Supporting Law Enforcement Personnel Working with Distressing Material Online

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Abstract

This study aimed to expand on previous research by gathering international data on key stressors impacting on computer forensic investigators who are exposed to child exploitation material (CEM) as part of their role. Semistructured interviews were conducted with five members of law enforcement (LE) working in this area, from five independent and internationally separated organizations. The results of these interviews were explored using thematic analysis. The three key themes identified were "stressors related to work investigating CEM online," "strategies for mediating stress related to investigating CEM online," and "training to investigate CEM online." Investigators of CEM online may experience stress from several sources, including but not limited to stress from exposure to the material. Other factors such as poor management, high workloads, and limited resources may also result in stress, and these stressors may be mediated to an extent. Recommendations for training, resources, psychological support, and management practices emerged from the research. Such strategies may reduce stress experienced by investigators in this role. This study furthers understanding by conducting an international examination of multiple centers. Identification of common themes and stressors identified by LE personnel in multiple countries can help in the development of international standards and guidelines in training and stress management.

Keywords: child exploitation material, coping, support, police stress, mediating stress, workload

Introduction

MEMBERS OF LAW ENFORCEMENT (LE) investigate crimes that may cause stress.[1] Assessing the impact of stress on members of LE is generally quite difficult, partially due to what has been referred to as the "John Wayne" perspective, that is, where members of LE are seen as being impervious to distress.[2] Yet, LE demonstrates increased levels of suicide and divorce.[2]

Within the LE, members of computer crime units experience unique stressors,[3] as a high proportion of forensic examinations carried out relate to pedophilia[4] and detailed examination of this material may be required.[5] Previous research has found that exposure may result in symptoms similar to those experienced in offline exposure to child exploitation material (CEM),[6] including emotional distress and intrusive thoughts.[7] Yet, key differences exist between online and offline exposure, such as lack of victim or perpetrator contact,[8] higher volume of images, and the encompassing nature of exposure to the crime.[9] Technological

advances that have increased ease of storage and sharing[10] mean that although once the examiner could expect to examine a single 20 gigabyte hard drive, in recent years it is more typical to seize several devices capable of up to several terabytes of storage.[4] In addition, levels of violence, sadism, and live streaming of abuse have increased while the age of victims has decreased.[11]

Previous research has not presented a clear picture of the real impact of such exposure to CEM on workers. Although some research reports that CEM investigators experience varying levels of distress,[7,10] and a higher risk of burnout and trauma,[12] they also have high levels of job satisfaction[8] and maintain efficacy. Wolak and Mitchell[13] found that 71 percent of investigators gained great satisfaction from their work; however, half were concerned about the potential psychological impact, such as depression, stress, sexual issues, anger, and loss of productivity. As such, there does not appear to be a clear consensus on the level of impact of exposure.

One way to interpret these findings may be in the context of Cruz's[14] four stage model of adaption. According to this

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model, people move through a process of adaptation that can be unique for them. Stages of the process include experiencing a disgust response, feeble attempts to compartmentalize, followed by dealing with the realities of the crime before finally coming to terms with the images and the world. In this final stage, investigators process the material analytically, accepting they cannot stop abuse completely, yet gaining satisfaction from playing their part.

From Cruz's model, we can see that the process can be multifaceted and unique. For this reason, quantitative methods may not capture the complexity of the issues. Research using qualitative methods has made an important contribution to the area. When asked, workers reported that exposure to the material may be stressful, but the top stressors were work relationships, workload and resources, and the physical environment.[15] This finding was supported by Perez et al.,[12] who found excessive workload and management issues to be major stressors. Consequently, it appears that although the content of the material is a stressor, the effects can be mediated or enhanced by other factors such as suitable resources and support.

Mediating factors

Several studies have examined the factors that may mediate stress in LE personnel who investigate CEM. Personal strategies include maintaining a strong support network, exercising,[7] investing in hobbies, meditating, continuous education,[5] workplace humor,[16] using psychological support,[17] peer support, setting boundaries,[12] and finding meaning in the role.[12] Investigators do not typically use maladaptive strategies such as drinking or avoidance, instead using healthy strategies, with the most popular being talking.[12] Burns et al.[7] concluded that although stress may be experienced, personal, viewing, and organizational mediating strategies may be used to manage stress and maintain job satisfaction.

Viewing strategies include remaining analytical, mental preparation, self-monitoring, and exercising control over viewing.[7] Organizational strategies include ensuring adequate and appropriate supervision, equipment and training opportunities, access to psychological support,[7] employee assistance programs,[18] education about sexual abuse and coping strategies,[19] and using technology to minimize exposure. Other strategies may be either organizational or self-imposed, such as limiting viewing time each day.[3]

Conversely, a number of factors may also increase stress, including a lack of resources, lack of societal understanding,[7] inadequate training, poor coping strategies,[20] inter agency collaboration, high workloads,[21] low capacity,[15] youth, increased responsibility,[8] short deadlines,[22] inadequate supervisory support,[23] unsuitable work space,[15] and blurred boundaries of roles.[24] Finally, the main stressor found by Powell et al.[15] was poor work relationships and supervision.

The current study

Given the identified role of the institutional setting, and how workplace-specific issues can impact on stress, research needs to capture the experiences of LE from a variety of settings to describe the common aspects of their experience. There is limited previous research in this field, and most studies to date consider only individual cultures.[7,8,12,13,15,25] The current research aims to replicate and expand on previous research by gathering international data, including data from countries not previously examined by past research. As researchers and authors pay increasing attention to the psychological aspects of cybercrime,[26–29] the development of practical recommendations to support LE in this field is increasingly important.

Method

Participants

Five members of LE participated in the research, each from a different organization. Two of these were from European police forces, one from the United States, one from Canada, and one from an international policing organization. Participants included four males and one female, aged between 38 and 51 years. Job titles included examiner, child abuse investigator, computer forensic examiner, investigator, and digital crime investigator/trainer, and all were exposed to distressing CEM online as part of their role (which they had been in for between 3 and 15 years). Given the small number of females working in this area, gender-neutral pseudonyms were assigned. Participant recruitment ceased when it was identified that data saturation had occurred.

Materials and procedure

A semistructured interview schedule was developed based on a review of the literature in this area. During the interview, the participants were asked about their work, the resources available to them, their perceptions and feelings regarding their work, their job satisfaction, their exposure to distressing materials, their stress management strategies, and the resources and support offered by their organization. They were also asked about the training provided for staff working in their unit, the recruitment process, and any screening that occurs. Participants were asked about the management practices and policies in their workplace, as well as potential recommended strategies to reduce stress. Participants also provided some basic demographic information (age, job title, and years in current role). Owing to the sensitivity of the research topic, each interviewee was required to have access to psychological support, and potential participants who did not have such support available to them were excluded from the study.

Data-driven thematic analysis was chosen for its accessibility and flexibility, as well as its ability to provide rich results. The analysis took place in six phases during which the data were analyzed a number of times in accordance with the procedure outlined by Braun and Clarke.[30] During this process, the initial lists of codes were continuously refined downwards and a note of incidence was taken.

Results

The three key themes identified were coping strategies and motivations, stressors, and training, all of which were considered in light of the initial research questions. The subthemes within each theme, as well as the proportion of interviews that the subtheme occurred in, the overall incidence of content relating to the subtheme throughout all interviews, and sample quotes, are provided in Table 1.

Table 1. Themes Identified Within Data

Theme	Subthemes	Quote	Occurred in how many interviews	Incidence across data set
Stressors related to work investigating CEM online	Nature of material	T: ….I think this work specifically is distressing.	5/5	65
	Workload and resources	M: It's like being a chef in front of a 12 burner stove and trying to keep things from boiling over.	5/5	65
	Management	M: …. So I went to my captain at the time and said I need help and the answer was 'no you don't, you're doing fine.'	5/5	67
	Societal understanding	C: I would say I'm frustrated a little bit by societal indifference that you have people, as soon as you mention the word internet the shutters come down 'Oh it's an internet problem.'	2/5	15
Strategies for mediating stress related to investigating CEM online	Personal coping strategies	T: … but the way that I deal with that is by talking to my wife.	5/5	51
	Viewing strategies	T: Categorize with your brain and not your heart, make it clinical, make it objective, make it logical.	5/5	24
	Organizational strategies	J: I think it's tick the box which is ok, fair enough.	5/5	52
	Motivation to work investigating CEM online	M: …. My days go very fast and I love the problems that are involved, I like being able to put away really bad people. I like the challenge and I like the technology.	5/5	29
Training to investigate CEM online	Nontechnical training	A: But there is a missing part like the psychological approach and training, self-care.	5/5	21
	Introductory training	J: As soon as they come in the door, it should be… you are going on these courses.	4/5	10
	Technical training	M: Like everything else technology in policing has become so important and policing hasn't caught up to it.	4/5	29
	Management training	J: … What could they do differently? Learn how to manage.	4/5	10
	Pressure to train	M: Yes because you have to continuously learn.	3/5	12

CEM, child exploitation material.

Theme: stressors related to work investigating CEM online

Although the most obvious stressor experienced was the nature of the material, managerial issues and the mismatch between workload and resources appeared equally relevant.

Exposure to distressing material such as CEM, as well as violent, fetish, or gore pornography to a lesser extent, was the most obvious and unique stressor, mentioned by all five respondents. Responses included intrusive thoughts/images, shock, anger, frustration, vomiting, crying, hypersensitivity around children, sexual/marital issues, negative worldview/self-image, and suicidal thoughts. However, although all participants reported experiencing some symptoms of distress, reactions varied with two participants indicating that they experienced no significant or ongoing distress. Negative response also decreased, with an adaption period from 3 weeks to 3 years, possibly due to repetitive exposure, combined with the identification of personal coping strategies.

The mismatch between high workloads and insufficient resources was also a serious stressor. Resource issues were complicated by the evolving nature of technology, which may be incompatible with police budget cycles and management practices, lack of organizational understanding of the specialist needs of the unit, and police politics. The resulting pressure of this mismatch, in turn, reduced resilience to other stressors.

The third major stressor identified by all was poor management, which compounded the other stressors and generated additional stress. Good managers were aware of when to facilitate access to appropriate support and willing to actively do so. Nontechnical managers being open to listening to technical requirements and being aware of the stressors of this role and of potential signs of distress were important. Poor person management, poor role definition, inconsistent practices, lack of acknowledgement, and failure to generate a positive team environment were also noted as causing stress for some participants, and may relate to lack of management training.

On an organizational level, some participants felt that normalizing basic computer crime investigation by including it in standard LE training is important. Other more

immediate suggestions included developing a hierarchy of skill levels within the unit, with different levels of trained staff doing different work to increase capacity.

A disconnection was perceived between the participants' understanding of the seriousness and extent of this crime type, the hyperbole they hear from policy makers, and society about how important investigating this crime is—and the reality of the support and resourcing they receive to take action.

Theme: strategies for mediating stress related to investigating CEM online

Although all participants suggested that resilience, both natural and from experience, played a role, specific personal strategies were identified. In addition to talking to colleagues, which all found helpful, some participants talked to family members, while for others maintaining boundaries between personal and professional life was important. Maintaining a healthy lifestyle was mentioned, including having hobbies, yoga, meditation, using psychological support, exercising, or not drinking. Participants also noted the importance of remaining emotionally aware and taking action at signs of stress. Most also found it very helpful to vary the day to day workload, by conducting training and research, and working on other computer crime when possible. Viewing strategies employed included mental preparation and developing an analytical viewpoint. Some investigators felt that it was very important to focus on their own task without reference to the wider process, reducing risk of becoming overwhelmed by the workload. Other strategies included listening to music, actively choosing to put emotions aside until it is possible to deal with them, being aware of personal limits, and taking regular breaks.

The key organizational strategies that participants were aware of included rotation policies and the provision of psychological support. Optional rotation policies were uncommon; however, participants strongly supported them, for both investigators who need to recharge and investigators in distress. The most widely acknowledged organizational strategy to support employees was the provision of psychological support. The quality and nature of support varied and although support was available to all participants, one chose to use an external counselor and three did not engage with counseling at all. Just one participant regularly engaged. Three participants felt that the support available was superficial, either a test or designed to protect the employer; therefore, they did not choose to engage with this. Participants noted that they felt that management needed to be more aware when staff need support as well as reacting in a more appropriate and nonsuperficial manner.

Of the four participants who discussed psychological screening, only two had experienced some version of such screening. All four felt that screening was of value, provided that it was conducted in an appropriate way instead of being a "tick box" exercise. Participants were supportive of a more effective process, which could allow people to assess their own fit for the role and resilience, establish a baseline for later comparison, preclude unsuitable candidates, and ensure candidates are better informed about the nature of the role.

Strongly linked to managing stress were factors that motivated investigators to work in this role. The key factors were finding meaning in the role, enjoyment in the technical or investigative challenge of the role, feeling part of a community, and pride. These factors may mediate some of the stress of the role, and provide motivation to continue in the role through the adaptation process, while they may have to work to identify their personal coping strategies.

Theme: training to investigate CEM online

Strongly related to the mismatch between workload and resources is the issue of inadequate technical training. The extent of training varied greatly and its quality ranged from being considered excellent to being completely outdated and *ad hoc*. Two investigators noted that the hardest part of this role was staying up to date, causing additional personal pressure. This inconsistency was mirrored by introductory training for new recruits, which often depended on local management. Although all participants strongly supported having mandatory introductory training that was carefully planned to develop them as functional team members, this training was only available to two participants.

Nontechnical training in self-care and emotional awareness training were uniformly unavailable, but strongly supported. Nevertheless, it was also acknowledged that it may not be a natural fit with police culture. Lack of context training in the nature and scope of CEM was also noted. This lack of context training leads to issues such as investigators using terms such as "Child Pornography" instead of "Child Exploitation Material," an important distinction, as many investigators and lay people stress that pornography implies consent that is not possible, thus misconstruing the issue.

In keeping with the identification of poor management as a major stressor, four of the five participants identified management training as being inadequate or nonexistent.

Recommendations

The interviews also included discussion regarding various recommendations that could be made to reduce stress and increase well-being among LE working in this specific field. These recommendations, and the relative levels of support for each among interviewees, are provided in Table 2.

Discussion

This research found that investigators experienced stress to varying extents, consistent with previous studies.[7,8,12,13,15,25] Over time, stress in response to exposure to the material reduced for all participants, suggesting adaption takes place, as suggested by Cruz.[14] However, other significant stressors were also found, primarily poor management, high workloads, and limited resources,[25] consistent with Powell et al.[15]

This study found that poor management, high workloads, and limited resources all contributed to stress. Although common, these factors are not an intrinsic aspect of this role, and have been identified in other groups of LE personnel.[31–33] Therefore, they may be mediated more easily than stress resulting from exposure. This research suggests that stress may be reduced by providing a supportive environment, including improved management, high-quality training, appropriate resourcing and psychological support, as well as facilitating the use of coping strategies. This recommendation is in keeping with the body of research in this area.[4,7,11,13]

TABLE 2. PARTICIPANTS' SUPPORT FOR PROPOSED RECOMMENDATIONS

Recommendations	Agreed	Disagreed	Not mentioned
Training recommendations			
Units should provide appropriate introductory training.	5	0	0
Units should ensure that investigators are technically up to date, by providing access to formal, as well as in-house training.	5	0	0
Internal training should be provided about the nature and scope of CEM.	5	0	0
Supervisors should be appropriately trained, both technically and psychologically, to support the specific needs of this unit.	3	0	2
Regular training in awareness of some of the common responses to CEM exposure for both investigators and supervisors.	5	0	0
Training in self-care practices should occur regularly.	5	0	0
Supervisors and peers should be made aware of the early warning signs of stress and encouraged to act.	3	0	2
Family members of investigators should be included in awareness/self-care training where possible.	1	2	2
Resources recommendations			
Funding should take into account the specialist technology, training, and staffing requirements of the unit.	4	0	1
Where possible technology should be used to minimize exposure.	4	0	1
Staffing levels should be appropriate and should take into account competency, as untrained staff may cause additional strain.	4	0	1
When resources are not available, management should recognize the investigator's frustration as well as the difficulty of the role.	1	0	4
Psychological support recommendations			
Appropriate counseling and psychological support should be available.	5	0	0
Initial screening of new recruits should take place.	5	0	0
Management should encourage communication by setting up informal events/peer support networks/EAPs	3	0	2
Psychological resources should be appropriate, with specific straining.	3	0	2
Where available, units should access appropriate resources already available, such as national programs for psychological resilience.	0	0	5
Management practices recommendations			
Investigators should be treated with much more flexibility, and allowed to organize their own workload to some extent.	4	0	1
Optional rotations should be available for staff, as well as an easy exit policy.	3	0	2
A work environment appropriate to the unit should be provided.	4	0	1
Free physical fitness facilities should be provided.	3	0	2
Each unit should develop recommendations regarding viewing.	1	1	3
Investments should be made in research and development of programs/written publications to support investigators.	1	0	4

EAPs, employee assistance programs.

This study adds a more diverse perspective to previous literature due to its international and cross-organizational nature. All but two of the subthemes were identified by four or five of the interviewees and so appear to be relevant across cultures. Only one subtheme was identified by just two interviewees ("societal understanding"), with "pressure to train" being identified by three interviewees. It is possible that this may be indicative of cross-cultural differences in these elements, but due to the maintenance of participant confidentiality, it is not possible to identify the origin countries of the individuals who mention these.

The research has drawn on personal experience of investigators to make practical recommendations for CEM investigation units. Those recommendations supported by a majority of interviewees (as listed in Table 2) should be considered for application across relevant LE agencies, with pilot programs for each being carefully evaluated before expansion of the support systems. Although the potential for selection bias cannot be ignored, the geographical and organizational diversity were evident in the interviews. Participation was limited to organizations that provided psychological support, to ensure participants could seek aid if they were negatively affected by the research. However, this stipulation may have resulted in the exclusion of LE personnel who may have experienced less support from their organizations, and hence potentially greater levels of stress and distress. Future research in this area is vital, including larger scale quantitative measures. This research could be of particular value if conducted longitudinally to consider causation, with data collection beginning at entry to the role and continuing until reassignment, retirement, or resignation. It would also be of interest to include measures of stress, symptoms of distress, burnout, secondary traumatic stress disorder, and quality of life.

Author Disclosure Statement

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