Untangling sexual homicide: A proposal for a new classification of sexually motivated killings

Author Note

Abstract

Purpose: The study aimed to develop an empirically driven checklist guiding clinicians in the decision-making process that would enable them to determine the functional role of the killing in a newly proposed classification of sexual homicides.

Methods: Classical Test Theory, Exploratory Factor Analyses and Two-parameter item response theory were conducted on a sample of 361 male sexual killers assigned as either belonging to the direct or indirect group.

Results: The results revealed that an eight-item checklist was the best empirical solution. The items included: sexual sadism; followed by the use of sexually related disinhibitors; stalking behaviours; the use of restraints; the presence post-mortem sexual activity; the presence of other sexual activities; an unusual interest following the murder; and the presence of biting were indicative of a direct sexual homicide.

Conclusions: Using the direct/indirect typology automatically directs clinicians to consider how, and at what point in the timeline, the sexual element and the act of killing were related. This, allows to address any arising inconsistencies as well as minimise the risk of either assuming sexual motives in the killing in the indirect cases or not addressing management of sexual urges in the context of extreme violence for the direct cases.

Keywords: Sexual Murderers, Direct/ Indirect, Classification, IRT, Checklist.

Introduction

Sexual homicide is a hybrid offence combining two different offences, a sexual assault and a homicide (Beauregard & Martineau, 2016; Stefanska, Higgs, Carter, Beech, 2017). In sexual assault, the sexual behaviours can consist of vaginal or anal penetration, masturbation, other evidence of sexual arousal as well as acts suggestive of sexual fantasies such as genital mutilation or arranging victim's body into a sexually provocative position. It may occur before, during or after the act of killing. The homicide can take place in a variety of contextual situations. While killing in pursuit of sadistic pleasure is commonly noted, it is not a feature of all cases (Stefanska et al., 2017). Indeed, the act of killing can be driven by sadistic sexual fantasies or the need to kill the victim in order to carry out the sexual activity after the victim's death but it can also be precipitated by other factors. Victim's reaction to rape can be one such example when the killing occurred after the victim threatened to report the perpetrator for the sexual assault or when victim struggled to escape the sexual assault. Killing can also take place in the context of a consensual situation and be triggered by something that a victim said or did: for example, after the victim refused further sexual advances; when the offender failed to have an erection; or during an argument (Stefanska, Carter, Higgs, Bishopp, & Beech, 2015).

Current issues

As new research investigating various aspects of sexual homicide emerging recently has broadened our knowledge regarding this type of offence, there remain outstanding issues that, in our point of view, require further research attention especially when linking theoretical knowledge to clinical application. We will outline some of these next.

Definition. Due to a lack of a legal definition, most countries have adopted Ressler, Burgess and Douglas (1988) criteria when studying sexual homicide. These criteria rely entirely

on physical evidence readily available at the crime scene or obtained during the investigation (e.g. pathologist examination). In order for the homicide to be considered sexual, it requires at least one of the following to be met: (a) victim lacks attire (totally or partially), (b) exposure of the sexual parts of the victim's body, (c) the body is found in a sexually explicit position, (d) an object has been inserted into a body cavity (anus, vagina, or mouth), (e) there is evidence of sexual intercourse, (f) there is evidence of substitutive sexual activity (e.g., masturbation and ejaculation at the crime scene), or of sadistic sexual fantasies (e.g., genital mutilation). However, to lower incidents of false positives, Chopin and Beauregard (2019) introduced more stringent criteria requiring at least two criteria of the FBI's definition to be present in order for the homicide to be considered sexual. In addition to this, some of the newer definitional criteria go beyond physical evidence and include additional factors. Her Majesty's Prison and Probation Service identifies homicides as being sexual when the sexual element and/or a sexual motivation for the murder has been suspected or admitted whereas Chan's (2015) definitional criteria include a legally admissible offender confession of the sexual motive or an indication of sexual element of the crime from the offender's personal belongings (e.g., home computer and journal entries).

Research by Carter, Hollin, Stefanska, Higgs and Bloomfield (2017) tested whether the majority of sexual homicide cases are in fact reliably captured by the Ressler et al. (1988) definition. In their study, the authors made sure that, with a high degree of certainty, there was a sexual element to the killing in their sexual homicide sample and then examined whether these were the same characteristics highlighted by Ressler et al. (1988). The results found support for the utility of adapting the Ressler et al. (1988) criteria when detecting if the homicide was sexual

in its nature with the most prominent indicators of a sexual element to a killing including exposure of the lower half of the victim's body and evidence of sexual acts. However, from a clinical perspective, the criteria did not allow to distinguish between cases where the sexual element represented a salient factor in forensic case formulation and cases where the sexual act and the killing were not closely related. Indeed, in their sample, Stefanska et al. (2017) noted homicide cases where the violence was not sexual in its nature and the sexual encounter was, in fact, consensual. The homicide was identified as sexual because it occurred in a sexual context and physical evidence met one of the Ressler et al. (1988) criteria (for example an argument that led to killing which commenced after consensual intercourse). This means that Ressler et al. (1988) definition might sometimes be overly inclusive and clinicians should always fully understand the context in which the killing took place.

Serial vs non-serial. Originally, serial homicides were defined as three or more separate events that have occurred in three or more separate locations with an emotional cooling off period in between them (Douglas, Burgess, Burgess, & Ressler, 1986). This was later amended to two or more homicides occurring in separate events while research continued to utilise emotional cool-off period to differentiate between the same and separate criminal events (e.g. Beauregard & Proulx, 2007; Higgs, Carter, Stefanska, & Glorney, 2017; Stefanska et al., 2015). Although Douglas, Ressler, Burgess, and Hartman (1986) suggested that emotional cool-off period is the main characteristic differentiating serial and non-serial offenders, research paid surprisingly little attention to trying to empirically define the term. Further research should therefore aim to better understand the systematic underpinnings of the emotional cool-off period concept.

It is important to highlight that the research has shown that serial offenders differ in important ways from non-serial offenders (Chan, Beauregard & Myers, 2015; James & Proulx, 2016). However, very few studies have divided and examined the two groups separately. Encompassing all sexual killers into a single group may, and most likely does, affect the conclusions drawn (Stefanska et al., 2017). If for example (and as often had happened in the early studies), the sample was over-represented by serial cases, the results might have indicated a higher prevalence of characteristics associated with serial offenders such as victim confinement, sadistic or ritualistic acts (James & Proulx, 2016). Providing clinicians with an adequate picture pertaining to non-serial offenders is crucial, particularly in the countries where these offenders are eligible for parole. In depth examination of non-serial sexual killers would deliver much needed research-based evidence further guiding working practices when advising parole boards.

Motivation. Research acknowledged that sexual killers are a diverse population of perpetrators. Generally, classification studies identify two categories of the sexual murderer, the sadistic and the angry type (Beauregard & Proulx, 2002). Some studies additionally note a sexually motivated sexual killer profile where the main objective for the offence was a sexual assault but the killing was carried out either to silence the victim or to avoid detection (Beech, Fisher & Ward, 2005; Clarke & Carter, 2000; Kocsis, 1999; Stefanska et al., 2015). From a clinical standpoint, considering motivation as a primary feature for understanding sexual homicide perpetrators may not be beneficial. Intent is difficult to prove. Perpetrators may not perceive themselves as sexual killers because they have not been convicted of a ‘sexual homicide’ (Carter & Perkins, 2018). Cases can rarely rely on the accuracy of the perpetrator's disclosure as such statements may carry an array of possible consequences for the perpetrator if

made at the time of prosecution or during the length of incarceration (Perkins, 2008). In many countries a conviction for rape linked to murder would lead to classification as a "sex offender". This in turn would likely lead to assessment and mandated treatment as part of the sentence plan. Aware of the possible consequences, perpetrators may avoid addressing sexual aspects related to their criminal conduct intentionally providing anger as a motivation for the killing (Carter & Hollin, 2014). Safeguarding their safety while in prison, offenders may prefer to be seen as someone who lost their temper rather than a sexual deviant (Myers, Husted, Safarik, & O'Toole, 2006).

Profiles capturing motivational intentions of sexual murderers present further difficulties. Anger as a motivational drive is problematic as it merely describes a characteristic of the perpetrator at or around the time of the offence and does not adequately explain the nature of the sexual element within the criminal event (Carter & Hollin, 2014). The sexually motivated perpetrators appear to be characterised by an absence (e.g. post-mortem sexual interference or overkill) rather than a presence of features (Proulx, 2008). Other crime features may also be misleading. Offence planning is typically associated with the sadistic sexual murderer profile (Beauregard & Proulx, 2002; Beauregard, Proulx, & St-Yves, 2007; Beech et al., 2005; Clarke & Carter, 2000; Kocsis, 1999; Meloy, 2000; Stefanska et al., 2015). This is despite the fact that offence planning also featured in the sexually motivated profile (Beech et al., 2005; Clarke & Carter, 2000; Kocsis, 1999; Stefanska et al., 2015). Indeed, offence planning did not conform to a cumulative scale of the Severe Sexual Sadism Scale (SeSaS[1]; Nitschke, Osterheider & Mokros,

[1] The Severe Sexual Sadism Scale (SeSaS) is a behavioural-based scale composed of 11 items. The SeSaS is widely used in research and is recognised as the gold standard in the dimensional assessment of severe sexual sadism. The SeSaS exhibits good inter-rater agreement, presents good internal consistency, has good discriminant validity, and was cross-validated across different new samples. Using a cutoff score of four was recommended on the basis of statistical analyses

2009) but the item was nonetheless added as an additional indicator for sexual sadism. However, as with intent, whether the perpetrator was planning a rape or kill is difficult to prove. This is why a thorough consideration of contextual factors in the assessment process is paramount (Carter & Perkins, 2018) and a wide-ranging consideration of the situation may well be more useful than a narrow focus on the motivation of the offence (Carter & Hollin, 2014).

Examining the way the sexual element is connected to the killing. Sexual homicides occur in a variety of different situational contexts (Beauregard & Martineau, 2016; Stefanska et al., 2017). Intent and motivational aspects for the offending behaviour are often difficult to identify, prove and even understand (Beauregard & Martineau, 2016). The sexual behaviour itself can vary considerably from overt sexual activities which are easily observable at the crime scene to acts which are more obscurely symbolic (Carter & Perkins, 2018). Yet, despite these challenges, determining the context in which the offence has occurred is crucial for assessment and case formulation (Carter & Hollin, 2018).

Given that, as noted earlier, sexual homicide is a hybrid offence combining a sexual assault and a homicide, Carter and Hollin (2014) postulated that when classifying sexual homicides, it is more advantageous to consider the different ways the sexual behaviours and the killing are related within the criminal event. Based on their notion of direct/indirect link (see Carter & Hollin, 2014, p.287), Stefanska et al. (2017) considered the way the sexual element was linked with the killing and assigned the cases as belonging to either direct or indirect profile. The perpetrator was considered direct if sufficient evidence suggested that the act of killing was a source of sexual stimulation for the perpetrator or when the killing (even if opportunistic) enabled the perpetrator to carry out sexual acts with the victim's body. Within a timeline, the

sexual element must have occurred either around the time of killing or after the murder. Contrary, the indirect killing did not have any sexual function and as such it was purely instrumental. It was carried out to eliminate the witness (albeit the victim) or when the victim was killed while defending herself or trying to escape a sexual assault. There were also cases where violence was not sexually driven (indeed the sexual encounter was consensual) but the homicide occurred in a sexual context. Within a timeline, the sexual element must have occurred before the act of killing. The classification did not consider intentions or motivations of the perpetrators. Rather, the basis for classification rested on the crime scene behaviours and the evidence available which enabled to determine how the sexual element and the killing are connected.

Current study. The notion of direct/indirect link is promising and increases the reliability of sexual murderers' classification. However, in order to improve our ability to adequately classify sexual murders, an empirically driven set of crime scene behaviours needs to be developed. Previous studies have highlighted that trying to classify offending behaviours without a clear standardized set of criteria leads to idiosyncratic list of criteria that varies across clinicians (Longpré, Proulx & Brouillette-Alarie, 2018), little consistency (Marshall, Kennedy, & Yates, 2002) and low reliability (Levenson, 2004).

The aim of the current study is to develop an empirically driven checklist that will guide clinicians and professionals in the decision-making process to determine how the sexual element and the killing are connected. To this aim, Exploratory Factor Analyses (EFA) and Two-parameter item response theory (2PL IRT) analyses will be applied.

Method

Sample. The sample used in the study consisted of 361 male sexual killers, who perpetrated against female victims aged 14 years or above and served a custodial sentence within HM Prison Service in England and Wales. Eleven homicides were serial and 350 were non-serial. The criteria for sexual homicide included offences where a sexual element in the killing was evidenced, suspected or admitted. The sample represented a full data search of all cases stored in the Offender Assessment System in England and Wales captured from the beginning of its existence in the early 2000's (i.e. from that date, the offender was still serving a prison sentence). The actual time frame of the index offenses committed by the perpetrators ranged from the 1950's to 2010's. Further details of the offences were collected from electronic or physical files from the Public Protection Unit Database (PPUD).

The assignment process for cases belonging to either direct or indirect groups closely followed the procedure described in Stefanska et al. (2017). Two raters blind-coded 10% of the same cases in order to establish inter-rater reliability of the framework. The strength of agreement using Fleiss (1981) criteria was excellent (Cohen's Kappa = 0.91). The agreement on the classification into direct and indirect groups was good (Cohen's Kappa = 0.74) and the agreement on the total score for part 1 of the SeSaS was found to be excellent (ICC = 0.89). Overall, 185 cases were assigned as belonging to the direct group and 176 cases were assigned as belonging to the indirect group.

The average perpetrator's age at the time of offence was 28.33 years old (SD 8.79; range = 18-59), whereas the average victim's age was 33.88 years old (SD 19.97; range = 14-94 . The majority of offenders were white (89.4%), were unemployed (44%) or in full-time employment (38.3%). The majority of the offences occurred in between 1980's and 2000's.

Analyses. The original database contained several information sources ranging from demographics to crime scene behaviours. Most information related to pre-sentence reports, police interrogation files, sentencing remarks, offence summaries and post-sentence reports were available. The variables were coded as either absent or present for each offender. For more details, see Stefanska et al. (2017).

In order to create the scale, a screening of the database was conducted, and all repetitive variables were excluded through consensus between the first and second authors. For example, all variables that were used to code the SeSaS were excluded. Furthermore, some variables were merged as they were measuring the same component but without a clear overlap. For example, all unusual interests following the murder (returned to the crime scene, followed media, volunteered in police investigation, bragging to police) were merged into one variable.

Classical Test Theory (CTT) was then applied to clean the database further and improve the psychometric properties of the final scale. CTT assumes that there is a *true score* that would be uncovered if there were no measurement errors (Kline, 2000). However, because there is no way to observe the *true score*, we measure what is called the *observed score* (i.e., the sum of *true score* and *measurement errors*). CTT was created to improve the psychometric properties of psychological tests and focuses on the interrelation among items. Items with low endorsement were deleted. Furthemore, Kuder–Richardson Formula–20 (KR-20) was conducted. KR-20, a substitute for Cronbach's alpha, is generally used as an internal consistency index that assesses the average relation among the binary items to provide an indicator of whether the scale captures a cohesive construct. Items measuring different parts of the same construct were analysed together. The choice of items to compose each construct was both theory-driven and decided through consensus rating between the first and second author. For example, items measuring pre-

crime planification were analysed together, and items measuring the SeSaS were analysed subsequently. All the items presenting bad psychometric properties were deleted. All procedures were conducted with SPSS version 25.

Two-parameter Item Response Theory analyses (2PL IRT) were conducted. IRT models assume that the examined latent trait (theta; θ) is unidimensional (de Ayala, 2009). The graphical representation of the relation between the ability score of a person and the probability that this person will either endorse the item is called the item characteristic curve (ICC) and takes the form of an S-shape curve (Reid, Kolakowsky-Hayner, Lewis, & Armstrong, 2007). Because dichotomous indicators were used in the present study, the normal ogive model was used (Forero & Maydeu- Olivares, 2009). Several studies have shown that conducting IRT on dichotomous items produced stable results (e.g. Longpré, Guay, & Knight, 2019; Stefanska, Nitschke, Carter, & Mokros, 2019).

The discrimination parameter (alpha; α), measured the degree to which an item has the power to discriminate between individuals who have or do not have the corresponding b level of a latent trait (Reid et al., 2007). The angle of the slope of the ICC is used to measure this parameter. The difficulty parameter (beta; *b*), is the location of the inflexion point on the ICC. The *b* parameter usually varies from −3 to 3, where items located below 0 are considered easy to endorse and items above 0 are considered difficult to endorse (de Ayala, 2009). For example, more offenders should endorse easier items such as humiliation and fewer offenders should endorse difficult items such as torture. Furthermore, offenders who endorse difficult items should also endorse easier items, but not the other way around. Following these analytic procedures, a final checklist composed of 8 items emerged.

Results

Unidimensionality

The unidimensionality of the scale was assessed with exploratory factor analysis (EFA) with principal axis factoring and oblimin rotation. An EFA with principal axis factoring and oblimin rotation was conducted with SPSS version 25 and yielded a three-factor solution that accounted for 49.2% of the variance (see Table 1). The Cattell's scree plot revealed that the eigenvalue for the first factor explained 21.9% of the total variance, which exceeds the recommended limit of 20% for considering the model as unidimensional (Reckase, 1979). The ratio of the first and the second Eigenvalue was 1.52, the ratio of the first and third Eigenvalue was 1.65, and the ratio between the second and the third was 1.08. The unidimensionality of the scale was further supported by the fact that the factors were highly correlated, suggesting that they are part of a higher-order unidimensional construct. Although subfactors can always be found with EFA, the resultant subfactors are sometimes better conceptualized as differing along a dimension. These results indicate that the scale is sufficiently unidimensional to perform IRT.

Model fit

Factor analyses indicated that the scale was sufficiently unidimensional to allow IRT analysis. While there are no absolute criteria for model-fit data in IRT, several indicators can be used to assess the stability of a model (Templin, 2007). The small and nonsignificant chi-square, the Akaike information criteria (AIC) and the Bayesian information criteria (BIC) all indicate a good fit between the data and the model. The standardized residual for univariate and bivariate model fit fell within the threshold of ±2 and none reached ±3. The sums of evidence are indicating a stable unidimensional model and are corroborating the prior conclusion from EFA supporting a higher-order unidimensional model.

Two-Parameters Item Response Theory Results

ICCs revealed that the majority of the items were located in the upper spectrum. Item parameter estimates are presented in Table 2. The difficulty parameters ranged from .79 (*SeSaS - over 4*) to 3.76 (*Biting*). A closer look at the analyses revealed that elements such *Unusual interest following murder* (*b* = 2.39), *Evidence of other sexual activity at crime scene* (*b* = 2.96), and *Biting* (*b* = 3.78) were on the upper end of the sexual violence spectrum and therefore were more "difficult" to endorse. *SeSaS - over 4* (*b* = .79) and *Sexually related disinhibitors* (*b* = 1.27) occupied the lower end of the continuum and were "easier" to endorse. The discrimination parameters (i.e., the angle of the slope) are ranging from .27 (*Unusual interest following murder*) to 1.11 (*SeSaS - over 4*).

Discussion

The aim of the present study was to develop an empirically driven checklist that will guide clinicians and professionals in the decision-making process. Clinicians undertaking assessment with sexual murderers face many challenges. They can rarely rely on the accuracy of the perpetrator's disclosure, offenders may not perceive themselves as sexual killers because they have not been convicted of a 'sexual homicide', intent is difficult to prove (Carter & Perkins, 2018; Perkins, 2008). The newly proposed classification allows clinicians to focus on behavioural components found at a crime scene to assign the cases as belonging to either direct or indirect profile based on the information of how the sexual element was linked with the act of killing. The newly developed checklist additionally helps to guide clinicians in what behaviours are most likely linked with the direct sexual killers when case formulating.

The checklist was developed with the use of Exploratory Factor Analysis (EFA) and Two-parameter Item Response Theory (2PL IRT) analysis. EFA revealed that the intent is composed of three sub-factors: (1) Sexual sadism, (2) Unusual sexual practices, and (3)

Predatory behaviours. Previous studies have shown that the prevalence of sexual sadism is generally high among sexual murderers (James & Proulx, 2016; Longpré, Guay, & Knight, 2020). However, direct sexual murderers are usually described as more deviant, and killing is considered as part of the sexual elements. As highlighted by Stefanska et al. (2017), it is clear that some perpetrators kill for sexual reasons (direct) while others do not (indirect). Our results revealed that direct sexual murders include more elements of unusual sexual practices during/ after the assault (such as biting and post-mortem sexual activity) and predatory behaviours both before and after the murder. These results are consistent with previous findings (e.g. Stefanska et al., 2017) and indicate that the underlying drive of the act of killing might not be the same for direct and indirect sexual murders. The results have practical implications for both the assessment and the case formulation.

In a second set of analyses, 2PL IRT analysis was conducted. 2PL IRT revealed that an 8-item checklist was the best empirical solution. Because of the high prevalence of sexual sadism among sexual murderers, a score of 4 (or higher) on the SeSaS was the easiest item. This item was followed by the use of sexually related disinhibitors, stalking behaviours and the use of restraints. While these elements can be present in both subgroups, they are usually more frequent in the direct group. Thus, while the presence of these items in a crime scene might suggest that the killing was of a direct sexual killer, they cannot be considered as definitive evidence and should be analysed with the presence of other elements, namely the presence post-mortem sexual activity, the presence of other sexual activities (ex. masturbation), an unusual interest following the murder and the presence of biting. Analyses revealed that these 4 items can be used as strong evidence that the killing was associated with the direct killer, as they are both difficult to endorse and discriminate adequately between direct and indirect sexual murderers. Crime scenes are

unique and the presence (or absence) of some behaviours might be the results of several factors, ranging from deviant fantasies, to being disturbed during the assault. Therefore, no individual item should be used as a sole marker of a direct sexual murder. It is the sum of evidence that leads experts to conclude if the killing was of direct or indirect killer and the use of the 8-item checklist should be used accordingly. However, as highlighted by 2PL IRT, some elements are strong markers of a direct sexual murder as they are difficult to endorse, and are mostly present among direct sexual murderers.

In other words, having a case where the decision cannot be reached, a clinician can take the checklist and assess the case for the presence of the behavioural indicators. These behavioural indicators should guide the clinician in asking more focused questions during the assessment. Although no items should be used as separate markers, some markers are more indicative. For example, biting is often interpreted in forensic reports as an indicator of anger but this is not supported here and it suggests that the behaviour might have a more sexual nature. Biting can serve different purposes in sexual homicides but biting of breasts or buttocks (indeed many inflicted injuries in these areas) are described as sexually oriented injuries (Stuart Hamilton, FRCPath, MFFLM, personal communication, May 28, 2020).

Implications. Geberth (2018) argued that one of the most important aspects in homicide investigation is determining the motive for the killing and because of this most classifications are not useful and in fact they may confuse the investigation. From an investigative standpoint, Geberth further postulated that, taking into account motivation, sex-related homicides can be differentiated into four categories: (1) interpersonal violence-oriented disputes and assaults (mainly domestic violence related killings); (2) rape and /or sodomy oriented assaults (killing used to prevent identification or due to excessive force); (3) deviance oriented assaults (killing

driven by fantasy); (4) serial murderers. We do not disagree with this as it appears that in preparation for a sexual homicide trial, providing a feasible explanation for motivations behind the perpetrator's actions is paramount. However, clinical and practical issues in providing expert testimony as well as overlooking sexual homicide cases in forensic settings following conviction and detention put emphasis on different points of practice. Here, the ultimate goal of practice is case formulation with a view of risk reduction (Carter & Perkins, 2018) and because of that considering only the motivation for the killing might *de facto* not be useful. Indeed, in contrast to Geberth's notion, focusing only on motivation might be misleading. A good example is the earlier described angry type (or interpersonal violence-oriented disputes and assaults type in Geberth's typology). While this type is useful in aiding investigation (e.g. indicating that suspects should be sought among husband, boyfriend or ex-partner) it might be misleading clinicians in terms of their treatment targets e.g. domestic violence and anger related treatment only without appropriately considering the nature of the sexual element within the criminal event (Carter & Hollin, 2014).

The newly proposed direct/indirect classification along with the empirically-derived checklist has several advantages. First, it focuses attention to the fact that sexual homicide is a hybrid offence between sexual assault and homicide. As such, during the assessment (and case formulation) the functional role of the killing should be established. Second, it acknowledges that sexual homicide perpetrators are a diverse population of perpetrators that differ not only between but also within the two profiles. Third, the primary intention of the current classification is not assessing the motivation for the offending or examining if the killing was intentional or not (indeed even in the direct group some perpetrators were opportunistic - e.g. opportunistic necrophile). The proposed classification does not ignore the information derived from the

investigative stage and allows us to consider motivational components if this data is available. However, the primary aim remains to examine the way the sexual element and the act of killing are connected. Finally, the classification concentrates on examining the evidence available from the crime scene, merging all relevant and most reliable data to derive an appropriate profile.

Fundamentally, looking at sexual homicide cases from the perspective of the direct/indirect typology automatically directs clinicians to consider how, and at what point in the timeline, the sexual element and the act of killing were related. This in turn will indicate the main issues that need to be taken into consideration by those constructing investigative hypotheses or during the offence-focused stage of any treatment interventions (Perkins & Carter, 2018). For the direct perpetrator, the ability to understand and manage sexual urges in the context of extreme violence would be crucial (even if the offender presented his actions as driven by anger). For the indirect perpetrator, understanding that the sexual acts and the killing are not necessarily functionally linked would help avoid automatic assumptions of sexual motives in the killing. Taking into account behavioural indicators (such as those noted in the checklist) will help to address any arising inconsistencies between forensic evidence and offender's account at an early stage so that those key aspects can be addressed during intervention rather than inadvertently omitted.

Limitations. The aim of the present study was to develop an empirically driven checklist that will guide clinicians and professionals in the decision-making process. This study did have some limitations. First, it is possible that not all the theoretically related elements were tested. Elements available to conduct the analyses were limited to what was available in the database, and therefore, it is possible that some information is missing. However, the data available were collected as part of clinical and forensic assessment and were coded from archival files.

Therefore, all relevant information is normally included and the odds that some important information was missing are limited. Furthermore, the database included an exhaustive list of information and all relevant information was available. Future research should investigate if other elements might increase our ability to adequately classify direct and indirect sexual murderers.

Secondly, while the checklist shows promising results, replication is needed before it is used by clinicians. While the sample used in the present study was representative of the sexual murderers' population, it is still possible that part of our results is sample-related. Therefore, the checklist must be interpreted with caution and needs to be replicated on other samples. However, it is important to note that the 8-item checklist is based on a strong theoretical and empirical basis and is consistent with other empirical and theoretical research. Decisions that can have practical legal consequences and will have an impact on case formulation require replication.

Conclusion

The direct/indirect classification rests on the analysis of the crime scene behaviours and other evidence available in order to determine how the sexual element and the killing are connected. The classification proposed has several advantages which are discussed in the paper. The empirically-driven checklist developed in this study aims to additionally guide clinicians and professionals in the decision-making process, particularly in cases where the decision about which profile the case belongs to is difficult to reach. As such, the presence of the behavioural indicators contained in the checklist can guide the clinician in asking more focused questions during the assessment. Although no items should be used as separate markers, some markers are more indicative.

Acknowledgments

The authors wish to thank Doctor Stuart Hamilton, MB, ChB, BMSc (Hons), FRCPath, MFFLM Home Office Registered Forensic Pathologist, for his advice and help.

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Table 1

EFA Principal Components – Oblim

Items	Factor I Sadism	Factor II Unusual	Factor III Predatory
Post mortem sexual activity		**0.455**	0.387
Sexually related disinhibitors	**0.514**	0.334	
Stalking, following, victim target	0.403		**0.422**
Restraints used	**0.807**	0.264	
Other sexual activity		**0.535**	
Biting		**0.765**	0.340
Unusual interest following murder			**0.807**
SeSaS over 4	**0.589**		

Table 2

Item Response Theory Item Parameter Estimates

Items	ɑ	b
SeSaS (over 4)	1.109	0.786
Sexually related disinhibitors (porn, masturbation)	0.775	1.267
Stalking or following the victim	0.507	1.496
Post mortem sexual activity	0.377	2.175
Restraints used during crime	0.391	2.185
Unusual interest following murder (return to crime, media, bragging, volunteered investigation)	0.272	2.384
Evidence of other sexual activity at crime scene (masturbation, fondling)	0.351	2.957
Biting	0.353	3.759