Content Moderators' Strategies for Coping with the Stress of Moderating Content Online

Ruth Spence, Amy Harrison, Paula Bradbury, Paul Bleakley, Elena Martellozzo, Jeffrey DeMarco

Abstract. Content moderators are exposed to a range of stressors at work, including analyzing content that has been flagged as harmful. However, not much is known about their specific coping strategies. In-depth interviews were conducted with 11 content moderators exposed to child sexual abuse material (CSAM) as part of their job, and thematically analyzed to investigate both individual coping strategies and those deployed organizationally. Results highlighted the importance of social support especially from colleagues. Supportive relationships fulfilled several needs including helping content moderators process emotions, normalize their reactions and reduce feelings of isolation. Additionally, the ability to create boundaries between work and home life was important for distancing and distracting themselves from the work. Moderators expressed a preference for mandatory, individual therapy with professionals who had specific experience supporting those exposed to CSAM and reported disclosure was hindered if not, due to worries about traumatizing the therapist. How content moderators cope and can be further supported are discussed.

1 Introduction

Content moderators (CMs) are tasked with analyzing flagged user-generated content and applying company policies and guidelines, as well as legal frameworks, to decide whether it should be removed from the platform. Content can range from spam and inoffensive material, such as misleading advertisements, to hate speech, graphic violence, extreme pornography, and child sexual abuse material (CSAM). Although exact estimates of the amount of inappropriate material reviewed are difficult to ascertain, in the first quarter of 2022 Facebook acted on 15.1 million occurrences of hate speech and 26.1 million individual instances of violent and graphic content (Facebook 2022). Twitter removed 1.5 million posts of abuse and/or harassment (Twitter 2022). These are just two of the countless online social media platforms that must contend with these issues. In 2021 alone, the Internet Watch Foundation received reports of more than a quarter of a million URLs worldwide containing child sexual abuse imagery (Foundation 2021).

Content moderation can involve being exposed to the suffering of others, which may lead to a range of negative emotional and physical reactions (Burns et al. 2008). As such, it can be considered a high stress role. Coping strategies are the conscious or unconscious actions individuals put in place to manage distressing situations; however, little is known about how CMs cope with the demands of the role and what strategies they develop to manage work stress. In this study, CMs' coping strategies for dealing with workplace stress are assessed, both in terms of individual and organizational approaches. In-depth semistructured interviews with CMs exposed to CSAM as part of their role were carried out. The interviews were recorded, transcribed and analyzed using a framework approach. This method involves six steps: familiarization through repeated reading of the transcripts, systematically applying codes to excerpts of data, grouping codes into defined categories, applying the codes and categories to all data, summarizing the data using a matrix of key categories by participant, and interpreting the data.

Findings suggest that CMs thought talking to others, especially colleagues, was crucial for coping. Supportive relationships enabled them to process their emotions, normalize reactions and receive support, including practical advice. However, they reported experiencing barriers, including others not wanting to know about the job or a fear of traumatising them if they discussed job-related details. CMs discussed being motivated when they felt the job and their role was seen as valuable and made a difference. Distraction was a common coping strategy, as were activities that enabled emotion regulation, often through exercise or becoming immersed in a hobby. The ability to minimize exposure through their equipment was seen as positive, as was having autonomy at work. Therapy was viewed positively; however, CMs wanted therapists that had experience of supporting those exposed to CSAM for fear those without that experience could otherwise be traumatized by hearing about the content.

2 Literature review

All online platforms moderate content on their sites. This involves making decisions about what is permissible. These decisions are communicated through "community guidelines," which tell users how to behave and what content is acceptable (Gerrard 2022). These standards are enforced through the process of content moderation. Sites such as Reddit rely on volunteer moderators to enforce their policies, and allow communities to define their own standards (Matias 2019). Caplan (2018) terms this a "community-reliant approach" and makes the distinction between artisanal approaches, where case-by-case governance is applied, and industrial approaches, where many workers are employed to enforce standardized rules. Just as there are different forms of content moderation, content moderators can be employed in various ways: in-house workers employed directly by the company needing moderation; boutique firms specializing in content moderation for other companies; outsourced third-party vendors; and microlabor platforms such as Amazon Mechanical Turk (Roberts 2019). This leads to varied working conditions, where outsourced and microlabor moderators tend to be lower paid and less protected, and there is a level of "plausible deniability" for the platform because the moderators are technically not employees (Barrett 2020; Roberts 2019).

Nevertheless, content moderation is one of the most fundamental services online platforms like social media companies provide. Without it, sites could become awash with illegal or offensive content and the business model of selling advertisers access to users would fail (Barrett 2020; Gillespie 2018). CMs are critical for enforcing the rules, ensuring online platforms are profitable products rather than unusable, hostile spaces

(Drootin 2021). Material deemed offensive or harmful is sorted into queues and sent to CMs for review where they must make decisions about suitability at speed, in line with whatever set of policies they are currently enforcing (Ahmad and Krzywdzinski 2022). Therefore, the emotional and pressurized labor of CM work likely creates high-stress work environments that can adversely affect staff (Steiger et al. 2021). It is crucial to understand how moderators might be affected by their role and what helps them cope.

There is little psychological research assessing the impacts of content moderation on CMs (Steiger et al. 2021). However, studies with professionals exposed to graphic material, such as internet child exploitation (ICE) investigators or journalists, have shown that repeated exposure to this material can be harmful (Burns et al. 2008), showing raised rates of secondary traumatic stress and mental health difficulties (Bourke and Craun 2014; Devon and Police 2020). It is likely that CMs experience similar levels of harm due to their exposure to distressing images. Additionally, other facets of their work, such as accuracy targets and high workloads, may exacerbate the possibility for harm. Dwoskin, Whalen, and Cabato (2019) described how moderators were expected to maintain an accuracy level of over 95% when identifying and correctly removing harmful content, while Barrett (2020) reported that moderators were required to review up to 1,000 pieces of content per day. This content can be predictable, with some queues consisting of specific but constant harmful content, whereas others include a mixture of harmless and disturbing content, such that moderators do not know what they will see (Silbermann 2020). In addition, CMs are often low paid, lack control over policy decisions around how harmful content is defined, and receive substandard or non-mandated psychological support (Spence, DeMarco, and Martellozzo 2022).

Accounts by investigative journalists suggest that moderation is associated with mental health problems such as post-traumatic stress disorder (PTSD), depression, and anxiety (Newton 2019). Yet there is little empirical evidence of how CMs manage the range of stressors they experience. Qualitative research conducted by Roberts (2019) suggested that CMs used maladaptive coping strategies, evidenced through weight gain and increased alcohol consumption, and although they were reluctant to discuss their personal lives in depth, it appeared that the work also affected their intimate relationships. Prior research with ICE investigators highlighted the use of social support, such as sharing work-related and personal experiences and concerns, with a preference of talking to colleagues due to their similar lived experience. Investigators also used behaviors such as exercise or washing (e.g., showering) after a shift to release tension or symbolically "switch off" and keep the work separate. Distraction and focus on the societal value of their work were also used (Powell et al. 2014b). Burns et al. (2008) found that ICE investigators dissociated from their work by pretending the images were not real; taking breaks when they noticed adverse emotional reactions to the material; viewing material as evidence to remain analytical; and controlling when, where, and for how long they viewed material. They also distracted themselves from their work through activities that included regular intense exercise and listening to music, and described the importance of leaving work in the workplace.

Journalists have been found to cope with occupational stress using a number of different strategies based on their years of professional experience and their experience covering traumatic events (Monteiro, Marques Pinto, and Roberto 2016). Buchanan and Keats (2011) found they used avoidance, such as lying, so as not to accept or be given tasks; withdrawing from the situation; black humor; compartmentalization of their emotional reactions; substance use, exercise and other physical activities to relieve tension or justify leaving the organization's premises; and a focus on technical or practical aspects of the job at hand. Researchers investigating sexual violence were found to rely on

preparation in order to reflect on what might be involved and if they wanted to pursue the research; formal and informal support such as colleagues, friends, and therapy; and time management, where breaks to reduce exposure was seen as important (Coles et al. 2014).

Although many professions may be exposed to disturbing content, CMs may differ from other roles in several ways. For example, moderators are asked to sign non-disclosure agreements, which limit their ability to talk to others about their experiences (Bengani, Ananny, and Bell 2018). They are often expected to meet quotas, which can restrict their ability to take breaks (Newton 2019). Psychological support is not always provided, nor mandatory. CMs may not have flexible work allowances that facilitate withdrawal from the situation by performing other tasks or rotating out of moderation (Newton 2019). While ICE investigators often receive feedback about the outcomes of cases and victims, providing them with resolution, CMs may not (Denk-Florea et al. 2020).

The current study is the first to specifically explore coping-related strategies of CMs who are exposed to CSAM, using broad open-ended interview techniques that encourage rich detail about their lived experiences of work.

3   Methods

3.1   Participants

Eleven CMs with experience of moderating CSAM were recruited using existing networks, online advertising through social media, and a snowball technique where interviewees provided the research team's details to further participants. Moderators who wanted to participate were given an information sheet that explained the study and outlined that they had to have experience moderating CSAM material. There was no minimum requirement for how much exposure a participant had, as we were interested in exploring the range of experiences present in CMs. Participants were invited to take part in an online interview at a time of their choosing. They were given the choice to be interviewed with cameras on or off. Specific employment-related details such as the CM's employer were not sought; however, clarification of the participant's role was sought at the beginning of each interview, including an outline of what their job entailed and confirmation that they were exposed to CSAM as part of their work. All participants worked full-time as content moderators for either commercial companies or CSAM-specific hotlines. The sample included six females and five males, from eight countries: the Netherlands, UK, Ireland, Germany, Brazil, Colombia, Malaysia, and India.

3.2   Procedure

The interviews were administered by two members of the research team. The interviews were facilitated in spring 2022, and ranged in duration from 47 to 78 minutes. All interviews were conducted via online teleconference software. The interviews were semistructured, with participants asked about their role, how the material affected them, how they coped, other occupational stressors, how the job was perceived by others, and the impact of COVID-19 on their working conditions. This paper focuses on data relating to how moderators coped in the role. Interviewers asked open-ended questions such as "What techniques do you use to help you deal with any stress or negatives you experience as a result of your work?" and "What does your organization do to help support you?" with follow-up probes to elicit further elaboration and to seek clarification, if needed. Participation was voluntary and CMs were not remunerated for their time. The interviewers did not specifically ask about non-disclosure agreements

but guaranteed anonymity and confidentiality by using participant codes and not storing any personal details. All data was secured on password-protected drives in line with Data Protection and UK GDPR regulations, and the interview recordings were deleted after transcription. All methodological concerns were subject to ethical approval, which was granted for the study by the university's psychology research ethics committee.

3.3 Data analysis

Interviews were audio-recorded, transcribed verbatim, and anonymized by removing all identifiable information. The analysis used a framework approach, which involved six stages (Gale et al. 2013).

- *Familiarization*: the transcripts were read repeatedly to enable familiarization with the data and to identify key themes.

- *Coding*: the research team systematically applied descriptive or conceptual labels to interesting or notable excerpts of raw data. The coding framework was then discussed and agreed on by the research team.

- *Developing an analytical framework*: codes were grouped into clearly defined categories that represent interrelated ideas or concepts.

- *Applying the analytical framework*: the codes and categories were applied across all the transcripts.

- *Entering the data into the framework matrix*: a spreadsheet was used to generate a matrix. In the matrix, each column represented a key category and each row represented an individual participant. The summarized data from each transcript were entered into the matrix so that each cell represents a category by participant.

- *Interpreting the data*: the final analytic stage involved working through the data in the matrix, drawing out the range of experiences and views expressed during the interviews, identifying similarities and differences across participants, and interrogating the data to seek to explain emergent patterns and findings.

4   Results

CMs reported the ability to cope with their role, as well as how they achieved this when facing negative effects of the work. A range of coping strategies were identified, both personal and those facilitated by employer organizations. The themes identified are outlined in Table 1.

Table 1: Categories identified through Framework Analysis.

Superordinate Category	Subordinate Category
Informal Support	Barriers, Talking to Others, Recognition
Individual Strategies	Minimization, Emotion Regulation
Formal Support	Equipment, Therapeutic, Organizational

4.1 Informal support

4.1.1 Barriers

Although talking to friends and family about their work was important, moderators perceived they were unable to share their experiences with others. The practical issue of non-disclosure agreements (NDAs) was raised, which meant there was uncertainty as to what they were actually allowed to share. However, more generally, moderators talked about the reactions of others to their work. There was a belief that friends and family did not want to know about the job or talk about it because of what it entailed.

> *"Do you know, when I tried to tell people in the past about what I did, they didn't want to hear about it. I don't blame them. It's like telling someone about a horror movie. They don't want to hear about horror films."* (CM3)

There was also a fear among moderators that talking about their experiences would traumatize others, and participants wanted to protect friends and family from what they had seen. When asked about their job, they would answer vaguely to obstruct further questions.

> *"I didn't tell anybody the details because it was so disturbing that I also didn't want to disturb other people with what I've seen."* (CM10)

This meant moderators were selective in choosing which parts of the job they discussed, and who they discussed it with. Different aspects of the job might be shared with different people, depending on how the respondent felt they would react.

> *"I have very close friendships and I know who I can talk to about my work and what we write. So, I know that friend, I can tell her very much about my work and another friend, for example, even my boyfriend, he might feel that he can't deal with information around CSAM and I totally respect that, so I don't talk with my boyfriend about the content work. I talk to him about other things about the work."* (CM2)

4.1.2 Talking to others

Talking to others, especially colleagues, was a crucial strategy associated with many perceived advantages. The process of talking to others about moderation work allowed CMs to process emotions, normalize reactions, and receive support. Supportive colleagues were particularly valued as they "understood" the material and its effects, and could share advice about how to minimize impact. Unlike other people, colleagues did not have to be protected from the content, and many felt the only people who could truly understand the difficulties of the role were other moderators.

> *"That's what gets you through it, it's the camaraderie of your teammates who are co-suffering with you, but also are probably your biggest support mechanisms."* (CM8)

The ability to talk openly to colleagues about the problems associated with their role contributed to a positive work environment and enabled moderators to protect themselves when the work became too much.

> *"Understanding for each other when somebody is sick, or somebody wants to go out for a short break, or if some images are too difficult because of a certain setting or attributes that they say, 'Can somebody please take it over because I have difficulties with that?' There's always support and understanding. I think that is quite important in every kind of job but especially for this job."* (CM5)

Despite this, moderators felt excluded from wider professional networks, and some expressed frustration that they could not attend events where they might build greater support and share their experiences beyond their team.

> *"We've asked many times to be able to attend some of the WeProtect conferences. We ask to be able to go to the latest Europol summit. It's always a no, no matter what, and there is always a reason. Honestly, at some point you just feel like they're grabbing a reason out of a hat."* (CM9)

4.1.3   Recognition

Content moderators discussed the importance of feeling that both the job and the people who do it were appreciated by others. Feeling the work was valued was motivating for moderators.

> *"I've never gone to a friend's table and they've said, 'You are doing some very garbage work.' Every time they hear about what I do they say, 'Thank you. Someone is doing that.' I have been very praised with these thank yous which for me is something very important."* (CM11)

Knowing that their work had real-world impact was also important for CMs. Most did not receive any updates about cases they escalated or flagged; however, when it did occur, the ability to link their actions to real-world results was encouraging. Having tangible evidence of their job's importance helped with motivation and staying in the role.

> *"When you do child sex exploitation material you have the potential to save a kid's life or put someone who exploited children in prison...If you can link your work to that, even if it's not always clear that that's what you' re doing, you survive in that area a lot longer, I think."* (CM8)

4.2   Individual strategies

4.2.1   Minimization

CMs mentioned many mechanisms to help create a boundary between their home and work lives, but the common underlying element was to strengthen the separation between the two. For one, this included stopping work half an hour before leaving the building and, for another, this involved using their commute to create a physical boundary between work and non-work life. Once outside of work, moderators would try to "leave work at work."

> *"When I walk out the office I can just think to myself, okay, that' s it for today, and no need to think about anything concerning my job."* (CM1)

CMs discussed frequently engaging in distraction during and after working hours. For some, another advantage of maintaining strong relationships with friends and colleagues was their ability to distract CMs from work. Most moderators also engaged in activities designed to distract them from thinking about the content they had witnessed.

> *"I started conducting about a 30-minute to one-hour session with the entire team. They do not discuss anything related to work...I mean, you can talk about anything else. You can talk about movies, you can talk about what's going on in life, or you can talk about jokes, stories, play games, anything, but you're not discussing anything related to work...we did get very positive feedback saying that this session really helps take their mind off work."* (CM6)

Several moderators discussed the importance of staying positive, whether through talking and laughing with colleagues, or doing some other activity that made them happy.

> *"The key for me is to balance out because I love to go on walks and just put my earphones in and listen to a podcast, but I don't like to go for a walk and not listen to anything, so I have to have anything in mind that gives me joy."* (CM2)

4.2.2 Emotion regulation

Activities helped moderators with distraction, but also enabled them to regulate their emotions and focus on the present. Pastimes favored by CMs tended to provide an emotional outlet through intense physical exercise such as running, or by allowing them to become immersed in a pastime such as baking.

> *"I cycled on the home trainer to let go of some of the energy I had inside me."* (CM10)

Some respondents also discussed engaging in activities that helped them to process and structure their thoughts in regards to their job and the content they were exposed to.

> *"Writing was a way that I found to try to express what I was thinking or how could people help me here or what could be done. For me it's really a coping strategy. I don't keep the thing for myself."* (CM11)

4.3 Formal support

4.3.1 Equipment

The technical equipment that CMs worked with was seen to have both advantages and disadvantages. The ability to minimize screens, mute audio, and cease viewing immediately when content was confirmed as CSAM allowed moderators to minimize their own exposure. Additionally, there was a preference for using computer screens that were not easily viewable by others, which alleviated concerns about traumatizing anyone who may inadvertently see CSAM on screen.

> *"The actual video is maybe five per cent triggering you, but with the voice, it gives 105 per cent. So, I usually tell them, 'Put the volume down...You don't need a voice when you're seeing graphic content. Just turn it off. You don't need to hear it."* (CM5)

CMs complained that the equipment they were provided did not enable them to do the job as well as they would like, because it was too old or not specialized enough. However, when specialist software designed to minimize their exposure was supplied, it was also not considered useful as it prevented them from accurately examining the content.

> *"I've never used something like that [software that blurs images] because I feel like I might miss something, so for me it's not working."* (CM7)

4.3.2 Therapeutic

Wellness services were provided to most CMs by their employer, although the frequency and type of service varied. CMs were very favorable about having therapy available and all spoke about having found it useful. However, there was a general consensus that

disclosure was hampered if the therapist did not have experience with CSAM. Some expressed the fear that if the therapist did not have experience, the content could burden and traumatize them in the same way it might friends and family. The majority of CMs agreed that psychological support needed to be specialized, and the people providing it had to understand the type of exposure experienced.

> *"There's a team that can help you if you want, like mentally or professionally, if you need any help. However, there needs to be a separate thing established for content moderators, because the things, the content that these moderators go through on a daily basis, like eight hours a day, day in and day out, it's not on the same scale."* (CM6)

4.3.3   Organizational

It was important for CMs to have a supportive workplace environment. Of particular importance was the feeling of autonomy. Moderators appreciated being able to take breaks when needed and in a way that felt comfortable to them (e.g., going for a walk versus sitting in a break room), as well as the ability to take sick days when the work became overwhelming.

> *"The freedom to go out when we need to go out, the freedom to say 'eh, I can't see CSAM today,' these kinds of things are important."* (CM4)

CMs felt supported by their organizations if there was ongoing investment in their role, through continued professional development, for example, or if they felt the organization listened to their concerns and ideas.

> *"We have these group sessions, and it's not particularly about what we see, but it's more like some specific subject in the company that's bothering us. Everyone can tell what it is that is bothering them, and we can find a common line in them, and then we can talk about that. That's something we do every month, I think, but also, I don't find that enough. I would appreciate it if it would be more, and I would feel more appreciated if there would be more."* (CM1)

4.4   Discussion

The findings highlight a range of coping strategies utilized by CMs including peer support, separating work from home, engaging in physical exercise or distraction, and using other tools to minimize impact. This is similar to coping strategies found in comparable professions, such as with ICE investigators and investigative journalists (Powell et al. 2014b; Monteiro, Marques Pinto, and Roberto 2016). These are discussed further below in relation to the extant research literature.

4.4.1   Informal support

Talking to others has been consistently identified as a protective factor against workplace burnout and trauma (Brady 2017; Brady, Fansher, and Zedaker 2019). Moderators who felt able to share their experiences with others reported being better able to process their emotions and experiencing less isolation. This is consistent with research that finds social support is linked with better psychological adjustment (Bleich et al. 2006; Bonanno et al. 2007; Galea et al. 2002) and resilience (Layne et al. 2007).

However, CMs also discussed a number of barriers to receiving social support, including fear of traumatizing others. This is consistent with studies of law enforcement

professionals tasked with analyzing online extremist and terrorist content and of ICE investigators, who both avoid discussing their role with friends and family in order to protect them from harm (Brady 2017; Powell et al. 2014a; Reeve 2020). Moderators mentioned NDAs as a barrier, as well as that others simply did not want to know about the job of content moderation. To some extent, content moderation is a "hidden profession' (Gillespie 2018; Gray and Suri 2019), which contributes to CMs feeling underappreciated and unsupported. Indeed, the first generation of ICE investigators also lacked visibility, contributing to inconsistent support or understanding among managers and the community more widely (Burns et al. 2008; Krause 2009). Finding meaning in stressful situations is a positive workplace coping resource (Arnold et al. 2007; Clausen and Borg 2011; Folkman 2008), and having a belief in the wider societal value of the work is both motivating and protective against trauma experiences (Dubberley, Griffin, and Mert Bal 2015). The CMs themselves discussed the value of feeling appreciated and making an impact. Therefore, more widespread and public acknowledgment of the important work moderators do may help increase a sense of motivation, meaning, and purpose in CMs and help protect against work stress. Additionally, providing feedback may help CMs link the work they do to real-life impacts. For police investigators, feedback is linked to finding meaning in the role and a justification for having viewed the material (Denk-Florea et al. 2020).

4.4.2 Individual Strategies

Maintaining a balance between work demands and home life is a common difficultly for many employees (Kossek and Lambert 2005; Poelmans 2005), and possibly even more so for CMs, who may experience intrusive images or negative emotional states at home. Conflicts between work and home life have been linked with stress, absenteeism, burnout, and dissatisfaction (Edwards and Rothbard 2000; Kreiner, Hollensbe, and Sheep 2006; Parasuraman and Greenhaus 2002). This can also have negative impacts on CMs' work, including reduced personal resources such as energy or mental capacity to perform the role adequately (Edwards and Rothbard 2000; Parasuraman and Greenhaus 2002). In contrast, successfully establishing boundaries and managing work-home interfaces has been associated with increased creativity and commitment (Madjar, Oldham, and Pratt 2002; Pratt and Rosa 2003). Certainly, CMs reported the importance of establishing boundaries between work and home life and maintaining an identity outside of their role as a moderator. In particular, they reported frequently engaging in distraction techniques and taking part in activities that helped release tension or brought about a sense of flow. Flow experiences, in which an individual experiences a temporary loss of self-consciousness while engaging in an activity that requires skill and challenge, reduce stress and increase a sense of well-being (Csikszentmihalyi 1998). These tend to be activities that provide meaning or fun, or that present a challenge that requires investment of personal skills and problem-solving. In particular, physical exercise might be useful for both release of tension and entering a flow state (Chavez 2008). Previous research has shown it is associated with an improvement in self-regulatory capacities, as well as decreased perceived stress, reduced emotional distress, and a reduced reliance on smoking, alcohol, and caffeine (Oaten and Cheng 2006).

4.4.3 Formal Support

The range of organizations represented by CMs across this study had similar policies and practices to those employed by law enforcement, including access to therapy. However, this is not necessarily the case across the industry. Generally, CMs were very positive about the opportunity to have therapy and found it helpful, although there

were some misgivings about the available therapeutic support, such as concern about a lack of confidentiality and a worry that the therapists did not understand the work and therefore could not help or would themselves be traumatized by the material (Wortley et al. 2014). However, access to regular therapy sessions provided by specialist providers was perceived to facilitate disclosures and candid discussion around the impacts of the work.

CMs who had supportive colleagues and organizations coped better with the stress at work. As in the literature on police officers, relationships with colleagues was seen as crucial for CMs, as they could understand the material and its potential impact, empathize with and normalize potential adverse reactions, and openly promote and endorse the importance of protecting mental health (Denk-Florea et al. 2020). Supportive teams were also associated with the option of flexible working and autonomy in response to work pressures. Perceptions of autonomy have consistently been linked with higher job satisfaction, commitment, and motivation, and lower staff turnover (e.g., see Spector (1986)).

Many organizations provided technological solutions to minimize the impact of CMs' exposure to CSAM. However, software that enabled blurring of images was seen by CMs as inhibiting their ability to conduct the work accurately. Moderators often have to meet accuracy quotas; therefore, they did not find this type of software useful. Instead, moderators minimized exposure by viewing a smaller image and viewing the media without sound. In studies by De Cesarei and Codispoti (2008, 2010), images are less vivid and arousing when their size is decreased. Therefore, this likely enables moderators to conduct their work while having content elicit a reduced emotional response. CMs' feedback could be used to help develop software designed with the role in mind, which tackles the problems and gaps encountered by CMs while minimizing their exposure to harmful content.

4.4.4   Limitations

The study was based on a small number of CMs and, as the interview did not discuss participants' employers, commonality across their experiences and the wider CM workforce was difficult to ascertain. Furthermore, we only spoke to those who are in paid positions and who were able to conduct an interview in English. However, there are numerous volunteer CMs used by sites like Reddit (Caplan 2018), and moderation is a global phenomenon; therefore, the full gamut of experiences is unlikely to be captured. Additionally, although CMs discussed strategies that they subjectively found useful, it is possible some of these may have undesirable effects in the long term. Strategies that leave individuals in denial of their trauma, unable to reflect on its impact, and powerless to proactively work through its associated emotions can be detrimental (Cramer 2000). More research investigating the link between coping and impact is needed to explore which coping mechanisms are truly protective in more objective and generalizable terms.

4.4.5   Conclusion

CMs rely on a range of formal and informal coping methods and support mechanisms. Talking to others and engaging in activities that enhance work-life boundaries, relieve stress, and encourage "flow state" are favored. Organizations can also play a key role in maintaining the well-being of their moderators by providing technology to assist moderators, offering therapy routinely, fostering a supportive work environment, and ensuring moderators feel that they are valued and their role is important. Currently, barriers to different coping mechanisms are evident, including fear of traumatizing

others who do not work in the CM field, people not wanting to know about the role, and equipment or therapeutic services that are seen as unsuitable. More public discourse around content moderation and the importance of those who do the job is recommended, as is the use of specialist services that have experience working with distressing content.

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Authors

Ruth Spence is a Senior Research Fellow at the Centre for Abuse and Trauma Studies, Middlesex University, UK.

Amy Harrison is a trainee clinical psychologist at Staffordshire University and Midlands Partnership Foundation Trust NHS.

Paula Bradbury is a Research Fellow at the Centre for Abuse and Trauma Studies, Middlesex University, UK.

Paul Bleakley is an Assistant Professor in Criminal Justice, University of New Haven, USA.

Elena Martellozzo is an Associate Professor in Criminology, Middlesex University, UK.

Jeffrey DeMarco is a Senior Lecturer in Psychology, Middlesex University, UK.

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