

Suicidal ideation in offenders convicted of child sexual exploitation material offences

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Abstract

Understanding the prevalence of suicidal ideation in Child Sexual Exploitation Material (CSEM) offenders and their psychological concerns provides the basis for early treatment and intervention. This research solicited responses ($n = 78$) via an anonymous, web-based survey from adults in the United States previously convicted of CSEM offences. Significant suicidal ideation was present in 73% of respondents ($n = 57$), and 19% ($n = 15$) reported attempting suicide after they were made aware of an investigation, with 41% ($n = 32$) stating they would have been likely to seek counselling if provided a contact. Most of the respondents felt they were not treated with fairness, understanding, and compassion by investigators, and that their primary psychological strains were going to jail and their families finding out. This research highlights the need for more empathetic investigative approaches, as well as the need for more rapid assessment and treatment of proximal suicide risk in this population.

KEYWORDS

child pornography, child sexual exploitation material, suicidal ideation, suicide

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1 | INTRODUCTION

According to the United States Centers for Disease Control (CDC), the suicide rate in 2017 was 14 per 100,000, and suicide was the second leading cause of death in individuals aged 10–34 and fourth for individuals aged 35–54 (Centers for Disease Control and Prevention, 2017). Suicidal ideation amongst adults in the United States, which includes thinking about and/or planning suicide, was 5.8% in 2019 (National Institutes of Mental Health, 2020). Global lifetime ideation has been measured at 9.2%, with a lifetime rate of 2.7% attempting suicide (Nock et al., 2008).

For individuals convicted of a crime, the levels of suicidal ideation and the risks of suicide are higher. A study of inmates in Australia found suicidal ideation to be present in 33.7% of those surveyed, and that 20.5% of those surveyed had attempted suicide at some point in their lives (Larney et al., 2012), while a similar study of inmates in the United States found that 23.5% had suicidal ideation and 13.9% had attempted suicide (Favril et al., 2020). While not all individuals who have suicidal ideation will attempt suicide, in the same study of inmates in the United States, Favril and colleagues found that 59% of subjects experiencing ideation attempted suicide (Favril et al., 2020), and even in those that did not attempt suicide high suicidal ideation may be an indicator of other mental health issues such as depression (Beck et al., 1993).

Sex offenders may exhibit even higher rates of suicidal ideation and attempted suicide compared to those convicted of non-sexual offences, though some studies have shown conflicting results (Dooley, 1990; Webb et al., 2012). A study by Jeglic et al. found that 14% of sex offenders had attempted suicide, with 11% attempting suicide prior to incarceration (Jeglic et al., 2013). Katzman and Jeglic (Katzman, 2018; Katzman & Jeglic, 2019) found that 17.9% of sex offenders in a United States sample self-reported attempting suicide at some point in their lives, and suicidal ideation of those who did not attempt suicide was reported to be 15.1%.

There is the potential that child sex offenders have higher rates of completed suicide than non-child sex offenders. Though some studies have found no difference between adult and child sex offenders (Jeglic et al., 2013; Katzman, 2018), an Irish prison study by Brophy (2003) found a risk ratio of suicide while incarcerated of 1/24 for child sex offenders, compared to 1/1644 for those who committed sex offences against adults. Additionally, studies have found higher rates amongst those whose criminal histories only included sexual offences (Pritchard & King, 2005). Of particular interest for intervention, the suicides were found to be primarily clustered around the time the investigation became publicly known (Pritchard & King, 2005). A recent systematic review of child sexual abuse offenders, including child sexual exploitation material offenders, identified a potential suicide risk as high as 100 times the general public in this population, though it found that risk estimates varied widely and that additional research was needed (Key et al., 2021).

The potential for higher suicide rates in those individuals facing convictions for child sexual exploitation material (CSEM) offences was highlighted as early as 2007 as an area for further investigation, based on the type of crime as well as the demographics of the offenders (Byrne & Stowell, 2007). Particular characteristics of many CSEM offenders potentially make them more likely to die by suicide. Male offenders have been found to have higher suicide rates (Mumola, 2005), as have those who have suffered childhood trauma, and sexual abuse in particular (Jeglic et al., 2013; Jennifer et al., 2014; Katzman, 2018; Rabinovitch et al., 2015), though there is a significant overlap in these characteristics with the general criminal population. Additionally, the shame and stigma associated with being labelled a paedophile may increase social isolation (Hoffer et al., 2010; Jahnke et al., 2015; Key et al., 2021), another predictor of suicide attempts (Jennifer et al., 2014). In a study of individuals with paedophilic interests, 38.1% endorsed suicidal ideations (Cohen et al., 2020), and another study of minor-attracted persons found that 30% of participants had suicidal thoughts and 23% had attempted suicide (Levenson & Grady, 2019). The rates of suicide attempts for individuals committing CSEM offences specifically has not been adequately measured to-date, despite the potential risk due to the increased suicidal ideation and attempts in the above-mentioned categories with characteristics in common, as well as the potential for exacerbating mental health factors such as depression and anxiety, which have been found to be higher in this population (Gillespie et al., 2018). In a pilot study that consisted of both law enforcement ($n = 16$) and CSEM offender ($n = 5$) interviews in a UK population, researchers found high levels

suicidal ideation, due in part to the psychological impact of the arrest and investigation, as well as shame and stigmatisation associated with the underlying offence (Kothari et al., 2021), and recommended additional sampling in other populations to further enumerate these risks.

Two theories of suicide—the strain theory and the interpersonal theory—have potential relevance to CSEM offenders. The strain theory of suicide identified sources of strain, particularly the difference between aspiration and accomplishment, as a primary cause of suicide (Zhang, 2012). Specific to CSEM offending, an individual's situation relative to their life aspirations may be negatively impacted, they may have coping issues with their current situation, and investigators may exacerbate strain by imposing value judgements (Zhang, 2012). Under the strain theory, the collapse of an individual's life following their arrest for a CSEM offence may increase their proximal risk, and understanding what specific psychological strains they have would be of direct value for treatment (Hoffer et al., 2010; Zhang & Lester, 2008). This has been borne out with general offenders, with individuals showing a rate of suicide attempts approximately five times higher than the general population immediately following an arrest (Cook, 2013). Additionally, Hoffer and Shelton (2013) found that approximately one quarter of all sex offender suicides they identified occurred within the first 48 h following the offender being made aware of the investigation, consistent with prior work by Goss et al. (2002) which found that approximately 38% of jail suicide attempts occurred within 3 days of incarceration. Similarly, under the interpersonal theory of suicide, which states that thwarted belongingness and perceived burdensomeness are the primary causes of suicidal desire, both social isolation and a history of childhood abuse are relevant factors in CSEM offenders (Van Orden et al., 2010). A history of childhood abuse is higher in CSEM offenders than the general public (L. Webb et al., 2007), and social isolation is higher for those on sex offender registries (Bailey & Klein, 2018). The period immediately following their becoming aware of an investigation is a critical interval for CSEM offenders, as evidenced by prior work (Hoffer & Shelton, 2013), with Cook noting that “the highest period of risk and window for prevention is immediate but time-limited” (Cook, 2013, p. 772). Despite the risk factors based on the theories noted, there has been little work done examining the state of mind of CSEM offenders and their suicidal ideation, in particular during the critical interval noted above.

In the United States, individuals who are suspected of CSEM offences are generally first made aware of the investigation when they are approached by law enforcement and requested to participate in a voluntary interview. Interview practices in the United States tend to be largely accusatory (Walsh et al., 2017), despite best practice recommendations to the contrary (Read et al., 2009) and improvements in child sex crime interviewing practice in other countries (Read et al., 2014). Humanity and compassion in particular have been identified as important characteristics for interviewing sex offenders, in that they can facilitate non-coerced confessions (Kebbell et al., 2008).

Post-interview, individuals who are suspected of CSEM offences are frequently released, either immediately or following an arrest and initial court appearance. The United States has few services available for proximal pre-trial intervention to prevent suicide. In one of the few programs available, the United States Pretrial Services Office in the Central District of California began a pilot program for sex offenders with five aims—providing a referral after initial court appearance for psychological assessment and counselling, offering group support sessions, providing coping skills training, providing cognitive behavioural therapy, and assistance in adapting to going to prison (Byrne et al., 2009; Byrne & Stowell, 2007). The program showed high levels of participation, though direct impact on suicide rates was not evaluated and the authors cited a need for more research on prevalence (Byrne et al., 2012). A broader program, Stop It Now!, offers offender counselling both before investigative action occurs and based on investigator referrals. In addition to their efforts to reduce offending behaviour, they address suicide risk in both the offender and the offender's family (Grant et al., 2019; Van Horn et al., 2015).

Addressing suicide in the CSEM offender population is critical for their own benefit, but there are additional benefits to reducing the rates of CSEM offender suicide. These include negative effects on first responders and law enforcement investigating both the suicide and the CSEM offence, and on the family of the offender who are already undergoing strain from the stigma associated with the investigation as well as cognitive dissonance between their interactions with the subject and the subject's CSEM interests (Hoffer et al., 2010). Additionally, child sex offender suicides, including those who committed CSEM offences, may impact the victims by not allowing closure through a

conviction (Hoffer et al., 2010). Finally, the same interventions used to address suicidal ideation may improve general offender stress and lower the potential for re-offending (as well as improve the likelihood of help seeking) through reduced stigmatisation and improved general well-being (Lievesley et al., 2020).

This exploratory cross-sectional study represents one of the first targeted investigations of suicidal ideation and suicide attempts amongst convicted CSEM offenders. Suicidal ideation is measured using a validated instrument, and information on suicide attempts are directly solicited. For the purposes of this research, the DSM-5 definition of suicidal ideation as “thoughts about self-harm, with deliberate consideration or planning of possible techniques of causing one's own death” (American Psychiatric Association, 2013, p. 830) is used. Suicide attempts are defined as specific, non-fatal actions taken in an effort to end one's life, and for the purposes of this research do not include non-suicidal self injury. The specific strains associated with their investigation and the perceptions of the sample of their treatment during the investigation are quantified and a qualitative analysis of what investigators could have done differently to reduce suicide risk are performed.

2 | METHODS

This research utilised a mixed methods approach to analyse the suicidal ideation, suicide attempts, and interaction with investigators of individuals previously convicted of CSEM offences after their initial engagement with the investigative process. The details of each of the analyses are identified below, followed by the analytical tests performed.

2.1 | Participants and setting

This research was conducted using survey data obtained online from individuals previously convicted of child pornography offences within the prior 10 years. The individuals were recruited based on their inclusion in the sex offender registries of two states within the United States. Adults on the list with prior CSEM offences were sent a mailing ($n = 2508$) and requested to fill out an anonymous online survey on the University of Edinburgh's Qualtrics platform regarding their prior behaviours related to CSEM, as well as their technology usage and associated cognitions, as part of a larger research project. They were incentivised to participate through the voluntary inclusion of their email into a drawing for one of two \$150 Amazon gift cards.

Prior to participation in the survey, participants were provided detailed information on data collection and usage, as well as the specific risks and benefits of the survey. Of the sample, 141 individuals responded to the survey (a 5.6% response rate). Three individuals declined to consent and 40 individuals did not complete the survey, lowering the response rate to 3.9%. The survey was anonymous, and because individuals who chose not to complete the survey were allowed to withdraw prior to final submission, partial responses were not retained. Two attention checks were built into the survey to ensure individuals were reading the questions. One attention check was based on a multiple choice question, and the second was part of a matrix question, and individuals failing either of the checks ($n = 20$) were not used in the analysis to improve the overall quality of responses (Owens & Hawkins, 2019). A total of 78 individuals passed the attention checks and their responses were analysed as described below.

2.2 | Questionnaire

The survey included demographic questions as well as questions related to the respondents' suicidal ideations and behaviours and their interactions with law enforcement during the investigative process. The demographic questions were primarily multiple choice and solicited information on the sexual orientation, age, gender, marital status, race, level of education, type of degree, employment status, current occupation, and household income of the participants.

Income ranges were based on decile groups from a separate reference sample of non-offenders. The questions related to suicidal ideation and investigative efforts are detailed below.

Suicidal ideation was measured using the Suicidal Ideation Measure, a validated instrument with a previously identified Cronbach's alpha of 0.84 (Klein et al., 2013a). The instrument was found to have an alpha of 0.95 in this study. The instrument consisted of four items asking respondents to rate how often they had specific thoughts (e.g., "I felt my family and friends would be better off if I were dead") from 1 (Rarely or none of the time) to 4 (Most or all of the time), with the summed scores representing overall suicidal ideation (Klein et al., 2013a).

Participants were asked to retrospectively rate their ideation using the instrument *immediately following* their becoming aware of being under investigation for a CSEM-related offence. For reference purposes, Klein et al. identified a baseline mean rate for the instrument of 4.55 with a standard deviation of 1.55 in a study looking at United States adult participants (Klein et al., 2013b). This research defined the presence of significant suicidal ideation as any values above one standard deviation from that of the reference sample (6.1 or higher). In addition to measuring their ideation, participants were asked if they had ever attempted suicide *at any point* after they became aware of the investigation.

The reflections and impressions of the respondents on the investigative process, including their particular strains, were elucidated with a series of questions based on the prior work of Kebbel et al. (2008). First, the level of fairness, understanding, and compassion exhibited by investigators was measured using a 7-point Likert scale asking the participants' agreement with three questions (from Strong Disagree to Strongly Agree):

- The investigators treated me fairly
- The investigators showed an understanding of my child pornography viewing
- The investigators were compassionate

The results of each question were evaluated individually and displayed using a diverging stacked bar chart, with a vertical line representing the median value (Heiberger et al., 2014). Additionally, an overall score for the perceived positiveness of the interview was calculated by summing each of the three Likert scores.

To ascertain the specific strains on the participants during the investigation that caused anxiety, they were asked to rank seven negative outcomes associated with CSEM offences based on common concerns expressed during investigations and treatment as well as concerns cited in prior research (Byrne et al., 2012; Lanning, 2010; Steel, 2014) from 1 to 7, with 1 being the most concerning:

- Being registered as a sex offender,
- Going to prison,
- Losing my collection of child SEM,
- Losing my job,
- My family finding out what I did,
- My friends finding out what I did,
- The public finding out what I did.

To identify any protective behaviours investigators could have exhibited in the interview, an exploratory qualitative question, "What could investigators have said to you to reduce your thoughts of suicide?", was asked and inductively coded. Initially, common words and phrases were extracted and grouped using an automated n-gram analysis. These were used to code an initial sample and modified based on the analysis of that sample. This was conducted iteratively until the entirety of the data was coded, with logical groups applied across all data to identify relevant themes present. Three high level themes were identified—that there was nothing the investigators could have done, that the investigators could have offered a positive way forward, and that the investigators could have shown more understanding, as detailed in the results below.

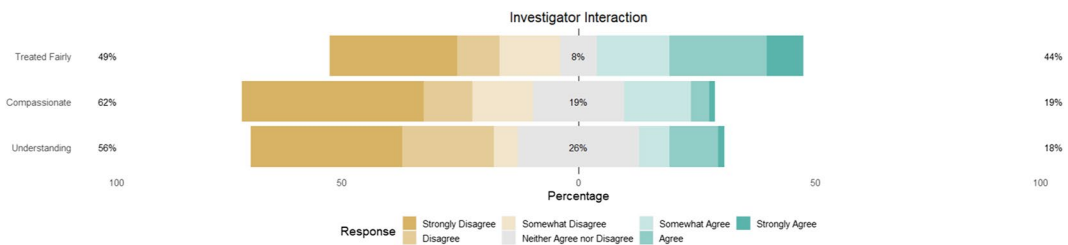


FIGURE 1 Respondents' perceptions of their interactions with investigators

Finally, to evaluate the potential effectiveness of offering mental health contacts following an interview, the participants were asked to rate the question “If investigators provided you with a contact point to talk to a medical professional about suicide, how likely is it that you would have contacted that individual or organisation?” on a 7-point Likert scale from Extremely Unlikely to Extremely Likely. The participants were additionally asked “Have you ever attended counselling or treatment as a result of your child SEM activities?”.

2.3 | Analysis

Exploratory analyses on the results were conducted and descriptive statistics presented. For nominal/ordinal comparisons, Mann-Whitney-Wilcoxon tests were used. For nominal/nominal, standard chi-square analysis was used. Comparison between group means was performed using a one tailed Welch's *t* test. All results were collected and analysed using R, with a *p* value of 0.01 used for statistical significance tests (where appropriate).

Ethical approval was received from the Research Ethics Committee at the University of Edinburgh on May 20, 2020. Additionally, Institutional Review Board approval was received from George Mason University on May 13, 2020.

3 | RESULTS

The respondents were 72% (*n* = 56) heterosexual, 88% white (*n* = 69), and 95% (*n* = 74) gender identified as males. For marital status, 41% (*n* = 32) were single and never married, 23% (*n* = 18) were divorced, and 23% (*n* = 18) currently married. For employment and education, 56% (*n* = 44) were currently employed, and 56% (*n* = 44) held a college degree. The median age group of the respondents was 35–44, and the mean income was \$42,282. Detailed demographics of the respondents in the key areas measured are shown in the [Appendix](#).

Overall, 19% (*n* = 15) of the respondents reported attempting suicide at some point after being made aware of the presence of an investigation into their CSEM activities. The mean score on the suicidal ideation measure was 10.64 (SD = 4.61), and 73% of the respondents (*n* = 57) reported significant suicidal ideation (one standard deviation above the mean for a reference population). The sample was found to have significantly higher suicidal ideation, $t(390) = 19.4$, $p < 0.01$, than the reference sample (Klein et al., 2013b).

Suicidal ideation was found to be significantly higher, $t(69) = 6.9$, $p < 0.01$, in those who attempted suicide ($M = 14.53$) than those who did not ($M = 9.68$). No statistically significant relationships between the primary demographic variables (income, age, race, sexual orientation) and suicidal ideation or suicide attempts were identified.

With regards to their treatment during the investigation, 44% (*n* = 34) of the respondents agreed that they were fairly treated, 19% (*n* = 15) agreed that the investigators showed compassion, and 18% (*n* = 14) that investigators showed understanding (Figure 1). No statistically significant relationships between the overall interview impression and suicidal ideation were identified.

TABLE 1 Median ranking of severity of concerns (1 was the most concerning)

Concern	Median rank
Going to prison	2
My family finding out what I did	2
My friends finding out what I did	3.5
Being registered as a sex offender	4
The public finding out what I did	4
Losing my job	4.5
Losing my collection of child SEM	7

When asked what investigators could have said to reduce thoughts of suicide, 55% of respondents ($n = 43$) indicated there was nothing that could have been said and 19% ($n = 15$) that they were not suicidal and it was not applicable to them, with one individual reporting that they were framed for the crime. Some of responses that noted that nothing could be done provided reasons potentially external to the investigation:

- “Nothing. It's the social stigma and threat of prison that get you.”
- “I didn't listen to them anyway. I was in a deep hole.”
- “I don't think they could have said or done anything. They were actually very good people that helped my then fiancé get through this. I already had a history of suicide thoughts and attempts”

Of the remaining individuals, 12% ($n = 9$) identified in their responses that having investigators offer a positive way forward was an important factor:

- “Reassured me that no matter what happens there are ways to redeem yourself.”
- “Provided a path that didn't involve me losing everything I had worked for in my life.”
- “that i [sic] would not be on a registry, that i [sic] would not be a social outcast, that people would not know about it.”

An additional 9% ($n = 7$) indicated that showing understanding of the issue being a mental illness and offering treatment would have been helpful:

- “Focused more on treatment programs to help understand my desire to view pornography, to help me understand how children may be affected by my viewing, even though I had no actual contact. Help me to understand that I am no [sic] alone in my desires and that counselling and treatment helps.”
- “That I'm not a bane on society, that they wouldn't try to lock me away for eternity, that help was available, and that this may be yet another manifestation of my struggles with addiction”
- “They could have informed me that people and family love and need me. That there is affective treatment for pornography addiction.”

The respondents' greatest concerns were going to prison and their families finding out, both with a median rank of 2. Losing their CSEM collection was the lowest concern, with a median rank of 7 (Table 1). The respondents' level of suicidal ideation was not significantly correlated with any of the ranked concerns.

In terms of seeking assistance, a substantial minority of respondents, 41% ($n = 32$) identified being at least slightly likely to seek assistance in addressing suicidal thoughts and behaviours if investigators had provided contact information (Figure 2). More critically, 80% ($n = 12$) of the individuals who reported attempting suicide reported they were likely to seek assistance if offered, with the remaining individuals reporting that they were neither likely

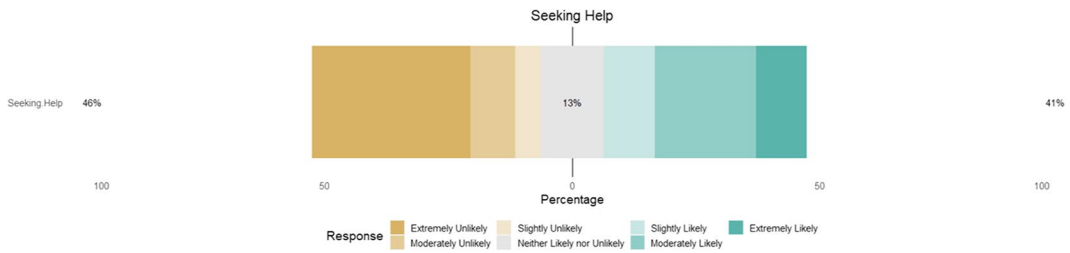


FIGURE 2 Likelihood of respondents seeking counselling assistance if offered

nor unlikely. The likelihood of seeking assistance if provided contact information was positively correlated with the overall interview impression score, $r(78) = 0.29, p < 0.01$. Overall, 94% ($n = 73$) of the participants reported attending counselling or treatment related to their SEM activities, however neither the voluntariness nor timing of this attendance was solicited as part of the study (e.g., court-ordered counselling following arrest as opposed to voluntary pre-arrest counselling).

4 | DISCUSSION

The levels of significant suicidal ideation were very high within the CSEM offender sample. The 73% of individuals who reported suicidal ideation represents a significant increase over that found previously in individuals with paedophilia at 38.1% (Cohen et al., 2020) and general sex offenders at 15.1% (Katsman & Jeglic, 2019). The added strains introduced by being caught provide a potential explanation for the higher ideation than in Cohen et al., (2020), in which only 37% of their sample had reported a prior arrest, and the additional stigma associated with having paedophilic interests (Jahnke et al., 2015) potentially explains the higher ideation than in the general sex offender population (Katsman & Jeglic, 2019). While suicidal ideation was substantially higher than other populations, the 19% of individuals who reported attempting suicide was consistent with a prior sample of sex offenders in a United States population of 17.9% (Katsman, 2018; Katsman & Jeglic, 2019). High levels of ideation and suicide attempts were not significantly related to the demographic variables, however this is to be expected given the homogeneity of the sample, which is consistent with the overall high representation of specific demographics within the CSEM offender population.

The high levels of suicidal ideation identified are supported by existing theory. Consistent with the strain theory of suicide, going to prison has a negative impact on most life aspirations, and going to prison was the highest ranked concern in this study (Zhang, 2012). For individuals convicted of CSEM offences in particular, the general lack of antisocial behaviour and prior offending may compound this. Under the theory, strain can be caused by cognitive dissonance, which may be increased by confrontational investigative approaches. Respondents reported viewing investigators as exhibiting low levels of fairness, understanding, and compassion. The impact of a failure to show understanding, in particular, can exacerbate this strain by highlighting social shame. Respondents noted that investigators could have provided both reassurance and a path forward, addressing and potentially reducing both aspects of strain. Those same factors can influence perceived belongingness under the interpersonal theory of suicide (Van Orden et al., 2010), with the additional strain caused by social isolation. The second and third ranked concerns of respondents were the individual's social network (family and friends) finding out about their CSEM activities. This indicates an awareness of the potential negative social ramifications for them of those notifications, exacerbating any perceived issues with belongingness. These findings are consistent with prior research by Kothari et al. (2021) particularly with relation to the impact of the arrest as well as the shame and social effects related to the investigation.

4.1 | Practice implications

The high levels of proximal suicidal ideation and general perceived lack of empathy in the investigative process have direct practice implications for both law enforcement and clinicians. Looking at the investigative process, investigators can address the perceived lack of fairness, understanding, and compassion by helping to place the offender's actions in a whole-person context, as evidenced in some of the qualitative responses, and by highlighting the positive aspects of the offender apart from their criminal behaviour. Effective interviewing of CSEM offenders requires the investigator to not show contempt or further stigmatise the subject to build effective rapport (Steel, 2014), and the Federal Bureau of Investigation advocates that "investigators must respond with compassion and understanding" (Bowling & Resch, 2005, p. 5) in subject interviews and interrogations regarding CSEM. Because investigators are also psychological first responders, adopting a Rogerian unconditional positive regard approach to their interaction may assist in encouraging further counselling interactions (Rogers, 1957). A substantial minority of respondents (41%) reported that they would be at least somewhat likely to use those resources if they were made available and the likelihood of seeking help was correlated with an overall positive impression of the interview. Additionally, this approach is likely to be more effective in eliciting information, as shown previously in work looking at humanitarian rapport-oriented interviews in a therapeutic jurisprudence context (Madsen, 2017) and in vignettes where convicted sex offenders identified an understanding and compassion-based approach as increasing the likelihood of confession (Kebbell et al., 2008). Following the interview, law enforcement can ask offenders about their immediate plans and about any suicidal thoughts or intentions. Law enforcement interventions can range from providing a pamphlet containing helpful information and mental health contacts, to proactively assisting the offender in engaging with mental health professionals for proximal assessment and support, to requesting a temporary and voluntary surrender of firearms in the home. Where practical, mental health professionals can accompany law enforcement to assist in post-interview assessment and intervention (Kothari et al., 2021).

Initial mental health assessment should include suicide risk, and short term interventions should take into consideration the immediate concerns of offenders. Mental health professionals can additionally discuss strategies with offenders for telling their families and provide them with resources that can offer them immediate counselling support as well as family member support (Grant et al., 2019). Services like those offered in the pilot study in California (Byrne et al., 2012), which cover adaptation to prison in addition to life path coping skills, and the family member and offender support offered by Stop It Now! (Grant et al., 2019), would have high potential for having a positive impact on the suicidal ideation of offenders. Finally, consideration should be given to potential non-judicial or home detention-based interventions for lower risk, first time CSEM offenders, particularly in light of the jail-related strain concerns. As an example, cautions for first-time offenders in lieu of incarceration have been implemented in the UK (Wormald, 2016), allowing for limited law enforcement resources to be targeted at higher risk offenders.

4.2 | Limitations

This research was conducted on a previously convicted CSEM offender population within the United States and is not generalisable beyond that population. The research was conducted via a survey during the Covid-19 outbreak in 2020, which may have influenced unemployment numbers within the demographic data (Coibion et al., 2020) and altered the self-selection bias inherent in a voluntary, online survey methodology. The increased social isolation during this period may have influenced responses as well (Folk et al., 2020). The response rate of 5.6% was low, but not unexpected given the population being sampled. The most similar study soliciting individuals on a sex offender registry via postal mail had a 15% response rate, but was significantly shorter, targeted general sex offenders (not exclusively CSEM offenders), and used paper-based survey response that limited the types of questions asked (Tewksbury, 2006).

This study only examined self-reported suicidal behaviour. Nonsuicidal Self-Injury (NSSI) was not reviewed and may be of further interest in this population. Because the design of this research was not longitudinal, suicidal ideation and suicide attempts of participants prior to being investigated, which may have influenced post-investigations suicidality, could not be evaluated. Additionally, pre-existing correlates (prior to interaction with law enforcement) of suicidal ideation such as depression and anxiety were not measured.

This study was retrospective in nature and asked individuals convicted of child pornography offences to reflect on past behaviours and attitudes. As such, there is the potential for both the presence of both recollection bias and social desirability bias, and positive or negative life events following arrest may have biased recollections. Additional research conducted at the time of arrest or proximal treatment is needed to confirm these results, preferably with information collected on any prior mental health issues that may be contributory. As with all self-reported studies involving suicide, there is a built-in survivor bias. The numbers presented in this study represent lower bounds of actual suicide attempt rates and levels of suicidal ideation as those who have died as a result of suicide attempts were not included.

5 | CONCLUSIONS

This research identified the CSEM offender community as having very high levels of suicidal ideation subsequent to arrest, even when compared to other criminal populations, including other sex offenders. Additionally, the number of offenders who attempted suicide was not inconsequential, highlighting the need for better training of law enforcement personnel in understanding-based interview approaches, as well as psychological first aid techniques, to encourage help-seeking behaviour.

While this research contributed to the understanding of suicidal ideation in the CSEM offender population, there is significantly more research needed to fully understand the overall prevalence and impact of suicidal ideation, attempts, and completions. In particular, there is the need for a fully inclusive, longitudinal study starting at the point that the offenders become aware of the investigation, that tracks deaths by suicide in addition to attempts. Additional, larger studies are needed to confirm the high levels of ideation and to identify the specific reasons why it is higher than other sex offender populations.

Finally, this research presented the unique strains related to concerns identified by offenders, which provide a guide for treatment programs, and underscored the need for much greater availability of treatment options such as that offered by Stop it Now! and the California pilot program starting immediately as part of the investigative process.

CONFLICT OF INTEREST

The authors have declared no conflicts of interest. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

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How to cite this article: Steel, C. M. S., Newman, E., O'Rourke, S., & Quayle, E. (2022). Suicidal ideation in offenders convicted of child sexual exploitation material offences. *Behavioral Sciences & the Law*, 1–14. <https://doi.org/10.1002/bsl.2560>

APPENDIX

Demographic category	Proportion of sample (n = 78)
Sexual orientation	
Bisexual	0.14 (n = 11)
Heterosexual (straight)	0.72 (n = 56)
Homosexual (gay)	0.13 (n = 10)
Other	0.01 (n = 1)
Prefer not to say	0 (n = 0)
Age distribution	
18–24	0.01 (n = 1)
25–34	0.28 (n = 22)
35–44	0.24 (n = 19)
45–54	0.17 (n = 13)
55–64	0.22 (n = 17)
65 or older	0.08 (n = 6)
Gender identity	
Female	0 (n = 0)
Gender variant/non-conforming	0.04 (n = 3)
Male	0.95 (n = 74)
Not listed	0.01 (n = 1)
Prefer not to answer	0 (n = 0)
Transgender male	0 (n = 0)
Relationship status	
Divorced	0.23 (n = 18)
In a domestic partnership or civil union	0.03 (n = 2)
Married	0.23 (n = 18)
Other	0 (n = 0)
Separated	0.04 (n = 3)
Single, but cohabiting with a significant other	0.04 (n = 3)
Single, never married	0.41 (n = 32)
Widowed	0.03 (n = 2)

(Continues)

(Continued)

Demographic category	Proportion of sample (n = 78)
Race (multiple selections permitted)	
American Indian or Alaska Native	0.01 (n = 1)
Asian	0 (n = 0)
Black or African American	0.01 (n = 1)
Hispanic or Latino	0.12 (n = 9)
Native Hawaiian or Pacific Islander	0.01 (n = 1)
Other	0.01 (n = 1)
White or Caucasian	0.88 (n = 69)
Employment status	
Not working (disabled)	0.13 (n = 10)
Not working (looking for work)	0.15 (n = 12)
Not working (other)	0.04 (n = 3)
Not working (retired)	0.09 (n = 7)
Not working (temporary layoff from a job)	0.03 (n = 2)
Working (paid employee)	0.49 (n = 38)
Working (self-employed)	0.08 (n = 6)
Education level	
Less than high school diploma	0 (n = 0)
High school graduate (high school diploma or equivalent including GED)	0.13 (n = 10)
Some college but no degree	0.29 (n = 23)
Associate degree in college (2-year)	0.13 (n = 10)
Bachelor's degree in college (4-year)	0.33 (n = 26)
Master's degree	0.09 (n = 7)
Professional degree (JD, MD)	0 (n = 0)
Doctoral degree	0.01 (n = 1)
Income	
\$0-9999	0.09 (n = 7)
\$10,000-20,000	0.19 (n = 15)
\$20,001-29,999	0.1 (n = 8)
\$30,000-40,000	0.24 (n = 19)
\$40,001-50,990	0.09 (n = 7)
\$50,991-67,000	0.08 (n = 6)
\$67,001-79,000	0.1 (n = 8)
\$79,001-100,000	0.05 (n = 4)
\$100,001-190,000	0.05 (n = 4)
Greater than \$190,000	0 (n = 0)