Document Title:	**A Study of Trauma and Resiliency among Forensic Examiners Investigating Child Pornography**
Author(s):	**Kimberly Mitchell Lema, Ph.D., Jennifer O'Brien, Ph.D., Lisa M. Jones, Ph.D., David Finkelhor, Ph.D., Ateret Gewirtz-Meydan, Ph.D.**
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A Study of Trauma and Resiliency among Forensic Examiners Investigating Child Pornography

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Principal Investigator
Kimberly Mitchell Lema, PhD
Crimes Against Children Research Center, University of New Hampshire
10 West Edge Drive, Suite 106
Durham, NH 03824
603-862-4533
kimberly.mitchell@unh.edu
ORCID ID: 0000-0003-1974-1637

Co-Investigators
Jennifer O'Brien, PhD
Lisa M. Jones, PhD
David Finkelhor, PhD

Consultant
Ateret Gewirtz-Meydan, PhD

Award Recipient
University of New Hampshire
51 College Road
Service Building
Durham, NH 03824-3585

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Summary of Project

Background

Since the expansion of the Internet in the mid-1990s, a growing number of law enforcement cases have involved the possession, distribution and production of child sexual abuse material (CSAM). Because these cases involve computers and the Internet, they require examiners and investigators with specialized technical expertise and equipment. Consequently, many CSAM investigations are handled by specialized law enforcement units, such as the 61 Internet Crimes Against Children (ICAC) Task Forces. These task forces and affiliated agencies encompass over 7,000 investigators[1] who, in the course of handling cases of Internet-related child sexual exploitation, may be exposed to considerable quantities of CSAM that graphically portrays child sexual abuse.[2] In 2023, the Cybertipline received almost 36 million reports of CSAM possession, manufacture, and distribution, up from 29 million in 2021.[3] There is extensive concern among law enforcement that viewing such material may have corrosive effects on investigators' mental health.[4,5]

Major Goals and Objectives

The *Child Sexual Abuse Material (CSAM) Trauma & Resiliency Study* is concerned with the stress, mental and physical health, and relationship impacts of work-related exposure to child sexual abuse material (CSAM) on police investigators and forensic examiners as well as the efficacy of agency-level responses to investigators' needs. The overall goal of the study was to strengthen law enforcement well-being, improve investigative practices and inform public policy by examining the effect of work-related exposure to CSAM and the efforts to help protect them from negative health impact. The specific objectives of the *CSAM Trauma & Resiliency Study* were to:

1. Gather information about agency-level practices and training that may mitigate trauma and promote resilience among forensic examiners and investigators exposed to CSAM.
2. Characterize the extent of CSAM exposure across three domains of influence: a) severity of the images, b) frequency of viewing images, and c) quantity of images viewed.
3. Understand the impact of CSAM exposure on stress, physical health, mental health, and relationships.
4. Establish whether and how individual- and agency-level factors buffer the impact of exposure to CSAM images on stress, health, and relationships.
5. Develop a screening instrument to help agencies assess staff suitability for investigations requiring exposure to CSAM.

Research Design and Methods

The *CSAM Trauma & Resiliency Study* included two data collection phases. The first included structured telephone interviews with ICAC Commanders about agency practices currently in use to mitigate stress for forensic examiners and investigators. This was supplemented with an online survey of heads of ICAC affiliate agencies who were referred to us by Commanders in order to capture their experience and perspective. The second data collection phase included survey data collected online from forensic examiners and police investigators about CSAM exposure and personal coping strategies for dealing with job stresses and their utilization of available stress-reduction resources. All data were collected under the oversight of the University of New Hampshire Institutional Review Board. More details of each phase of the study are provided below.

Phase 1: ICAC Commander Interviews

Participants and Procedures

Of the 61 ICAC commanders, 54 (89%) participated in telephone interviews about agency-level policies and practices around police wellness. ICAC affiliated agencies were recommended for participation by ICAC commanders. Of the 351 investigators from affiliated agencies invited to participate, 17 could not be contacted and 15 were duplicate email addresses; of the 339 eligible email addresses, 155 (46%) completed an online survey that was parallel to the ICAC Commander structured interviews - representing 151 unique ICAC affiliated agencies. Nineteen percent of all respondents were female. Most participants held titles such as investigator, lieutenant, officer, detective, or sergeant and, as such, we use the term “investigator” to describe them in the current manuscript. No additional demographic characteristics were gathered.

Trained research assistants conducted telephone interviews with ICAC Commanders between September and December 2020. The interviewers attended a training session that provided extensive details about the background, purpose and instrumentation of the study, and they participated in practice interviews before beginning data collection. At the end of the interview, Commanders were asked to nominate investigators at some of their affiliated agencies to complete a parallel online survey; email addresses were provided by Commanders. The data collection period for the online affiliated agency surveys was December 2020 to February 2021.

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Phase 2: Forensic Examiner / Investigator Survey

Participants and Procedures

For this phase of the study, participants were 698 police investigators, forensic examiners, and others connected with the criminal justice system from the across the United States who were exposed to CSAM as part of their professions. Core analyses involved participants who reported any CSAM exposure as part of their profession in the prior three years and had completed at least 85% of the survey questions, resulting in an analytic sample of 500 participants. Sixty-one percent of participants were male and 37.4% female; most were between the ages of 35-44 (39.8%) with an additional 21.6% aged 25-34 and 29.8% aged 45-54. The majority of participants reported their race as White (85.8%) and 7.3% were of Hispanic or Latino ethnicity. Further details of the sample are depicted in Table 1.

Participants were recruited through announcements at the July 2021 Virtual Conference of the Internet Crimes Against Children (ICAC) Task Forces and at the October 2021 ICAC Task Force Virtual Commanders Meeting, through the ICAC Task Force listserv, from trainings on investigations of internet crimes against children held by the National Criminal Justice Training Center (NCJTC), and through specific invitations to past NCJTC students with "forensic" in their title. Participants completed an anonymous online survey hosted through Qualtrics, an online survey data collection system. Participants were told the aim of the study was to understand the impact of work-related exposure to child sexual abuse material. The data collection period was July 2021 to December 2021. Participants were told that they could skip any questions they did not want to answer. To ensure full anonymity, all Qualtrics tracking features, like IP address, longitude, and latitude were turned off. Participants were also encouraged to take the survey while in "incognito" mode and were provided instructions on how to do this. The recruitment methodology using announcements at national conferences and trainings results in a convenience sample, in contrast to a probability sample; therefore, a meaningful response rate cannot be calculated. At the end of the survey, participants were provided with resources where they could learn more about trauma and well-being and to seek help if needed (e.g., National Suicide Prevention Lifeline, National Mental Health Information Center, the IACP mental wellness for police officers' website).

Measures

The Phase 1 structured interview was developed specifically for this study. Questions were designed through interviews and consultations with criminal justice personnel and mental health providers. These questions covered several different aspects of employee wellness including who

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in the department has exposure to CSAM, the preparation personnel receive prior to first exposure, and qualifications/requirements for the position. Items also queried the existence of an official Officer Wellness Program, discussion of signs of stress during staff meetings or training sessions, and other options for employees that could help promote wellness. Respondents were also asked if there was a police union in their agency that supported wellness.

The Phase 2 survey measures consisted of a combination of established scales and those developed for the current study. Newly developed items were also designed through interviews and consultations with criminal justice personnel and mental health providers.

CSAM Exposure Items

Child Sexual Abuse Material Exposures were measured by 11 content exposure items. Specifically, participants were asked to indicate, "In a typical month, approximately how often do you review CSAM images or videos that: 1) include children age 5 or young, 2) include children age 6 to 10, 3) were graphic (focused on genitals or showed explicit activity), 4) involve penetration of a child, including oral sex, 5) involve violence, beyond the sexual assault, 6) involve nudity or semi-nudity, without being graphic, 6) involve suggested poses of minors with clothes on, 7) involve multiple children at the same time, 8) involve children clearly under the influence of drugs or alcohol, 9) involve multiple offenders, 10) involve fetishes (animals, costumes, role-playing, bondage), and 11) involve sound. Response options for each were never, sometimes, often, and all the time.

Additionally, participants were asked what percentage of their job was dedicated to working CSAM crimes, including possession, receipt, distribution and manufacturing of CSAM (0-100%). They were also asked, in a typical month, about how many days they reviewed CSAM (not at all, several days, more than half the days, nearly every day).

CSAM Investigation Experience

Questions asked about department policies specific to CSAM, details of CSAM exposures, and personal CSAM harm mitigation strategies. All items were developed for the current study and described in more detail below.

Department policies specific to CSAM. Questions queried how long the participant had been working CSAM investigations, whether they were given preparation before first exposure, and whether they had any mental health testing or screening before they began work that involved viewing CSAM. Items also asked about attendance at a training program related to CSAM investigations. Participants were also provided with eight different policies or resources and asked

whether each was available to personnel in their agency (e.g., staff meetings where reactions to work-related exposure to CSAM was discussed). Participants were asked whether they felt their agency offered ample vacation/personal time off, provided daily opportunities for CSAM investigators to debrief with other CSAM investigators, provided regular administrative updates about positive outcomes from CSAM investigations, and allowed them to tend to personal obligations during work hours using (non-paid) their own time. They were also asked to rate, in their agency, how much respect was given to personnel who investigate crimes involving CSAM (no or very little, some, a lot of respect) as well, on a scale of 1 (no problem at all) to 4 (a very big problem), how large of a problem they felt nine different issues were in their agency (e.g., not enough people to conduct forensic exams, volume of material/cases).

CSAM harm mitigation strategies. Twenty items asked about things participants did when reviewing CSAM to help them deal with the material they were viewing were developed for this study. Response options ranged from 1 (never) to 4 (often). Examples of items included: "taking break from the material I am reviewing," "taking deep breaths," "reducing the size of the image," and "changing the image to black and white."

Individual Resiliency Factors

Several established scales designed to measure different types of resiliency were queried.[6] Response options for all of these factors consisted of a 4-point scale ranging from mostly true about me to not true about me. These included: 1) *Mattering and Appreciation:* six items asking about how you feel appreciated by family and friends (α = 90); 2) *Future Orientation:* eight items focusing on participants' desire for self-improvement (α = 81); 3) *Group Connectedness:* six items about the support of groups or teams you have belonged to (α = 94); 4) *Social Support Seeking six items about seeking help from friends or people who are special in your life* (α = .91); 5) *Purpose in Life:* seven items asking about feeling that one's life has a sense of meaning and reason for living (α = .91); and 6) *Religious Meaning Making* two items assessing the degree to which the participant uses faith and religious/spiritual beliefs when dealing with a problem. An additional scale was included to measure resiliency more generally: the 10-item Connor-Davidson Resilience Scale [7,8] (e.g., I am able to adapt when changes occur) utilizing the same response options as noted above (α = .89).

Well-being

Burnout was assessed using the an adapted version of the Burnout Measure,[9] and queried how often they endorsed 19 feelings in reference to the type of work they do. Questions covered

both positive (e.g., useful, honored) and negative (e.g., hopeless, angry) feelings; negative work attitudes were included in the current analyses as an indicator of burnout (12 items, α =.89). Response options ranged from 1 (never) to 5 (always). A total scale score was created with higher scores indicating more burnout.

Depression and anxiety were measured using the Patient Health Questionnaire-4 (PHQ-4).[10] The scale presents a list of conditions, asking the participant to indicate how much each problem had bothered them in the past two weeks from 0 (not at all) to 3 (nearly every day). Items were combined to create a total scale score: α = 0.84) with higher scores representing more symptomatology.

Posttraumatic stress symptoms (PTSS) were measured using a shortened posttraumatic stress symptom checklist for DSM-5 (PCL-5; 11) The scale presents four items that some people have in response to a very stressful experience (e.g., feeling distant or cut off from other people) and asks participants to indicate how much they have been bothered by each in the past month. Response options ranged from 1 (not at all) to 5 (extremely). Items were combined to create a total scale score (α = 0.79) with higher scores representing more posttraumatic stress symptomatology.

Subjective well-being was measured using a 7-item scale to assess satisfaction with life in different aspects.[12] Items measured how much you think and feel your life is going well. Participants were asked to answer how true each of seven statements were about them on a 4-point scale ranging from 1 (not true about me at all) to 4 (mostly true about me). A sample item is "I have a lot to be proud of." Reliability for the entire scale in the current study was excellent (α = .89). Items were summed to create a total scale score.

Department Policies and Practices

Items queried the type of agency they worked for (e.g., state, local), number of full-time sworn officers, the existence of an Officer Wellness Program, the existence of other specialized training around wellness, other services available for well-being (e.g., peer counselors), and other accommodations to promote well-being (e.g., onsite gym, options to bring your dog to work). Participants were also asked to respond to 12 questions that asked how helpful they felt each was for helping them to stay healthy and productive in their work (e.g., longevity in law enforcement, having a strong family, having a hobby). Response options for these items consisted of a 4-point Likert scale ranging from 1 (not at all helpful) to 4 (extremely helpful). Participants were also given the opportunity to indicate if an item did not apply to them (e.g., being a parent).

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Data Analysis

Analyses were conducted using Stata 18.0 and R. For each analytic sample, descriptive statistics were conducted to examine the frequency distribution across all variables. A range of statistical approaches were used to address specific research questions, including logistic regression, linear regression, network analysis, and latent class analysis.

Results and Implications

Objective 1. Gather information about agency-level practices and training that may mitigate trauma and promote resilience among forensic examiners and investigators exposed to CSAM.

This objective utilizes Phase 1 data; findings are summarized below and published here:

Mitchell, KJ, Gewirtz-Meydan, A, O'Brien, J & Finkelhor, D (2022). Practices and policies around wellness: Insights from the Internet Crimes Against Children Task Force Network. Frontiers in Psychiatry, Section: Forensic Psychiatry; https://doi.org/10.3389/fpsyt.2022.931268

Department Personnel Exposed to CSAM

Ninety-two percent of participants in Phase 1 said that police officers/investigators in their agencies were exposed to CSAM during investigations. Forensic examiners who were sworn staff (65.1%) and forensic examiners who were civilian (23.4%) were also exposed to CSAM material. Some respondents also said that administrative staff were exposed to CSAM during investigations (15.8% overall) with more ICAC Task Forces indicating this (53.7%) compared to affiliated agencies (2.6%) ($p<.001$). Over half (57.4%) of participants said personnel were given some preparation before first exposure to CSAM with this being more common among ICAC Task Forces (85.2%) than affiliated agencies (47.7%). Examples of such preparation included discussion or education on the impact of work-related CSAM exposure (89.2%), mention of support availability (88.3%), and exposure to examples of CSAM (45.8%). Seven in ten (70.2%) respondents said that personnel chosen to conduct CSAM investigations were given the choice to opt out once they have seen some of the material. Over half (53.4%) said that potential CSAM personnel were screened for whether they had prior experience working child abuse and neglect cases while 10.1% said it was a requirement to have this background. Nine percent of respondents said personnel were given mental health testing or screening before they began this work.

Officer Wellness Programs and Other Strategies to Promote Wellness

Sixty-two percent of participants said their agency had an Officer Wellness Program with no differences noted between ICAC Task Forces and affiliated agencies. Many of these were agency-funded (64.3%) while some were ICAC grant-funded (24.8%), and state-funded (10.1%). One in four (25.6%) said that participation in the program was mandatory. Among respondents for ICAC Task

Forces, 41.7% said their Officer Wellness Program was made available to affiliated agencies (22.2% were not sure).

A minority (5.3%, n = 11) of respondents offered concerns about having such a wellness program. Specifically, individuals noted concerns about funding, as one participant said:

> "The value of the program isn't always seen by the administrators since it's funded by ICAC and not out of the general fund"). Respondents described having limited amounts of funding, and noted that funding was not always consistent or available: "Initially the barrier was the funding. It was always the last thing to be funded. We would have loved to implement it sooner. Once funding was available there were no longer barriers."

One of the main barriers for wellness programs was related to the stigma on mental health. As one participant described:

> "I think that in policing in general we have come a long way, but we still have a ways to go. I think as a society with our views of mental health we still are struggling and we need to make this more ok and typical. Making mental health more ok is important. I try to do this in my unit."

Some participants mentioned a desire to remove the stigma associated with the program's goal of psychological well-being:

> "[The commander] doesn't like the mental health label it [the wellness program] has because they tend to avoid going. [The commander] wishes it were mandatory."
>
> "No one wants to be seen as someone with mental issues or be seen as crazy. Officers are often concerned about being seen as non-fit for duty."

In order to successfully implement wellness programs, respondents discussed the need to directly address the stigma and taboo around mental health:

> "Police by nature are very guarded and don't talk about 'that stuff'. Some of the staff could be going to therapy but he [the commander] wouldn't know. If there was some way to take that taboo off the table it would be very helpful. He [the commander] isn't sure how to do that but feels communication is key."

Participants also told us about CSAM wellness-focused content discussed at staff meetings or training sessions in the past year. This content included: signs of stress at work (34.5%) and home (32.1%), relationship problems (27.3%), and sexual problems (16.7%). Each of these categories was more commonly endorsed by ICAC Task Forces compared to affiliated agencies (Table 2). Participants told us about other policies or resources available in their agencies including staff meetings where reactions to CSAM were discussed (33.5%), individual case reviews where reactions were discussed (32.1%), exit tickets which allow sworn personnel to transfer with no

questions asked or penalties (31.1%), part-time assignments or the ability to pursue other aspects of law enforcement (29.7%), group or individual sessions led by a mental health professional where reactions to CSAM were discussed (28.7%), and exit interviews or debriefings of personnel who leave positions requiring viewing CSAM (23.4%). Again, each of these policies and resources were more commonly endorsed by ICAC Task Forces compared to affiliated agencies. Less common policies included follow-up contact with personnel who left positions that required viewing CSAM (14.3% overall: 7.7% affiliates and 33.3% Task Forces) and rotations or time limits on positions that required viewing CSAM (12.4%).

Most of the respondents (83.3%) said their agency offered ample vacation/personal time off. Almost half said their agency provided daily opportunities for CSAM investigators to debrief with other CSAM investigators (48.3%) and provided regular administrative updates about positive outcomes from CSAM investigations (41.6%) (Table 2). Each of these were significantly more common among ICAC Task Forces than in affiliated agencies. Other options for personnel that could help promote wellness were common, including having an Employee Assistance Program (76.6%); chaplains (64.1%); an onsite gym (63.6%); outdoor grounds for walking, running or sitting to eat (53.6%), and peer counselors (46.9%).

Placement of Wellness and Other Agency Needs

When asked to place their agency in terms of wellness needs on a scale of 1 to 10, respondents said that wellness was an average need (M = 5.4, SD = 2.2) with no significant difference between ICAC Task Force and affiliated. However, most respondents rated the need for more wellness resources for personnel who view CSAM during investigations as a moderate (40.8%) or high (46.1%) need, with no differences between agency types. The biggest problems identified by respondents included the volume of material/cases (41.6%), not having enough people to conduct investigations (38.3%), and not having enough people to conduct forensic exams (33.0%). ICAC Task Force commanders were more likely than affiliated agency respondents to rate each of these as very big problems. Problems less likely to be rated as “very big” included conflicts or frustrations with prosecutors and judges, obsolete equipment, lack of training for investigating CSAM cases, a general culture of the agency not understanding CSAM investigations, and administrations that did not understand the work they do.

Implications

The ICAC Task Force Program Has Taken Steps to Promote Wellness

Exposure to CSAM as part of investigations or forensic work may be a source of stress for some personnel and the findings from this paper suggest that ICAC Commanders and leads in affiliated agencies are aware of this potential. Indeed, wellness resources were available to investigators exposed to CSAM in a majority of agencies. Six in 10 respondents overall said their agencies had an Officer Wellness Program. Most agencies held staff training sessions that included discussion of stress at work, at home, and relationship problems. Notably, seven in 10 said trainees were given the option to self-select out of CSAM investigations once they had seen some of the material.

Challenges and Barriers to Wellness Remain

The study also highlighted considerable gaps in protective practices, however. Almost half (46.1%) of respondents mentioned that the need for more wellness resources in their agency for personnel who had viewed CSAM was a high priority. Most agencies did not provide regular check-ups with mental health professionals, few allowed for part time assignments, and exit tickets were not routine. A sizeable minority of agencies highlighted difficult working conditions: Frequently mentioned barriers included having too much material to review and inadequate staffing. Most agencies said that debriefing about cases and updating about positive outcomes were not part of standard practice.

Stigma created by help-seeking was the most widely acknowledged barrier discussed in relations to police wellness. Our findings correspond with previous studies indicating only a minority (9.3%) of law enforcement investigators and digital forensic examiners working on child exploitation cases sought counseling/treatment.[4] This could be a true lack of need. But it may also reflect the so-called "neutral attitudes" law enforcement officers have toward seeking professional services.[13] Law enforcement officers can be reluctant to seek treatment for fear of being seen as weak or unfit for duty.[13] This is especially important given law enforcement personnel can be unaware of burnout and vicarious trauma.[14] Some contend that if mental health services are not mandated, law enforcement personnel are unlikely to seek professional help for work-related stress. It was suggested by participants that making participation in a wellness program mandatory could go a long way in this regard by removing some of the stigma associated with attendance. Mandatory participation would essentially "blind" colleagues from knowing which personnel are struggling at any given time. However, this practice was not standard in the current study, present in only one-quarter of all agencies.

Not surprisingly, funding was a key concern among agency leaders, ranging from challenges finding funding, limited funding, and inconsistent funding. One respondent even noted that wellness was "always the last thing to be funded." Although Officer Wellness Programs are common, they are not universal. As such, priority should be given to ensure consistent and inclusive funding for wellness so personnel can stay healthy and feel supported in their work.

Recommendations

The results of this phase of the study suggest several key recommendations for ICAC Task Forces and their affiliated agencies in helping to improve resilience and promote wellness among personnel who participate in investigations involving CSAM:

1. Promote inter- and intra-agency culture that actively supports the mental health and wellness of ICAC investigators and forensic examiners.
2. Continue to train more police and forensic examiners on the investigation of CSAM so more staff can be placed on these investigations to help reduce burden due to lack of staffing resources.
3. Include police wellness awareness as a priority for incoming commanders and department leads so they can better support their team and promote strategies for wellbeing.
4. Provide more preparation and awareness for new staff who are working CSAM cases around the possible mental health impact of the job and strategies to promote wellbeing.
5. Make Officer Wellness Programs an integral part of ICAC Task Force funding. Supplementing the standard employee assistance programs and mental health access with more specific information about warning signs and mitigation strategies surrounding CSAM investigations is a good first step.
6. Provide more and easy access to known strategies that help investigators stay healthy while at work including flexible work hours, exercise opportunities, and friend and family events.
7. Provide special focus on the development of practices and resources in affiliated agencies and agencies without supportive unions. These appear to be two markers of less adoption of wellness practices.
8. Direct more training to administrative staff. The research suggests they have exposure to CSAM, but they may be even less prepared for such and more vulnerable than staff with formal police and investigative training.[15]

Consider how a combination of factors, including not only exposure to the content but also the volume of work, contributes to stress and trauma.

Conclusion

The findings from these data provide important information regarding our understanding of how agencies who investigate sex crimes against children can support their personnel and help promote wellbeing. Exposure to CSAM can be a source of stress for personnel and the results show concern about the problem and a diffusion of proactive initiatives, but still large gaps, barriers, and inconsistent adoption remain.

Objective 2. Characterize the extent of forensic examiner CSAM exposure across three domains of influence: a) severity of the images, b) frequency of viewing images, and c) quantity of images viewed.

Objective 3. Understand the impact of CSAM exposure on investigator stress, physical health, mental health and relationships.

Analysis for these two objectives utilize Phase 2 data and were integrated into three separate papers; they are summarized below.

Paper 1:

Mitchell, KJ, Gewirtz-Meydan, A, Finkelhor, D, O'Brien, J & Jones, LM (2023). The mental health of officials who regularly examine child sexual abuse material: Strategies for harm mitigation. *BMC Psychiatry 23, 940*. https://doi.org/10.1186/s12888-023-05445-w.

Paper 1 examined relationships between differing levels of CSAM exposure among forensic examiners/investigators and their mental health and subjective well-being. First we examined the relationships between levels of CSAM (i.e., duration, frequency, quantity, content), departmental policies and practices, and personal characteristics (e.g., length of time in the field) and self-reported depression and anxiety, posttraumatic stress symptomatology, and subjective well-being.

Participants reported extensive exposure to CSAM in terms of duration, frequency, quantity, and content (See Table 3). Seventeen percent of participants had been working CSAM crimes for more than 10 years, 18.6% for 7 to 10 years, 19.4% for 4 to 6 years while many were newer to these types of investigations (45.2% had been working CSAM crimes for 3 years or less). Eighteen percent of participants viewed CSAM nearly every day in a typical month as part of their job with 21% saying they viewed it more than half of the days, 54.2% several days, and 7% rarely viewed such material. The number of CSAM still images and recorded videos varied with 16.8% participants reporting they viewed a high number of still images (10,000 or more) and 11.6% a high number of recorded videos (5,000 or more) in a typical month. Twenty-nine percent said they viewed any live stream CSAM videos in a typical month. Content viewed in a typical month "often" or "all the time" was extreme – involving young children (63.4% aged 6 to 10 and 49.6% aged 5 or

younger), penetration of a child (64.2%), sexual contact between a child and adult (65.6%), and children posed (61.4%). Although not as commonly reported, many participants viewed content that involved violence beyond the sexual assault (22.2%), multiple children at the same time (33.2%), involving multiple offenders (23.6%), fetishes (31.4%), and children clearly under the influence of alcohol or drugs (8.0%). Almost half (49.2%) of participants often viewed CSAM which included sound.

Often viewing violent CSAM was significantly related to elevated posttraumatic symptom (PTSS) scores ($\beta = 0.09$, $p \leq .05$). All of the other CSAM content exposure were not significantly related to self-reported mental health, PTSS, or well-being.

Relationships between department policies and practices specific to CSAM and mental health

Several departmental policies and practices were related to less mental health symptoms and higher well-being scores at the bivariate level (See Table 4). Having some preparation prior to CSAM exposure (reported by 29.2% of participants) was related to less mental health symptoms and higher well-being scores; having attended a training program related to CSAM (66.6%) was related to higher well-being. Specific policies and resources available in the agency with a CSAM focus were related to less mental health symptoms and greater well-being, including holding staff meetings where reactions to work-related CSAM is discussed (11.4%), group or individual sessions with mental health professionals available (21.0%), and individual case reviews (11.0%). The more respect the participants perceived was given to CSAM personnel in the agency, the lower the mental health symptoms and the higher the well-being score. Reports varied with 29.7% saying their agency gave a lot of respect to CSAM personnel, 49.5% some respect, and 20.9% none or very little respect.

Participants were also asked how much control they had over the CSAM work they were assigned and how often they knew of the final case resolution. Responses varied – 20.8% said they had a lot of control over the CSAM work they were assigned, 52.3% had some control, and 26.9% had no control. More control was significantly related to less mental health symptoms ($\beta = -0.19$, $p \leq .001$), lower PTSS scores ($\beta = -0.16$, $p \leq .001$), and higher well-being scores ($\beta = 0.19$, $p \leq .001$). Thirty percent of participants said they knew the final case resolution all of the time, 35.2% often, 31.4% sometimes, and 3.4% never. More often knowing the final case resolution was significantly related to less mental health symptoms ($\beta = -0.13$, $p \leq .01$), lower PTSS scores ($\beta = -0.16$, $p \leq .001$) and higher well-being scores ($\beta = 0.20$, $p \leq .001$).

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Participants working in agencies that had an Officer Wellness Program also reported lower mental health symptoms and higher well-being scores. Several opportunities offered by agencies were related to lower mental health scores and higher well-being including offering ample vacation/personal time off (55.8% of participants endorsed this); providing daily opportunities for CSAM investigators to debrief (19.6%); and providing regular administrative updates about positive outcomes from CSAM cases (17.2%).

Implications

Although CSAM investigators and forensic examiners are frequently exposed to a great amount of extreme content as part of their professions, findings from the current paper indicate that the frequency of exposure was not systematically related to mental health conditions. This finding aligns with a previous study in which investigators of CSAM asserted that viewing disturbing content was not the most difficult part of their job, but instead described organizational factors as having much more impact on their stress levels.[16] Nonetheless, as suggested by prior qualitative research,[17] our findings identify that there is substantial variation in the degree of stress and well-being among investigators who review CSAM, and that this is influenced to some degree by the types and content of material, the viewing context, and individual, case-related, and organizational factors. For example, our findings indicated that frequent exposure to CSAM with violent content was related to higher posttraumatic stress symptoms.

While the extent of CSAM exposure was not related to mental health symptoms, findings indicate that many agencies have incorporated practices and policies related to mental health and well-being among CSAM investigators – and they are working. This finding is encouraging as these are organizational factors that may be easy to implement in a low cost and low resource manner: for example, providing investigators more control over the work that is assigned to them and taking the time to keep them apprised of final case resolutions. Additional agency policies and practices that were associated with lower levels of mental health and increased well-being included daily opportunities for CSAM investigators to debrief, and provision of regular updates about positive outcomes from CSAM cases. These agency-level factors likely help foster a departmental culture that is supportive of the intense and perhaps unique work CSAM investigators undertake and thereby contribute to the mental health and well-being of law enforcement. Indeed, investigators and forensic examiners who worked in agencies where more respect was given to this work reported higher well-being and lower mental health symptoms in the current study. Officer Wellness Programs also appeared to be an important component for ensuring the well-being of

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CSAM investigators and improving mental health at the agency level. These programs were not universal, however, existing in only 60% of agencies that conducted CSAM investigations.[18]

Paper 2:

Gewirtz-Meydan, A, Mitchell, KJ & O'Brien, J (2024). Trauma behind the keyboard: Exploring disparities in child sexual abuse material exposure and mental health factors among police investigators and forensic examiners – A network analysis. *Child Abuse & Neglect.* doi: https://doi.org/10.1016/j.chiabu.2024.106757

In this paper we explored the complex relationships among CSAM exposure, mental health outcomes (anxiety, depression, PTSD), burnout, and positive job attitudes using a network analysis. The utilization of network analysis in this paper offered a more comprehensive approach compared to traditional statistical methods. By examining the interconnectedness of various factors, we provided a holistic view of the mental well-being of professionals in the challenging field of CSAM investigations. In addition, this paper shed light on the distinctive networks within the roles of investigators and forensic examiners, involving a comparative analysis to uncover unique stressors and protective factors contributing to the mental well-being of these professional groups.

Data for this paper comprised of a subset of 470 participants in specific job roles; 248 were only CSAM investigators (59.3%, n=147 males) and 222 had a CSAM forensic examiner role (67.1%, n=149 males). Within this group of forensic examiners, 56.3% (n=125) were also investigators. Given that forensic examiners of CSAM are an understudied group, we combined all forensic examiners into one group, even if they were also investigators.

The analyses revealed differences between CSAM investigators and forensic examiners. Specifically, forensic examiners had more exposure to still images and video clips, and suggested poses of minors with clothes on than investigators. In addition, they accumulated more days per month in reviewing CSAM and had longer tenure in CSAM. Forensic examiners also felt like they had less control over the work that was assigned to them than investigators. Forensic examiners endorsed greater PTSD avoidance symptoms than investigators. All these differences, however, were small in effect size (Figures 1 & 2).

Comparisons between forensic examiners who are also investigators (n =128) versus those who are not (n = 101) indicated that examiners who are also investigators were significantly more likely to have a larger percentage of their job dedicated to working CSAM crimes ($p < .05$), were more likely to know the final case resolution ($p < .001$), and reported higher burnout scores ($p < .05$). Those who are only forensic examiners were significantly more likely than those who were also investigators to view more CSAM images ($p <. 001$) and videos ($p < .001$) in a typical month.

Implications

This paper revealed differences in two professional groups: Investigators and forensic examiners. Forensic examiners had more exposure to still images and video clips, accumulated more days per month in reviewing CSAM and had longer tenure reviewing CSAM. This underscores the diversity and intricacy of their exposure, which may potentially exacerbate the emotional challenges associated with their work. A noteworthy finding was the higher endorsement of avoidance symptoms among forensic examiners, which also occupied a more central position in their network (compared to the network of investigators). The higher strength of avoidance symptoms among forensic examiners signifies its greater importance in the network such that it not only relates to the other PTSD clusters (the case among investigators) but also to co-morbidity in the form of higher anxiety symptoms and a sense of burnout. It is possible that this heightened endorsement of avoidance symptoms among forensic examiners may be due to several intertwined factors within their work environment. One contributing factor is the extent of their exposure to a significant number of CSAM per month. In the context of investigating CSAM, this heightened exposure to explicit and distressing content can manifest in avoidance symptoms, as individuals instinctively strive to shield themselves from the emotional distress that may arise from engaging with such graphic material. Understanding how cultural norms within the police force may intersect with avoidance behaviors is crucial.

The higher prevalence of avoidance symptoms among forensic examiners may also be attributed to their perceived lack of control over assigned tasks compared to investigators. The partial involvement of some forensic examiners in investigations can add to the perceived lack of control and foster avoidance symptoms. Their primary focus on technical analysis may limit their exposure to the entire investigative process, potentially resulting in a sense of detachment from the broader context. Our data also suggest it is rare for forensic examiners to see cases from the beginning to end, which may prevent them from fully understanding the outcomes of the cases they work on, further contributing to emotional detachment and avoidance.

While our data did not reveal significant differences in terms of access to Officer Wellness Programs between examiners and investigators, among the forensic examiners, civilians (as opposed to sworn officers) were notably less likely to have access to an Officer Wellness Program. Unlike investigators who have access to a broader range of resources, forensic examiners may lack tailored mental health support, potentially exacerbating their avoidance symptoms and other mental health challenges.

The network analysis provided a deeper understanding of the complex interconnections between CSAM exposure and mental health symptoms and also revealed differences between those who work as forensic examiners in come capacity and those who are only investigators. Among investigators, CSAM involving child penetration and images or videos containing oral sex emerged as central elements in their network, showing significant associations with other CSAM exposure indices. Further, the impact of exposure to images or videos involving child penetration, including oral sex, as well as exposure to images or videos featuring violence beyond sexual assault, was notably stronger within the network of investigators compared to the network of forensic examiners. Several considerations may contribute to this pattern:

1. Investigators' direct involvement in the investigative process, including interactions with victims, suspects, and witnesses, might lead to exposure to CSAM content depicting the victim of the case they are actively handling. This direct connection could potentially augment the psychological impact, as investigators may experience heightened emotional responses due to their intimate knowledge of the individuals involved.
2. Investigators might have varying levels of familiarity or desensitization to CSAM content. If investigators are less accustomed to viewing or being exposed to such material, encountering more severe content, such as child penetration or explicit violence, may indeed have a more shocking effect. This heightened impact could be a result of the novelty or increased severity of the content, leading to stronger emotional reactions among investigators. This underscores the substantial influence and significance of these factors within their respective professional contexts.

Exposure to graphic content, images or videos of clothed minors, and content involving multiple children had stronger links to depression and anxiety symptoms among forensic examiners. Interestingly, the number of days spent reviewing CSAM and years of experience on the job had stronger associations with hyperarousal symptoms and burnout among investigators. Finally, the number of days per month reviewing CSAM and the severity of hyperarousal symptoms and the link between job experience and burnout were stronger among investigators than forensic examiners. This suggests that a higher workload in reference to CSAM was associated with heightened hyperarousal symptoms. Notably, the link between job experience and the burnout was more pronounced among investigators, suggesting that longer-serving investigators were more susceptible to experiencing burnout in their roles compared to forensic examiners.

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Objective 4. Establish whether and how individual- and agency-level factors buffer the impact of exposure to CSAM images on investigator stress, health and relationships

Paper 1:

Mitchell, KJ, Gewirtz-Meydan, A, Finkelhor, D, O'Brien, J & Jones, LM (2023). The mental health of officials who regularly examine child sexual abuse material: Strategies for harm mitigation. BMC Psychiatry 23, 940. https://doi.org/10.1186/s12888-023-05445-w.

In this paper, investigators reported a variety of different strategies that they used while reviewing CSAM to help them cope with the material they were viewing. The percentage of participants who reported they used the strategy "often" varied by the type of strategy (See Table 5). Strategies commonly used included focusing attention on the task (63.3%), trying not to focus on any image or video for too long (58.7%), reminding myself of the importance of my work (58.4%), turning the audio down or off (52.7%), taking breaks from the material I am viewing (51.8%), focusing on the factors and not the activity in the image (49.3%), and getting more information about the case (41.5%). Other less commonly endorsed strategies are detailed in Table 5.

Strategies related to lower mental health symptoms included talking with someone about what I am doing ($\beta = -0.11$, $p \leq .01$), imagining the successful outcome of the case ($\beta = -0.10$, $p \leq .05$), talking with other officers investigating the case ($\beta = -0.13$, $p \leq .01$), and focusing on the factors and not the activity in the image ($\beta = -0.11$, $p \leq .05$). Telling myself to ignore the harm ($\beta = 0.09$, $p \leq .05$) and eating sugary snacks or drinks while viewing the material ($\beta = 0.21$, $p \leq .001$) were related to more mental health symptoms. Lower PTSS scores were found among participants who took breaks form the material they were viewing ($\beta = -0.09$, $p \leq .05$) and who talked with other officers investigating the case ($\beta = -0.11$, $p \leq .05$). Those who had an alcohol drink after work ($\beta = 0.15$, $p \leq .001$), told themselves to ignore the harm ($\beta = 0.11$, $p \leq .01$), ate sugary snacks or drinks ($\beta = 0.19$, $p \leq .001$), and reduced the size of the image ($\beta = 0.12$, $p \leq .01$) had higher PTSS scores. Almost all of the individual harm reduction strategies were related to higher well-being scores with the exception of having an alcoholic drink after work and eating sugary snacks or drinks while viewing the CSAM, which were significantly related to less well-being.

Implications

It appears CSAM investigators/examiners may have different resilience strategies. The resilience of CSAM investigators was demonstrated in this study by the different strategies they implemented while viewing CSAM which appeared to help them reduce the potential for harm. Strategies that promoted partnership and collaboration (e.g., talking with other investigators or someone about what one is viewing) appeared to be particularly beneficial for mental health. A

substantial number of additional strategies were related to well-being: focusing on other features than the activity in the image, turning audio down or off, trying not to stay on any image or video for too long, keeping attention on the task, entertaining pleasant thoughts, reminding oneself of the importance of their work, taking breaks, and listening to music while working. These more detailed findings add to previous work indicating frequent use of positive coping mechanisms is associated with increased satisfaction from helping others (compassion satisfaction), decreased symptoms of posttraumatic stress and burnout,[19] and have the potential to mitigate the potential harm of the job.[20] Many of these strategies would be relatively easy to implement as part of CSAM investigation training programs.

Other coping strategies appeared to be associated with higher mental health symptoms and reduced well-being– for example, having an alcoholic drink after work and eating sugary snacks or drinks while viewing the material. These behaviors could be indicative of a broader unhealthy lifestyle with more global mental and/or physical health conditions that need to be addressed. Turning to maladaptive coping mechanisms such as alcohol use may occur when investigators are unable to successfully process their emotional pain and reactions to CSAM.[21] Thus, it is important to identify the coping strategies that mitigate the negative consequences of viewing CSAM and encourage their use.

Paper 2:

Mitchell, KJ, Gewirtz-Meydan, A, O'Brien, J & Ein-Dor, T (under review). Exposure to child sexual abuse material among law enforcement investigators: Exploring trauma and resilience profiles. Psychological Trauma: Theory, Research, Practice, and Policy. Special Issue on Trauma in the Modern Age of Technology.

This paper aimed to identify distinct profiles of investigators based on their exposure to CSAM and associated mental health symptomatology. Specifically, the paper sought to differentiate resilient profiles from those exhibiting psychopathologies. Latent profile analysis identified five profiles based on CSAM exposure and psychopathology: "Low exposure and psychopathology" (n = 142), "average exposure and low psychopathology" (n = 201), "low exposure and high psychopathology" (n = 66), "high exposure and low psychopathology" (n = 70), and "high exposure and high psychopathology" (n = 49). The "high exposure and low psychopathology" group is of specific interest because it reflects an actual state of resiliency – CSAM personnel exposed to multiple risk factors at work who did not develop any psychopathology.

Significant differences among profiles were observed (See Table 6). The "high exposure, low psychopathology" group showed the highest scores in general resiliency, future orientation, and

purpose in life, followed by the "average exposure, low psychopathology" group. The "low exposure, high psychopathology" and "high exposure, high psychopathology" groups had the lowest scores in these areas. Additional differences were found in both individual resiliency and agency-level factors. Investigators who felt like they mattered and were appreciated, had connections with groups of individuals, and who sought support from others characterized the most resilient profile of investigators – those with high CSAM exposure and low psychopathology.

Implications

Findings from the current paper carry significant implications for understanding and addressing the trauma and mental health challenges faced by law enforcement personnel involved in CSAM investigations. Notably, the "high exposure and low psychopathology" group reflects a resilient state among CSAM personnel, offering relatively easily implemented practices agencies can take to help foster resilience among their CSAM investigators as well. These include letting investigators have more control over the types of case assignments they receive – it could be that there are specific contextual elements in some cases that are particularly distressing to some individuals due to past experiences or connections with family life and having the ability to decline working a specific case may go a long way towards helping promoting wellness.[18,20,22] Like everyone, CSAM investigators need time to get away from their job so they can practice some self-care and spend time with family and friends – working in agencies that offer ample time off for both vacation and personal time appears to be a feature among the most resilient profile identified in this study.

Offering opportunities to hear about final case resolutions also characterized the resilient group; this may be particularly important for those who are exposed to CSAM, perhaps in a forensic examiner capacity, but may not necessarily hear that suspects are being held accountable for their crimes. Having a safe space for daily debriefing opportunities around CSAM investigations likely fosters a culture of respect and support given this was also characteristic of agencies for investigators in the resilient group.[22] Furthermore, the observed variation in CSAM training frequencies among different groups underscores the importance of comprehensive wellness training across various specializations within law enforcement. Even investigators with lower CSAM exposure might benefit from such training, given the potential stressors and traumas inherent to their roles.

<u>Objective 5. Develop a screening instrument to help agencies assess staff suitability for investigations requiring exposure to CSAM</u>

Mitchell, KJ, O'Brien, J, & Gewirtz-Meydan, A (R&R under review). The BURNT: A self-assessment tool for helping identify police burnout among investigators of child sexual abuse material. AJPM Focus.

This paper involved the development of a data-driven self-assessment tool for law enforcement personnel exposed to CSAM based on items from validated mental and physical health scales. Self-assessment tools offer a quick and easy way for people to determine when symptoms may have reached a threshold wherein outside support and resources are needed. Self-assessment tools for burnout and mental health exist in adjacent first responder fields, such as healthcare providers,[23,24] and have been tested intermittently among police officers internationally (e.g., The Spanish Burnout Inventory).[25] However, most studies examining mental health and burnout among police in the United States focus exponentially on personal characteristics, coping, and organizational support.[26]

The newly developed *Burnout* Self-*Assessment Tool (BURNT)* consists of nine items derived from the following three validated constructs.

1. *Depression and anxiety* were measured using the Patient Health Questionnaire-4 (PHQ-4).[10] The scale presents a list of four problems, two about anxiety (e.g., "Feeling nervous, anxious or on edge") and two about depression (e.g., "Feeling down, depressed or hopeless"). Participants were asked to indicate how much each problem had bothered them in the past two weeks from 0 ("not at all") to 3 ("nearly every day"). Items were combined to create two scores, one for anxiety (α = 0.80) and one for depression (α = 0.80) with higher scores representing more symptomatology.
2. *Posttraumatic stress symptomatology* was measured using the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5).[27] The PCL-5 presents four reactions that some people have in response to a very stressful experience (e.g., feeling distant or cutoff from other people) and asks respondents to indicate how much they have been bothered by each in the past month. Response options ranged from 1 (not at all) to 5 (extremely). Items were combined to create a total scale score (α = 0.79) with higher scores representing more symptomatology.
3. *Physical health* was measured using one item from the Health-Related Quality of Life (HRQOL) measure.[28] Specifically, participants were asked to rate, in general, how their health was: excellent, very good, good, fair, and poor.

The original scale items were asked of respondents in the survey and then converted into dichotomous variables (1 standard deviation above the mean) for use with this tool. Each of these

dichotomous items were combined into a count variable such that one point is given for each positive response (M = 1.44, SD = 1.85, Range: 0-9).

Twenty percent (n=102) of participants were classified as having high burnout. High burnout was more common among participants who had been in their current position for a longer period of time; no other significant demographic and job characteristics, including number of years working CSAM crimes, were significantly related to high burnout.

Self-assessment items by high burnout

Each of the nine self-assessment items was significantly more common among participants with high burnout (Table 7). For example, 43.1% of participants with high burnout said they were not able to stop or control their worrying for more than half the days during the prior two weeks – or more frequently, compared to 12.8% of participants with no or low burnout. Among those with high burnout, 40.2% said they felt distant or cutoff from other people compared to 15.1% of those with no/low burnout.

BURNT scores and the odds of high burnout

Participants with a BURNT score of 2 were significantly more likely to have high burnout than those with a score of 0 (OR = 3.47, p=.001) (Figure 3). This is the first score that was significantly different from 0. Odds of high burnout increase with each additional BURNT score.

Implications

Although associations between mental health symptomatology and burnout have been documented in the literature,[26,29] barriers exist for identification and help-seeking among law enforcement personnel, including stigma.[18,30] For law enforcement agencies addressing CSAM cases, proactive measures are recommended. The current paper offers a short, simple, and private tool which will help identify investigators who are struggling with mental and physical health symptoms and at increased risk of burnout. Law enforcement agencies may consider providing the BURNT tool to all personnel via an agency website, text, or email, so that it is available to anonymously download for anyone who might be concerned about potential burnout and/or wellbeing.[31] The infographic (Figure 4) may also be printed and made available to personnel in public spaces in agencies or used via social media. Individuals who affirm two or more items should consider seeking additional support and assessment, either via Officer Wellness Programming (if available) or through outside supports (e.g., a Primary Care physician or mental health practitioner). Importantly, engagement in officer wellness programming and/or other

outside supports have been shown to reduce burnout, anxiety, and depression, while simultaneously promoting wellbeing among law enforcement.[18,26]

Findings offer a data-driven strategy for when to seek additional support and assessment for individuals taking the BURNT, as well as a data-driven way to allocate resources for law enforcement agency administration concerned about facilitating wellness among those exposed to CSAM.[18] Investigators working in agencies with more resources or universal access to supports, like Officer Wellness Programs, may find more frequent self-assessments helpful.

It is important to note the BURNT is a starting point rather than a diagnostic tool. Affirmation of two or more items indicates someone is 3.49 times more likely to experience high burnout; however, an individual may still be experiencing burnout and other co-occurring issues such as clinically significant depression and anxiety without affirming two or more items. Accordingly, anyone who is experiencing concerning symptoms should seek support, regardless of their score on the BURNT, and receive a more thorough assessment of mental health and burnout. Finally, higher scores will not tell investigators *why* they are not doing well or how to treat their symptoms.

Changes in approach from original design and reason for change

We were unable to recruit a comparison sample of non-CSAM investigators due to challenges related to COVID, so we focused on a sample of 500 investigators and forensic examiners working CSAM crimes instead. Our data revealed that ICAC Task Forces did not need a screening tool for CSAM but instead suggested some stigma around mental health help-seeking so, in response, we developed a data-driven burnout self-assessment tool instead.

Limitations

Limitations of Phase 1

Although we spoke to the majority of ICAC Commanders, the sample of affiliated agencies in this study was much smaller than the overall number of such agencies given we relied on the nomination of the ICAC Commanders for affiliated agency participation (we did not have contact information for all affiliated agencies). As such, the findings should not be interpreted to reflect the experiences of all ICAC affiliated agencies, nor all law enforcement agencies across the United States. This study was designed to address wellness around the exposure to CSAM specifically and less about other associated stressors, like resources and workload. Research inclusive of a broader range of stressful police work would have provided more context to the practices and policies in these agencies. This research was conducted at one point in time and did not take into account how long the specific task forces had been in operation, nor how long the commanders

had been in their positions; both of these factors have implications for the development and utilization of wellness programs in these agencies.

Limitations of Phase 2

The Phase 2 study had a few limitations that should be noted when considering the implications of the findings. First, data were collected via a convenience sample, which might not be representative of the population of investigators/forensic examiners who view CSAM. Moreover, it is possible, that there was a built-in bias to a study on police wellness, in which law enforcement who are more resilient – or more troubled - were the ones more willing to complete a survey on their CSAM exposure and mental health and well-being. Second, the study was based on self-report measures, which are subject to response bias (e.g., under- or over-reporting). Police may have particular biases against acknowledging mental health symptoms.[30] Third, the design was cross-sectional; therefore, causal relations between study variables cannot be inferred.

List of Products

Manuscripts

Mitchell, KJ, Gewirtz-Meydan, A, O'Brien, J & Ein-Dor, T (under review). Exposure to child sexual abuse material among law enforcement investigators: Exploring trauma and resilience profiles. *Psychological Trauma: Theory, Research, Practice, and Policy*. *Special Issue on Trauma in the Modern Age of Technology*.

Mitchell, KJ, O'Brien, J, & Gewirtz-Meydan, A (R&R under review). The BURNT: A self-assessment tool for helping identify police burnout among investigators of child sexual abuse material. *AJPM Focus*.

Gewirtz-Meydan, A, Mitchell, KJ & O'Brien, J (2024). Trauma behind the keyboard: Exploring disparities in child sexual abuse material exposure and mental health factors among police investigators and forensic examiners – A network analysis. *Child Abuse & Neglect*. doi: https://doi.org/10.1016/j.chiabu.2024.106757

O'Brien, J, Gewirtz-Meydan, A & Mitchell, KJ (2024). Emotional wellbeing and cognitive appraisals among law enforcement exposed to child sexual abuse material: A mixed methods study. *Criminal Justice and Behavior*. https://doi.org/10.1177/00938548231224815

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health of officials who regularly examine child sexual abuse material: Strategies for harm mitigation. *BMC Psychiatry 23, 940*. https://doi.org/10.1186/s12888-023-05445-w.

Gewirtz-Meydan, A, O'Brien, J & Mitchell, KJ (2023). Correlates of intimate relationship satisfaction among investigators of child sexual abuse. *Frontiers in Public Health, Section on Public Mental Health, Vol 11*. https://doi.org/10.3389/fpubh.2023.1237510

Gewirtz-Meydan, A, Mitchell, KJ, & O'Brien, J (2023). Sexual posttraumatic stress among investigators of child sexual abuse material. *Policing: A Journal of Policy and Practice, Vol 17, paad052*. https://doi.org/10.1093/police/paad052

Mitchell, KJ, Gewirtz-Meydan, A, O'Brien, J & Finkelhor, D (2022). Practices and policies around wellness: Insights from the Internet Crimes Against Children Task Force Network. *Frontiers in Psychiatry, Section: Forensic Psychiatry;* https://doi.org/10.3389/fpsyt.2022.931268

Presentations

Gewirtz-Meydan, A, O'Brien, J, & Mitchell, K (May 2023). *Effects of child sexual abuse material investigations on law enforcement personnel: Psychological distress, coping mechanisms, and overall well-being*. The Third Haruv International Conference, Israel.

Mitchell, KJ, Gewirtz-Meydan, A, Finkelhor, D, O'Brien, J & Jones, LM (January 2023). *The mental health of child sexual abuse material investigators*. 38th Annual San Diego International Conference on Child and Family Maltreatment, San Diego, CA.

O'Brien, J, Mitchell, K & Gewirtz-Meydan, A (January 2023). *Impact of child sexual abuse material investigations among law enforcement personnel: Distress, coping and holistic well-being*. Society for Social Work and Research 27th Annual Conference, Phoenix, AZ.

O'Brien, J, Mitchell, K & Gewirtz-Meydan, A. *Impact of child sexual abuse material investigations among law enforcement personnel: Distress, Coping, and Holistic Well-being*. Abstract submitted to the 2022 American Society of Criminology Annual Meeting, Atlanta, GA.

Toner, C & Mitchell, K (April 22, 2022). *Police burnout and alcohol use*. Poster presented at the University of New Hampshire Undergraduate Research Conference, Durham, NH.

Mitchell, KJ, Gewirtz-Meydan, A, Finkelhor, D, Jones, L & O'Brien, J (March, 27- 30

2022). *Exposure to child sexual exploitation material among forensic examiners and investigators: Exploring strategies to promote wellbeing.* International Society for the Prevention of Child Abuse & Neglect (IPSCAN) Conference. Quebec City, Canada.

Gewirtz-Meydan, A, Mitchell, KJ, & O'Brien, J (March, 27- 30 2022). *Practices and policies around wellness: Insights from the Internet Crimes Against Children Task Force Network.* International Society for the Prevention of Child Abuse & Neglect (IPSCAN) Conference. Quebec City, Canada.

Mitchell, KJ, Finkelhor, D, Jones, LM & Gewirtz-Meydan, A (2021). *Officer Wellness Programs: A Study of Trauma and Resiliency Among CSAM Investigators*. Presented at the ICAC Task Force Commander Meeting, Virtual.

Akter, M (March 20023). *Relationship between police officers' alcohol use and department policies and practices: Are there gender differences?* American Academy of Criminal Justice Sciences Annual Meeting, National Harbor, MD.

Infographics

We also developed several infographics to make findings more accessible to law enforcement and forensic examiners. They can be downloaded directly from our website: https://www.unh.edu/ccrc/topics/vicarious-trauma

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Tables and Figures

Table 1. Sample demographic and job/agency characteristics (Phase 2)

Characteristic	All (n=500) % (n)
Gender	
Male	61.4 (307)
Female	37.4 (187)
Non-binary	0.2 (1)
Decline to answer	1.0 (50
Age	
18-24	0.8 (4)
25-34	21.6 (108)
35-44	39.8 (199)
45-54	29.8 (149)
55-64	6.6 (33)
65-74	0.2 (1)
Decline to answer	1.2 (6)
Hispanic ethnicity	7.3 (35)
Race [a]	
White	85.8 (429)
Black or African American	3.0 (15)
Asian or Pacific Islander	2.8 (14)
Native American or Alaska	1.2 (6)
Mixed racial background	3.0 (15)
Decline to answer	5.0 (25)
Marital status	
Married	70.2 (351)
Unmarried but living with partner	6.4 (32)
Separate or divorced	9.4 (47)
Widowed	0.8 (4)
Single (never married)	11.2 (56)
Decline to answer	2.0 (10)
Parent children under the age of 18 (any)	63.0 (315)
Grandchildren under the age of 18 (any)	9.6 (48)
Number of years in current position	
Less than 1 year	8.4 (42)
2 – 3 years	32.0 (160)
4 – 6 years	22.6 (113)
7 – 10 years	15.6 (78)
11 – 15 years	12.0 (60)
16 – 20 years	6.2 (31)
More than 20 years	3.2 (16)
Number of years in field	
Less than 1 year	1.6 (6)
2 – 3 years	6.6 (33)

Characteristic	All (n=500) % (n)
4 – 6 years	11.2 (56)
7 – 10 years	16.8 (84)
11 – 15 years	22.0 (110)
16 – 20 years	19.6 (98)
More than 20 years	22.6 (113)
Work as part of the ICAC Task Force Program	87.8 (439)
Percentage of time work ICAC investigations	
Less than 25%	23.9 (105)
25% - 49%	22.5 (99)
50% - 74%	11.9 (52)
75% or more	41.0 (180)
Not sure	0.7 (3)
Place of residence	
Large city (population over 300,000)	22.0 (109)
Smaller city (population about 100,000-300,000)	28.0 (139)
Town (population about 20,000-100,000)	28.8 (143)
Small town (population about 2,500 – 20,000)	17.1 (85)
Rural area (population under 2,500)	4.0 (20)
Missing	0.8 (4)
Types of crimes investigate [a]	
Internet crimes against children	93.4 (467)
Other cybercrimes	43.8 (219)
Homicide	43.4 (217)
Fraud	37.4 (187)
Family and sexual violence	61.8 (309)
Crimes against property	33.2 (166)
Narcotics	25.4 (127)
Gang violence	14.4 (72)
Type of agency work for	
Federal	11.6 (58)
State	24.4 (122)
Local	62.6 (313)
Non-profit	1.0 (5)
Other	0.4 (2)

[a] Multiple responses were possible

Table 2. Officer Wellness Programs and Other Strategies for Well-Being (Phase 1)

	Combined (n=209) % (n)	ICAC Affiliate Agencies (n=155) % (n)	ICAC Task Forces (n=54) % (n)	P value
Officer Wellness Programs				
Currently have an Officer Wellness Program	62.0 (129)	60.4 (93)	66.7 (36)	.41
ICAC grant funded	24.8 (32)	18.3 (17)	41.7 (15)	.006
Agency funded	64.3 (83)	71.0 (66)	47.2 (17)	.01
State funded	10.1 (13)	8.6 (8)	13.9 (5)	.37
Participation is mandatory	25.6 (33)	22.6 (21)	33.3 (12)	.21
Make available to affiliate agencies			41.7 (15)	
Not sure	---	---	22.2 (8)	---
Staff meetings or training session discussion topics				
Signs of stress at work	34.5 (72)	20.7 (32)	74.1 (40)	<.001
Signs of stress at home	32.1 (67)	19.3 (30)	68.5 (37)	<.001
Relationship problems	27.3 (57)	14.2 (22)	64.8 (35)	<.001
Sexual problems	16.7 (35)	9.0 (14)	38.9 (21)	<.001
Policies or resources available in agency				
Staff meetings where reactions to CSAM are discussed	33.5 (70)	21.3 (33)	68.5 (37)	<.001
Group or individual session led by a mental health professional where reactions to CSAM are discussed	28.7 (60)	19.3 (30)	55.6 (30)	<.001
Individual case reviews where reactions are discussed	32.1 (67)	25.2 (39)	51.9 (28)	<.001
Rotations or time limits on positions that require viewing CSAM	12.4 (26)	11.0 (17)	16.7 (9)	.27
Part-time assignments or the ability to pursue other aspects of law enforcement	29.7 (62)	16.8 (26)	66.7 (36)	<.001
Exit tickets which allow sworn personnel to transfer with no questions asked or penalties	31.1 (65)	18.1 (28)	68.5 (37)	<.001
Exit interviews or debriefings for personnel who leave positions requiring viewing CSAM	23.4 (49)	11.6 (18)	57.4 (31)	<.001
Follow-up contact to check on personnel who have left positions requiring viewing of CSAM	14.3 (30)	7.7 (12)	33.3 (18)	<.001
Agency opportunities				

	Combined (n=209) % (n)	ICAC Affiliate Agencies (n=155) % (n)	ICAC Task Forces (n=54) % (n)	P value
Offers ample vacation/personal time off	83.3 (174)	78.7 (122)	96.3 (52)	.003
Provides daily opportunities for CSAM investigators to debrief with other CSAM investigators	48.3 (101)	31.6 (49)	96.3 (52)	<.001
Provides regular administrative updates about positive outcomes from CSAM investigations	41.6 (87)	25.2 (39)	88.9 (48)	<.001
Other options to help promote wellness				
Cafeteria with healthy meal options	9.6 (20)	7.7 (12)	14.8 (8)	.13
Onsite gym	63.6 (133)	65.8 (102)	57.4 (31)	.27
Outdoor grounds for walking, running or sitting to eat	53.6 (112)	41.9 (65)	87.0 (47)	<.001
Indoor workspaces that are sunny and comfortable	32.5 (68)	19.3 (30)	70.4 (38)	<.001
Options to bring your own dog to work	8.6 (18)	3.2 (5)	24.1 (13)	<.001
Police dog on premises	28.7 (60)	26.5 (41)	35.2 (19)	.22
Employee Assistance Program	76.6 (1600	71.6 (111)	90.7 (49)	.004
Peer counselors	46.9 (98)	41.3 (64)	63.0 (34)	.006
Chaplains, including volunteer chaplains	64.1 (134)	59.3 (92)	77.8 (42)	.01
Other	10.5 (22)	5.2 (8)	25.9 (14)	<.001

[a] Multiple responses possible.

Table 3. Bivariate relationships between charactersitics of exposure to CSAM and mental health (Phase 2)

Characteristic	All (n=500)	Depression / anxiety	PTSS	Well-being
	% (n)	β	β	β
Length of time working CSAM cases				
Less than 1 year	12.0 (60)	0.02	-0.01	0.03
2 to 3 years	33.2 (166)			
4 to 6 years	19.4 (97)			
7 to 10 years	18.6 (93)			
11 to 15 years	9.8 (49)			
16 to 20 years	4.6 (23)			
More than 20 years	2.4 (12)			
Number days viewing CSAM in typical month				
Not at all	7.0 (35)	0.02	-0.03	0.004
Several days	54.2 (271)			
More than half the days	21.0 (105)			
Nearly every day	17.8 (89)			
High number of still images viewed per month	16.8 (84)	0.08	0.04	-0.03
High number of videos viewed per month	11.6 (58)	0.10*	0.04	-0.04
Any live stream videos viewed per month	29.0 (145)	0.001	0.01	-0.06
Control over work assigned to you				
No control	26.9 (134)	-0.19***	-0.16***	0.19***
Some control	52.3 (261)			
A lot of control	20.8 (104)			
Frequency of knowing final case resolution				
Never	3.4 (17)	-0.13**	-0.16***	0.20***
Sometimes	31.4 (157)			
Often	35.2 (176)			
All of the time	30.0 (150)			
Typical month frequency of viewing that CSAM that includes… (% often/all the time)				
Children aged 5 or younger	49.6 (248)	0.01	0.003	0.03

	All (n=500)	Depression / anxiety	PTSS	Well-being
Children aged 6 to 10	63.4 (317)	0.03	0.03	0.02
Graphic	72.6 (363)	0.005	0.05	0.01
Sexual contact between a child and adult	65.6 (328)	0.02	0.04	0.03
Penetration of child, including oral sex	64.2 (321)	0.01	0.02	0.05
Violence, beyond the sexual assault	22.2 (111)	-0.04	0.09*	-0.0003
Children posed	61.4 (307)	0.02	0.04	0.03
Multiple children at the same time	33.2 (166)	-0.001	0.05	0.04
Children clearly under influence of alcohol or drugs	8.0 (40)	-0.002	0.07	-0.03
Multiple offenders	23.6 (118)	-0.001	0.06	0.02
Fetishes	31.4 (157)	0.01	0.06	-0.02
Sound	49.2 (246)	0.01	0.05	-0.04

** $p \leq .01$; *** $p \leq .001$.

Table 4. Bivariate relationships between department policies and practice specific to CSAM and mental health

Characteristic	All (n=500)	Depression/ anxiety β	PTSS β	Well-being β
Preparation before CSAM exposure	29.2 (146)	-0.09*	-0.07	0.11*
Mental health testing/screening prior	6.4 (32)	-0.07	-0.08	0.06
Attended training program related to CSAM	66.6 (333)	0.01	0.02	0.13**
Policies and resources available (CSAM focus)				
Staff meetings where reactions to work-related CSAM is discussed	11.4 (57)	-0.12**	-0.16***	0.15***
Group or individual sessions with mental health professional	21.0 (105)	-0.05	-0.09*	0.12**
Individual case reviews	11.0 (55)	-0.11**	-0.11**	0.13**
Rotations or time limits	4.2 (21)	0.004	0.01	-0.06
Part-time assignments	16.8 (84)	-0.02	-0.01	0.04
Exit interviews or debriefings	4.8 (24)	-0.05	0.001	0.02
Follow-up contact	1.8 (9)	-0.05	-0.09	0.03
Triage person	11.6 (58)	-0.04	-0.04	0.10*
Respect given to CSAM personnel				
None or very little	20.9 (97)	-0.19***	-0.23***	0.20***
Some	49.5 (230)			
A lot	29.7 (138)			
Not sure	7.0 (35)			
Officer wellness program	62.0 (310)	-0.21***	-0.14***	0.17***
Agency…				
Offers ample vacation/personal time off	55.8 (279)	-0.15***	-0.14***	0.21***
Provides daily opportunities for CSAM investigators to debrief	19.6 (98)	-0.16***	-0.18***	0.16***
Provides regular admin updates about positive outcomes from CSAM cases	17.2 (86)	-0.16***	-0.10*	0.15***
Allow you to tend to personal obligations during work hours using own time	58.8 (294)	-0.02	-0.04	0.11*

* $p < .05$. ** $p \leq .01$; *** $p \leq .001$.

Table 5. Harm mitigation strategies and their bivariate relationships with mental health and well-being

	All (n=500) % often (n)	Depression / anxiety β	PTSS β	Well-being β
Strategy				
Take breaks from the material I am reviewing	51.8 (258)	-0.04	-0.09*	0.17***
Listen to music while working	37.4 (186)	0.01	0.002	0.09*
Mask some of the images	6.3 (31)	0.02	0.04	0.06
Turn my mind to pleasant thoughts	27.3 (135)	-0.08	-0.02	0.18***
Talk with someone about what I am viewing	15.9 (79)	-0.11**	-0.09	0.22***
Remind myself of the importance of my work	58.4 (291)	-0.06	0.03	0.15***
Take breaks to meditate or clear my mind	31.9 (159)	-0.06	-0.07	0.18***
Imagine the successful outcome of the case	39.6 (197)	-0.10*	-0.06	0.15***
Take deep breaths	22.9 (114)	0.02	0.04	0.09
Have an alcoholic drink after work [a]	12.1 (60)	0.08	0.15***	-0.16***
Talk to the other officers investigating the case	37.3 (185)	-0.13**	-0.11*	0.18***
Focus my attention on the task	63.3 (315)	-0.06	-0.06	0.18***
Tell myself to try to ignore the harm	16.0 (79)	0.09*	0.11**	-0.05
Get more information about the case	41.5 (206)	-0.02	-0.03	0.08
Try not to focus on any image or video for too long	58.7 (291)	0.005	-0.03	0.10*
Eat sugary snacks or drinks [a]	15.3 (76)	0.21***	0.19***	-0.14***
Reduce the size of the image	11.5 (57)	0.08	0.12**	-0.02
Change the image to black and white	0.4 (2)	-0.02	-0.01	-0.05
Focus on the factors and not the activity in the image	49.3 (245)	-0.11*	-0.02	0.14**
Turn audio down or off	52.7 (262)	-0.01	-0.01	0.12**

* $p < .05$. ** $p \leq .01$; *** $p \leq .001$.

Table 6. Means and standard deviations of the five profiles

Variable	Low exposure, Low PP		Average exposure, Low PP		Low exposure, High PP		High exposure, Low PP		High exposure, High PP	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Individual Level										
Mattering and appreciation	3.67	0.47	3.67	0.43	3.18	0.65	3.77	0.34	3.42	0.67
General resiliency	3.44	0.45	3.56	0.34	3.18	0.54	3.73	0.26	3.24	0.61
Future orientation	3.45	0.46	3.51	0.42	3.23	0.53	3.66	0.39	3.36	0.46
Group connectedness	2.97	0.91	2.87	1.02	2.23	1.04	2.88	0.97	2.47	1.04
Social support seeking	3.12	0.69	3.00	0.72	2.74	0.87	3.08	0.71	2.72	0.79
Purpose in life	3.40	0.59	3.56	0.50	2.96	0.72	3.72	0.37	3.18	0.68
Religious meaning-making	2.15	1.08	2.43	1.15	2.20	1.07	2.18	1.02	2.17	1.17
	%	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*
Agency Level										
Special training around wellness	0.46	65	0.51	103	0.31	20	0.55	39	0.53	26
CSAM preparation	0.52	74	0.73	147	0.68	45	0.75	53	0.73	36
Offers ample vacation/personal time off	0.64	91	0.55	111	0.43	28	0.68	48	0.36	18
Debrief with other CSAM investigators	0.17	24	0.23	46	0.09	6	0.32	22	0.12	6
Updates about positive outcomes	0.13	18	0.20	40	0.09	6	0.29	20	0.12	6
Tend to personal obligations	0.54	77	0.58	117	0.58	38	0.68	48	0.62	30
Control of case assignments	2.02	0.65	2.06	0.64	1.68	0.70	1.96	0.74	1.77	0.61
Hear about the final case resolution	2.78	0.82	2.97	0.87	2.60	0.77	3.36	0.77	2.94	0.77

PP = Psychopathology; M = Mean; SD = Standard Deviation

Table 7. Descriptive statistics of self-assessment items by high burnout

Construct	No/low burnout (n=398) n (%)	High burnout (n=102) n (%)	P value
PHQ-4			
Low interest or pleasure in doing things	37 (9.3)	28 (27.5)	<.001
Feeling down, depressed, or hopeless	24 (6.0)	28 (27.5)	<.001
Feeling nervous, anxious or on edge	66 (16.6)	49 (48.0)	<.001
Not being able to stop of control worrying	51 (12.8)	44 (43.1)	<.001
PTSD			
Suddenly feeling or acting as if the stressful experience were actually happening	22 (5.5)	15 (14.7)	.002
Avoiding external reminders of the stressful experience	41 (10.3)	35 (34.3)	<.001
Feeling distant or cutoff from other people	60 (15.1)	41 (40.2)	<.001
Irritable behavior, angry outbursts or acting aggressively	22 (5.5)	25 (24.5)	<.001
Physical health			
Fair or poor health	98 (24.6)	38 (37.5)	.01

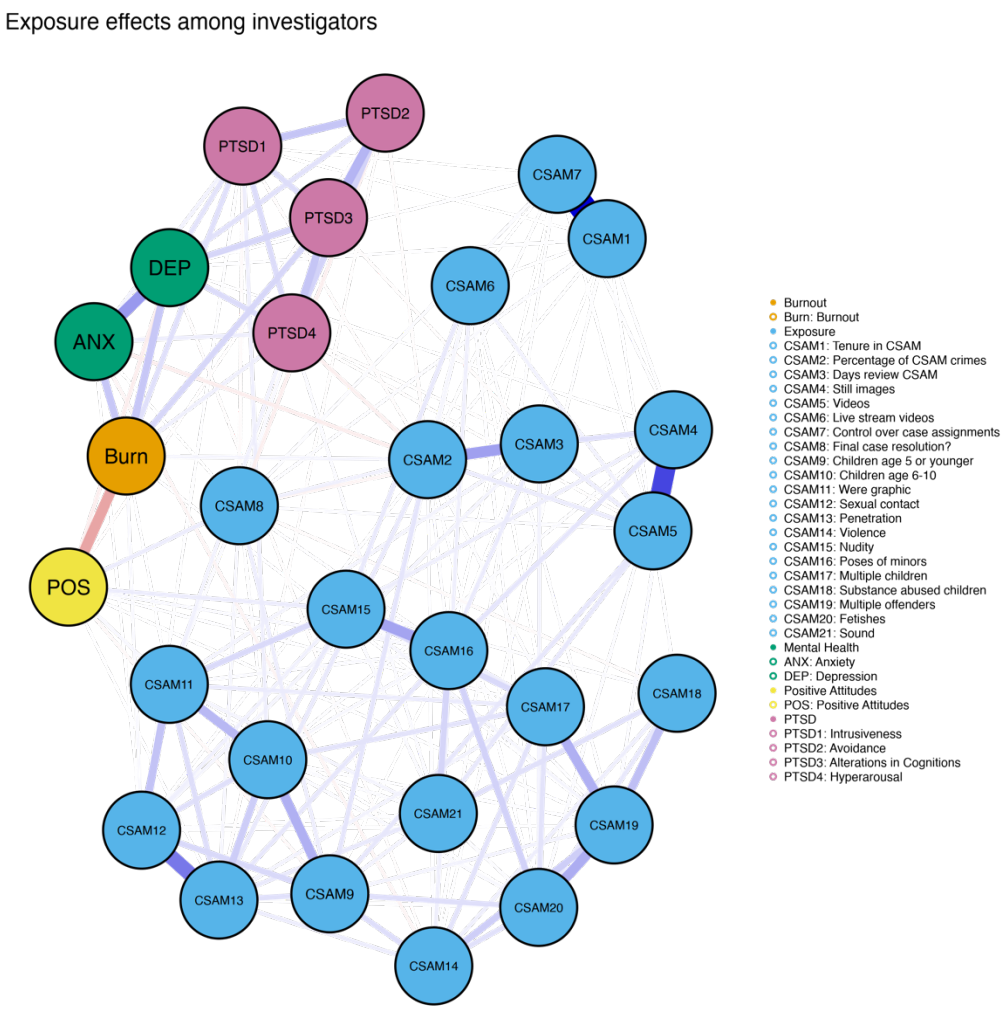

Figure 1. Network analysis among CSAM investigators. Blue edges (i.e., paths) reflect positive associations, whereas red edges reflect negative associations. The edges' brightness, distance, and width reflect different relative strength indicators. Nodes' colors were predefined to highlight burnout (orange), exposure factors (light blue), mental health factors (green), positive attitudes (yellow), and PTSD clusters (pink)

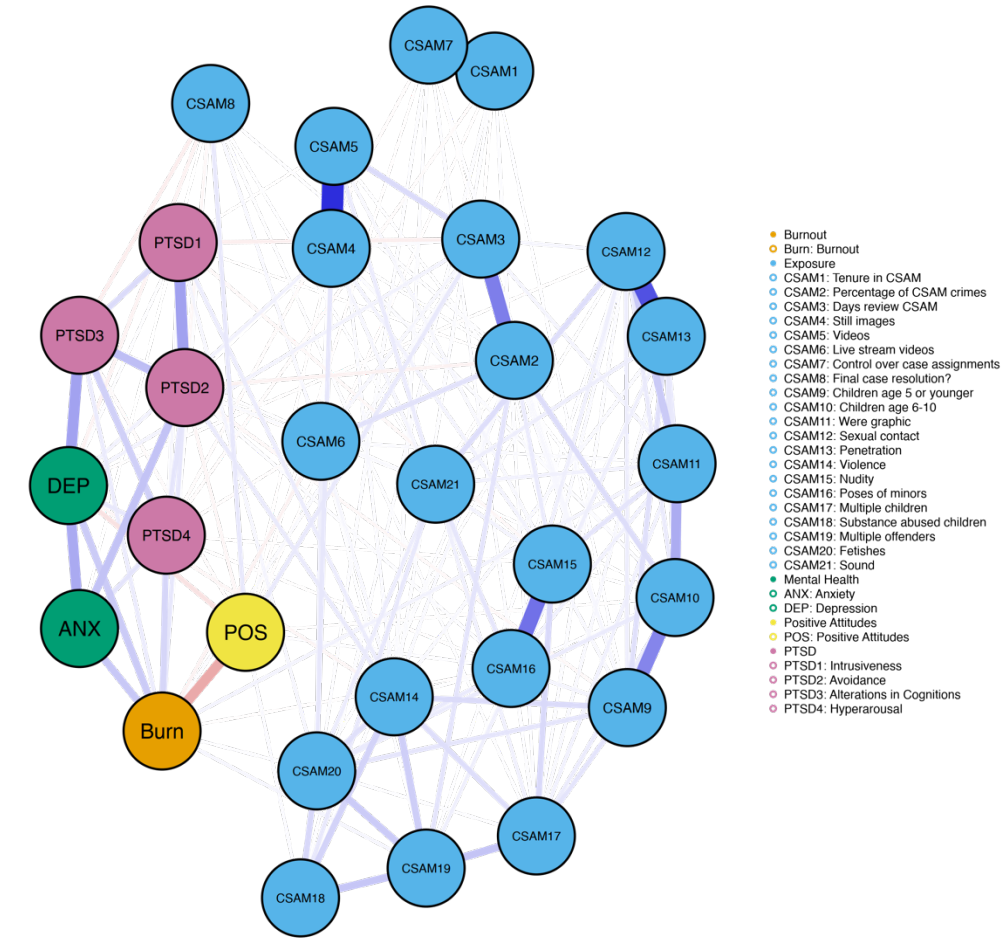

Figure 2. Network analysis among CSAM forensic examiners. Blue edges (i.e., paths) reflect positive associations, whereas red edges reflect negative associations. The edges' brightness, distance, and width reflect different relative strength indicators. Nodes' colors were predefined to highlight burnout (orange), exposure factors (light blue), mental health factors (green), positive attitudes (yellow), and PTSD clusters (pink).

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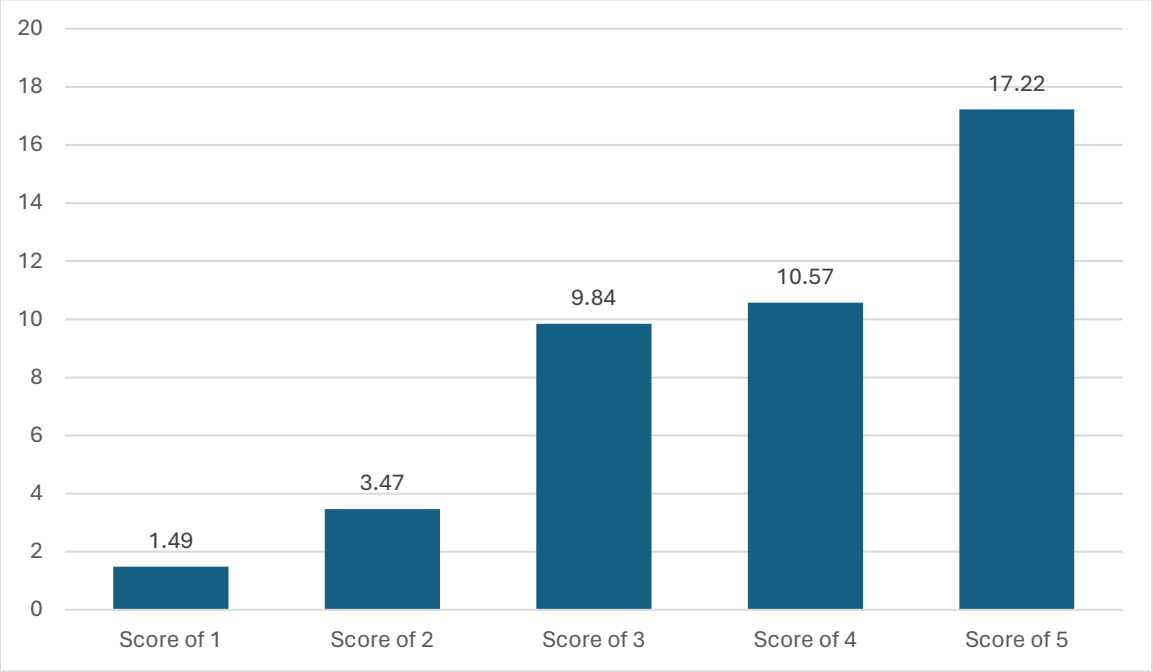
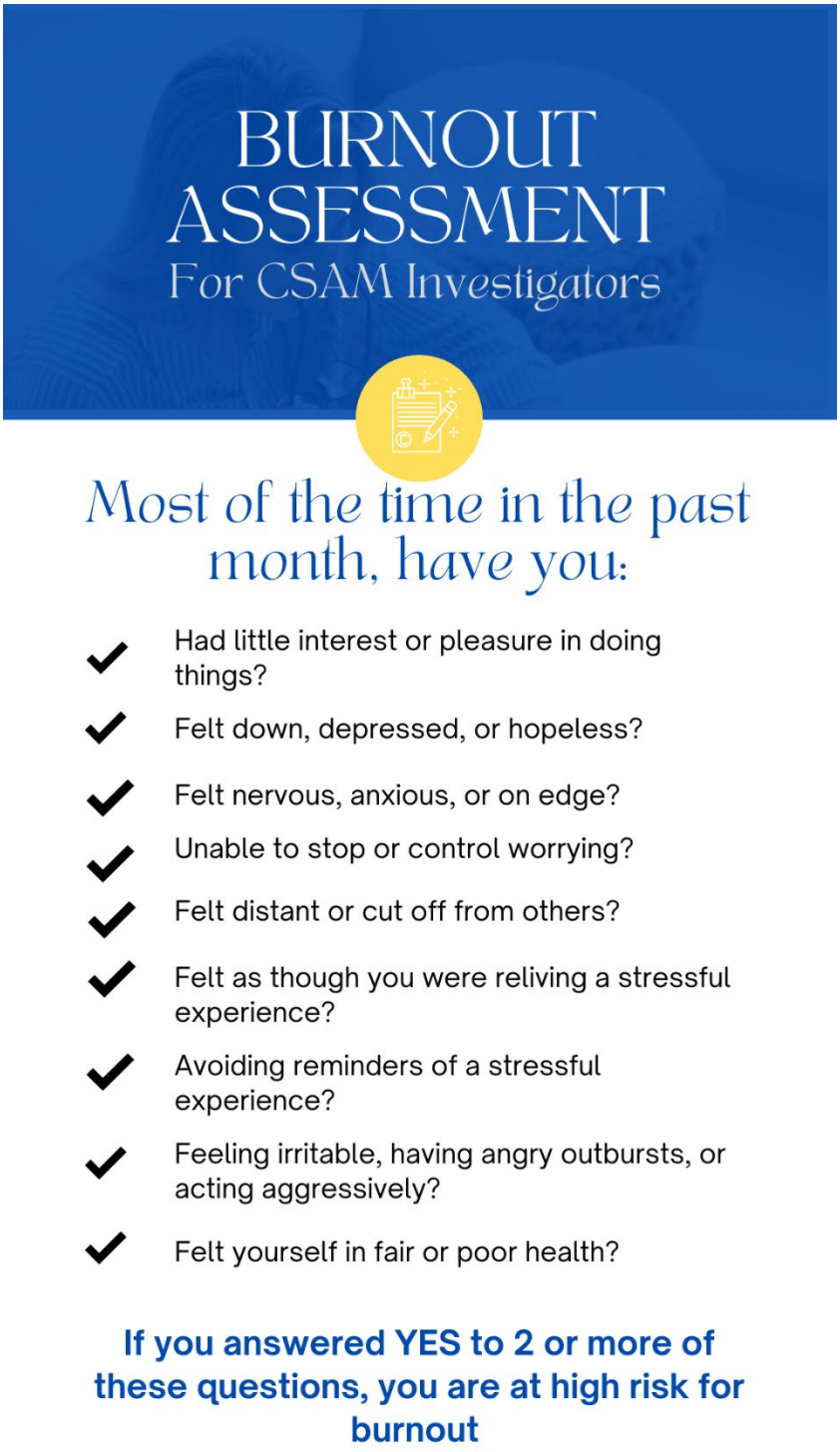


Figure 3. Odds of high burnout given different BURNT self-assessment scores. Reference group is a score of zero. All scores of 2 or more are significantly different from zero.

Figure 4. BURNT self-assessment tool



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