



ZEVO HEALTH

A COMPREHENSIVE LITERATURE REVIEW OF FACTORS CONTRIBUTING TO VICARIOUS TRAUMA

**Potential Impact for Content
Moderators in Trust & Safety Roles**



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Abstract

With the exponential growth of social media in the last 20 years, large-scale, multinational, and globalized technology companies have found the need to employ individuals to safeguard their platforms from graphic material such as violence, nudity, abuse, hate speech, etc. Community standard guidelines and policies created by these companies aim to keep users safe while engaging with these platforms. Content Moderators are therefore employed within the Trust & Safety branches of popular social media sites like Facebook, Twitter, TikTok, etc. to enforce the community standard guidelines and policies. Due to the nature of their role, they are continuously exposed to graphic material which is posited to lead to symptoms of vicarious trauma. While the contributing factors, development of, safeguards against, and impact of vicarious trauma has been studied over the past years in relation to several occupational sectors such as newsroom workers, humanitarian aid workers, mental health and other allied health professionals, little research has looked at vicarious trauma through the lens of Content Moderators. This literature review suggests that indirect exposure to graphic material indeed puts various professions at higher risk for developing vicarious trauma symptoms, including but not limited to hypervigilance, burnout, and compassion fatigue.

Of particular importance are the factors that contribute to this harmful impact, including:

- Length of exposure to graphic material.
- Experiences of shame and guilt.
- The element of shock.
- Ethical dilemmas.

Key interventions identified to minimize the impact of indirect exposure to graphic material and the development of vicarious trauma include robust training, facilitating peer support, supportive working environments, and one-to-one counseling which can help individuals make sense of and find purpose in their work. Content Moderators should therefore be considered at high risk for developing vicarious trauma as the similarities of their role with those of other professions at high risk are evident.

KEYWORDS social media, content moderator, vicarious trauma, compassion fatigue, burnout, graphic material, mental health, humanitarian aid, newsroom worker

Introduction

Content moderation is a relatively new area of work within large-scale, multinational, and globalized technology companies. With the rapid growth of social media over the past decade, organizations have found the need to moderate user-generated content (UGC). These human screeners are known as Content Moderators whose roles are imperative for organizations to retain their audiences. Roberts explains, '[Commercial content moderation] and screening is a crucial step that protects [a] corporate or platform brand (typically via user adherence to site guidelines or rules), ensures compliance with relevant laws and statutes governing their operations, and maintains an audience of users willing to visit, upload and view content on their sites'. She further explains that content can range from mind-numbingly boring spam to violent, disturbing and psychologically damaging imagery (2014).



What makes content potentially traumatic for moderators has also been explored within the literature. Content can be surprising and unexpected, there is often repeated and lengthy exposure to potentially traumatic material, individuals may have a personal connection with the content, and they may also experience

feelings of guilt at traumatisation because it is not happening to them directly (Dubberley, Griffin & Bal, 2015).

This highly specific occupation within the technology sector has likewise produced a highly specific niche within occupational psychology, one that is targeted at improving resilience and reducing the potential impacts of vicarious trauma (VT) through the development and implementation of workplace wellbeing programs, often designed and delivered by:

COUNSELORS

PSYCHOLOGISTS

PSYCHOTHERAPISTS

Vicarious trauma in the literature is understood as a combination or result of compassion fatigue (CF) and burnout. Pearlman and Mac Ian (1995) suggest that professionals who are exposed to ‘graphic descriptions of violent events, realities of people’s cruelty to one another, and trauma-related reenactments’ (p. 31) are at risk of developing psychological distress as a natural consequence of their work. Figley (1995) deemed that VT stems from indirect exposure to traumatic material that results in reexperiencing, increased arousal and/or avoidance symptoms with rapid onset. He also popularized the term compassion fatigue (CF) which is now used interchangeably within the literature as a less stigmatizing term for VT. Other researchers have defined the term burnout as a result of nontraumatic but stressful work conditions which is experienced through symptoms of emotional exhaustion, depersonalization, and reduced feelings of personal accomplishment (Kahill, 1988). The experience of compassion fatigue and burnout are commonly understood to be predictors of VT.



This literature review seeks to examine the current literature related to VT and its psychological impact within various occupational sectors. It will address the factors that contribute to VT, the impact on an individual experiencing VT from a holistic point of view, and identify key interventions

which have alleviated symptoms of VT. Additionally, it will provide a discussion on how the literature reflects a common experience for Content Moderators and gaps in the literature which can lead to further research in this area.

A Note on Terminology

The terms:

SECONDARY TRAUMATIC STRESS (STS)
VICARIOUS TRAUMA (VT)
BURNOUT
COMPASSION FATIGUE (CF)

are often used interchangeably within the literature.

For the purposes of this paper, we will cite the terms the researchers use, with the recognition that all these terms encapsulate a varying number of symptoms related to psychological distress when viewing traumatic or distressing content from a distance. Typically, the professions most widely associated with STS, VT, burnout and CF include **mental health professionals, social workers, humanitarian aid workers, and newsroom workers.**

Within all these occupations, individuals are repeatedly and continuously indirectly exposed to traumatic material based on the nature of their work.

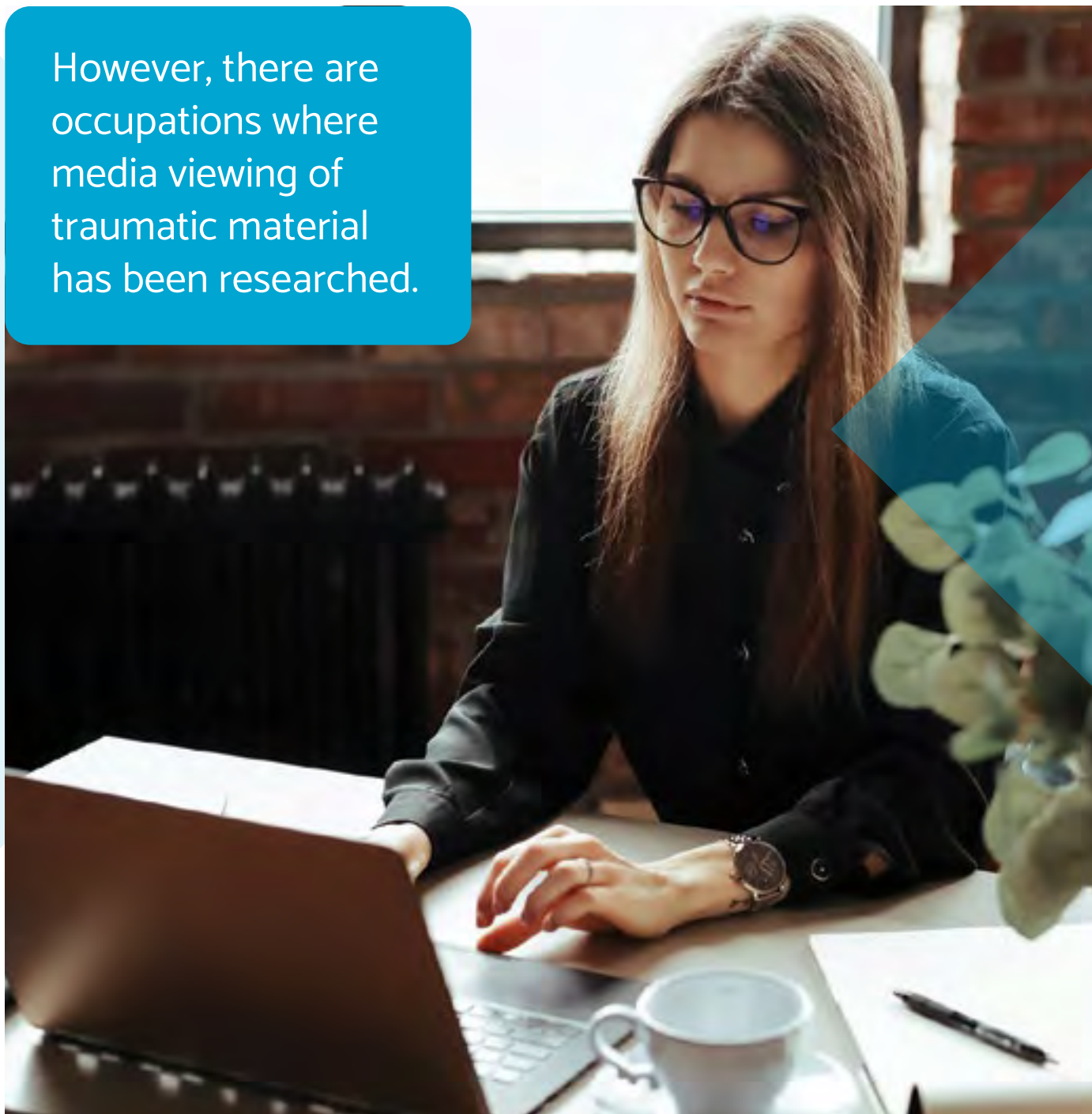
As relatively new occupations, Content Moderators have not been a highly researched population with regards to STS, VT, burnout and CF however, we posit that they are equally as likely to be at risk of developing this type of psychological distress based on the very nature of their work and its similarity to the work conducted by more commonly researched professions.



Media Viewing in the General Population

As discussed, Content Moderation is a relatively new occupation within the technology sector and little research has been conducted with regards to the impact of their work on the mental health.

However, there are occupations where media viewing of traumatic material has been researched.



A study conducted by the University of California following the Boston marathon bombing in 2013 compared the impact of direct versus indirect media-based community trauma exposure on acute stress responses in a large representative national sample of US residents (4675 individual) and the potential longer-term health consequences. Holmana et al. (2013) found that six or more daily hours of bombing-related media exposure in the week after the bombings was associated with higher acute stress than direct exposure to the bombings (continuous acute stress symptom total: media exposure $b = 15.61$ vs. direct exposure $b = 5.69$). They suggested that prior exposure to similar and/or violent events may render some individuals more vulnerable to the negative effects of collective traumas. Furthermore, repeatedly engaging with trauma-related media content for several hours daily shortly after collective trauma may prolong acute stress experiences and promote substantial stress-related symptomatology and, media coverage of collective traumas may trigger psychological distress in individuals outside the directly affected community.

This research suggests that Content Moderators, engaging with trauma-related media for several hours during the day, are likely to experience acute stress symptoms. The more they are exposed to violence/graphic content, the more vulnerable they may be to experience and prolong the acute stress symptoms, as Holmana's research found that having previously engaged with similar or other violent content is an indicator of vulnerability (2013). Moreover, their findings

suggest that those who work on media related to their home country/ community are more vulnerable to experience acute stress, prolonged symptoms over time, and the negative effect of collective trauma. Content Moderators often work market specific content (home country/community) due to nuances in language and sociopolitical factors which may result in increased vulnerability to STS and collective trauma.

Ramsden (as cited in Nauert, 2018) conducted a similar study and presented her findings at the Annual Conference of the British Psychological Society. She aimed to determine if individuals viewing violent news events via social media would experience long-lasting side effects such as increased stress and anxiety after exposure. Her study included 189 participants who completed a clinical assessment for Post-Traumatic Stress Disorder (PTSD), a personality questionnaire, a vicarious trauma assessment and a questionnaire concerning various violent new events on social media or the internet (9/11 Twin Tower attack, school shootings, suicide bombings).

This study found that 22% of participants were significantly affected by viewing these media events even though they were not directly affected or present. This 22% of participants additionally scored high on clinical measures of PTSD and furthermore, the participants who viewed the events more often were the most affected.



Additionally, the nature of UGC is that it is often shared by multiple users, thus becoming 'viral'. In his research, Mohr (2014) discusses four factors that contribute to videos going 'viral' online: (1) content that is easily memorable, (2) the structure of the underlying digital social network, (3) word of mouth pressure, and (4) the seeding strategy which identifies the initial set of targeted individuals, media sources, and social media influencers. Put these four factors together and videos become internet sensations, garnering millions of views in a very short time span on various social media platforms (Mohr, 2014). As Content Moderators typically work for large social media companies like Facebook, Twitter, and YouTube, the likelihood that they are moderating viral news content which can often be graphic or disturbing skyrockets (e.g., the shooting in New Zealand on 15 March 2019 was broadcast on Facebook live).



The repetitive nature of viral content implies that Content Moderators can be repeatedly exposed to the same piece of graphic content over and over again, which can potentially lead to these individuals being more affected than others who view this content (Holmam et al., 2013; Nauert, 2018).



More recently, Comstock and Platania (2017) also examined whether STS can occur in laypersons exposed to secondary trauma via media coverage, presenting the findings of their study in the American International Journal of Social Science. The study included a sample of 128 individuals

and measured if a laypersons' distress (anxiety) after viewing real-world traumas via social media and television warrants the phenomenon of STS. Findings indicated that participants did indeed experience anxiety after viewing others' traumas through the media.

Based on their observations, laypersons vicariously exposed to trauma through media endorsed at least one trait of secondary traumatic stress after viewing another's trauma through media. This finding also supports Marshall et al. (2007) who suggested that 'indirect witnessing of the event' can likely facilitate the occurrence of PTSD. Results also indicated that the amount of stress

reported was related to how often they viewed the event. Considering that Content Moderators can be repeatedly exposed and/or experience prolonged exposure to graphic and violent content, this may be a strong predictor that they may endorse one of more of the PTSD symptoms such as negative alterations in cognitions ('Something bad is about to happen') and anxiety.

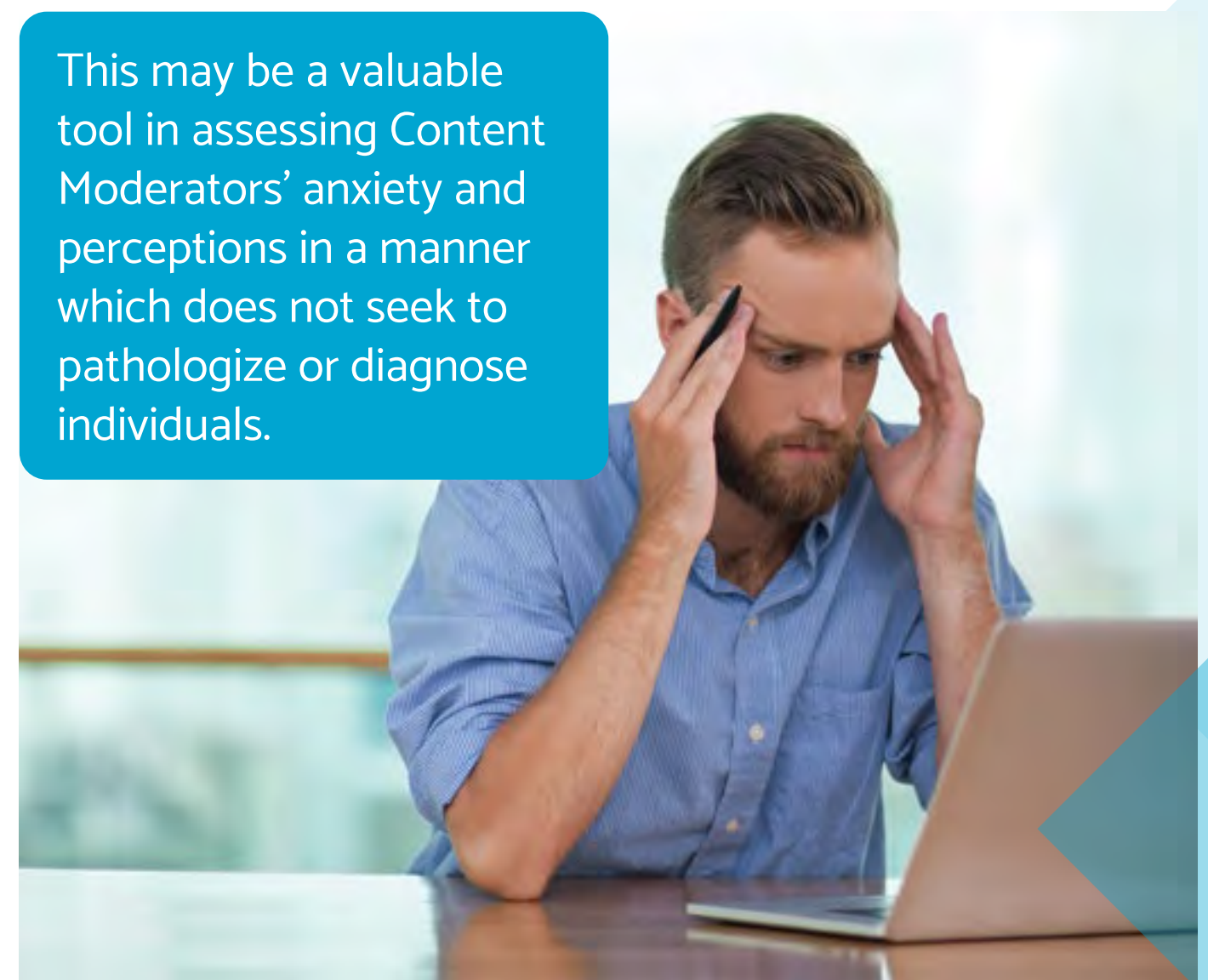


Comstock and Platania also examined valuable assessment tools, finding that the STSM-IQ rapidly assessed the possibility of media viewed traumas as

the source of the client's anxiety and perception that something bad will happen.

The data obtained by counselors through the administration of the STSM-IQ had the potential to prevent the over-diagnosing of PTSD and the under-treatment of anxieties due to environmental psychosocial stressors (i.e. viewing of graphic or violent material through the media).

This may be a valuable tool in assessing Content Moderators' anxiety and perceptions in a manner which does not seek to pathologize or diagnose individuals.



Newsroom Workers

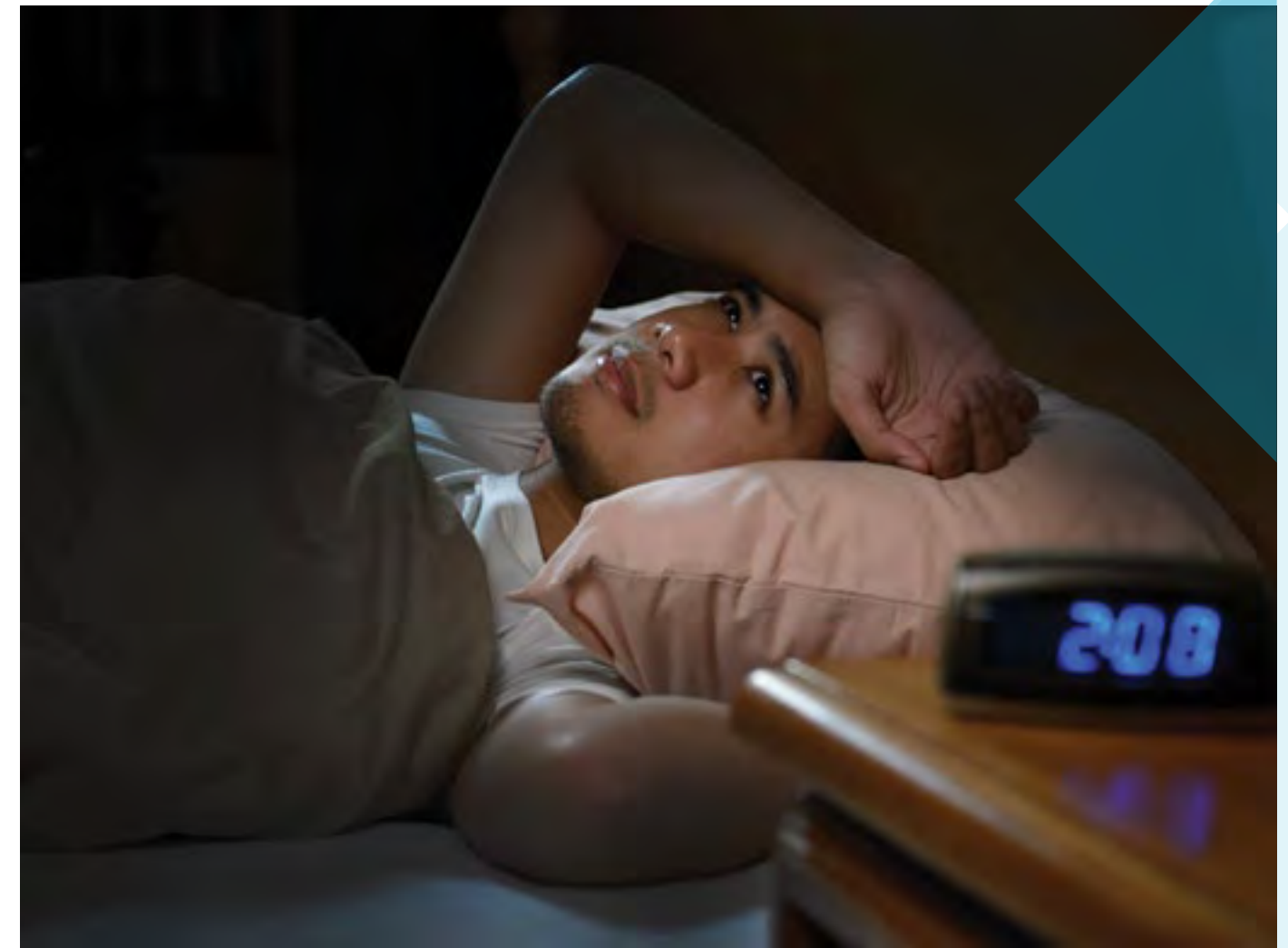
Similar to laypersons or individuals who view traumatic events via social media or traditional media, newsroom workers are exposed to these events as part of their work. Dubberley et al. (2015) conducted an in-depth study into the mental health impact of

viewing traumatic eyewitness media. The research included a sample of 122 journalists viewing UGC in newsrooms and 87 workers from human rights and humanitarian organizations from 48 different countries.



They collected the data in two phases: through an online survey, designed to map the respondent's frequency of engagement with eyewitness media content in their daily workday and through in-depth interviews. Survey responses revealed the amount of traumatic or distressing eyewitness media professionals are exposed to; the in-depth interview explored

personal experiences of vicarious trauma with particular focus on specific support, or lack thereof, that participants received from their organizations, even where the interviewee expressed that they were not displaying symptoms of vicarious trauma.



The research found that 40% of participants experienced high or very high adverse effects on their personal lives from viewing distressing media at work and reported symptoms that correlate to those outlined in the

Diagnostic and Statistical Manual of Mental Disorders, evidence which demonstrated that those who frequently viewed eyewitness media experienced symptoms of vicarious trauma.

The study focused attention on what makes the content traumatic for individuals and found that unexpected and surprising traumatic content, repeated exposure and duration of exposure, the reason why they see the content, personal connection with the content, impact of sound, and feelings of guilt were all factors.

Particularly important in this research by Dubberley et al. (2015) was the positive association between guilt and work-related trauma. Respondents described experiencing feelings of guilt and shame and further reported that they felt that they had no right to feel traumatized by viewing distressing media content because, as one human rights investigator explained,

they are not directly involved in what they are watching. Similarly, Content Moderators are eyewitnesses to distressing media as part of their work and the research suggests they may experience symptoms of VT and feelings of guilt and shame related to their work due to the very nature of their roles.

Finally, the study also investigated some of the perceived useful resources to help mitigate vicarious trauma amongst those working with eyewitness media.

Periodic rotation of staff away from 'hard news', engaging in activities that allow one to feel in control, access to support and peer support, having

access to preparatory training and management support were deemed the most efficient resources for employees (Dubberley et al., 2015).



Content Moderators could therefore, similarly benefit from the aforementioned resources in coping with psychological distress that stems from their work.



A more recent study published in the European Journal of Psychotraumatology (Idas et al., 2019) investigated the relationship between three subtypes of workplace secondary stress (SS) and post-traumatic stress symptoms (PTSS); and between SS and post-traumatic growth (PTG). The researchers used the Secondary Traumatic Stress Media-Induced Questionnaire (STSM-IQ) with 128 journalists who had

covered a large terror attack. They also examined the relationship between ethical dilemmas (ED) experienced while covering the incident and PTSS and PTG, aiming to understand how journalists' working conditions affect psychological well-being and promote growth after potentially traumatic assignments. The research findings suggested that experiencing ethical dilemmas during the work is a strong predictor of high levels of PTSS. Furthermore, the researchers posited that EDs were connected with PTG if linked with recognition from co-workers and line managers in the aftermath of the work done, as well as training and professional support.

Like the newsroom workers, Content Moderators that experience ethical dilemmas may experience a high level of post-traumatic stress.

These ethical dilemmas may stem from policies put in place by social media companies to protect their users but, that a Content Moderator may not deem ethical in personal terms. Strategies aimed at preventing ethical dilemmas and preparing Content Moderators for the work such as training, developing a culture of discussion, reflection, peer- to-peer support and recognition have the potential to underpin personal growth after working traumatic content. Offering recognition for the work done is also evidenced as a factor contributing to PTG and minimizing PTSS.

Humanitarian Aid Workers



Humanitarian aid workers are similar to newsroom workers in that they are repeatedly exposed to traumatic material via the individuals that they support.

In a study of staff from a not-for-profit organization in Australia, researchers Barrington and Shakespeare-Finch (2013) interviewed seventeen clinical, administrative and managerial staff with the aim of understanding their lived experience of working with refugee survivors of torture and trauma. Using a semi-structured interview that was recorded and transcribed, the researchers then used interpretative phenomenological analysis to 'give voice to participants and the meaning they assigned to their experiences' (p. 93). According to this research, all participants reported some element of experiencing vicarious trauma such as an initial difficulty adjusting to the work, bursting into tears, intrusive images in session or through flashbacks, and altered experiences outside of work. There was a clear indication that hearing traumatic stories instigated many symptoms of VT.

Barrington and Shakespeare-Finch (2013) however, also explored how participants coped with the secondary symptoms associated with hearing traumatic material. Their participants indicated that adjusting their beliefs to incorporate the trauma stories and making meaning of the experience minimized their psychological distress. This was found in the form of changing their ways of thinking, increasing self-awareness, seeking additional support from peers, and self-care strategies. Furthermore, experiencing a sense of purpose helped minimize the experienced distress such as recognizing the honor and privilege of hearing the stories and witnessing the growth of clients. The participants further disclosed that an empathic working environment and good collegial support helped minimize the distress they experienced. As an outcome of the support they were providing to refugee survivors of torture and trauma, the participants experienced changes in their life philosophy: an 'opening of the mind', more understanding and less judgment of others, and gratitude for what they had.

Barrington and Shakespeare-Finch (2013) concluded that effortful meaning-making processes helped facilitate positive change for these staff members. These efforts were experienced through consciously changing ways of thinking, seeking additional support from supervisors, and developing robust self-care strategies.



Content Moderators may similarly experience increased distress and symptoms associated with vicarious trauma due to the sensitivity and graphic material they are witness to on an ongoing basis.

Though they are not hearing users' stories in a traditional sense, communication via posts on social media platforms is indeed the voice of the user. Content Moderators are faced with intimate imagery and private conversations which may contain traumatic material. The potential risk of developing symptoms of VT like the humanitarian aid workers in Barrington and Shakespeare-Finch's study is indeed present.



Content Moderators may also however, learn to cope with the symptoms by shifting their perspectives, increasing self-awareness, using peer support, and finding a sense of purpose in their work, much like the participants in this study.

In another study, Rizkalla and Segal (2019) investigated secondary trauma in Syrian refugee workers. Their population consisted of 317 humanitarian aid workers which included employees and volunteers from medical, mental health and management services working within 15 different non-government organizations in Jordan. Their findings indicated that major risk factors associated with STS included less experience, greater exposure to trauma clients, higher caseloads, and having a personal trauma history.

The impact was found to affect participants' personal, interpersonal and professional lives. Most interesting in this research was that they investigated self-differentiation in relation to the STS experience.

SELF-DIFFERENTIATION IS A TWO-LEVEL PROCESS:

INTRAPERSONAL

On the intrapersonal level, it is the capacity to balance intellectual and emotional functioning in highly stressful situations.

INTERPERSONAL

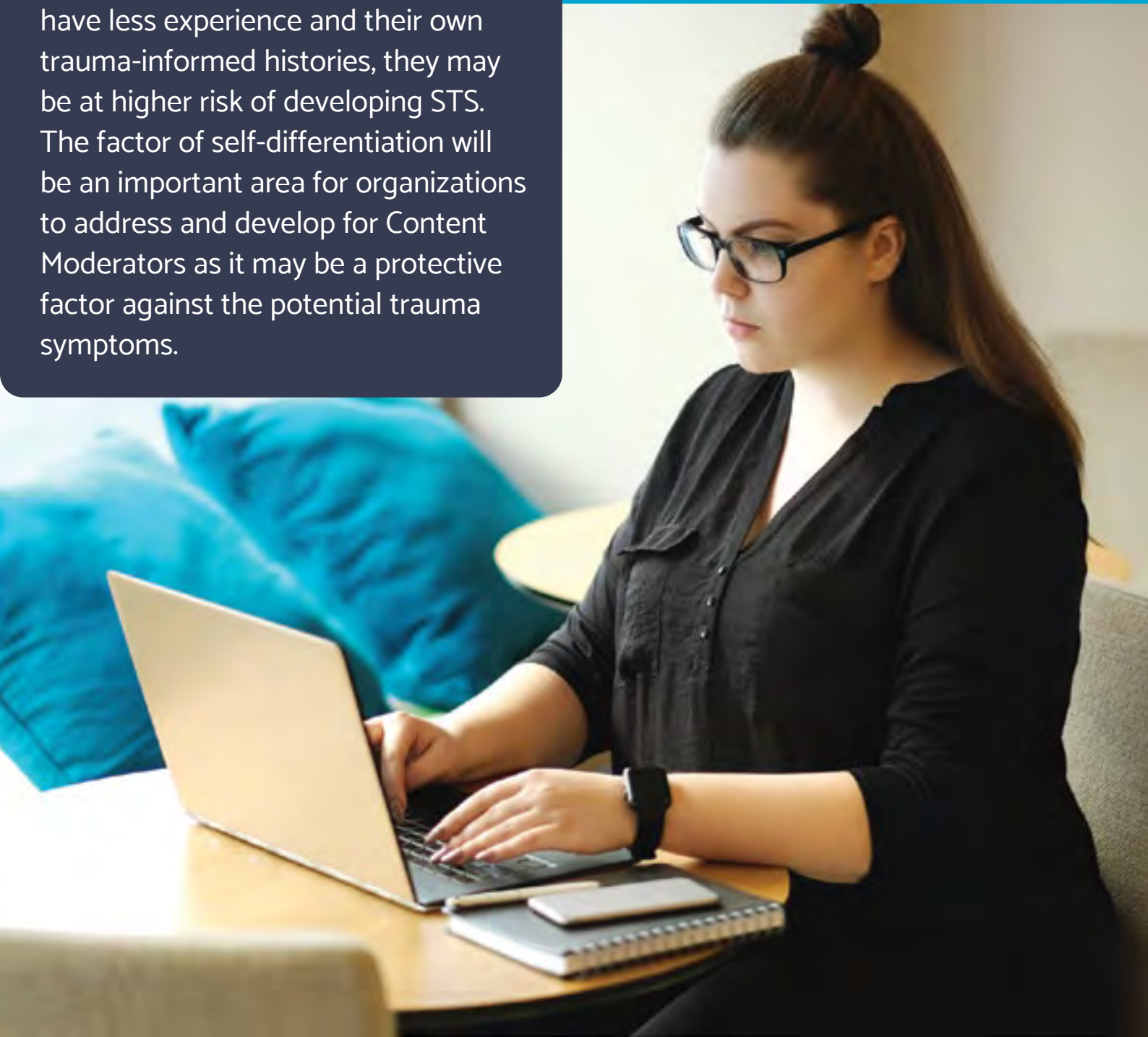
On the interpersonal level, it is the capacity to maintain a balance between closeness and separateness with significant others.

Research has indicated that effective self-differentiation contributes to long-term intimacy and high resilience in the face of extreme stress (Rizkalla and Segal citing Bowen). In their research, Rizkalla and Segal (2019) found a negative correlation between self-differentiation and STS and PTSD symptoms; lower self-differentiation increased symptoms of STS and PTSD symptoms. Furthermore, they found a positive correlation between self-differentiation and intimacy and wellbeing; lower self-differentiation also decreased intimacy and wellbeing. **The researchers concluded that self-differentiation is a protective factor against STS.**

Content Moderators are much like humanitarian aid workers working on the frontline with refugees. They may be exposed to graphic material from across the globe in war-torn countries.

Additionally, they moderate numerous videos, images, and texts throughout their workday which can be compared to high caseloads of humanitarian aid workers and greater exposure to trauma material.

Furthermore, if Content Moderators have less experience and their own trauma-informed histories, they may be at higher risk of developing STS. The factor of self-differentiation will be an important area for organizations to address and develop for Content Moderators as it may be a protective factor against the potential trauma symptoms.



Even more closely related to Content Moderators are human rights researchers.



Exposure to traumatic and graphic content through the screen puts the experience of these two occupations on a similar playing field.

Baker et al. (2020) surveyed 33 students in open-source human rights investigations programs to investigate the efficacy of secondary trauma mitigation techniques implemented by their universities.

The survey investigated three techniques:

- 1. Strategies for reviewing content
- 2. Community support techniques
- 3. Self-care practices.

The findings suggested that, overall, the participants were more likely to use strategies while reviewing content rather than community support techniques and self-care practices.

Strategies used while reviewing content included:

- Turning off sound,
- Reducing the size of graphic content display or using peripheral vision,
- Stopping videos before graphic content, appeared, which were all cited as being useful techniques
- To reduce the emotional impact of content.

The participants also indicated that:

- A sense of community by working in groups or with a partner, working shorter periods
- Taking more breaks were all helpful when reviewing content.

Conversely, participants indicated that distraction techniques (e.g. interrupting investigations through social media use, funny videos) were not helpful as it risked blending leisure activities with difficult work tasks and emotionally confounding the two activities. Baker et al.’s (2020) research, though with a small sample size, demonstrates how Content Moderators may be able to use different strategies while reviewing graphic or traumatic content to minimize the emotional impact. The sense of community they perceive with their colleagues or peers and taking more breaks may also help minimize the emotional impact of graphic material.

Finally, this research suggests that Content Moderators should not be advised to interrupt their work by engaging in distracting leisure activities but, rather focus on strategies that reduce the emotional impact of the content they review.

Mental Health & other Allied Health Professionals

Mental health and other allied health professionals such as social workers are one of the most studied populations in relation to secondary traumatic stress.



The very nature of their work involves counseling individuals who have experienced traumatic events or are currently experiencing a trauma. Considering that this secondhand exposure is part of their everyday lives, these professionals are put at high risk of developing secondary traumatic stress.

In 2006, researchers Bober and Regehr (2006) conducted a cross-sectional design study among 259 therapists to understand whether therapists believed and engaged in commonly recommended forms of prevention for secondary and vicarious trauma. They also explored whether engaging in these activities resulted in lower levels of distress and reduced post-traumatic distress symptoms in the sufferers. Their findings suggested that the amount of time spent counseling trauma victims was the best predictor of trauma scores. Although participants generally believed in the usefulness of recommended coping strategies including leisure activities, self-care activities and supervision, these beliefs did not translate into time devoted to engaging in the activities. Even when engaging with them, there was no association between time devoted to coping strategies and traumatic stress scores. Observing these findings, Bober and Regehr (2006) suggested that the solution to reduce and prevent PTSS is more structural than individual. Distributing workload and limiting the traumatic exposure of any one worker was more likely to minimize the post-traumatic distress symptoms compared to coping strategies.

Another study published in the British Journal of Social Workers (Singer et al., 2019) similarly suggested that the amount of time exposed to traumatic cases is the strongest predictor of vicarious trauma symptoms. This research went even further to examine whether a sense of purpose in life is a protective factor for adult protective services (AEPS) and child protective services (CPS) workers. After sampling 292 social workers (126 CPS workers and 166 AEPS workers), the researchers found a negative correlation between purpose in life and VT, STS and burnout – even while controlling for number of hours worked per week and years of experience (i.e.. as purpose in life increased, VT, STS and burnout decreased). These two studies demonstrate the importance of limiting the amount of time exposed to traumatic material to minimize symptoms of VT, PTSS, STS, and burnout that may also be relevant to Content Moderators. Furthermore, it shows how purpose in life can be a protective factor for Content Moderators, and perhaps an area of focus to minimize the potential harm for their overall mental wellbeing.

A study with a different scope compared various occupations in relation to their experiences of CF and burnout (Sprang et al., 2011). Their research included a sample of 668 individuals who were certified or licensed child welfare (CW) workers, inpatient or outpatient behavioral health professionals, school-based psychologists and social workers, or psychiatrists. Participants in this study answered The Professional Quality of Life – R-IV (ProQOL) questionnaire which measures risk of compassion fatigue and risk of burnout (a combination of both which reflects STS). The questionnaire asks participants to endorse the frequency of symptoms related to CF and burnout on a 5-point scale ranging from never (1) to very often (5). The researchers found that Hispanics and rural dwellers were significantly more likely to report CF than whites and urban dwellers, African Americans and Asians were significantly more likely to report burnout than Caucasians, and those who indicated no religious participation were significantly more likely to report CF and burnout as compared to those who indicated some or frequent religious participation (Sprang et al., 2011). Beyond all other variables investigated, identifying as a CW worker was a robust predictor of experiencing STS. The researchers suggested that the ongoing and repeated exposure to multiple forms of violence against children is likely the reason for this finding. Content Moderators are much like CW workers such that their occupation necessitates the repeated viewing of graphic material which can be violent in nature and may include violence against children.

This suggests that Content Moderators are also likely to experience STS and furthermore suggests that, if other variables such as their race or level or religious participation are factors, STS can be predicted more strongly.

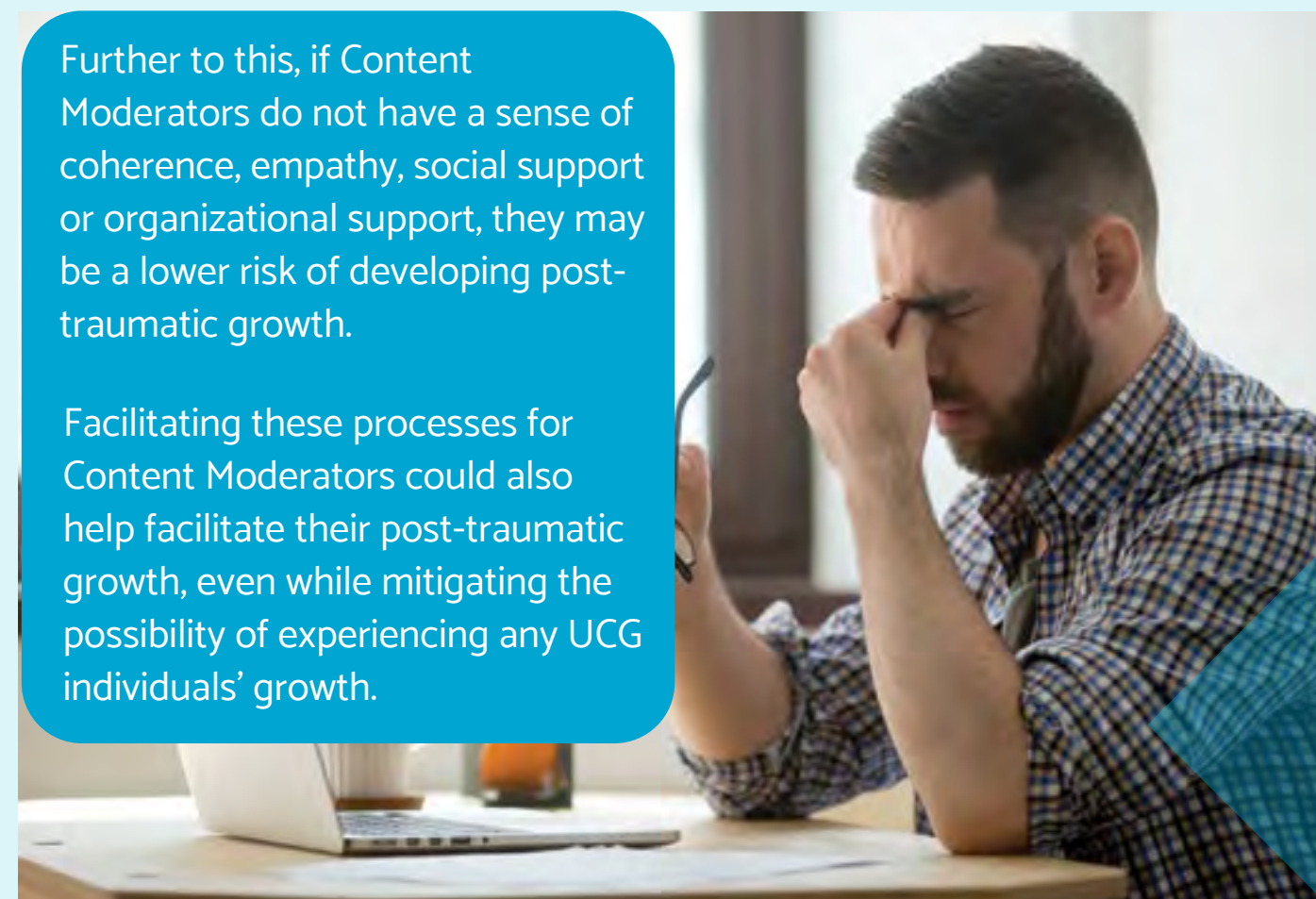
Interestingly, contrary to many other studies, Devilly et al.'s (2009) research did not identify exposure to patients' traumatic material as a factor to predict STS, VT or burnout. These researchers sampled 152 mental health professionals. Their questionnaire 'examined STS, VT and burnout together rather than assuming that they are distinct' (p. 375) and the analysis determined that work-related issues best predicted therapist distress. While this study was conducted amongst a small sample, it may be worthwhile to consider how this impacts wellbeing programs delivered to Content Moderators. Often, the interventions used with Content Moderators will focus on the actual content they are viewing and minimizing the indirect impact however, if workplace stressors are more likely to predict distress, perhaps a shift in focus is necessary. Workplace stressors such as relationships with colleagues, with management, and other frustrations such as work pressure and environment may be areas to consider.



In contrast to studies exploring STS, Cohen and Collens (2013) conducted a qualitative secondary analysis of findings from 20 published qualitative studies, aiming to provide a theoretical model for understanding the process of vicarious post-traumatic growth (PTG) and its relation to vicarious trauma. Overall, it was found that alongside the potential negative emotional and schematic impact of trauma work, unusually presented within the framework of vicarious trauma, trauma workers also experienced growth as an outcome of their engagement in trauma work. Predictors of growth included higher levels of sense of coherence, empathy, social support and organizational support, and exposure to client's PTG. If the process of practitioner growth is linked to the vicarious experiencing of the client's growth, interventions which do not allow the time and scope for this process to occur may be less facilitative of the practitioner's growth, suggested Cohen and Collens (2013). Content Moderators are exposed to traumatic UGC, similarly to how trauma workers are exposed to traumatic material of their clients. Unlike trauma workers however, they miss the exposure to the aftermath which may include the post-traumatic growth of the individual viewed in the UGC. Missing this exposure may decrease the possibility for workers to grow alongside the individual in the UGC.

Further to this, if Content Moderators do not have a sense of coherence, empathy, social support or organizational support, they may be a lower risk of developing post-traumatic growth.

Facilitating these processes for Content Moderators could also help facilitate their post-traumatic growth, even while mitigating the possibility of experiencing any UGC individuals' growth.



Discussion

For the purpose of concision and clarity in the discussion section, we will use the term vicarious trauma (VT) in relation to the general symptoms of psychological distress experienced when indirectly exposed to traumatic material. This is with the general understanding, as previously mentioned, that the terms vicarious trauma, secondary traumatic stress (STS), burnout and compassion fatigue (CF) are used interchangeably or in combination in the literature.

POTENTIAL IMPACT FOR CONTENT MODERATORS

The purpose of this literature review was to explore current research relating to vicarious trauma (VT) and its psychological impact within a variety of occupational sectors. Below, factors that contribute to VT and the impact VT can have on an individual are discussed, while also noting key interventions which were identified to alleviate symptoms of VT. Given the explosion of social media usage and the surge in users uploading content on social media platforms, these organizations have identified a need to monitor and review content uploaded to their platforms. The freedom and ease with which individuals can upload content has given way to some content, at times, being inappropriate or offensive to some viewers. To retain audiences, organizations must ensure that content is moderated by human intervention to adhere to particular guidelines, policies and laws relevant to their constituency which has proven to be less effective by artificial intelligence technologies based on nuances in language and culture.

In some cases, viewing certain content can be deeply traumatizing to individuals moderating this content and the impact of such may have a detrimental impact on their mental wellbeing. In some instances, VT has resulted from the severity of the impact of viewing negative content. While not directly involved in the traumatizing act they are viewing, VT can manifest from repeatedly being exposed to graphic and objectionable content.

From the literature reviewed, it was found that individuals working in sectors such as:

- Mental Health
- Social Work
- Humanitarian Aid
- News Reporting

Can experience varying degrees of VT (including STS, burnout, and compassion fatigue).

As such, the evidence demonstrates that being repeatedly exposed indirectly to traumatic material can have a lasting impact.

As much as there is a paucity of research in the area examining the impact of repeated indirect trauma on Content Moderators, the very nature of the role is akin to these particular sectors.

They may be exposed to graphic material from across the globe in war-torn countries, much like humanitarian aid workers and newsroom workers.

Additionally, they work on numerous videos, images, and texts throughout their workday which can be related to high caseloads and greater exposure to trauma material like mental health and other allied health professionals.

Research shows that employees who are continually exposed to secondary stress can result in an organization having high levels of employee sick leave and low levels

of employee retention (Shively, 2017) therefore, the factors contributing to VT should be carefully considered for Content Moderators who are posited to be placed at higher risk of developing it.

Factors That Contribute to Vicarious Trauma

The Big Takeaways

LENGTH OF EXPOSURE TO GRAPHIC CONTENT

Length of exposure to traumatic content was found to influence the development of VT in numerous aforementioned studies.



Interestingly, one study demonstrated that

spending **six hours daily** viewing distressing media (bombings, in this case) was correlated with **higher levels of acute stress than direct exposure to the event.**

These findings have alarming implications towards the development of VT among Content Moderators. Much like any other workday, Content Moderators will work traditional eight to eight and a half hour shifts where a large portion is spent reviewing graphic content; it's the essence of their work. These findings suggest that Content Moderators' role – reviewing distressing content – may be more traumatic than directly witnessing highly traumatic events. Employees are vulnerable to acute stress from viewing traumatic content, in particular longer periods of direct exposure to traumatic material. Additional findings suggest moderators are subjected to prolonged acute stress by repeated exposure to trauma related material. This repeated exposure to traumatic content exacerbates acute stress and prolonged acute stress can develop into VT. At present, are not regulated in limiting Content Moderators' length of exposure to particularly traumatic content which places them at higher risk of developing VT.

An additional alarming aspect is that studies suggest previous traumatic experiences endured by Content Moderators may increase their risk of experiencing symptoms of VT.

Content Moderators with their own trauma histories may be triggered by graphic violent material they review, resulting in them experiencing recurrent symptoms of PTSD during work.

This factor increases the likelihood of a Content Moderator developing VT.

The nature of Content Moderation often requires specific market knowledge which means there may be individuals who have first-hand experiences of living through war or seeking asylum. Additionally, much like any other human being, they may have experienced adverse childhood events or traumatic experiences such as abuse, a car crash, natural disasters or mental illness.

PERSONAL CONNECTION TO CONTENT

The literature also highlights the influencing role a personal connection to the content plays in the development of VT. It suggests that media related to workers' home country/community increases the likelihood of them experiencing acute stress and prolongs symptoms over time. These findings have enormous implications for the development of VT among Content Moderators. Market experience is required and valued in their job role therefore, Content Moderators regularly review content related to their home country/community. This facilitates greater vulnerability to acute stress and prolonged symptom experience due to their natural connection to the place, people, and other variables within the content. In return, this means that personal connections to traumatic content may be communally experienced in the workforce.

This personal connection may, as a result, exacerbate Content Moderators' acute stress.

Alarming, Content Moderators from war-torn, violence-dominated countries – whose family and friends may still reside there – could be extremely vulnerable to experiencing higher levels of acute stress and compassion fatigue, that may develop into VT.

Therefore, acute stress may be experienced by a vast number of workers, leading to poor morale and burnout.

Burnout in itself is now widely recognized as a mental health issue that often requires professional support.



In combination with compassion fatigue, the literature suggests that it places individuals at higher risk for developing VT. At present, workplaces have documented high levels of absenteeism linked to stress. Acute and prolonged stress is linked to inability to focus or concentrate and lack of productivity, which may have detrimental effects on overall productivity within the workplace. This has serious implications for the wellbeing of Content Moderators and growth of business. As the literature suggests, personal connection to content increases the risk of acute stress, prolonged stress or burnout, leading to the development of VT in Content Moderators. VT is a serious mental health issue and employees experiencing VT will require time off and professional treatment. Returning to similar work may trigger relapse in moderators, as they are exposed to content from their home country/community, in particular, if the moderators experience communal trauma, such as from a war zone.

SHAME AND GUILT

The literature also highlights that the intensely experienced emotions of shame and guilt are positively correlated with the work of moderators.



Content Moderators may feel a sense of shame for experiencing psychological distress due to content because they are not directly affected. Therefore, they may develop the opinion that these emotions experienced are invalid, should not be experienced, and try to keep these emotions suppressed. Feelings of shame and guilt may be difficult to process, especially when the individual does not believe they have the right to experience both uncomfortable emotions.

The guilt and shame is further reinforced when these emotions are experienced regularly and suppressed.

A physiological stress response is often experienced by a Content Moderator as a direct outcome of viewing graphic material (e.g., tension and aches, heart palpitations, shakiness, etc.). If this response is accompanied by feelings of shame and guilt, the Content Moderator gains an additional stressor. This may occur regularly during the working day which can lead to longer-term physical and psychological difficulties. Content Moderators may struggle to think rationally when navigating through their work due to the presence of intense emotions which can lead to a slowing down in productivity, which negatively impacts the organization.

Consistently suppressing emotions can also lead to emotional outbursts, negatively impacting:

- the Content Moderator,
- colleagues,
- and the company.

The experience of feeling guilt and shame related to their work is therefore, another risk factor for Content Moderators to develop VT over time.

THE ELEMENT OF SHOCK



Another important aspect highlighted in the literature is the element of surprise or shock. Findings highlighted that unexpected, surprising traumatic content contributes to VT in Content Moderators. This factor is extremely relevant and highlights the unpredictable nature of the role. When a Content Moderator encounters surprising and traumatic content, it may fuel a startle response. The fight, flight, freeze (FFF) response is activated – they are aware that a threat in the form of distressing content is approaching however, they have no indication of a specific time. Over time, repeated startle responses that are unexpected can develop into a state of chronic hypervigilance. This cycle may lead to overactivation of the defense response, negatively affecting moderators' wellbeing in a number of ways: they might be chronically on edge, unable to relax, and experience FFF responses to non-threatening situations. Chronic activation of the nervous system can damage an individuals' physical body, as well. This experience of hypervigilance and overactivation of the FFF response is one of the key indicators of VT.

ETHICAL DILEMMAS

Additionally, the literature suggests that ethical dilemmas may play a part in developing VT in relation to viewing graphic material. This has huge implications for Content Moderators who may experience ethical dilemmas while reviewing content. Content Moderators' roles are complex, abiding by constantly evolving policy guidelines that are drawn up by the social media platform corporation. The policies in place determine the required action on content and in some instances, this required action may contradict the Content Moderators' ethical and moral boundaries. The aforementioned could lead to deferential effects – they may be repeatedly exposed to ethical dilemmas, leading to a loss in their sense of purpose for their work and increased levels of stress that may contribute to or exacerbate symptoms of VT.



Minimizing Risk Factors

As previously mentioned, the literature highlighted that the length of exposure to traumatic content was implicated in the development of VT, particularly when the individual was exposed to content for more than six hours.

To minimize the risk, it may be beneficial to limit the length of exposure to graphic, traumatic content.

This could mitigate the possibility of Content Moderators developing VT by directly reducing their exposure to traumatic content. This may also reduce the frequency of moderators being triggered by future traumatic content during their work. In addition, this measure would allow moderators time during their working shift to recover and regulate their stress levels related to graphic content. This method could positively contribute to productivity as elevated stress levels are correlated with poor productivity. In the long term, the introduction of shorter periods of time spent reviewing graphic content may minimize acute stress, absenteeism directly related to stress and the risk of inflicting psychological harm upon Content Moderators.



Eliminating or reducing shocking or surprising content may also contribute towards minimizing the risk of STS among Content Moderators.

Avenues of structured communication delivered to Content Moderators to indicate that particularly graphic material is oncoming may help minimize the negative impact of shocking content, by reducing the element of surprise. This measure would also reduce the potential overactivation of the FFF response previously discussed which develops into hypervigilance, a key indicator of VT. In combination with reducing the length of exposure to graphic material may be the most effective action to safeguard Content Moderators. Employees are less likely to experience prolonged stress, burnout and absenteeism if the activation of the stress response is reduced. In addition, this may also support the decrease in costs associated with stress. These above-mentioned measures may lead to reduced rates of high employee turnover by supporting the creation of a lower-level stress environment.

Rotating Content Moderators from graphic traumatic content towards evidence-based activities that help reduce stress and restore employee's psychological health may also assist in reducing the risk of developing VT.

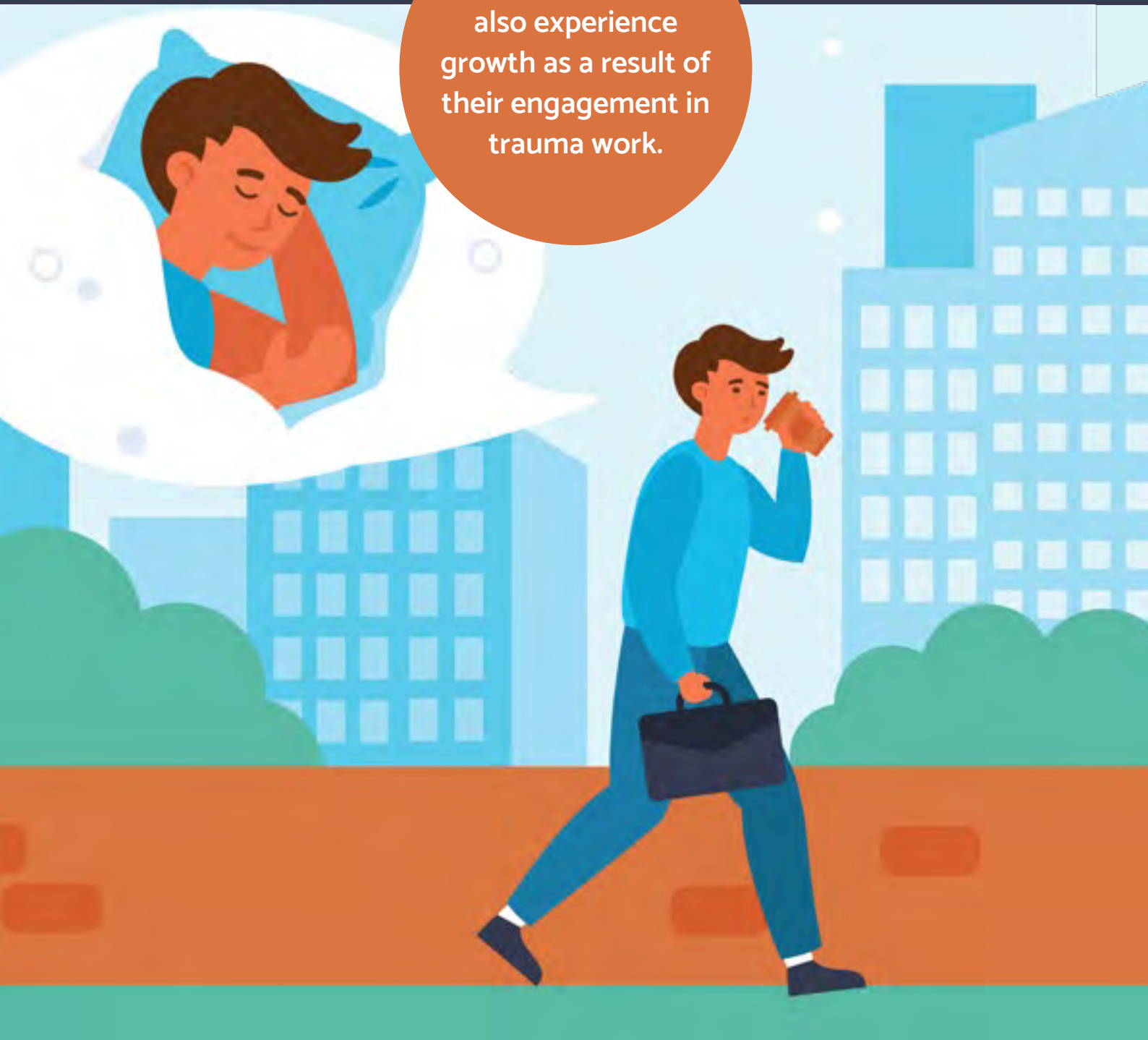
The literature identified periodic rotation of newsroom staff from 'hard news' to engaging in activities that allow them to feel in control, gain support and peer support, and access training and management support were methods to minimize psychological stress caused by their working environment. Content Moderators could therefore, psychologically benefit from wellbeing programs onsite which focus on these areas. This would allow employees to be steered away from graphic content towards activities that help restore the employees' psychological health that is negatively impacted by content. This measure would also enable employees adequate time to psychologically rest and recover from the impact of viewing graphic material.

Moving Towards Post-Traumatic Growth

An important aspect highlighted from the literature is that:

alongside the potential harmful emotional and schematic impact of trauma work, presented within the framework of vicarious trauma,

trauma workers also experience growth as a result of their engagement in trauma work.



All the above-mentioned wellbeing program supports can facilitate Content Moderators through the process of post-traumatic growth.

The research suggests that the process of PTG is linked to the vicarious experiencing of the trauma victim's own recovery or growth. For the specific role of Content Moderator, they cannot experience the trauma victim's own PTG however, intervention that allows time and scope for the employees' own PTG can be facilitated. Implementing interventions focused on successful coping strategies for emotional distress and finding purpose in work and life moves individuals closer to PTG. Purpose in Life (PIL) refers to the sense that life has meaning and direction. As the literature suggests, individuals with high PIL experience less ethical dilemmas which are positively correlated with a higher incidence of vicarious trauma symptoms.

Alongside the aforementioned adjustments to their working day, moving Content Moderators towards PTG by focusing on the development of PIL could minimize the risk of developing VT over time.

Recommendations for Wellbeing Programs

This literature review could be instrumental in deriving new programs or adapting existing wellbeing programs, providing a scientific foundation for intervention aimed at reducing psychological stress and trauma, reducing burnout and employee turnover, and improving client care and overall wellbeing. Below is an examination of various aspects of workplace wellbeing programs that should be implemented in service of the mental health of Content Moderators, based on the literature.

TRAINING

Practical educational training and discussion function as preparation, aiming to prevent ethical dilemmas which the literature suggests is linked to high incidence of traumatic stress symptoms, alongside lack of previous experience working with graphic content (Rizkalla et al., 2019). Vicarious trauma education should be mandatory for line managers and supervisors (Aparicio et al., 2013) which will facilitate a supportive working environment, including support from management, which the literature suggests is beneficial in minimizing VT (Dubberley et al., 2015). Ongoing educational training and tailored interventions to support Content Moderators while operating in stressful fieldwork should focus on topics such as:

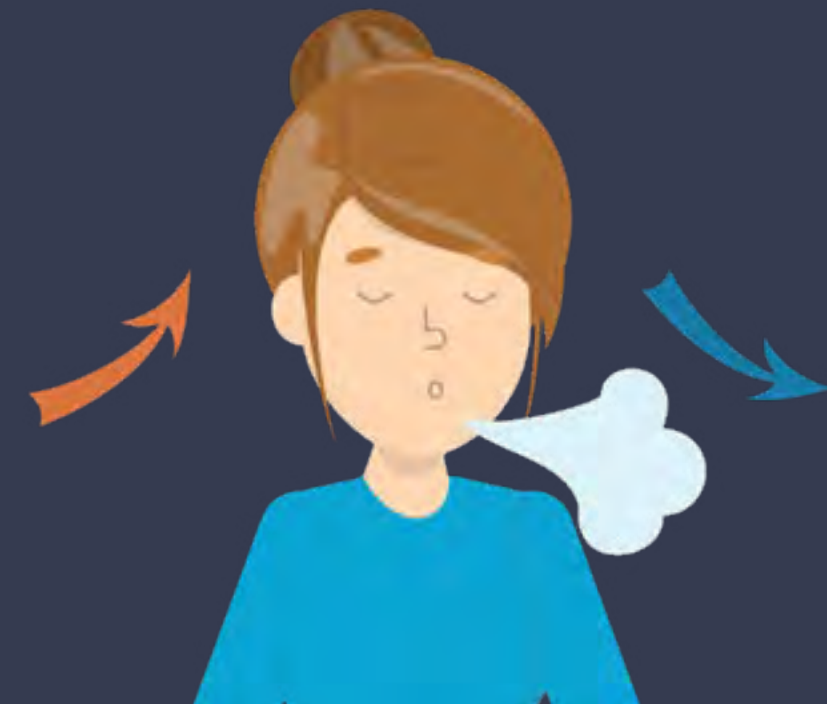
- 1

Coping strategies for before, during and after engaging with sensitive content at work.
- 2

How to respond to constant harmful aspects of repetitive exposure to graphic content.

3

ABCs of self-care (awareness, balance and connection) and components of self-care:



- PHYSICAL

Sleep, bodywork (e.g. yoga, exercise, breathing), food and drink intake.
- PSYCHOLOGICAL

Relaxation time, frequent contact with calming stimuli, meditation, stress reduction, time management and cognitive restructuring, activities that promote cognitive flexibility.
- SOCIAL & INTERPERSONAL

Social support, activism and quality time.
- PROFESSIONAL

Awareness of self and limitations, balance between pushing oneself and reaching capacity, realistic balance and boundaries between work and home, perceived organizational support and quality agency leadership.

(Dubberly et al., 2015; Shively, 2017)



Peer group discussion and sharing experiences has the potential to underpin personal growth after exposure to sensitive content by developing a culture for discussion, reflection and peer-to-peer recognition.

Sharing mutual experiences related to handling distress in terms of vulnerability, self-care and dealing with the difficult emotions from working sensitive content is positively associated with personal growth and minimizing the sense of isolation (Dubberley et al., 2015).

The literature also suggests that

gaining support and engaging in peer support minimizes the risk of developing VT (Barrington & Shakespeare-Finch, 2013).

The one-to-one counseling session is a fundamental instrument to support employees in the psychoeducation process and to tailor personalized interventions based on the needs of the individual. Availing of counseling support to manage a stress response after exposure to traumatic content can help individuals maintain distance and deal with the shock of the sudden and/or repeated exposure. Self-assessment tools delivered by mental health professionals can aid in identifying potential risk factors such as personal trauma histories which are implicated in the literature as contributing to the development of VT. Providing early intervention that is individualized and tailored may facilitate the development of self-differentiation (Rizkalla & Segal, 2019) and other coping skills which the literature suggests minimizes the risk of developing VT.



AREAS FOR FURTHER RESEARCH

Several interesting suggestions have come to light in the present literature review which could be further explored.

Firstly, though there has been some research directly related to content moderation, the role in itself has not been clearly explored in relation to:

- STS,
- VT,
- burnout,
- compassion fatigue,
- and PTG.



With high employee turnover rate in this industry and the potential of developing STS early in a career as a Content Moderator based on numerous risk factors, longitudinal studies that have thus far not been conducted would be an area to explore. Organization policies around maintaining confidentiality for social media users would significantly impact on the amount of information that a

participant partaking in a study could share. However, there may be scope to use psychometric measures such as the STSM-IQ used in two studies from this review (Comstock & Platania, 2017; Idas et al., 2019) on a periodic basis from the start of a cohort of Content Moderators’ careers up to the point that they leave the role to measure the impact of viewing graphic media over time.

As Content Moderators will also often move between various technology companies to secure promotions, increased salary, or improved working environments, there is a high likelihood that they will have previously engaged with graphic material in other roles. The literature here suggests that previous exposure to graphic material is an indicator of vulnerability. Therefore, moderators who move between organizations with similar or increased exposure to graphic content may already be experiencing some level of STS. Understanding that this increases their risk of developing acute stress symptoms or longer-term STS, VT, CF and burnout, a comparative study between cohorts of individuals with no previous exposure vs individuals with previous exposure could be conducted to determine if there are differences in the symptomology, duration of symptoms, or longer-term impacts on mental wellbeing. In addition, the literature demonstrates that a personal trauma history can negatively impact the mental wellbeing of those exposed to graphic material in their line of work. While organizations may have measures in place to assess suitability for a role, it is not clear whether an assessment of this specific area is part of recruitment processes.

In order to safeguard Content Moderators to the best of their abilities, organizations should take careful consideration of how they can psychometrically assess numerous areas of trauma an individual might have previously experienced.



- war trauma,
- adverse childhood events,
- instances of abuse (physical, sexual, emotional, or neglect),
- and natural disasters,
- amongst other potential traumatic experiences.

Studies could be conducted using psychometric testing to determine whether those with personal trauma histories are more likely to develop STS in comparison to those without in the context of Content Moderation.

Another interesting area of research to be further explored could attempt to replicate the findings in Rizkalla and Segal's research (2019) and the factor of self-differentiation. This study was conducted with humanitarian aid workers however, the role of a Content Moderator mirrors that of humanitarian workers in numerous ways. Their research identified high level of self-differentiation as a protective factor against STS therefore, a study investigating self-differentiation and its correlation with STS may demonstrate findings which could inform the development of wellbeing programs.



Finally, STS was not the only potential outcome of those exposed to graphic material in their line of work. The relationship between ethical dilemmas and post-traumatic growth has also never been fully investigated. The literature identified a potential area of future study with a longitudinal design to investigate the correlation of ethical dilemmas with PTG over time in more detail, including the correlation between purpose in life and PTG. As the literature suggests, wellbeing programs delivered to Content Moderators should focus on facilitating PIL as a preventative measure against developing STS (Singer et al., 2019) and a contributing factor for PTG (Idas et al., 2019).

Content Moderators are in a unique position in viewing personal messages, images, and videos created by users therefore, ethical dilemmas will naturally be a part of their daily work. In combination with organization policies that are ever-changing and evolving, a clearer understanding of how ethical dilemmas correlate with STS and post-traumatic growth is an interesting avenue for exploration.



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