RESEARCH ARTICLE

# A Self-Assessment Tool for Helping Identify Police Burnout Among Investigators of Child Sexual Abuse Material

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**Introduction:** Law enforcement professionals who investigate crimes involving child sexual abuse material face increased risk of mental health challenges, including burnout. This study aims to develop a data-driven self-assessment tool for law enforcement personnel exposed to child sexual abuse material. The tool assesses burnout symptoms and related mental health issues, offering a proactive approach to identifying and supporting individuals at risk.

**Methods:** A mixed-methods investigation involved 500 police investigators and forensic examiners across the U.S. The study utilized a convenience sample recruited through various channels connected with the National Criminal Justice Training Center.

**Results:** Twenty percent of participants exhibited high burnout. The Burnout Self-Assessment Tool demonstrated a sensitivity of 69.6% and specificity of 74.6% at a cut-off point $\geq 2$, correctly classifying 73.6% of the sample. Individuals with scores $\geq 2$ were 3.47 times more likely to be experiencing high burnout than peers with a score of zero, with increasing odds with each additional score. High burnout was associated with longer tenure in current positions.

**Conclusions:** The Burnout Self-Assessment Tool offers a short and simple self-assessment tool for law enforcement professionals exposed to child sexual abuse material, aiding in the early identification of burnout symptoms. A cut-off point $\geq 2$ provides a data-driven strategy for identifying individuals at increased risk, promoting timely intervention and support to mitigate burnout's adverse effects on mental well-being and professional performance. The Burnout Self-Assessment Tool's sensitivity and specificity balance enhances its utility, providing a proactive approach to address the unique mental health challenges faced by law enforcement personnel combating crimes involving child sexual abuse material.

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Law enforcement professionals face daily exposure to distressing situations, particularly those who investigate child sexual abuse material (CSAM), as an inherent part of their job. CSAM is defined as "any representation through publication, exhibition, cinematography, electronic means or any other means whatsoever, of a child, a person made to appear as a child or realistic material representing a child, engaged in real or simulated explicit sexual activity, or any representation of the sexual parts

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of a child for primarily sexual purposes."[1] Exposure to such material contributes to a heightened risk of mental health challenges, including secondary traumatic stress, among law enforcement personnel.[2–4]

Poor mental health, including symptoms of depression and anxiety, are a leading cause of morbidity and reduced quality of life among adults worldwide.[5] Studies indicate that the incidence of mental health problems may be greater among those with higher stress jobs.[6,7] Accordingly, law enforcement personnel are particularly vulnerable to mental health concerns such as anxiety, depression, and thoughts of suicide owing to a variety of stressors related to their profession, such as exposure to traumatic events, workload, and department climate. One study suggests that 26% of police officers report current symptoms of mental illness, whereas only 17% have sought mental healthcare service in the past year.[7] These statistics suggest that law enforcement may have unmet mental health needs that could contribute to ongoing job-related stressors and resiliency. This study delves into the mental health of law enforcement personnel, focusing on those regularly exposed to CSAM during the course of their duties.

Burnout, which was recognized by the WHO as an occupational phenomenon in 2019,[8] is particularly prevalent among law enforcement personnel dealing with CSAM.[9] The constant exposure to distressing scenarios, coupled with the emotionally exhaustive nature of their work, heightens the risk of burnout. Research has indicated that burnout may be particularly high among police in general.[7] This is because the tasks associated with their line of work can be exhausting due to constant surveillance and exposure to stressful and traumatic scenarios consistently throughout their workday.[10] Although limited longitudinal research exists on burnout, it is clear that high levels of burnout often co-occur with poor mental health symptomology,[11] limited work efficiency, poor physical health, and high turnover on the basis of systematic reviews of the literature.[12] The stakes are high: burnout is linked to both professional stressors and mental health problems among police that can affect an officer's personal integrity and that of others.[13]

In response to these challenges, law enforcement agencies have implemented various programs, policies, and practices designed to help mitigate burnout and improve mental health (e.g., psychologists). However, these practices may not be consistently available and show mixed results.[14] Support seeking among police may be complicated by a lack of time to undergo program participation, stigma, as well as uncertainty in some situations as to when help is needed. Alternative solutions are needed to identify individuals regularly exposed to CSAM who may be experiencing mental health symptoms or are at high risk of burnout, aiming to prevent adverse outcomes.

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,[15,16] and have been tested intermittently among police officers internationally (e.g., the Spanish Burnout Inventory).[17] However, most studies examining mental health and burnout among police in the U.S. focus exponentially on personal characteristics, coping, and organizational support.[12]

This study aims to develop a data-driven self-assessment tool for law enforcement personnel exposed to CSAM on the basis of items from validated mental and physical health scales. The sensitivity and specificity of different cut-off points on the self-assessment tool will be assessed in relation to high burnout, enhancing the tool's utility in supporting the mental well-being of law enforcement professionals engaged in this critical work.

## METHODS

### Study Sample

Participants were 698 police investigators, forensic examiners, and others connected with the criminal justice system from across the U.S. Inclusion criteria were (1) currently working in law enforcement and (2) proficieny in English. This study included those participants who completed 85% of the survey questions and were exposed to CSAM as part of their professions in the last 3 years, resulting in an analytic sample of 500 participants. Sixty-one percent of participants were male, and 37.4% were female; most were aged between 35 and 44 years (40.3%). Most participants were of White race (85.8%) and 7.0% were of Hispanic or Latino ethnicity. Further details of the sample are depicted in Table 1. Additional manuscripts utilizing this data set are published[18–22] and differ from this study in their focus on different impacts of CSAM exposure.

Participants were recruited through a variety of means connected with the National Criminal Justice Training Center (NCJTC). Specifically, recruitment occurred through announcements at the July 2021 Internet Crimes Against Children (ICAC) Virtual Conference, at the October 2021 ICAC Virtual Commanders Meeting, during NCJTC trainings, through the ICAC listserv, and through specific invitations to past NCJTC students with the word forensic in their title.

Participants completed an anonymous survey hosted through an online survey data collection system.

**Table 1.** Participant Demographic and Job Characteristics by Level of Burnout

| Characteristic | All (*n*=500) *n* (%) | No/low burnout (*n*=398) *n* (%) | High burnout (*n*=102) *n* (%) | *p*-value |
|---|---|---|---|---|
| Gender, male | 307 (61.4) | 236 (59.3) | 71 (69.6) | 0.06 |
| Age, years | | | | |
| 18−34 | 112 (22.7) | 96 (24.4) | 16 (15.8) | 0.17 |
| 35−44 | 199 (40.3) | 153 (38.9) | 46 (45.5) | |
| ≥45 | 183 (37.0) | 144 (36.6) | 39 (38.6) | |
| Hispanic ethnicity | 35 (7.0) | 26 (6.5) | 9 (8.8) | 0.42 |
| Race, White | 429 (85.8) | 344 (86.4) | 85 (83.3) | 0.42 |
| Marital status, married | 351 (70.2) | 280 (70.3) | 71 (69.6) | 0.88 |
| Parent | 315 (63.0) | 246 (61.8) | 69 (67.7) | 0.28 |
| Number of years in current position | | | | |
| <1 year−3 years | 202 (40.4) | 173 (43.5) | 29 (28.4) | 0.05 |
| 4−6 years | 113 (22.6) | 85 (21.4) | 28 (27.5) | |
| 7−15 years | 138 (27.6) | 106 (26.6) | 32 (31.4) | |
| ≥16 | 47 (9.4) | 34 (8.5) | 13 (12.7) | |
| Number of years in field | | | | |
| <1 year−6 years | 95 (19.0) | 85 (21.4) | 10 (9.8) | 0.06 |
| 7−15 years | 194 (38.8) | 148 (37.2) | 46 (45.1) | |
| 16−20 years | 98 (19.6) | 77 (19.3) | 21 (20.6) | |
| >20 years | 113 (22.6) | 88 (22.1) | 25 (24.5) | |
| Number of years working CSAM crimes | | | | |
| <1 year−3 years | 226 (45.2) | 183 (46.0) | 43 (42.2) | 0.84 |
| 4−6 years | 97 (19.4) | 78 (19.6) | 19 (18.6) | |
| 7−15 years | 142 (28.4) | 110 (27.6) | 32 (31.4) | |
| ≥16 | 35 (7.0) | 27 (6.8) | 8 (7.8) | |
| Profession | | | | |
| Forensic examiner only | 97 (19.4) | 81 (20.3) | 16 (15.7) | 0.17 |
| Investigator only | 248 (49.6) | 202 (50.7) | 46 (45.1) | |
| Forensic examiner and investigator | 125 (25.0) | 91 (22.9) | 34 (33.3) | |
| Other law enforcement role | 30 (6.0) | 24 (6.0) | 6 (5.9) | |
| Place of residence, large city | 109 (21.8) | 89 (22.4) | 20 (19.6) | 0.55 |
| Types of crimes investigate[a] | | | | |
| Internet crimes against children | 467 (93.4) | 369 (92.7) | 98 (96.1) | 0.22 |
| Other cybercrimes | 219 (43.8) | 175 (44.0) | 44 (43.1) | 0.88 |
| Homicide | 217 (43.4) | 166 (41.7) | 51 (50.0) | 0.13 |
| Fraud | 187 (37.4) | 147 (36.9) | 40 (39.2) | 0.67 |
| Family and sexual violence | 309 (61.8) | 243 (61.1) | 66 (64.7) | 0.50 |
| Crimes against property | 166 (33.2) | 131 (32.9) | 35 (34.3) | 0.79 |
| Narcotics | 127 (25.4) | 102 (25.6) | 25 (24.5) | 0.82 |
| Gang violence | 72 (14.4) | 58 (14.6) | 14 (13.7) | 0.83 |
| Type of agency work for | | | | |
| Federal | 58 (11.8) | 53 (13.5) | 5 (4.9) | 0.06 |
| State | 122 (24.7) | 96 (24.5) | 26 (25.7) | |
| Local | 313 (63.5) | 243 (62.0) | 70 (69.3) | |

*Note.* Columns that do not add to 100% are due to missing or low percentage responses.
[a]Multiple responses are possible.

Participants were told that the aim of the study was to understand the impact of work-related exposure to CSAM. Data were collected from July 2021 through December 2021. Participants were told that they could skip any questions they did not want to answer. To ensure full anonymity, the study team turned off survey tracking features, such as Internet Protocol address, longitude, and latitude. The study team also encouraged

participants to take the survey while in incognito mode and instructed them 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, so 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 International Association of Chiefs of Police mental wellness for police officers' website). All data were collected under the approval of the University of New Hampshire IRB.

## Measures

Regarding main constructs of interest, burnout was assessed using a scale modeled after the Burnout Measure[23] but adapted to reflect important nuances around CSAM investigative work. Items 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, $\alpha=0.89$). Response options ranged from 1 (never) to 5 (always). A total scale score was created, with higher scores indicating more burnout. Then, a variable reflecting high burnout was created by identifying those participants with scores 1 SD above the mean or higher.

In terms of independent variables, depression and anxiety were measured using the Patient Health Questionnaire-4.[24] The scale presents a list of 4 problems, 2 about anxiety (e.g., *Feeling nervous, anxious or on edge*) and 2 about depression (e.g., *Feeling down, depressed or hopeless*). Participants were asked to indicate how much each problem had bothered them in the past 2 weeks from 0 (*not at all*) to 3 (*nearly every day*). For the purpopses of the current analyses, each item was examined individually rather than a scale score.

Posttraumatic stress symptomatology was measured using the Posttraumatic Stress Disorder Checklist for DSM-5.[25] The Posttraumatic Stress Disorder Checklist for DSM-5 presents 4 reactions that some people have in response to a very stressful experience (e.g., feeling distant or cut off 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). For the purpopses of the current analyses, each item was examined individually rather than a scale score.

Physical health was measured using 1 item from the Health-Related Quality of Life measure.[26] Specifically, participants were asked to rate, in general, how their health was: *excellent*, *very good*, *good*, *fair*, or *poor*.

The Burnout Self-Assessment Tool (BURNT) consists of 9 items derived from the 3 validated constructs mentioned earlier. The original scale items were asked of respondents in the survey and then converted into dichotomous variables (1 SD above the mean) for use with this tool (Appendix Table 1, available online, provides more details about the original and converted scores). Each of these dichotomous items were combined into a count variable such that 1 point is given for each positive response (mean=1.45, SD=1.85, range: 0−9).

In terms of participant demographic and professional characteristics, the study team included information about the respondents' current job description, the types of crimes they investigate, number of years in their current position, number of years they worked CSAM crimes, and number of years in law enforcement; whether they work as part of the ICAC Task Force program; gender; age; race; ethnicity; marital status; number of children and/or grandchildren who are currently minors; and type of community (for example, large city or small town).

## Statistical Analysis

Data analysis consisted of a combination of bivariate and multivariate statistics. First, sample demographic characteristics were compared between participants who were classified as having high burnout and those with no/low burnout. Then, bivariate chi-square crosstabulations were conducted for each BURNT item between those with high burnout and those without. Then, the study team estimated the sensitivity and specificity of the BURNT as a means of identifying participants with high burnout. High sensitivity means that there are few false negative results, and thus fewer cases of disease are missed. Specificity refers to the ability to designate an individual who does not have a disease as negative, with higher values indicating fewer false positives. Finally, a logistic regression analysis was conducted to further confirm the optimal threshold for identifying those with high burnout. Missing data were imputed using best-set regression and affected <2% of the data, ensuring that the majority of the information was accounted for and preserved.

## RESULTS

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

**Table 2.** 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) | <0.001 |
| Feeling down, depressed, or hopeless | 24 (6.0) | 28 (27.5) | <0.001 |
| Feeling nervous or anxious or on edge | 66 (16.6) | 49 (48.0) | <0.001 |
| Not being able to stop or control worrying | 51 (12.8) | 44 (43.1) | <0.001 |
| PTSD | | | |
| Suddenly feeling or acting as if the stressful experience was actually happening | 22 (5.5) | 15 (14.7) | 0.002 |
| Avoiding external reminders of the stressful experience | 41 (10.3) | 35 (34.3) | <0.001 |
| Feeling distant or cut off from other people | 60 (15.1) | 41 (40.2) | <0.001 |
| Irritable behavior, angry outbursts, or acting aggressively | 22 (5.5) | 25 (24.5) | <0.001 |
| Physical health | | | |
| Fair or poor health | 98 (24.6) | 38 (37.3) | 0.01 |

PHQ-4, Patient Health Questionnaire-4; PTSD, post-traumatic stress disorder.

of years working CSAM crimes, were significantly related to high burnout (Table 1).

Endorsement to each dichotomous BURNT item ranged from 7.4% of all participants reporting suddenly feeling or acting as if the stressful experience were actually happening to 27.2% saying that their health was fair or poor in the past month (Appendix Table 1, available online). Each of the 9 self-assessment items was significantly more common among participants with high burnout (Table 2). For example, 43.1% of participants with high burnout said that they were not able to stop or control their worrying for more than half the days during the prior 2 weeks —or more frequently—compared with 12.8% of participants with no or low burnout. Among those with high burnout, 40.2% said that they felt distant or cut off from other people compared with 15.1% of those with no/low burnout.

The BURNT (Appendix Figure 1, available online) aims to identify a threshold by which investigators can help determine whether they should consider seeking support for possible burnout. The sensitivity, specificity, and likelihood ratios for each potential cut-off point are depicted in Table 3. Given our focus on prioritizing the identification of high burnout, the authors suggest a cut-off point ≥2, which reflects a sensitivity of 69.6%, for identifying true instances of burnout while also balancing this with a specificity of 74.6%, which correctly classifies those without high burnout as such. The threshold correctly classifies 73.6% of all investigators.

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*=0.001) (Table 4). This is the first score that was significantly different from 0. Odds of high burnout increased with each additional BURNT score, as detailed in the Table.

**Table 3.** Sensitivity and Specificity at the Different Cut-Off Points for the BURNT and the Probability of High Burnout

| Cut-off point | % of study sample | Sensitivity | Specificity | Correctly classified | LR+ | LR− |
|---|---|---|---|---|---|---|
| 1 or above | 57.2% | 82.3% | 49.3% | 56.0% | 1.62 | 0.36 |
| **2 or above** | **34.4%** | **69.6%** | **74.6%** | **73.6%** | **2.74** | **0.41** |
| 3 or above | 21.6% | 54.9% | 86.9% | 80.4% | 4.20 | 0.52 |
| 4 or above | 14.4% | 38.2% | 91.7% | 80.8% | 4.61 | 0.67 |
| 5 or above | 9.2% | 26.5% | 95.2% | 81.2% | 5.54 | 0.77 |
| 6 or above | 4.4% | 14.7% | 98.2% | 81.2% | 8.36 | 0.87 |
| 7 or above | 2.0% | 4.9% | 98.7% | 79.6% | 3.90 | 0.96 |
| 8 or above | 1.2% | 3.9% | 99.5% | 80.0% | 7.80 | 0.97 |
| 9 or above | 0.4% | 2.0% | 100% | 80.0% | | 0.98 |

*Note:* Bolded text identifies the cut-off point chosen in this study.
ROC area=0.76; SE=0.028; and 95% CI=0.704, 0.814.
BURNT, Burnout Self-Assessment Tool; LR, likelihood ratio

**Table 4.** Logistic Regression Model of BURNT Scores with High Burnout

| Cut-off point | OR | 95% CI | p-value |
|---|---|---|---|
| **Self-assessment score** | | | |
| 0 (ref) | — | — | — |
| 1 | 1.49 | 0.70, 3.18 | 0.30 |
| 2 | 3.47 | 1.61, 7.44 | 0.001 |
| 3 | 9.84 | 4.29, 22.56 | <0.001 |
| 4 | 10.57 | 4.16, 28.86 | <0.001 |
| 5 | 17.22 | 7.90, 37.55 | <0.001 |
| **Number of years in current position** | | | |
| ≤3 (ref) | — | — | — |
| 4−6 | 2.44 | 1.27, 4.70 | 0.007 |
| 7−15 | 1.75 | 0.94, 3.26 | 0.08 |
| ≥16 | 2.70 | 1.15, 6.30 | 0.02 |

## DISCUSSION

This study explored components of wellness and related mental health symptomatology that may be indicative of greater levels of burnout, with the goal of reducing burnout and turnover and maximizing officer wellness. In addition to the development of a self-assessment tool for law enforcement personnel, this study also examined the sensitivity and specificity of different cut-off points in terms of their relationship with high burnout among investgators of CSAM. Importantly, results show that a substantial portion of the sample (1 in 5) were classified as having high burnout, which adds strength to prior assertions that law enforcement professionals exposed to CSAM are differentially impacted by burnout owing to the stressful nature of their jobs.[10] Significantly, the results highlight that burnout tends to escalate with the duration of time they have been in their current position but not how long they have been working CSAM cases, supporting prior research suggesting that mental health symptoms and burnout are not necessarily directly related to CSAM exposure itself[21] but to a broader range of investigative and work experiences that may result in cumulative effects of stress over time.[27]

Analysis of the BURNT self-assessment instrument items indicated that some symptoms were more closely associated with high burnout than others (e.g., unable to control worrying, feeling cut off from others). These symptoms are consistent with symptoms of mental health conditions, such as depression and anxiety.[7] However, it is notable that 2 affirmative responses, regardless of which ones, indicated that an individual was over 3 times more likely to be experiencing high burnout than peers with no affirmative responses. This represents a substantial increase in odds compared with those of participants with 1 endorsement. Overall, there appears to be a relatively linear relationship between the number of symptoms and odds of high burnout.

Although associations between mental health symptomatology and burnout have been documented in the literature,[11,12] barriers exist for identification and help seeking among law enforcement personnel, including stigma.[28,29] For law enforcement agencies addressing CSAM cases, proactive measures are recommended. This study offers a short, simple, and private tool that 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 to all personnel through an agency website, text, or e-mail so that it is available to anonymously download for anyone who might be concerned about potential burnout and/or wellbeing.[7] The infographic (Appendix Figure 1, available online) may also be printed and made available to personnel in public spaces in agencies or used through social media. Individuals who affirm 2 or more items should consider seeking additional support and assessment, either through Officer Wellness Programming (if available) or through outside support (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 well-being among law enforcement.[12,29]

Sensitivity analysis of the BURNT indicated that a cut-off point of 2 offers the best balance between sensitivity (true positive rate) and specificity (true negative rate) in terms of score interpretation while prioritizing the identification of instances of high burnout. The study team determined that the BURNT self-assessment tool would have wider spread utility among investigators who might be concerned about how they have been feeling lately and want to know whether they are at risk of burnout. Accordingly, the higher sensitivity score (69.6%) at the ≥2 cut-off point indicates that many of those who do not affirm 2 or more items are unlikely to be experiencing burnout; importantly, a threshold of ≥2 correctly classifies 73.6% of participants as having high burnout or not. 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.[29] Investigators working in agencies with more resources or universal access to supports, such as Officer Wellness Programs, may find more frequent self-assessments helpful.

## Limitations

Participants were recruited through convenience sampling; therefore, the sample may not be reflective of all CSAM-exposed law enforcement personnel nationwide. Furthermore, survey data were self-reported, which can introduce recall bias or limited candor. The study team tried to adjust for this by emphasizing anonymity and encouraging officers to complete surveys in incognito mode; however, some bias may remain. Finally, it is important to note that the BURNT is a starting point rather than a diagnostic tool. Affirmation of 2 or more items indicates that someone is 3.47 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 2 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.

## CONCLUSIONS

The BURNT offers law enforcement personnel who are exposed to CSAM the opportunity to privately assess their symptoms, thereby avoiding public identification by agency administrators as someone requiring additional support, which may feel stigmatizing and hinder help seeking for some personnel. The tool offers a short and simple way for investigators to help identify when they are not doing well. Early identification of burnout using a self-assessment tool may aid in reducing burnout symptoms among law enforcement personnel, thereby keeping valuable personnel happy, healthy, and capable of efficiently and effectively investigating egregious crimes such as CSAM.

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## CREDIT AUTHOR STATEMENT

Kimberly J. Mitchell: Conceptualization, Formal analysis, Methodology, Investigation, Writing — original draft, Funding acquisition. Jennifer E. O'Brien: Conceptualization, Writing — original draft. Ateret Gewirtz-Meydan: Writing — review & editing.

## SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.focus.2024.100245.

## REFERENCES

1. Child sexual abuse material definition. Law Insider. https://www.law-insider.com/dictionary/child-sexual-abuse-material. Updated June 13, 2024. Accessed June 18, 2024.
2. Bourke ML, Craun SW. Secondary traumatic stress among internet crimes against children task force personnel: impact, risk factors, and coping strategies. *Sex Abuse.* 2014;26(6):586–609. https://doi.org/10.1177/1079063213509411.
3. Burns CM, Morley J, Bradshaw R, Domene J. The emotional impact on and coping strategies employed by police teams investigating internet child exploitation. *Traumatology.* 2008;14(2):20–31. https://doi.org/10.1177/1534765608319082.
4. Perez LM, Jones J, Englert DR, Sachau D. Secondary traumatic stress and burnout among law enforcement investigators exposed to disturbing media images. *J Police Crim Psych.* 2010;25(2):113–124. https://doi.org/10.1007/s11896-010-9066-7.
5. Shih M, Simon PA. Health-related quality of life among adults with serious psychological distress and chronic medical conditions. *Qual Life Res.* 2008;17(4):521–528. https://doi.org/10.1007/s11136-008-9330-9.
6. Leclerc B, Cale J, Holt T, Drew J. Child sexual abuse material online: the perspective of online investigators on training and support. *Policing J Policy Pract.* 2022;16(4):762–776. https://doi.org/10.1093/police/paac017.
7. Jetelina KK, Molsberry RJ, Gonzalez JR, Beauchamp AM, Hall T. Prevalence of mental illness and mental health care use among police officers. *JAMA Netw Open.* 2020;3(10):e2019658. https://doi.org/10.1001/jamanetworkopen.2020.19658.
8. International Statistical Classification of Diseases and Related Health Problems (ICD). WHO. https://www.who.int/standards/classifications/classification-of-diseases. Updated June 13, 2024. Accessed June 18, 2024.
9. Brady PQ. Crimes against caring: exploring the risk of secondary traumatic stress, burnout, and compassion satisfaction among child exploitation investigators. *J Police Crim Psych.* 2017;32(4):305–318. https://doi.org/10.1007/s11896-016-9223-8.
10. Waters JA, Ussery W. Police stress: history, contributing factors, symptoms, and interventions. *Policing Int J Police Strateg Manag.* 2007;30(2):169–188. https://doi.org/10.1108/13639510710753199.
11. Koutsimani P, Montgomery A, Georganta K. The relationship between burnout, depression, and anxiety: a systematic review and meta-analysis. *Front Psychol.* 2019;10:284. https://doi.org/10.3389/fpsyg.2019.00284.
12. Alves L, Abreo L, Petkari E, Pinto da Costa MP. Psychosocial risk and protective factors associated with burnout in police officers: a systematic review. *J Affect Disord.* 2023;332:283–298. https://doi.org/10.1016/j.jad.2023.03.081.
13. Violanti JM, Charles LE, McCanlies E, et al. Police stressors and health: a state-of-the-art review. *Policing.* 2017;40(4):642–656. https://doi.org/10.1108/PIJPSM-06-2016-0097.
14. Rachele JN, Heesch KC, Washington TL. Wellness programs at firefighter and police workplaces: a systematic review. *Health Behav Policy Rev.* 2014;1(4):302–313. https://doi.org/10.14485/HBPR.1.4.5.

15. Moss M, Good VS, Gozal D, Kleinpell R, Sessler CN. A critical care societies collaborative statement: burnout syndrome in critical care health-care professionals. A call for action. *Am J Respir Crit Care Med.* 2016;194(1):106–113. https://doi.org/10.1164/rccm.201604-0708ST.

16. Bridgeman PJ, Bridgeman MB, Barone J. Burnout syndrome among healthcare professionals. *Am J Health Syst Pharm.* 2018;75(3):147–152. https://doi.org/10.2146/ajhp170460.

17. Figueiredo-Ferraz H, Gil-Monte PR, Queirós C, Passos F. Validação fatorial do Spanish burnout inventory em policiais portugueses. *Psicol Reflex Crit.* 2014;27:291–299.

18. Gewirtz-Meydan A, Mitchell KJ, O'Brien JE. Sexual posttraumatic stress among investigators of child sexual abuse material. *Policing J Policy Pract.* 2023;17:1–17. https://doi.org/10.1093/police/paad052.

19. Gewirtz-Meydan A, Mitchell KJ, O'Brien JE. Trauma behind the keyboard: exploring disparities in child sexual abuse materials exposure and mental health factors among investigators and forensic examiners − a network analysis. *Child Abuse Negl.* 2024;152:106757. https://doi.org/10.1016/j.chiabu.2024.106757.

20. Gewirtz-Meydan A, O'Brien JE, Mitchell KJ. Correlates of intimate relationship satisfaction among investigators of child sexual abuse material. *Front Public Health.* 2023;11:1237510. https://doi.org/10.3389/fpubh.2023.1237510.

21. Mitchell KJ, Gewirtz-Meydan A, Finkelhor D, O'Brien JE, Jones LM. The mental health of officials who regularly examine child sexual abuse material: strategies for harm mitigation. *BMC Psychiatry.* 2023;23(1):940. https://doi.org/10.1186/s12888-023-05445-w.

22. O'Brien JE, Gewirtz-Meydan A, Mitchell KJ. Emotional wellbeing and cognitive appraisals among law enforcement exposed to child sexually explicit materials. *Crim Justice Behav.* 2024;51(3):420–439. https://doi.org/10.1177/00938548231224815.

23. Malach-Pines A. The burnout measure, short version. *Int J Stress Manag.* 2005;12(1):78–88. https://doi.org/10.1037/1072-5245.12.1.78.

24. Kroenke K, Spitzer RL, Williams JB, Löwe B. An ultra-brief screening scale for anxiety and depression: the PHQ−4. *Psychosomatics.* 2009;50(6):613–621. https://doi.org/10.1176/appi.psy.50.6.613.

25. Zuromski KL, Ustun B, Hwang I, et al. Developing an optimal short-form of the PTSD Checklist for DSM-5 (PCL-5). *Depress Anxiety.* 2019;36(9):790–800. https://doi.org/10.1002/da.22942.

26. Hays RD, Bjorner JB, Revicki DA, Spritzer KL, Cella D. Development of physical and mental health summary scores from the patient-reported outcomes measurement information system (PROMIS) global items. *Qual Life Res.* 2009;18(7):873–880. https://doi.org/10.1007/s11136-009-9496-9.

27. Craddock TB, Telesco G. Police stress and deleterious outcomes: efforts towards improving police mental health. *J Police Crim Psychol.* 2022;37(1):173–182. https://doi.org/10.1007/s11896-021-09488-1.

28. Marshall RE, Milligan-Saville J, Petrie K, Bryant RA, Mitchell PB, Harvey SB. Mental health screening amongst police officers: factors associated with under-reporting of symptoms. *BMC Psychiatry.* 2021;21(1):135. https://doi.org/10.1186/s12888-021-03125-1.

29. Mitchell KJ, Gewirtz-Meydan A, O'Brien J, Finkelhor D. Practices and policies around wellness: insights from the Internet Crimes against Children task force network. Front Psychiatry. 2022;13:931268. https://doi.org/10.3389/fpsyt.2022.931268.