

Exploring Perspectives and Experiences of Pressure Ulcer Prevention among Healthcare Support Workers: A **Generic Qualitative** Study

Abstract

Background: Given the global shift of delegating more responsibilities including Pressure Ulcer (PrU) prevention to healthcare support workers (HCSWs), yet their experiences and perspectives are often underrepresented in research.

Aim: To explore HCSWs' experiences and perspectives in PrU prevention when deliver patients care.

Method: A generic qualitative research was utilised. Four focus groups were conducted via Zoom with HCSWs working in different clinical settings between March and June 2021. The focus groups explored HCSWs' experiences and perspectives into PrU prevention, including their roles, challenges and areas need improvements. Data were analysed using thematic analysis.

Findings: 14 participants included 3 trainee Nursing Associates (2 acute, 1 community) and 1 Nursing Associate from acute settings, remaining 10 Healthcare Assistants from acute (4), community (2), domiciliary care (3), and mental health (1). Participants demonstrated strong commitment to PrU prevention, driven by their compassion and a genuine desire to alleviate patient suffering. Participants discussed challenges to effective PrU prevention, including lack of knowledge, skills, staff shortages, excessive workloads, and inconsistent practices. They stressed the critical role of teamwork and communication with patients and families for successful PrU prevention. There was a strong call for structured training to enhance their knowledge and skills, advocating for mandatory, comprehensive and recurrent training for all involved in patient care.

Conclusion: The findings highlights the critical role of HCSWs in PrU prevention within current healthcare workforce model. It identified challenges and emphasises the need for proper training and support to fortify the contributions to effective PrU prevention among HCSWs.

Key words: ‘experiences’, ‘focus group’, ‘healthcare support workers’, ‘pressure ulcer prevention’, ‘qualitative study’, ‘perspectives’

Key points

1. The study aimed to understand the experiences and perspectives of HCSWs in PrU prevention during patient care.
2. Four online focus groups involving 14 HCSWs were conducted between March and June 2021, representing diverse clinical settings.
3. HCSWs expressed strong commitment to PrU prevention, viewing it as an integral part of holistic care and a means to alleviate patient suffering.
4. Their strong motivation and substantial patient interaction make them valuable assets in early PrU detection and reporting.
5. Challenges to effective PrU prevention were discussed openly, including lack of knowledge, skills, staff shortages, heavy workloads, and inconsistent practices.
6. The study highlights the need for structured training to fortify HCSWs' contribution to PrU prevention, advocating for comprehensive, mandatory, and recurrent training across all levels of the nursing team.

Reflective questions

1. How HCSWs’ describe their experiences of caring for patients with PrU or at risk of Pressure ulcers?

2. From HCSWs' point of view, what are challenges of PrU care and prevention when they deliver patients care?
3. What are HCSW's perspectives in terms of making PrU prevention more effective during daily patients care?
4. How to make HCSWs contribute more to effective PrU prevention within modern healthcare workforce model?

1. Background

A pressure ulcers (PrU) is defined as localised damage to the skin and/or underlying tissue, caused by prolonged pressure alone or pressure in combination with shearing forces.¹ PrUs most commonly occur among older patients, individuals with limited mobility or sensation, and patients suffering from acute or chronic illnesses^{2,3,4} Today, PrU rank as the third most expensive condition, following cancer and cardiovascular diseases. Considered a nosocomial harm and occurring across acute, community and mental health care settings, current data show PrU prevalence of 12.8% and rate of hospital-acquired PrU of 8.5% in hospitalised adult patients worldwide.⁵ In the UK, approximately 700,000 people are affected by PrUs each year across all care settings within the NHS in England, leading to extended hospital stays, between 4% and 10% of all patients admitted to hospital care develop a minimum of one PrU.^{2,6} The presence of PrUs has significant psychological and social impacts on individuals and families.^{2,6,7} Complications of PrUs include pain, nosocomial infection, prolonged hospitalisation and poor quality of life. In more severe cases, surgical intervention may be required, even cause fatal sepsis.^{3,6,8}

PrUs also represent a significant economic burden for health and social care systems. Global differences in PrU management are influenced by healthcare systems, resources, and cultural

practices. In developed countries, advanced healthcare infrastructure and comprehensive clinical guidelines are common, whereas developing countries may struggle with limited resources. Factors such as patient education, medical supply availability, and healthcare funding models vary, affecting treatment accessibility. In the UK, PrUs represent a significant economic burden for health and social care systems. Treatment costs vary, with severe cases requiring substantial resources, including long-term care, specialised equipment, and extensive healthcare resources. Expenses cover dressings, medications, and nursing care, potentially extending to surgery. Indirect costs involve extended hospital stays, increased rehabilitation needs, and impacts on quality of life. These financial implications affect not only individual patients but also the wider healthcare system and society, due to the increased demand for resources and care..^{7,9-11} In the UK, the average cost to treat one Stage IV PrU is approximately at £14,108 per episode with the total cost of treating PrUs estimated to be between £1.4 billion and £2.1 billion per year^{2,9,10} Given the significant personal, social and economic cost of PrU, PrU prevention needs to be prioritised.

While most Stage I (non-blanchable erythema of intact skin) and Stage II (partial-thickness skin loss with exposed dermis) PrUs are preventable, and represent over half of all PrUs in hospitalised adults, their occurrence can attract a threat of litigation, as well as cause damage to organisational and professional reputations.⁵ Nurses and more latterly, HCSWs particular who sustain the closest contact to patients are primarily accountable for preventing PrUs. With an aging population and increasing prevalence of chronic conditions, the rates of PrU continue to increase globally.^{5,8,12-14} Current healthcare workforce models project greater reliance on advanced nursing roles and concomitantly support roles, making the nursing team more complex.^{13,15,16} Shortage of Registered Nurses (RNs) and the growing burden of paperwork on nurses mean HCSWs spend much more time with patients delivering fundamental bedside care

including skincare than RNs worldwide.^{15,17,18} There is an urgent need to support HCSWs in terms of delivery of increasingly complex patient care tasks including skincare in an interprofessional team. A shortage of RNs has been a long-standing challenge for National Health Service (NHS) in the UK, with over 1.3 million frontline healthcare care staff being not RNs; these include nursing associates (NAs) and healthcare assistants (HCAs). HCAs constitute approximately one-third of the caring workforce in hospitals and they spend much more time than RNs providing fundamental care and engaging in complex activities to fill gaps in the RNs workforce.^{17,18} Indeed, the Department of Health highlighted the need to understand and improve HCSWs' practice, recognising them as a critical, strategic resource.

Previous studies have indicated inadequate knowledge of PrU prevention in RNs.¹⁹⁻²¹ While HCSWs are an expanding group of active key workers across diverse healthcare settings, little is known HCSWs' experiences and perspectives of PrU prevention when deliver patients care within their role. Although HCSWs cannot be expected to have the same level of experiences or knowledge of RNs, they need work with other members in nursing team under the leadership and direction of RNs to deliver high quality of patients care. The findings of this study could be useful to understand the role of HCSWs in PrU prevention, address existing challenges, and pave the way for more effective strategies in this essential aspect of patient care. We conducted this qualitative study to examine HCSWs' experiences and perspectives of PrU prevention when they deliver patients care, and understand their challenges faced and areas need to improve to increase their contributions to PrU prevention.

1.1 Aims and objective

This study aims to explore the experiences and perspectives of HCSWs in the context of PrU prevention while delivering patient care.

Objectives are:

- To **investigate** the commitment and motivation of HCSWs toward PrU prevention when they deliver patients care.
- To recognise the growing importance of HCSWs in the healthcare workforce, especially in the context of an aging population and increasing prevalence of chronic conditions.
- To bridge the gap in understanding HCSWs' experiences and perspectives in PrU prevention, considering their unique role within the nursing team.
- To inform the development of tailored educational programs and curriculum for HCSWs to enhance PrU prevention practices and contribute to improved patient care.

2. Method

2.1. Study design

A qualitative focus group study conducted virtually using Zoom software technology which were audio recorded. **Three researchers, JK, MT, and LQL, moderated the focus groups. None of them had any prior knowledge of or relationship with the participants. Researchers JK and MT, a senior lecturer in adult nursing and a nursing professor respectively, alternated in leading the discussions, introducing topics, and prompting questions based on a pre-determined guide for all four focus groups. Researcher LQL provided technical support during the sessions, overseeing the question flow and taking notes.** Participants were asked to discuss their view of PrU prevention, perceived barriers, facilitators and areas that they felt could be improved in the delivery of PrU prevention within their roles. In addition, participants were provided the opportunity to talk freely on any aspect of PrU prevention. A topic guide is shown in Appendix 1.

Our approach to the data was broadly realist i.e. we understood participants to be referring to experiences, opinions and events, albeit from their own perspective, as things that have some

social reality.²²As such we adopted a simple thematic approach to summarise and organise the data²³ and understand our approach as ‘generic qualitative research’²⁴.

Ethical approval (reference number 12948) for conducting this study was obtained from the Health and Social care sub-committee, xxx (blinded for review), United Kingdom. All participants were provided with a participant information sheet and gave voluntary consent prior to data collection. The participants agreed to maintain confidentiality regarding the discussions. No identifying details were included in the transcription of the data.

2.2. Participants

2.2.1 Inclusion criteria:

The study included individuals employed in various clinical settings who have been involved in patient care, regardless of their previous experience in PrU-related activities. The participant roles included: 1) Adults aged 18 to 75 years; 2) Nursing support workers, including Healthcare Assistants (HCAs), Trainee Nursing Associates (TNAs), and Nursing Associates (NAs). These roles represent a new and rapidly growing level of the healthcare workforce within the UK. Nursing Associates are registered healthcare staff whose role is to bridge the workforce gap by helping nurses in limited areas and fully supporting healthcare assistants. Nursing Associate Trainees are essentially apprentices who work towards a foundation degree through healthcare experience and academic work at a university. At the end of their salaried training they are registered nursing associates. Healthcare assistants provide fundamental social and personal care to patients and offer support to NAs and Nurses in limited capacity such as performing ECGs or phlebotomy.

2.2.2 Exclusion criteria:

1) UK NMC Registered nurses; 2) Pre-registered nursing students; 3) Participants who have difficulty in understanding written and verbal information of English

2.2.3 Recruitment for focus groups:

All participants who took part in an online survey carried out in a large London university were invited for the focus group study.²⁵ Those participants who were willing to participate focus groups were asked to respond to a recruitment email at completion of the questionnaire. After responding to the recruitment email, participants were contacted by one of research team (LQL), who sent out a doodle poll to arrange the focus groups. All participants were provided detailed study information and consent form prior to the focus groups.

2.3. Data Analysis

Four focus groups were conducted online between March and June 2021. Data from the audio recordings of the focus groups were recorded. The recorded materials were transcribed verbatim by an experienced research administrator (NM), then double-checked for accuracy and discussed by two members of the research team, JK and LQL, for reassurance before analysing the data. Data analysis was conducted over a two-month period; data were managed using Excel (2019 version) software, and were analysed using a general inductive approach featuring the identification of themes i.e. material that appears a number of times, from different individuals within the data.²³ All participants who participated in focus groups were given a number to preserve anonymity in the data analysis.

3. Findings

Out of thirty individuals who responded to the recruitment email, nine did not complete their Doodle polls, three were unable to fit into any of the emerging groups, and four did not attend on the day of the focus groups. Subsequently, fourteen participated in four focus groups. Within the four focus groups, Focus Group 1 consisted of five participants: two from acute settings, two from community settings, and one from domiciliary care. Focus Group 2 had three

participants, all from acute settings. Focus Group 3 included three participants, each from mental health, domiciliary care, and acute settings respectively. Focus Group 4 comprised three participants from acute, community, and domiciliary care settings. Table 1 shows the background and settings of the 14 participants who took part in the four focus groups. The findings of focus groups are presented as four key themes: HCSWs' roles in PrU prevention, barriers to PrU prevention, factors facilitating effective PrU prevention, areas need for improve for PrU prevention among HCSWs.

3.1. HCSWs' roles in PrU prevention

PrU prevention was described as part of the delivery of holistic care. Participants spoke compassionately about their motivation to care for patients, responsibilities for PrU prevention within their roles, and their personal motivation to contribute to alleviating patient suffering through the prevention of PrUs.

...when you care for someone, you look at them not like your patient, but you look at them as your family, as your auntie, or your dad or your uncle or your mum. So you wouldn't want her skin to break, just because maybe you didn't reposition or just because the person is vulnerable. They're vulnerable and we are there to care for them; it encompasses everything: their nutrition, their well-being; their hygiene, there's everything. (FG2 P1 acute setting)

Participants in the study said that they often spend more time with patients at the bedside than RNs, commonly observing patient skin on admission and during hospitalisation, as nurses are frequently occupied with other tasks. They were also aware of the importance of early detection of potential PrU signs and the need to report any deterioration to RNs.

Yeah, because we, as HCAs, we're actually seeing more of the patient's body, more regular than actually nurses and doctors and everything. (FG 4 P1 Community setting)

Sometimes I would be the first person who has the contact with the patient before the actual nurse. So I would have to basically relay and say to the nurse, well, there's no PrUs (FG 4 P2 acute)

You know, because it's all well and good giving it in the first instance, but when dressings need to be changed, the patient needs to be turned, the nurse has got something else to deal with, if we're there, in between that, doing what needs to be done, it ensures that it's continuous. That's where I think that it's important for us because then at least we are able to detect it deteriorating. So you can report that back to the nurse timely as well. (FG1 P2 Community)

3.2. Barriers to PrU prevention

Participants highlighted limited workforce as a barrier to attending to the fundamental aspects of PrU prevention such as repositioning patients and being released to attend training. Participants identified that inconsistencies in practice were often the consequence of excessive workload demands. They also highlighted the need for an available workforce to work as a team in order to deliver effective PrU prevention.

Sometimes like short staff. Because you will not have time; like, for example, if the patient needs repositioning, even though if they don't have it (a PrU), but they are at high risk of getting, then if it's short staff, that will affect; also lack of training. Like if you don't know what you're doing, then that means you can't do anything. (FG2 P3 Acute setting)

Participants suggested that a significant barrier to good PrU prevention was patients' resistance to PrU prevention. Participants working in both acute and community settings raised the issue of patients refusing PrU prevention and treatment as a barrier in PrU prevention.

I know of a patient – he refused during the night. He said he'd not got a sore and he'd got a really nasty one and he point blank refused any treatment at all and the doctors turned round and said that if he didn't let us dress and turn him, he could end up losing part of his top or his bottom. He ended up having an operation to debride it. (FG3 P3 Acute setting)

Because my observation says the turning is the number one medicine. They have to turn but the patients are really stubborn. For example, many times I am putting them on the side; believe me, before I leave the house, they are turning on their back! (FG1 P4 community)

Participants reported a lack of skill and confidence in assessing patients with dark skin.

... it's very difficult to see through some of the skin types. So that's one of the difficulties I have come across. Because I know a couple of patients had DTI (Deep Tissue Injury), but not noticed because of the skin colour. If the skin is light, you can easily see that, but some of the pressure damages, especially in the heels and if the skin is darker, you can't sometimes recognise it. (FG1 P1 Acute setting)

...Some black people do have areas on their body that is darker than other areas, and sometimes the buttocks areas and the hip areas and things like that can be darker than, you know, the whole body. So, you know, anybody would look at that and think, oh, that's normal on the person, when actually, it is a pressure ulcer actually developing.(FG 4 P2 Acute)

Participants expressed uncertainty and felt they lacked skills in categorising PrUs using current national (NHS England) incorporating international NAPIAP/EPUAP guidelines and in choosing dressing; they understood that this compromised continuity of care:

'Because it's very important to categorise, so that when you're giving a hand-over to your colleagues, sometimes even as I noticed to my ward, sometimes some of the Registered Nurse, they say that is Category One, and then sometimes when they say 'oh, it's not, it's they said, but actually, they are not sure as well to categorise the wound for the patient. (FG1 P3 Acute setting)

Most of participants felt they lacked knowledge, training and skill in PrU assessment and more specifically in categories of PrU. They felt uncertain of their ability to identifying early signs of PrU and in choosing dressings for PrU management.

Yeah. I was very disappointed actually. I don't know in my Trust, but I have only come across like 15 minutes when the tissue viability nurse has come to the ward and say, 'Oh, I'm going to start the training, if you want to see how I do the dressing'. I don't think that's the relevant training. There should be proper training where we are shown different kinds of wounds and how to dress them. (FG1 P3 Acute setting).

3.3. Factors that facilitated effective PrU prevention

Participants considered good teamwork and communication with patients and carers, and a patient's personal motivation to be factors that facilitated effective PrU prevention. This was discussed frequently in all the focus groups. Participants recognised that effective care required

skilled and clear explanations by nurses and HCSWs to patients about the need for PrU prevention such as regular repositioning, liaising with the patient's carers where necessary. Clear explanations about procedures were seen as facilitating understanding and participation in care.

A lot of it comes down to communication. And when you're speaking to a patient, how you're communicating to them, and whether or not they understand what's actually involved in what you're [saying]... It's about... actually speaking to them and developing like that kind of therapeutic relationship, even if they're only there for a day or two. And explaining why you need to, like treat, whether or not by moving them so they're not laying on one side too long, but actually communicating with the patients and explaining to them why they need to be moved. (FG3 P3 Acute setting)

Participants saw the interprofessional team as a resource that enabled an appropriate response to different patient scenarios. One participant noted that deteriorations regarding PrUs could be reported to medical staff. Another community-based HCA spoke about the advantage of the district nursing team sharing an office with physiotherapists and occupational therapists so that problems with particular patients could be discussed.

Currently, in the two teams that I work with, we have a like, we work collaboratively and collaboratively with auditing. So, apart from the district nursing team in our office, we have the care navigator, we have the physiotherapy, we have the occupational therapist. So any concern that we have with a patient you can easily discuss with them, rather than sending an email for them to come to us. (FG1 P2 Community)

Others made it clear that effective PrU prevention and care relies on teamwork and would not be possible without it. Some participants saw training from Tissue Viability Nurses (TVNs) as important sources of information and advice when patients did not respond to PrU prevention.

I think PrUs prevention is mainly a teamwork; you can't do it by yourself, especially when patients are in so much discomfort. And if there is not teamwork, I don't think I can manage a patient with a PrU on my own. (FG1 P4 Community)

Training from TVN was really useful as they showed you photos not only of wound but all the patient and how they were lying and the stages of PrUs. (FG1 P1 Acute)

Some participants emphasised that training gave them confidence and responsibility to challenge poor practice in their teams.

So it's always good to have trainings, because it's good to be retraining people because, you know, people who've been there for a while, they have a culture, a way they work. So when you're new and you've got the fresh training, changing the culture or the habit of people, sometimes it's, it's a challenge, but we're supposed to be challenging bad habits, because sometimes you see people sliding patients - maybe they, I don't know why they do it with the sheet, which is, I always tell them 'no, we have to get the sliding sheet to slide patient. (FG2 P2 Acute setting)

3.4. Areas need to improve

Participants spoke enthusiastically about structured training and the importance of gaining essential knowledge, skills of PrU prevention in their practice. There was a very strong sense

amongst the participants that training in PrU prevention was an area which required improvement.

Very, very, important (Training). And especially for us as Nursing Associates, like I said, we are the ones who is the in-between, and gets the information, you know, that the nurses cannot get or possibly can't get it in time, I think it would be really useful, because then we will get it and then we can pass it on to the nurse. Especially where as we have more of a personal contact with the patients. That way our role would be seen as vital. (FG 4 P1 community)

It was highlighted that existing training was uneven, infrequent and should instead be mandatory, comprehensive regularly provided and extended to all those engaged in patient care to ensure an interprofessional approach.

Yeah, I think the type of training you're giving HCAs within community, has to be comprehensive in terms of wound assessment.(FG1 P2 community)

I think, first of all, to begin with, basic training for all staff should be included, like when we do training, the mandatory training for any Trust, any care home, or anywhere in surgeries, I think the PrU training should be included, ... I think at some point, everybody will need the training and because I think it's important. (FG1 P1 Acute setting)

There should be proper training where we are shown different kinds of wounds and how to dress them. (FG1 P3 Acute setting).

Participants described the difficulties of providing PrU prevention where nurses with authority to categorise and dress wounds were not always available. They felt that HCSWs would be ideally placed to intervene autonomously in a timely fashion if they had the necessary knowledge, training and skill. In the following quotation the participant identifies the effect of not having a high level of training in PrU grading on their sense of autonomy:

I haven't had the training or been given the knowledge to be able to give a PrU that kind of a grade. So the grading is very important, very interesting to me and I'd like to get enough, the type of training that gives me the knowledge and therefore the authority to say, well, you know, it's grade or could be a grade because of whatever. (FG4 P2 Acute)

One participant points to what they see as the advantages of improved training and knowledge for HCAs working in the community.

I'm talking, in terms of the community; carers see more of the patients in the community that... So if they were well equipped on how to assess, it could be like proper ... assessment each time they are doing personal care, and they can easily raise a concern when they see something coming up, so it would be easy for them to intervene as soon as possible, so they prevent deterioration to the skin. (FG1 P4 Community)

Finally, the following participant points to the advantages of greater knowledge and decreased reliance on RNs being present.

And I think the benefit would be, you know, just being able to know, when you see it, what to do in the interim, before the nurse has the time to come and see themselves as well, you know,

who have the more advanced knowledge. So instead of, waiting for them to come and see it, at least you will be able to do something about it in the first instance.(FG4 P2 Acute)

A topic of discussion in regard to areas for improvement was the role and contribution of the TVN. There were calls for more TVNs in clinical areas and for more of their assistance and education of HCSWs and patients.

Tissue viability nurses need to be more proactive – go on the ward, check what they do on the ward. (FG3 P3 Acute setting)

When it comes to tissue viability nurses, I know a hospital which only have two for the hospital, apparently. So maybe like they need more instead of just them two that have the paperwork and all the patients to see and educating them. (FG3 P3 Acute setting)

4. Discussion

In this study, the HCSWs joined the focus groups were positively disposed toward PrU care including prevention. Motivation and enthusiasm to prevent PrUs was evident, informed by a sense of duty and desire to provide a personal high standard of care to prevent patient suffering and harm. However, the findings show that ad hoc and informal training of HCSWs leads to poor levels of knowledge and skill which hampers HCSWs from effective communication within teams and patients. A lack of knowledge and skills in PrU prevention are related to poor understanding of how to categorise PrU as well as a lack of knowledge about PrU development and healing process. This is in line with the findings of a survey carried out by the authors. While prominent patient safety studies point to the association between degree prepared nurses and the prevention of patient harms,²⁵ in this study of HCSWs there was a strong sense that

PrU prevention and associated negative outcomes would be improved if regular and formal training and education was offered to HCSWs. This raises significant implications for nurse educators to consider when designing curricula for HCSWs and clinical educators and managers to consider when designing induction and continuing education programmes for increasingly complex nursing teams. Training should include what may be safely delivered in PrU prevention as well as what is beyond their scope of practice. At a minimum it would be helpful if PrU prevention training had a place amongst the repertoire of HCSW mandatory skills training. Most recently, a systematic review of 14 studies conducted by O'Brien and colleagues demonstrated the benefits of education of HCAs on their knowledge and skills of PrU prevention alongside the PrU incidence.²⁶ Indeed, having the knowledge to grade PrUs and then treat as appropriate in a timely way, according to some participants, would increase HSCW's sense of professional autonomy, responsibility and reduce reliance on instruction from qualified nurses.

Our finding supports those of previous studies exploring the attitude and perceived barriers of PrU prevention among nursing team acr.^{27,28} For instance, Lavallée and colleagues reported that lack of knowledge, physical skills, resources and organisation support are key barriers for PrU prevention among staff working in nursing homes.²⁸ Our participants highlighted their motivations towards proactive PrU prevention but lack of structured training available. In recruiting HCSWs working across acute, community and nursing home settings, we are able to contribute to this emerging body of work.

Interestingly, participants in this study highlighted a lack of skill and confidence in assessing patients with dark skin. This difficulty in assessing skin condition and early detection of PrU sign in individuals with darker skin, and the significant impact of PrUs on both patients and

healthcare systems have been emphasised in recent studies^{28,29}. Patients with dark skin tones have also been reported to experience higher incidence of full-thickness PrUs and mortality rates due to the challenges in early detections³⁰. Therefore, it is crucial to provide targeted education and training for healthcare professionals on the challenges of assessing PrUs in patients with dark skin. This should include training to recognise early signs of PrUs that are less apparent on darker skin, such as changes in skin texture or warmth, instead of relying solely on visual cues. Additionally, the use of technological aids such as tools for skin assessment that measure subepidermal moisture, which has been proven effective in predicting early PrU damage in patients with dark skin tones³¹.

Effective management of PrUs involves a collaborative and interprofessional approach, integrating skills and knowledge from various healthcare professionals, including nurses, doctors, dietitians and therapists. Each professional offers unique expertise, for example nurses assess risks of PrU, provide direct wound care, and educate patients; doctors oversee medical treatment and interventions; dietitians ensure proper nutrition for wound healing; and therapists aid in mobility and rehabilitation. Participants in this study recognised the importance of interprofessional teamwork in PrU management and shared their positive experiences of collaborating with interprofessional teams, such as noting the benefits of shared offices. This aligns with findings from a study by Clarkson and colleagues, in which they examined attitudes towards PrU prevention among nurses, physiotherapists, occupational therapists, and HCAs. Their findings suggest that while traditionally PrU prevention has been generally regarded as a nursing concern, they suggest that both occupational therapists and HCAs have more positive attitudes toward prevention strategies than nurses.³² There is a strong sense of the need to make prevention of PrUs ‘everybody’s business’ across the interprofessional team in terms of assessment but most importantly practical assistance with activities which cannot be achieved

as a lone worker such as repositioning. Effective teamwork within the interprofessional team was an important factor as indicated by the value nursing support staff placed on the responsibility and input from RNs and TVNs. It is unfortunate that due to work-load pressures, RNs were often allocated other responsibilities for patients care and spent less time at bedside with patients than those in support roles. There is a need for review of support worker responsibility and autonomy regarding PrU prevention especially where HCSWs such as HCAs now in engage in complex activities. There is a case for HCSWs with appropriate training, ideally interprofessional training, to have more authority to institute PrU interventions independently and in a timely fashion. We do not underestimate the challenges that such reframing of responsibility for PrU might have for accountability within the nursing team.

In our study, HCSWs emphasised the importance of helping patients in changing unhealthy behaviors, viewing it as crucial to the prevention of PrUs. This aligns with the concept of healthcare as a dynamic learning environment where both patients and staff contribute to positive health outcomes. Participants highlighted their roles and autonomy, and believe that structured, mandatory training would enable them to contribute more effectively to pressure PrU prevention, ultimately improving the quality of care. In line with other research that PrUs can be reduced when unlicensed staff, including healthcare assistants, are properly educated and have formal ways for reporting their observations^{33,34}. For instance, Sharkey and colleagues' development of the On-Time Quality Improvement for Pressure Ulcer Prevention program highlights the importance of using clinical decision support tools and the valuable role of Certified Nursing Assistants' documentation alongside their knowledge in enhancing clinical decision-making, especially in PrU prevention. Future research is warranted to explore the impact of implementing programs that incorporate formal methods of reporting observations for PrU prevention by HCSWs.

4.1. Limitations

Firstly, our findings, based on a small sample of HCSWs, may not fully represent HCSWs at the national or international level. Nevertheless, participants with various nursing support roles across different settings, including acute care, community care, and nursing homes, were involved. Therefore, our findings could be considered representative of HCSWs across different healthcare settings.

Secondly, due to the Covid-19 pandemic, we were unable to conduct face-to-face focus groups; consequently, we conducted online focus groups instead. However, we found that online focus groups worked well for data collection in terms of flexibility and participation. While the diversity of participants and the richness of their responses were clear strengths of the focus group method, we also acknowledge the potential for moderator bias in this research approach. Thirdly, this study was a qualitative descriptive study. It is the first to explore the experiences and perspectives of PrU prevention among HCSWs in the UK. Our aim was to gather views regarding PrU prevention from this expanding workforce in healthcare services. Our findings suggest future directions for research and education, such as implementing a learning approach that encompasses the types of on-the-job learning that these participants describe. This approach should also reflect how the complexity of the nursing team can be used to an advantage.

4.2. Implications and recommendations

HCSWs expressed their strong commitment to PrU prevention as an integral part of holistic care. This commitment extends an opportunity to enhance patient outcomes. Leveraging their motivation can lead to improved PrU prevention strategies. HCSWs' described they spent more

time with patients than RNs and in their capacity to identify sign of PrUs at early stage, which has the potential for timely interventions for PrU prevention. Appropriate structured training and support can help harness this potential effectively. Furthermore, identifying the challenges faced by HCSWs, including limited staffing, heavy workloads, and patient resistance, highlights critical areas that require immediate attention by healthcare organisations. The uncertainty expressed by participants in assessing patients particular with darker skin tones, emphasise the need for standardised training that encompasses diverse patient populations and development of more effective PrU prevention protocols. This would help establish an appropriate strategy to optimise their contribution to PrU prevention, ultimately reducing PrU incidence and decreasing the substantial personal and financial burden related to PrU.

Future Strategies and Recommendations:

- **Comprehensive Training Programs:** Universities should work with health and social care clinical partners to create learning opportunities and generate evidence-based material aimed at this section of the workforce. Healthcare institutions should invest in structured and mandatory training programs for HCSWs in PrU prevention. These programs should encompass a wide range of skills, including assessment techniques for patients with diverse skin tones.
- **Autonomy with Training:** Empowering HCSWs with the necessary knowledge and skills can lead to increased autonomy in PrU prevention. Healthcare organisations should provide ongoing training and support to build confidence in HCSWs' abilities.
- **Patient Education:** Develop patient education materials and strategies to address patient resistance. Empowering patients with knowledge about the importance of PrU prevention can lead to greater cooperation.

- **Interprofessional Collaboration:** Encourage and facilitate collaboration among different healthcare disciplines. Interprofessional teams should work closely to share knowledge and expertise in PrU prevention.
- **TVN Expansion:** Healthcare organisations should assess the need for more TVNs, especially in clinical areas with high patient volumes. These professionals can provide critical education and support to HCSWs.
- In the UK, the Nursing and Midwifery Council (NMC) provides guidelines and a code of practice that establish a framework for the roles and responsibilities of nurses, midwives, alongside healthcare support workers (HCSWs), ensuring patient safety and quality of care. Given the global shift of delegating more responsibilities including PrU prevention to HCSWs, there is a need for a comprehensive, nationwide review of their role and responsibilities in PrU prevention across all levels of the nursing team.

5. Conclusion

HCSWs expressed strong dedication to PrU prevention as integral to holistic care. They view it as a means to alleviate patient suffering and possess motivation for early PrU detection. However, they face challenges like limited staffing, excessive workloads, lack of knowledge and skills of PrU assessment. Effective PrU prevention requires teamwork, better communication, and guidance. Participants emphasise structured training, mandatory and inclusive, covering diverse patient populations. They seek increased autonomy and expanded TVN support.

With increased responsibility for bedside care including PrU prevention being devolved worldwide to HCSWs, by recognising HCSWs' commitment and addressing their needs, healthcare organisations can enhance the quality of care and reduce the incidence of PrU

A review of education regarding PrU nationally at all levels of the nursing team including nursing students and HCSWs may be required. Future larger scale cohort and interventional

study is warranted to implement HCSW tailored education programme to increase their contributions to PrU prevention.

5. References

1. EPUAP/NPIAP/PPPIA (2019). European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline. The International Guideline. accessed on 22/07/2023
2. NHS Improvement 2018 <https://www.england.nhs.uk/wp-content/uploads/2021/09/NSTPP-summary-recommendations.pdf> accessed on 22/12/2022
3. Jaul, E., Barron, J., Rosenzweig, J. P., et al. An overview of co-morbidities and the development of pressure ulcers among older adults. BMC geriatrics 2018;18(1), 305. <https://doi.org/10.1186/s12877-018-0997-7>
4. Liu LQ, Chapman S, Deegan R, et al. Development and preliminary validation of a tool measuring concordance and belief about performing pressure-relieving activities for pressure ulcer prevention in spinal cord injury. J Tissue Viability 2021;30(2):244-249. doi: 10.1016/j.jtv.2020.05.002
5. Li, Z., Lin, F., Thalib, L., et al. Global prevalence and incidence of pressure injuries in hospitalised adult patients: A systematic review and meta-analysis. International journal of nursing studies 2020;105, 103546. <https://doi.org/10.1016/j.ijnurstu.2020.103546>
6. Nightingale P, Musa L. Evaluating the impact on hospital acquired pressure injury/ulcer incidence in a United Kingdom NHS Acute Trust from use of sub-epidermal scanning technology. J Clin Nurs 2021); 30 (17-18):2708-2717.

7. Guest, J. F., Vowden, K., & Vowden, P. The health economic burden that acute and chronic wounds impose on an average clinical commissioning group/health board in the UK. *Journal of Wound Care* 2017; 26(6), 292–303. <https://doi.org/10.12968/jowc.2017.26.6.292>
8. Floyd N.A., Dominguez-Cancino K.A., Butler L.G., et al. The effectiveness of care bundles including the braden scale for preventing hospital acquired pressure ulcers in older adults hospitalized in ICUs: A systematic review *Open Nursing Journal* 2021; 15 (1) , 74-84. doi: 10.2174/1874434602115010074
9. Dealey, C, Posnett, J, & Walker, A. The cost of pressure ulcers in the United Kingdom. *Journal of Wound Care* 2012; 21(6), 261–266. <https://doi.org/10.12968/jowc.2012.21.6.261>
10. National institute for health and care excellence (2014). Health and social care directorate Quality standards and indicators Briefing paper <https://www.nice.org.uk/guidance/qs89/documents/pressure-ulcers-qs-briefing-paper2> accessed on 22/07/2023
11. Shiferaw, W.S., Akalu, T.Y., Mulugeta, H. et al. The global burden of pressure ulcers among patients with spinal cord injury: a systematic review and meta-analysis. *BMC Musculoskeletal Disord* 2020;21, 334 <https://doi.org/10.1186/s12891-020-03369-0>
12. Afzali B.L, Albatineh A.N, Hasanpour D.A, et al. The Incidence of Pressure Ulcers and its Associations in Different Wards of the Hospital: A Systematic Review and Meta-Analysis. *Int J Prev Med* 2020;11:171. doi:10.4103/ijpvm.IJPVM_182_19
13. Chaboyer, W. P., Thalib, L., Harbeck, E. L., et al. Incidence and Prevalence of Pressure Injuries in Adult Intensive Care Patients: A Systematic Review and Meta-Analysis. *Critical care medicine* 2018; 46(11), e1074-e1081. <https://doi.org/10.1097/CCM.0000000000003366>
14. Moore, Z., Avsar, P., Conaty, L., et al. The prevalence of pressure ulcers in Europe, what does the European data tell us: A systematic review. *Journal of Wound Care* 2019; 28(11), 710–719. <https://doi.org/10.12968/jowc.2019.28.11.710>

15. Saks, Mike.(2020. Support Workers and the Health Professions in International Perspective: The Invisible Providers of Health Care. Bristol University Press, 2020. muse.jhu.edu/book/80738.
16. Scheffler, R.M., & Arnold, D.R. Projecting shortages and surpluses of doctors and nurses in the OECD: what looms ahead. *Health Econ Policy Law* 2019;14(2), 274-290. doi: 10.1017/S174413311700055X
17. Clover B. (2010) A healthcare assistant does twice as much direct patient care on the wards as a nurse: <https://www.nursingtimes.net/archive/healthcare-assistants-take-over-bulk-of-bedside-care-22-06-2010/> Accessed on 12/10/2022
18. Cavendish C. Cavendish Review: An Independent Enquiry into Healthcare Assistants and Support Workers in the NHS and Social Care Setting. London: Department of Health; 2016. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/236212/Cavendish_Review.pdf accessed on 05/10/2022
19. Dalvand S, Ebadi A, Gheshlagh RG. Nurses' knowledge on pressure injury prevention: a systematic review and meta-analysis based on the Pressure Ulcer Knowledge Assessment Tool. *Clin Cosmet Investig Dermatol* 2018;11:613-620. DOI: 10.2147/CCID.S175406
20. Ebi WE, Hirko GF, Mijena DA. Nurses' knowledge to pressure ulcer prevention in public hospitals in Wollega: a cross-sectional study design. *BMC Nurs* 2019;18:(20). DOI: 10.1186/s12912-019-0363-4
21. Gedamu H, Abate T, Ayalew E, et al. Level of nurses' knowledge on pressure ulcer prevention: A systematic review and meta-analysis study in Ethiopia. *Heliyon* 2021;7(7):e07648. doi: 10.1016/j.heliyon.2021.e07648
22. Delanty G: *Social Science: beyond constructivism and realism*. 1997, Buckingham: Open University Presss.
23. Braun, V. and Clarke, V. (2023), *Thematic analysis: a practical guide* Sage Publications

24. Caelli K, Ray L, Mill J. 'Clear as mud'. Towards a greater clarity in generic qualitative research. *Int J Qualitative Methods* 2003; 2(2)1–23.
25. Liu LQ, Kelly J, Di Cesare M, Allan HT, Traynor M. The knowledge and attitudes regarding pressure ulcer prevention among healthcare support workers in the UK: A cross-sectional study. *J Tissue Viability*. 2023;32(1):130-135. doi:10.1016/j.jtv.2022.11.004
26. O'Brien N, Moore Z, Avsar P, et al. The impact of healthcare assistant education on pressure ulcer prevention: a systematic review. *J Wound Care* 2023;32(Sup7a):cxv-cxxvii. doi:10.12968/jowc.2023.32.Sup7a.cxv
27. Etafa, W., Argaw, Z., Gemechu, E. et al. Nurses' attitude and perceived barriers to pressure ulcer prevention. *BMC Nurs* 2018;17, 14 <https://doi.org/10.1186/s12912-018-0282-2>
28. Lavallée JF, Gray TA, Dumville J, et al. Barriers and facilitators to preventing pressure ulcers in nursing home residents: A qualitative analysis informed by the Theoretical Domains Framework. *Int J Nurs Stud* 2018;6(82):79-89. doi: 10.1016/j.ijnurstu.2017.12.015.
29. Pusey-Reid, E, Quinn, L, Samost, M, , et al. Skin Assessment in Patients with Dark Skin Tone. *AJN, American Journal of Nursing* 2023;123, 36-43. <https://doi.org/10.1097/01.NAJ.0000921800.61980.7e>
30. Oozageer G N, Hutchinson M, Brooke J, Jackson D. Pressure injuries in people with darker skin tones: A literature review. *J Clin Nurs* 2019;27(17-18):3266-3275. doi:10.1111/jocn.14062.
31. Bates-Jensen BM, McCreath HE, Pongquan V. Subepidermal moisture is associated with early pressure ulcer damage in nursing home residents with dark skin tones: pilot findings. *J Wound Ostomy Continence Nurs* 2009;36(3):277-284. doi:10.1097/WON.0b013e3181a19e53
32. Clarkson P, Worsley P.R, Schoonhoven L, et al. An interprofessional approach to pressure ulcer prevention: a knowledge and attitudes evaluation. *J Multidiscip Healthc*, 2019; 12:377-386.

33. Sharkey S, Hudak S; Horn S. Exploratory Study of Nursing Home Factors Associated with Successful Implementation of Clinical Decision Support Tools for Pressure Ulcer Prevention. *Advances in Skin & Wound Care* 2013; 26(2):83-92.
34. Sharkey S, Hudak S; Horn S. Leveraging Certified Nursing Assistant Documentation and Knowledge to Improve Clinical Decision Making: The On-Time Quality Improvement Program to Prevent Pressure Ulcers. *Advances in Skin & Wound Care* 2011;24(4):182-188.