of the successes of the thesis, both the quantitative and qualitative aspects could stand alone but their combination provided deeper understanding of SOC theory and the EMILIA project.

This thesis emerged out of my interest in humanistic psychology: the study of the lived human experience and the exploration of ways to promote human well being, health, recovery, growth and achievement. This interest was the motivating force behind the completion of this thesis and my interest and belief in the importance of humanistic psychology has been strengthened through my thesis experience. My hope for the future is that I able to continue researching and applying humanistic theories and principles.

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Appendices

Appendix 1

Orientation to Life Questionnaire: SOC-13

This checklist has questions concerning different aspects of life and each question is graded from 1 to 7, where 1 and 7 are the two opposite answers. Please read the statements and questions thoroughly and mark the number which best suits or matches your own experiences.

*1 Until now your life has had:

M E	1	2	3	4	5	6	7
	no clear goals or purpose at all				very clear goals and purpose		

*2 Do you have the feeling that you don't really care about what goes on around you?

M E R	1	2	3	4	5	6	7
	very seldom or never				very often		

*3 Does it happen that you have feelings inside you would rather not feel?

C	1	2	3	4	5	6	7
	very often				very seldom or never		

*4 Has it happened in the past that you were surprised by the behaviour of people whom you thought you knew well?

C R	1	2	3	4	5	6	7
	never happened				always happened		

*5 Has it happened that people whom you counted on disappointed you?

M A R	1	2	3	4	5	6	7
	never happened				always happened		

- *6 Do you have the feeling that you're being treated unfairly?
 .
 M 1 2 3 4 5 6 7
 A very often very seldom or never
- *7 Do you have the feeling that you are in an unfamiliar situation and don't know what to do?
 .
 C 1 2 3 4 5 6 7
 very often very seldom or never
- *8 Doing the things you do every day is:
 .
 M 1 2 3 4 5 6 7
 E a source of deep a source of pain and
 R pleasure and boredom
 satisfaction
- *9 Do you have very mixed-up feelings and ideas?
 .
 C 1 2 3 4 5 6 7
 very often very seldom or never
- *10 Many people—even those with a strong character—sometimes feel like losers in certain situations. How often have you felt this way in the past?
 M 1 2 3 4 5 6 7
 A never very often
 R
- *11 When something happened, have you generally found that:
 1.
 C 1 2 3 4 5 6 7
 you over-estimated or you saw things in the
 under-estimated its right proportion
 importance
- *12 How often do you have the feeling that there's little meaning in the things you do in your daily life?
 M 1 2 3 4 5 6 7
 E very often very seldom or never

*1 How often do you have feelings that you're not sure you can keep under control?

3.
M
A

1

2

3

4

5

6

7

very often

very seldom or never

Appendix 2

Sense of Coherence Related Interview Questions

Format: digitally recorded face to face interview.

Introduction: “The following questions relate to how you respond and deal with any problems/challenges in life that you may face.”

Explain concrete problem:

You have been sent a phone bill in the post and it is five times the cost it normally is.

Or if respondent cannot relate to this then:

You have been underpaid or stopped benefits.

Can you relate to either of these problems? If not discuss a possible scenario problem with the respondent.

The following questions relate to how you would deal with this scenario:

1. How would you try to make sense of the situation?

(This question relates primarily to the comprehensibility factor, and possibly to the other two factors.)

2. Would you look to see if there was structure, order or logic in the situation?

3. Do you generally have the belief that you would be able find structure, order or logic most situations?

(These questions relates primarily to the comprehensibility factor.)

4. Do you feel that you generally understand the world in which you live in?

(This question relates primarily to the comprehensibility factor.)

5. Do you feel you have the necessary skills and resources yourself to be able to solve this problem and move on in your life?

And the same question for relationship orientated problems?

(These questions relate primarily to the manageability factor and general resistance resources.)

6. Do you generally have a belief that you will be able to overcome problems such as this?

(This question relates to primarily the manageability factor.)

7. Would you consider what the situation means in relation to your life?

8. Would there be an emotional connection?

(These questions relate primarily to the meaningfulness factor.)

9. Do you feel it is worthy of you investing your time and effort in order to successfully resolve this challenge or problem?

and make sure that you are justly treated?

(These questions relate primarily to the meaningfulness factor.)

Moving on to more general everyday problems in life

10. Do you feel the support from your family that is adequate to help you deal with problems that you face?

11. Do you feel the support from your friends that is adequate to help you deal with problems that you face?

(These questions relate primarily to the manageability factor and the general resource of social support.)

Appendix 3

EMILIA Procedural Instructions

Interviewing

Before the interview

- Office layout and seating – it is better to sit in chairs of similar height (not armchairs) that are side by side rather than across a desk which can be intimidating.
- Position yourself so that the participant can see what you are writing (interview questionnaire, e.g. CSSRI) i.e. the participant sits to the right of a right-handed researcher.
- Try not to allow outside interruptions unless absolutely unavoidable.

Introductions or building the interaction

- Introduce yourself by name and invite the participant into the interview room/your office. Shake hands if the opportunity arises/it is appropriate.
- Indicate the participant's chair and close the door.
- Explain the EMILIA project and the research (if this has not already been done) and give the information sheet to the participant if they do not already have one.
- Explain that the interviews/completion of questionnaires will last about 45 minutes (CSSRI-EU and SF-36-v2) or specify the estimated length of time for the qualitative interviews.
- Explain informed consent and invite/ask the participant to sign the consent form (if appropriate at your site – see Ethics and informed consent section).
- Remind the participant about the confidentiality

During the interview

- Try not to move the interview ahead too quickly.
- Conversely, not enough control can lead to an unfocused interview.
- To keep the interview on track so as to avoid too much digression or repetition, you could say: “OK, next I'd like to ask you about...”
- Remember to give concrete examples that help the service users to talk.
- During the interview remember the role of the researcher: equal partnership with the service user.

Non-verbal communication

- Try to pay attention to the participant's non-verbal behaviour i.e. their facial expression, amount of eye contact etc. This indicates how s/he is experiencing the interview and it may be helpful to check how s/he is feeling.

- You may need to encourage the participant to continue to talk if s/he is tense or uneasy; a break may help.

Closing the interview

- Ask if the participant has anything else they want to say or if they have any questions about the research project, further interviews etc.
- Let them know the follow-up arrangements (if appropriate), how they will be contacted etc.
- End the interview and interaction with a comfortable topic; do not leave the service user anxious and worried.

Interviewing skills and guidance

Interpersonal skills

Use the user's words

Wherever possible use the users own language and do not assume their level of understanding.

Process skills

Being flexible

Be flexible about the length of session, where you meet the user, the time of day, their level of concentration and how the user is feeling on the day.

Researcher: "Seeing as you find it hard to get up in the morning would it be helpful if we met in the afternoon."

Transparency

The researcher should be completely transparent about what they are doing, why they are doing it and how the user may benefit.

(Gray and Robson, 2005)

Questions to be considered:

- Role of the researcher
- Data collection
- After the first interview, start the analysis process
- Listen to the tape and ask yourself:
 - Did I get the data that I needed?
 - How did I behave a researcher? Did I listen? Did I hear the hints behind the lines?

- Data analysis
- Research ethics

Appendix 4

Participant Information Sheet

Part 1

1. Project title

Empowerment of Mental Illness Service Users:
Lifelong Learning, Integration and Action - EMILIA

2. Invitation paragraph

You are being invited to take part in a research and development project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the project if you wish.

- Part 1 tells you the purpose of this project and what will happen to you if you take part.
- Part 2 gives you more detailed information about the conduct of the project.

Please ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

3. What is the purpose of the project?

The EMILIA project will evaluate and investigate a lifelong learning programme. The programme involves training and support opportunities to promote the inclusion of mental health service users in mental health education within the Centre of Excellence in Teaching and Learning (CETL) in Mental Health and Social Work at Middlesex University (the demonstration site). This project is also being carried out in seven other demonstration sites across Europe.

4. Why have I been chosen?

The opportunity to participate in the EMILIA project has been advertised mainly through local service user groups. The decision to participate is strictly voluntary, based upon the information provided. If you require any further information about the project, or your involvement, this can be provided by the EMILIA project team.

5. Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form (a copy of which you will be given). You are still free to withdraw at any time and without giving a reason.

6. What will happen to me if I take part?

You will be invited to take part in a training programme designed to increase social inclusion.

Your experience of taking part in this process will be evaluated through the use of questionnaires, semi-structured interviews and self-reports to explore service user participation in lifelong learning. You will be asked to answer the questionnaires and be interviewed three times during the course of the project: before entering the training programme, after one year and after two years. The project will take about three years to complete.

7. What do I have to do?

Specifically, you will be expected to:

- Attend the training modules. This training will be tailored to local needs but will be drawn from several accredited training packages, developed in collaboration with service users by the EMILIA project.
- Participate in the evaluation of the training programme (the research), as indicated above.

8. What are the possible benefits of taking part?

The educational opportunities made available to you in the EMILIA project will be beneficial to you. We hope that this will lead to further educational and work opportunities such as paid sessional work, through collaboration in the variety of education, training and research activity undertaken by the CETL in Mental Health and Social Work. However, paid work is not guaranteed.

9. Will my taking part in this project be kept confidential?

Yes. All the information about your participation in this project will be kept confidential. The details are included in Part 2.

10. Contact details

Please contact the researchers, Chris Griffiths or Tamara Shaw, at Middlesex University if you require further information about the project.

Tel: 020 8411 4150 or 020 7848 0975 (we will call you back if you have to leave a message)

Email: c.griffiths@mdx.ac.uk or t.shaw@mdx.ac.uk

This completes Part 1 of the Information Sheet. If the information in Part 1 has interested you and you are considering participation, please continue to read the additional information in Part 2 before making any decision.

Part 2

11. What if relevant new information becomes available?

We will tell you about any new information that may affect the project or your participation in it.

12. What will happen if I don't want to carry on with the project?

You are free to withdraw at any time and the data collected about you will be destroyed.

13. What if there is a problem?

If you have a concern about any aspect of this project, you should ask to speak with the researchers who will do their best to answer your questions (contact Chris Griffiths or Tamara Shaw. Tel: 020 8411 4150 or 020 7848 0975 or email: c.griffiths@mdx.ac.uk or t.shaw@mdx.ac.uk . If you remain unhappy and wish to complain formally, you can do this through Middlesex University (contact the Dean of the School of Health and Social Sciences, Jan Williams j.williams@mdx.ac.uk).

14. Will my taking part in this project be kept confidential?

All the information about your participation in this project, and all the information that is collected about you during the course of the research, will be kept strictly confidential. It will be handled in accordance with the provisions of the UK Data Protection Act, 1998 and will be stored securely under lock and key at Middlesex University. The Institute of Psychiatry, King's College London will be responsible for carrying out the analysis of the data and information will be stored there under the same secure conditions. Electronic data will be stored on a University password protected computer. Only the EMILIA project staff and research team will have access to the data. Any information about you, which leaves the University, will have your name and address removed so that you cannot be recognised from it.

We will need to inform your GP or psychiatrist of your involvement in the EMILIA project as part of the criteria for the research project. We will ask for your agreement to this. We will write her/him a letter that you will see so that you know what it contains and you may also jointly sign the letter.

15. What will happen to the results of the research project?

Initial results from the EMILIA project will be available from late 2008 onwards. They will be available on the EMILIA website (www.emiliaproject.net), as well as published in academic journals and EU reports, and may be presented at relevant conferences. Participants will not be identified in any report or publication.

16. Who is organising and funding the research?

Middlesex University is organising and coordinating the research project. The project has been funded by the European Union as part of their Framework 6 Research and Development programme.

17. Who has reviewed the project?

This project was given a favourable ethical opinion for conduct in the NHS and at Middlesex University by Barnet, Enfield and Haringey Research Ethics Committee on 3 November 2006.

Thank you for taking part in the EMILIA project.

Appendix 5

Participant Consent Form

Centre Number:

Participant Identification Number:

Title of Project: Empowerment of Mental Illness Service Users: Lifelong Learning, Integration and Action - EMILIA

Name of Researcher: Chris Griffiths

1.I confirm that I have read and understand the information sheet dated August 2007 (version 1.1) for the above study. I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily.

2.I understand that my participation is voluntary and that I am free to withdraw at any time,

without giving any reason, without my medical care or legal rights being affected.

3.I understand that all information collected about me during the course of the research will be kept strictly confidential.

4.I agree to take part in the above study.

Name of Participant

Date

Signature

Researcher

Date

Signature

When completed: 1 copy for participant: 1 copy for researcher

Appendix 6

Duty of Care Letter to GP or Psychiatrist

October 2007

Dear Dr

Empowerment of Mental Illness Service Users: Lifelong Learning, Integration and Action

(EMILIA)

I am writing to inform you that

Signature

.....

who is on your caseload is taking part in the EMILIA project. This will involve the participant attending several training modules and completing research interviews and questionnaires.


This is a large EU funded research and development project which is running at Middlesex University and in a number of other EU countries. The project lead is Peter Ryan, Professor of Mental Health, based in the Department of Mental Health and Social Work. The aim of the project is to help people with severe mental illness find employment and/or meaningful occupation and thereby enhance their social inclusion.

I enclose a copy of the Participant Information Sheet and a leaflet about EMILIA and the following URL will give you an overview of the project: <http://www.emiliaproject.net/>
Please contact me if you have any further queries about the project.

Yours sincerely

Tamara Shaw
Researcher Worker
Middlesex University
Archway Campus
Highgate Hill
London
N19 5LW
Tel: 020 7848 0975
Email: t.shaw@mdx.ac.uk

Appendix 7

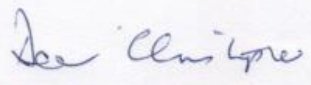
Barnet 

Primary Care Trust **3rd Floor**
Westgate House
Edgware Community Hospital
Burnt Oak Broadway
Edgware
Middlesex HA8 0AD
Tel: 020 8952 2381
Fax: 020 8937 7650

Our ref ACB/LGE
Your ref
Direct line 020 8937 7690
e-mail andrew.burnett@barnet-pct.nhs.uk

17th December 2007

Mr Christopher Griffith
126 Broad Street
Coventry
CV6 5BG



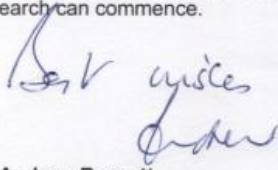
Re : Empowerment of Mental Illness Service Users: Lifelong Learning, Integration and Action

All research in the Barnet Primary Care Trust is undertaken in accordance with the Department of Health Research governance Framework for Health and Social Care. This indicates that researchers interacting with patients owed a duty of care by Barnet PCT must have a contractual relationship with us. Barnet PCT recognises the terms of honorary contracts issued by Camden PCT, Islington PCT, Camden & Islington Mental Health and Social Care Trust.

Camden PCT has confirmed to me that you hold such a contract. Please consider this letter to constitute an honorary contract with Barnet PCT on the same terms as those indicated by Camden Primary Care Trust. Although you are not regarded as an employee of Barnet PCT, the PCT recognises certain legislative obligations to you and, while you are legitimately engaged on activities within Barnet PCT, will owe you the same duty of care as to its own employees.

Please note that Barnet PCT manages all research in accordance with the requirements of the Research Governance Framework. As an honorary contract holder of Barnet PCT you must comply with all reporting requirements, systems and duties of action put in place by the Trust (or by Camden PCT on its behalf) to deliver research governance.

This letter is not Final Approval; this must be obtained from Camden PCT before any research can commence.



Dr Andrew Burnett
Director of Health Improvement / Medical Director

Cc Mabel Salli, Research Registrar/Research Governance Officer, NoCLoR,

Chair: Sally Malin
Chief Executive: Charles Hollwey

Trust Headquarters, 3rd Floor, Westgate House, Edgware Community Hospital, Burnt Oak Broadway, Edgware, HA8 0AD
Tel: 020 8952 2381 Fax: 020 8937 7727 Web: www.barnet.nhs.uk

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Appendix 8

Glossary of Acronyms

- CBT: Cognitive Behavioural Therapy
- CSSRI: Client Social-Demographic and Service Receipt Inventory
- DSLO: Demonstration Site Learning Organisation
- ECT: Electroconvulsive Therapy
- EMILIA: Empowerment of Mental Illness Service Users: Lifelong Learning and Action
- EU: European Union
- GRD: General Resistance Deficits
- GRR: General Resistance Resources
- ICD: International Statistical Classification of Diseases and Related Health Problems
- Q of L: Quality of Life
- NIACE: National Institute of Adult Continuing Education
- OCD: Obsessive-Compulsive Disorder
- OLQ: Orientation to Life Questionnaire
- PTSD: Post-Traumatic Stress Disorder
- SF-36: Short Form Measure of Health and Quality of Life
- SOC: Sense of Coherence
- SSRI: Selective Serotonin Reuptake Inhibitors
- WHO: World health Organisation

Appendix 9

EMILIA Key User Interviews

At each demonstration site 3-5 key informant service users are selected. Key informants must meet the overall inclusion criteria and must be willing to participate in the interviews three times during the study: that is at baseline, ten months after the training has started and 20 months after the training has started.

Process

The aim is to create understanding on how the service users experience the project, lifelong learning and working in mental health settings. Service users' views on issues like the quality of life and social inclusion will also be evaluated. The focus is on the individual experience.

Duration of the interviews: not more than 1½ hours

Interviews

- Semi-structured theme based interviews performed by the local researcher
- Interviews will be recorded and transcribed
- Themes and example questions need to be translated into the local language.
- Data will be in the local language at this phase
- The information will be treated confidentially
- No individual information will be disseminated in a manner through which the individual can be recognized

Quality of life

1. How do you see the quality of your life?
2. What areas of your life do you consider have gone particularly well over the last year in terms of education, training, employment, meaningful unpaid activities and social networks?
3. What areas of your life have not gone so well in the last year?
4. Is there something that would enhance the quality of your life?
5. What can you or others do to build on your successes?

Social inclusion

6. What do you think about your opportunities regarding employment, health care, housing etc. if you compare them with other people's opportunities?
7. Have there been any particular barriers, difficulties or problems that have caused these parts of your life not to go so well?
8. What can you do by yourself to resolve these problems?
9. What can others do to help you resolve these problems?

Expectations for the project and lifelong learning,

10. What do you want to achieve over the coming year?
11. Which of these goals can you achieve on your own?
12. Which of these goals do you require help to achieve?
13. Who can help you achieve these goals?
14. When you think about EMILIA - project and training – what is your experience about it?
How you see it helping you to achieve your goals?
15. How do you see your motivation regarding learning new things during the training?
16. What are the most important experiences you have concerning the project?

Appendix 10

EMILIA Self Report Interview

Any information you will disclose to us will be treated confidentially; no individual information will be disseminated; and only group findings will be shared with other people.

You can write the responses by hand, type them into the computer, or speak into a tape recorder.

Please respond in your own words:

- 1) What areas of your life do you consider to have gone particularly well over the last year in terms of education, training, employment, meaningful unpaid activities, and social networks, including those you are undertaking within Emilia?
- 2) What can you – or others - do to build on your successes?
- 3) What areas of your life have not gone so well in the last year?
- 4) Have there been any particular barriers, difficulties or problems that have caused these parts of your life not to go so well?
- 5) Have you experienced any new barriers since last year?
Yes No
- 6) If yes, please tell us what are the new barriers
- 7) What can you do by yourself to resolve these problems?
- 8) What can others do to help you resolve these problems?
- 9) What do you want to achieve over the coming year?
- 10) Are any of your goals different from what they were last year?
Yes No
- 11) If some of your current goals differ from what they were last year, please tell us what is the difference?
- 12) Which of these goals can you achieve on your own?

13) For those goals which require support from others, please tell us who can help you in achieving them?

Thank you.