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Exposure to Child Sexual Abuse Materials Among Law Enforcement Investigative Personnel: Exploring Trauma and Resilience Profiles

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Objective: This study aimed to identify distinct profiles of investigators based on their exposure to child sexual abuse material (CSAM) and associated mental health symptomatology. Specifically, the study seeks to differentiate resilient profiles from those exhibiting psychopathologies. Additionally, this research explores resilience as a transdiagnostic and distal factor, examining individual- and agency-level coping and resiliency factors. ***Method:*** An analytic sample of 500 police investigators and forensic examiners exposed to CSAM comprised the current sample. Latent profile analysis identified five profiles based on CSAM exposure and psychopathology. Profiles were compared across various individual- and agency-level factors. ***Results:*** Distinct profiles emerged, including low exposure and psychopathology, average exposure and low psychopathology, low exposure and high psychopathology, high exposure and low psychopathology (representing resilience), and high exposure and high psychopathology. Resilient profiles demonstrated higher scores in general resiliency, future orientations, and purpose in life. Noteworthy differences were found in individual- and agency-level factors, emphasizing the role of appreciation, support, and a positive work climate. ***Conclusions:*** The study underscores the diversity of experiences among law enforcement professionals conducting CSAM investigations. Resilient profiles highlight the importance of factors like mattering, appreciation, support, and a positive work climate. These findings have implications for wellness training and agency practices to enhance the well-being of investigators dedicated to protecting children.

Clinical Impact Statement
Investigators of child sexual abuse material are diverse in their levels of psychopathology as well as their sources of resilience. This study identified distinct profiles of investigators based on their degree of child sexual abuse material exposure and current mental health, aiding in the identification of those in need of intervention. Approaches for promoting well-being among this population exist at both the individual and agency levels—mattering, appreciation, support, and fostering a climate of communication and respect can be factored into wellness training and other agency practices to help ensure the health of investigators who are undertaking difficult tasks to protect children.

Keywords: child sexual abuse material exposure, resilience, mental health, law enforcement, latent profile analysis

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The rise of the internet since the mid-1990s has led to significant changes in law enforcement cases, including an increase in crimes involving child sexual abuse material (CSAM; Leclerc et al., 2022; Wortley et al., 2014). These crimes can be exceptionally distressing for investigators, with the potential for severe secondary traumatic stress symptoms (e.g., intrusive imagery, flashbacks, nightmares, and social withdrawal; Bourke & Craun, 2014; Brady, 2017; Burns et al., 2008; Perez et al., 2010) and the risk of conditions like traumatic stress (Bourke & Craun, 2014; Burns et al., 2008; Perez et al., 2010), substance abuse (Bourke & Craun, 2014), and somatic complaints (Burns et al., 2008; M. Powell et al., 2015). Exposure to CSAM can challenge investigators' ability to maintain emotional distance (Krause, 2009), leading to possible identification with the victims, projection of their children into victim roles (M. Powell et al., 2015), and struggles with feelings of societal failure in safeguarding these vulnerable individuals (Mitchell et al., 2022). Furthermore, exposure to CSAM may trigger various psychological and physical reactions, such as increased generalized distrust of people, overprotectiveness of children (Bourke & Craun, 2014; Burns et al., 2008; Burruss et al., 2018; Perez et al., 2010; M. Powell et al., 2015), reduced emotional and physical intimacy with partners (Gewirtz-Meydan et al., 2023; M. Powell et al., 2015), and heightened awareness of potential child sex abusers' presence (Mitchell et al., 2022).

While CSAM exposure can be extremely difficult and pose significant risks to mental health and various aspects of psychological well-being (Leclerc et al., 2022; Mitchell et al., 2022), it may not affect all investigators in the same way (Brady, 2017). Investigators may exhibit varying responses and levels of resilience when exposed to such distressing materials, and understanding these differences is crucial for developing effective support systems and interventions. The present study seeks to explore the variations in mental health correlates among investigators exposed to CSAM, distinguishing those who present with psychopathologies from those who do not. The primary objective is to identify profiles among investigators that take into account their amount and content of exposure to CSAM and mental health characteristics, followed by an exploration of the differences in investigator profiles across a broad spectrum of constructs that may foster individual resiliency. By investigating the factors related to psychopathologies in some investigators, this research aimed to shed light on the intricate interplay between exposure to CSAM and the psychological well-being of those tasked with combating these distressing crimes.

Resilience Among Investigators Exposed to CSAM

Resilience, at its core, is the ability to overcome (or otherwise remain unimpacted by) risk or risk exposure. Within the psychological literature, resilience comprises two central components: risk and positive adaptation (Windle, 2011). Risk indicates conditions or circumstances that carry a high likelihood of causing maladjustment in an individual's life. In the context of CSAM investigations, risk encompasses the emotional and psychological toll that this exposure can impose on investigators, manifesting as secondary traumatic stress and related symptoms. Positive adaptation signifies an outcome that surpasses what would typically be expected given exposure to the risk circumstance and may be defined within CSAM investigators as the ability to continue functioning effectively and holistically despite the emotional and psychological challenges associated with their work. Within the framework of the current article, resilience refers to the ability of law enforcement personnel to exhibit low psychopathology despite known exposure to CSAM content, and it is a critical construct that plays a pivotal role in the well-being of law enforcement professionals dealing with highly distressing cases (Fletcher & Sarkar, 2013; Windle, 2011).

The impact of exposure to CSAM on investigators encompasses multiple facets, with various agency and individual factors emerging as crucial determinants of investigators' well-being. Studies indicate that organizational factors like agency rules, departmental culture, and supervisor interactions strongly influence stress levels among CSAM investigators (Denk-Florea et al., 2020; Mitchell et al., 2022). An encouraging organizational climate characterized by job satisfaction, limited role overload, work engagement, unit pride, and mutual respect can help mitigate the negative effects of investigations. Additional supportive measures like special leaves, investigator support groups, and stress reduction techniques can further promote investigator well-being (M. B. Powell et al., 2014, 2015). Targeted police resilience programs can also be helpful in equipping investigators with effective coping strategies to manage stress (Denk-Florea et al., 2020). Notably, generic police resilience programs have been specifically developed to prepare investigators with resilience skills, emphasizing effective coping strategies to reduce stress (Steel et al., 2024). The present study will explore several key agency-level variables, including the presence of an officer wellness program, specialized wellness training, the extent of CSAM training provided, opportunities offered to investigators (e.g., offering ample vacation or personal time off), the level of respect accorded to CSAM investigators, the extent of control they have over their case assignments, and the information known available about the final case resolution. Importantly, even with departmental policies and practices aimed at reducing investigator traumatic stress, certain individuals may remain more or less vulnerable to negative psychopathology in general and the impacts of CSAM investigations in particular.

The Present Study

Prior literature has highlighted the multifaceted repercussions of CSAM exposure on investigators, including secondary traumatic stress symptoms such as intrusive thoughts, avoidance behaviors, and arousal. These responses can escalate to more severe conditions like depression, anxiety, substance abuse, and somatic complaints. Despite this valuable prior research, critical knowledge gaps persist. Specifically, there is a need to explore the heterogeneity of investigators' responses to CSAM exposure, distinguishing those who develop psychopathologies from those who demonstrate resiliency in the face of similar exposure-related risk. To address these gaps, this research has two aims. (a) The first is to identify profiles of investigators based on their exposure to CSAM and their mental health symptomatology, which includes posttraumatic stress, anxiety, and depression symptoms. We aimed to differentiate between investigators who exhibit low psychopathology in the face of high CSAM exposure, which we will functionally define as "resiliency." (b) The second is to explore resilience as a transdiagnostic (i.e., a mechanism that is present across disorders) and distal factor. Following the identification of these profiles based on CSAM exposure and mental health measures, we will investigate a wide range of individual- and agency-level coping and resiliency factors. By exploring both individual-level and agency-level elements, our objective is to develop a comprehensive understanding

of the distinctive characteristics that define investigators with high resilience who work in this field. This comprehensive analysis will provide an understanding of how these factors impact one another in the context of CSAM investigations. This study highlights the crucial role of resilience in mitigating the adverse effects of CSAM exposure and fostering investigator well-being. Understanding how resilience may be associated with investigators' well-being is essential for developing strategies and interventions to support these professionals in their demanding roles.

Method

Participants

Participants were 698 police investigators, forensic examiners, and others connected with the criminal justice system across the United States. The current article included participants who reported any CSAM exposure as part of their profession in the past 3 years and had completed at least 85% of the survey questions, resulting in an analytic sample of 500 participants (28 did not have CSAM exposure and 170 did not complete the minimal number of survey questions). 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 published elsewhere (Mitchell et al., 2023).

Procedure

Participants were recruited through announcements at the July 2021 Virtual Conference of the Internet Crimes Against Children Task Forces and at the October 2021 Internet Crimes Against Children Task Force Virtual Commanders Meeting, through the Internet Crimes Against Children Task Force listserv, from trainings on investigations of internet crimes against children held by the National Criminal Justice Training Center, and through specific invitations to former National Criminal Justice Training Center students with "forensic" in their title.

Participants completed an anonymous survey hosted through Qualtrics, an online survey data collection system. Participants were told that the aim of the study was to understand the impact of work-related exposure to CSAM. The data collection period was July 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 seek help if needed (e.g., the National Suicide Prevention Lifeline, National Mental Health Information Center, International Assocaition of Chiefs of Police mental wellness for police officers' website). All data were collected under the approval of University of New Hampshire's Institutional Review Board.

Measures

The measures consisted of a combination of established scales and those developed for the present study. Newly developed items were 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 that were combined to create a total content CSAM score (α = .95; M = 33.9, SD = 8.3). Specifically, participants were asked to indicate the following: "In a typical month, approximately how often do you review CSAM images or videos that (a) include children age 5 or younger, (b) include children age 6–10, (c) were graphic (focused on genitals or showed explicit activity), (d) involve penetration of a child, including oral sex, (e) involve violence, beyond the sexual assault, (f) involve nudity or semi-nudity, without being graphic, (g) involve suggested poses of minors with clothes on, (h) involve multiple children at the same time, (i) involve children clearly under the influence of drugs or alcohol, (j) involve multiple offenders, (k) involve fetishes (animals, costumes, role-playing, bondage), and (l) involve sound?" Response options for each were *never*, *sometimes*, *often*, and *all the time*.

Additionally, participants were asked what percentage of their job is dedicated to working on 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*).

Measures of Psychopathology

Depression and anxiety were measured using the Patient Health Questionnaire–4 (Kroenke et al., 2009). The full Patient Health Questionnaire–4 has documented internal reliability, construct validity, and factorial validity (Kroenke et al., 2009), as do the two subscales for anxiety (Kroenke et al., 2007) and depression (Kroenke et al., 2003). The scale presents a list of conditions, asking the participant to indicate how much each problem had bothered them in the past 2 weeks from 0 (*not at all*) to 3 (*nearly every day*). Items were combined to reflect one construct measuring depression (α = .80; M = 1.25, SD = 1.42) and one measuring anxiety (α = .80; M = 1.71, SD = 1.63) for the current analyses.

Posttraumatic stress symptoms were measured using a shortened posttraumatic stress symptom checklist for the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; Blevins et al., 2015). 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 included in the models as individual items to better differentiate between different symptomatology. In the present study, it was important to have an idea as to what type of stressful experience the participant was thinking about. As such, before being presented with the four conditions, we asked participants to think of a stressful experience they had in the past month and indicate whether it was related to

(a) reviewing CSAM at work (11.0%, $n = 55$), (b) something else at work not case specific (54.3%, $n = 271$), (c) something not related to work (28.3%, $n = 141$), (d) had no stressful experience in the past month (5.6%, $n = 28$), and (e) something else (1%, $n = 5$).

Department-Level Factors

Questions indicative of agency-level support included whether any officer wellness program or other special training around wellness was available in their agency, whether they were given any preparation before their first exposure to CSAM, and whether their agency offered ample vacation/personal time off, offered daily opportunities for CSAM investigators to debrief with other CSAM investigators, provided regular administrative updated about positive outcomes from CSAM investigators, and allowed investigators to tend to personal obligations during work hours using their own time. All response options were *yes*/*no*. Participants were asked how much control they felt they had over the work assigned to them (*no control*, *some*, and *a lot*) and how often they heard about the final case resolution (*never*, *sometimes*, *often*, *all of the time*).

Individual Resiliency Factors

Several established scales designed to measure different types of resiliency were queried (Hamby et al., 2020). 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 (a) *mattering and appreciation* (six items asking about how you feel appreciated by family and friends; $\alpha = .90$), (b) *future orientation* (eight items focusing on participants' desire for self-improvement; $\alpha = .81$), (c) *group connectedness* (six items about the support of groups or teams you have belonged to; $\alpha = .94$), (d) *social support seeking* (six items about seeking help from friends or people who are special in your life; $\alpha = .91$), (e) *purpose in life* (seven items asking about feelings that one's life has a sense of meaning and reason for living; $\alpha = .91$), and (f) *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 (Campbell-Sills & Stein, 2007; Connor & Davidson, 2003; e.g., I am able to adapt when changes occur) utilizing the same response options as noted above ($\alpha = .89$).

Participant Demographics

Participant demographic characteristics included information about the number of years they have worked in law enforcement, gender, age, race, ethnicity, marital status, and the number of children and/or grandchildren they have who are currently minors.

Data Analysis

We first applied exploratory graph analysis (EGA) to estimate the number of communities (dimensions) in the CSAM exposure measures (Golino et al., 2020), followed by a community detection algorithm for multidimensional data (Christensen et al., 2020). EGA is based on the extended Bayesian information criterion graphical lasso method, which is used for network estimation in the context of Gaussian graphical models. It employs the graphical lasso algorithm for sparse inverse covariance estimation, incorporating both the L1 penalty for sparsity and the extended Bayesian information criterion for model selection. The extended Bayesian information criterion graphical lasso algorithm aims to identify the most parsimonious network structure that best fits the observed data, balancing model complexity and goodness of fit. This approach is particularly useful for high-dimensional data where the goal is to infer conditional independence relationships between variables. The results of the EGA were corroborated by a bootstrap EGA with 5,000 resampling cycles. Using the EGA, we calculated the exposure scores used in the subsequent latent profile analysis (LPA) for each participant.

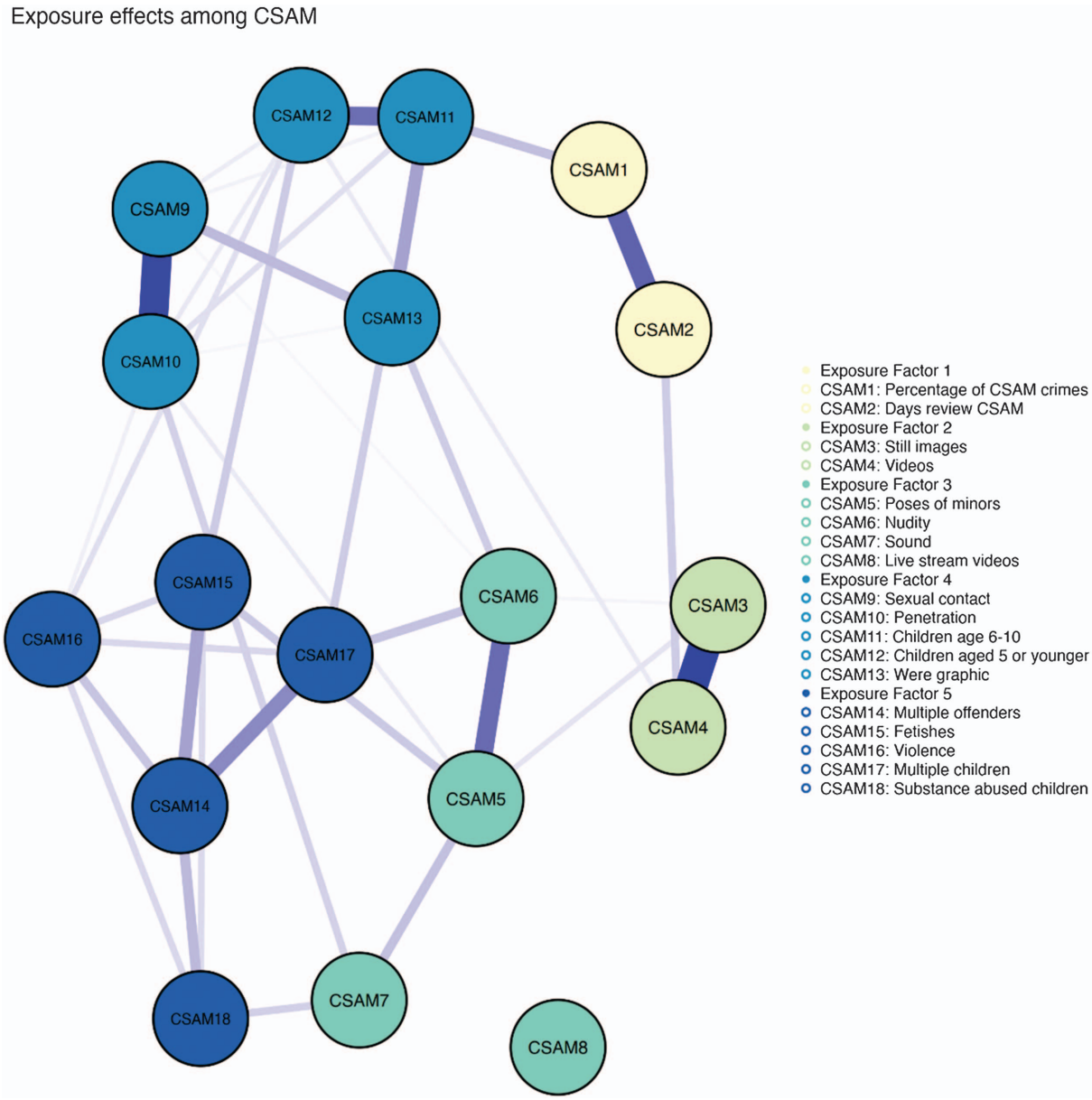
Next, we applied LPA to estimate distinct profiles in participants' CSAM exposure and psychopathology scores (posttraumatic stress disorder, anxiety, depression). To do so, we followed the guidelines of Nylund-Gibson and Choi (2018) using Mplus 8.8 (Muthén, 2017) structural equation modeling software. We examined one to seven possible profiles using unconditional LPA. To decide on the number of classes, we used the following information (summarized in Supplemental Table 1): (i) information criteria (IC)—including the Bayesian information criterion, sample-size-adjusted Bayesian information criterion, consistent Akaike information criterion, and approximate weight of evidence criterion—which are approximate fit indices where lower values indicate superior fit. These IC were also plotted (see Figure 1) to inspect for an "elbow" of point of "diminishing returns" in model fit (equivalent to a scree plot in factor analysis). (ii) We also used likelihood-based tests—the Vuong–Lo–Mendell–Rubin adjusted likelihood-ratio test and the bootstrapped likelihood-ratio test—which provide p values assessing whether adding a class leads to a statistically significant improvement in model fit. The bootstrapped likelihood-ratio test is one of the most robust methods across various modeling conditions (Nylund et al., 2007). Finally, (iii) we employed the Bayes factor (BF) indices used as a pairwise comparison of fit between two neighboring class models with values >10 suggesting "strong" support for the more complex model and the correct model probability (cmP) that provides an estimate of each model being "correct" out of all models considered. We also considered how the selected models relate to each other (e.g., theoretically different) as well as the relative sizes of the emergent classes. Here, we decided on a minimum profile size of 40 participants. Missing data were possible and handled using full-information maximum likelihood estimation (4.31% of the data were missing).

Upon deciding on the ideal number of profiles, we explored the consequences of latent profile membership using auxiliary variables, which include distal outcomes. We employed the Bolck–Croon–Hagenaars method for this purpose (Bakk & Kuha, 2021; Bolck et al., 2004; Vermunt, 2010). This approach involves separating the profile enumeration from the structural analysis of outcomes, ensuring that the profiles are defined solely by the indicators within the substantive domain of interest, such as exposure dimensions and psychopathology measures.

Using the selected profile solution, we saved Bolck–Croon–Hagenaars weights alongside distal outcomes, which included both individual- and agency-level factors such as mattering and appreciation, general resiliency, future orientation, group connectedness, social support seeking, purpose in life, religious meaning-making, presence of an officer wellness program, CSAM training, agency opportunities offered, control of case assignments, and hearing about final case resolution. Additionally, sociodemographic measures such as the number of years in law enforcement, gender, age, marital status,

Figure 1

Exploratory Graph Analysis of the Child Sexual Abuse Material Exposure Measures



Note. Five dimensions were detected. CSAM = child sexual abuse material.

having children or grandchildren, and the number of full-time sworn officers in the agency (an proxy for agency size) were also included. In the subsequent analysis phase, we fixed the measurement parameters of the latent profiles while accounting for classification error and examined the relationships between these profiles and the distal outcomes. Using the Bolck–Croon–Hagenaars method, we adjusted for misclassification by incorporating weights based on each individual's probability of profile membership. This refined the accuracy of the associations between latent profiles and outcomes such as mattering and appreciation (matte), among others. Specifically, we conducted pairwise comparisons between the profiles for each outcome, calculating differences between profile means and adjusting for the probability of misclassification. These differences were statistically tested to determine significance, allowing for a robust interpretation of how profile memberships relate to various distal outcomes.

Results

Dimensions of CSAM Exposure Measures

Results are presented in Figure 1. The EGA detected five dimensions for the CSAM exposure measures: *frequency of CSAM exposure* (percentage of time dedicated to CSAM crimes and days per month

reviewing CSAM crimes, Factor 1), *quantity of CSAM exposure* (the number of still images and video clips reviewed per month, Factor 2), *moderate severity* (exposure to sexual content, penetration, graphic content, which focused on genitals or showed explicit activity, and children of all ages, Factor 4), *high severity* (exposure to multiple offenders and/or children, violence, fetishes, and substance abuse, Factor 5), and *lower severity* (exposure to suggested poses of minors with clothes on or nudity, Factor 3); the measures of exposure to live streams and/or sound were not significantly loaded on any factor, although they were closely related to Factor 3.

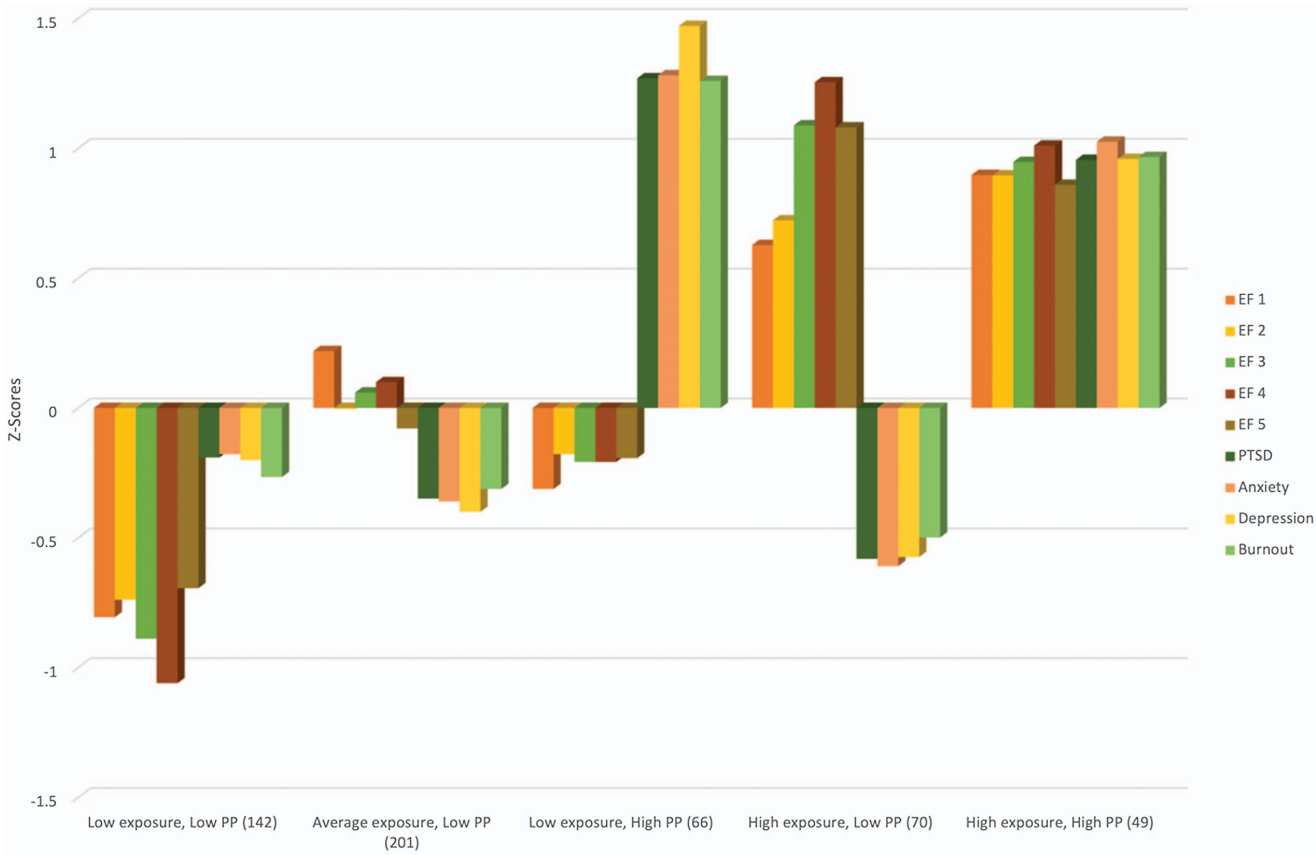
Latent Profile Analysis

Results are summarized in Supplemental Table 1. Fit indices did not converge on a single solution, which is generally the rule rather than the exception in the applied practice (Nylund-Gibson & Choi, 2018). The IC, cmP, and likelihood tests suggested a seven-profile solution (see also Supplemental Figure 1). However, the seven- and six-profile solutions comprised a group of exceptionally small size ($n = 17$) and two groups with marginal theoretical differences (the "very low exposure, low psychopathology" and the "low exposure, low psychopathology" groups). Given that simulation studies showed in various types of mixture models that small classes are generally difficult to recover, e.g., (Morgan, 2015), and that the six- and seven-profile solutions also comprise groups with minuscule theoretical differences, we selected the five-profile solution in Step 1. Classification probabilities are presented in Supplemental Table 2. The entropy score of 0.85 and the average posterior probabilities scores >0.91 reflect well-separated profiles (Nagin, 2005).

The classification of high and low psychopathology levels was determined through a LPA. As shown in Figure 2, we utilized relative scores (z scores) to illustrate that all measures of psychopathology (posttraumatic stress disorder, anxiety, and depression) had relatively similar scores within each group. Specifically, the group characterized by low psychopathology exhibited low z scores across all psychopathology measures. Conversely, the group characterized by high psychopathology displayed high z scores across all measures of psychopathology.

The profiles are also presented in Figure 2 and comprised the following groups: low exposure, low psychopathology ($n = 142$); average exposure, low psychopathology ($n = 201$); low exposure, high psychopathology ($n = 66$); high exposure, low psychopathology ($n = 70$); and high exposure, high psychopathology ($n = 49$). The high exposure, low psychopathology group is of specific

Figure 2
The Selected Five-Profile Solution



Note. Values in parentheses represent the groups' sample sizes. EF = child sexual abuse material exposure factor; PTSD = posttraumatic stress disorder; PP = psychopathology.

interest because it reflects an actual state of resiliency—CSAM personnel exposed to multiple risk factors at work who did not develop any psychopathology.

Differences Between Profiles in Distal Outcomes

In the third step of the model, significant differences between the profiles were found in all the distal measures. Mean, standard deviations, percentages, and frequencies are presented in Table 1 and contrasts in Supplemental Table 3. We detected several patterns of results. First, in keeping with the hypothesis, the high exposure, low psychopathology group (i.e., an actual state of resiliency) had the highest scores in general resiliency, future orientations, and purpose in life. The second highest scores were found among the group of average exposure, low psychopathology, whereas the lowest scores were found among the low exposure, high psychopathology and the high exposure, high psychopathology groups (such that the low exposure, low psychopathology group was in between these latter groups and the average exposure, low psychopathology group; all $p < .05$). This pattern is depicted in Figure 3.

A second pattern of results emerged in mattering and appreciation, group connectedness, social support seeking, control over case assignments, and the extent to which the agency offers ample vacation/personal time off. We found that the three groups low on psychopathology (i.e., low exposure, low psychopathology; average exposure, low psychopathology; and high exposure, low psychopathology [the resilient group]) were higher on these measures as compared with the two groups high on psychopathology (i.e., low exposure, high psychopathology and high exposure, high psychopathology; all $p < .05$).

A third pattern of results was revealed in the measure of "hearing about the final case resolution" and the extent to which the agency provides daily opportunities for CSAM investigators to debrief with other CSAM investigators and provides regular administrative updates about positive outcomes from CSAM investigations. It was found that the high exposure, low psychopathology (i.e., resilient) group was higher on these measures as compared with all other groups (all $p < .05$).

Two final differences were found in single indicators: (i) we found that the frequency of CSAM training was the lowest among the low exposure, low psychopathology group in comparison to all other groups and (ii) that the prevalence of receiving a special training around wellness was the lowest among the low exposure, high psychopathology.

Overall, it seems that the least resilient group was the low exposure, high psychopathology group, followed by the high exposure, high psychopathology group. The high exposure, low psychopathology group was the most resilient group, followed by the average exposure, low psychopathology group.

Differences Between Profiles in Sociodemographic Measures

In the third step of the model, significant differences between the profiles were found in gender, age, marital status, and the number of full-time sworn officers in the agency. Means, standard deviations, percentages, and frequencies are presented in Table 2 and contrasts in Supplemental Table 3. We detected that the percentage of men in the high exposure, low psychopathology group (68%) was significantly higher than in the low exposure, low psychopathology group (52%; $p = .039$). Regarding age and marital status, we found that the high

Table 1

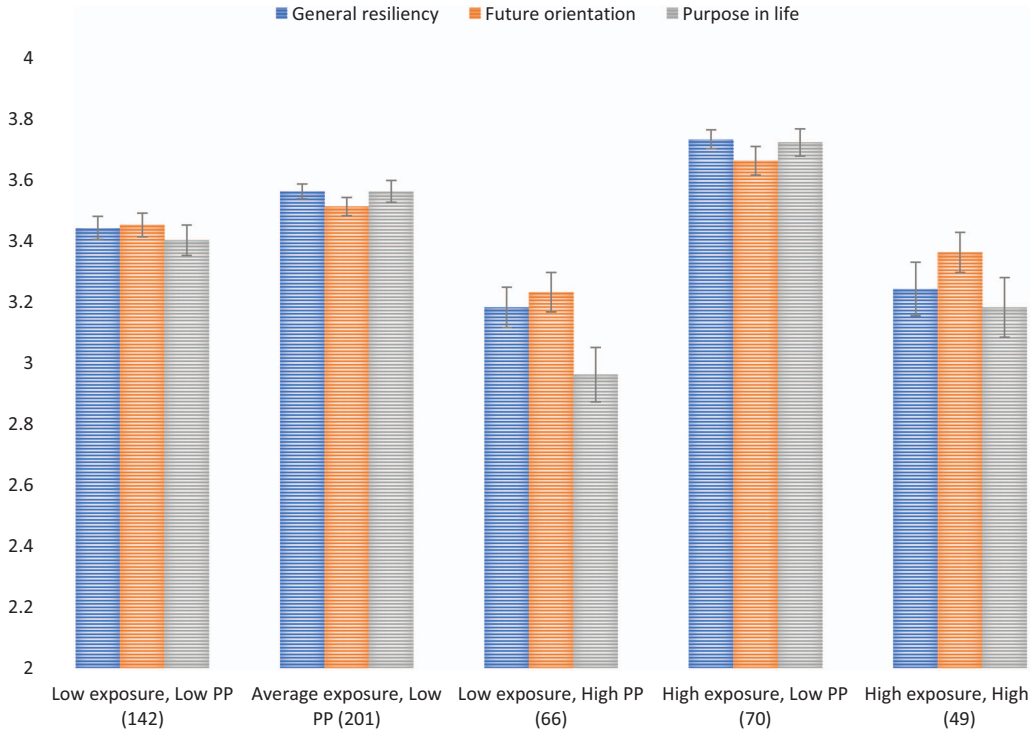
Means and Standard Deviations for Resiliency Constructs Across the Five Profiles

	Low exposure, low PP		Average exposure, low PP		Low exposure, high PP		High exposure, low PP		High exposure, high PP	
Variable	*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
Variable	%	*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

Note. PP = psychopathology; CSAM = child sexual abuse material.

Figure 3

Differences Between Profiles in General Resiliency, Future Orientation, and Purpose in Life



Note. Values in parentheses represent the groups' sample sizes. PP = psychopathology.

exposure, low psychopathology and average exposure, low psychopathology groups—identified as the more resilient groups—were significantly older and had a higher proportion of married individuals compared with the low exposure, low psychopathology and low exposure, high psychopathology groups (all $p < .05$).

Finally, the high exposure, low psychopathology and high exposure, high psychopathology groups had the greatest number of full-time sworn officers in the agency, while the low exposure, low psychopathology and low exposure, high psychopathology groups had the fewest, with the average exposure, low psychopathology group falling in between (all $p < .05$).

Discussion

This study aimed to identify distinct profiles of CSAM exposure and mental health symptomatology among a sample of law enforcement investigators, forensic examiners, and other law enforcement personnel involved in CSAM investigations. Profiles

Table 2

Means and Standard Deviations for Agency and Sociodemographic Characteristics Across the Five Profiles

	Low exposure, low PP		Average exposure, low PP		Low exposure, high PP		High exposure, low PP		High exposure, high PP	
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Number of years in law enforcement	4.90	1.65	4.92	1.55	4.90	1.53	5.30	1.59	5.11	1.33
Age	3.01	0.93	3.28	0.82	3.02	0.85	3.48	0.8991	3.22	0.84
Number of full-time sworn officers in the agency	5.51	2.07	6.50	1.52	5.63	2.07	7.30	1.06	7.56	0.96
Variable	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*
Gender (men)	0.52	74	0.64	128	0.64	42	0.68	47	0.57	28
Marriage status (married)	0.61	87	0.77	156	0.58	38	0.76	53	0.65	32
Having children (yes)	0.65	93	0.66	133	0.66	44	0.70	49	0.76	37

Note. PP = psychopathology.

were then compared across a wide range of agency practices and individual resiliency constructs. LPA suggested a five-profile solution, with groups including (a) low exposure, low psychopathology; (b) average exposure, low psychopathology; (c) low exposure, high psychopathology; (d) high exposure, low psychopathology; and (e) high exposure, high psychopathology. Notably, the high exposure, low psychopathology group represents an actual state of resilience among CSAM personnel at the time of this study. Significant differences among profiles were observed in various distal measures. 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 out support from others characterized the most resilient profile of investigators—those with high CSAM exposure and low psychopathology.

These differences among profiles resonate with previous research emphasizing that despite the acknowledged impact on mental health associated with investigating CSAM cases, there exists a concurrent potential for resilience among investigators, which highlights the challenging yet rewarding nature of the work of CSAM investigators (Mitchell et al., 2022). Positive aspects, such as a profound sense of purpose and pride, serve as powerful buffers against burnout and psychopathology (Strickland et al., 2023). Recognition and appreciation from colleagues and from society contribute to personal and professional satisfaction (Spence et al., 2023). The awareness that their work protects children and brings perpetrators to justice reinforces their commitment. Additionally, the feelings of control and contributing to positive outcomes enhance their well-being (Burns et al., 2008; M. Powell et al., 2015). Together, these elements illuminate the resilient profile of investigators facing the unique challenges of investigating CSAM.

The low exposure, low psychopathology group had the lowest frequency of CSAM training, which could be purposeful given that less of their work was dedicated to CSAM investigations. Interestingly, the low exposure, high psychopathology group reported the lowest prevalence of receiving special training around wellness. This suggests that even investigators less frequently exposed to CSAM could benefit from training around wellness. It is likely that there are other aspects of their jobs that are stressful and potentially traumatizing, and thus wellness training could be beneficial to a wider range of specializations within law enforcement (Mitchell et al., 2022; Simonovska et al., 2023).

The high exposure, low psychopathology group had a higher proportion of investigators who were male, older, and married. This suggests that marriage may act as a buffer and indicates the need to consider not only the professional aspects of investigators' roles but also the broader personal and social contexts that influence their well-being. The support and stability provided by a healthy marital relationship could extend beyond the home environment, offering emotional resilience and potentially buffering the impact of high CSAM exposure. Marriage may also provide additional resources to cope with the challenges inherent in their roles.

Implications

Findings from the present study carry significant implications for understanding and addressing the trauma and mental health challenges faced by law enforcement personnel conducting CSAM investigations. Notably, the high exposure, low psychopathology group reflects the presence of a resilient state among some CSAM personnel, offering relatively easily implemented practices that agencies can take to help foster resilience and improve well-being among their CSAM investigators. 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 toward helping to promote wellness (Burns et al., 2008; Mitchell et al., 2022; M. Powell et al., 2015). Like everyone, CSAM investigators need time to get away from their jobs 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 that this was also characteristic of agencies for investigators in the resilient group (M. Powell et al., 2015). Furthermore, the observed variation in CSAM wellness 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. Future research should examine how prior history of psychopathology and other traumatic life events might impact law enforcement personnel response to CSAM exposure.

Limitations

The present 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 criminal justice personnel 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 overreporting). Police may have particular biases against acknowledging mental health symptoms (Marshall et al., 2021). Third, the design was cross-sectional; therefore, causal relations between study variables cannot be inferred. Fourth, measures of resilience were only captured at one point in time; it is possible that, under different circumstances or at a different point in time, response to the resilience measures as well as mental health symptomatology would have been be different. Last, this study did not control for prior history of psychopathology and other traumatic life events, and thus

we do not know how this might have contributed to their current symptoms.

Conclusions

The present study highlights the importance of recognizing the diversity of experiences and impact among a relatively homogeneous group of law enforcement professionals dedicated to the investigation of CSAM crimes. Findings identified distinct groups based on differences in frequency, quantity, and content of CSAM exposure, as well as a range of mental health symptomatology. The individual- and agency-level factor characteristics of resilient profiles—mattering, appreciation, support, and fostering a climate of communication and respect—can be factored into wellness training and other agency practices and policies to help improve the well-being of these investigators who are undertaking difficult tasks for the protection of children.

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