Differentiating behavioural styles in cases of violent knife crime in England and Wales

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TITLE: Differentiating behavioural styles in cases of violent knife crime in England and Wales

ABSTRACT:

Knife-enabled crime in England and Wales has increased by 7% in the year ending December 2023. Such increases in incidents are cause for concern due to the potential for significant injury and loss of life. The current study aimed to propose a model of differentiation of offending across 70 cases of violent knife crime (VKC) committed in England and Wales between 2015 and 2020 to inform preventative strategies.

Incident data was collected from online news articles and offender, victim, and offence characteristics were recorded. Characteristics were subject to a non-metric multi-dimensional scaling procedure, Smallest Space Analysis (SSA) to differentiate behavioural styles.

Regional interpretation of the SSA identified three distinct themes (Intimate Partner Violence, Gang-Influenced, and Reactive Violence) that related to distinct styles of offending. Classification according to identified offence theme was possible for 69% of cases. Findings are discussed with reference to Social Identity Approach and Criminal Narrative Theory. Potential future research is discussed with recognition of the need to further differentiate offending behaviour in cases of reactive violence.

CUST_RESEARCH_LIMITATIONS/IMPLICATIONS_(LIMIT_100_WORDS) :No data available.

The theorical and practical implications are discussed with consideration of how the findings may inform preventative strategies as part of a public health approach.

CUST_SOCIAL_IMPLICATIONS_(LIMIT_100_WORDS) :No data available.

While SSA has been utilised to differentiate behavioural styles across several types of crime, this is the first instance in which the method has been used to differentiate behavioural styles across cases of VKC.

1 **Differentiating behavioural styles in cases of violent knife crime in**
2 **England and Wales**

3

4 **Abstract**

5

6 **Purpose**

7

8 Knife-enabled crime in England and Wales has increased by 7% in the

9 year ending December 2023. Such increases in incidents are cause for

10 concern due to the potential for significant injury and loss of life. The

11 current study aimed to propose a model of differentiation of offending

12 across 70 cases of violent knife crime (VKC) committed in England and

13 Wales between 2015 and 2020 to inform preventative strategies.

14

15 **Design**

16

17 Incident data was collected from online news articles and offender,

18 victim, and offence characteristics were recorded. Characteristics were

19 subject to a non-metric multi-dimensional scaling procedure, Smallest

20 Space Analysis (SSA) to differentiate behavioural styles.

21

22 **Findings**

Regional interpretation of the SSA identified three distinct themes (Intimate Partner Violence, Gang-Influenced, and Reactive Violence) that related to distinct styles of offending. Classification according to identified offence theme was possible for 69% of cases. Findings are discussed with reference to Social Identity Approach and Criminal Narrative Theory. Potential future research is discussed with recognition of the need to further differentiate offending behaviour in cases of reactive violence.

Practical Implications

The theorical and practical implications are discussed with consideration of how the findings may inform preventative strategies as part of a public health approach.

Originality

While SSA has been utilised to differentiate behavioural styles across several types of crime, this is the first instance in which the method has been used to differentiate behavioural styles across cases of VKC.

45

Knife Crime, Investigative Psychology, Criminal Narratives, Social Identity

Approach, Behavioural Styles, Model of Differentiation

48

49

Introduction

51

52 Knife-enabled crime in England and Wales has increased by 7% in the year ending

53 December 2023 (*Office for National Statistics*, 2024a). Such increases in incidents

54 are cause for concern due to the potential for significant injury and loss of life. While

55 national statistics can be somewhat useful in identifying statistical trends, there are a

56 number of caveats to consider when using the data, particularly that which relates to

57 knife crime. Under reporting/incorrect categorisation by police, differences in

58 recording systems (*Office for National Statistics*, 2023) and omission of statistics due

59 to technical errors (*Office for National Statistics*, 2024a) have impacted the accuracy

60 of national statistics. Under-reporting of incidents is also an issue that is not

61 reflected in national statistics. Consequently, statistical interpretation of knife crime

62 using these statistics should be understood to be an approximate representation of

63   trends and not to be seen as definitive. It is therefore necessary that academic

64   research is conducted to better understand the nature of VKC.

65

66   *Defining Violent Knife Crime*

67

68   'Knife Crime' is a term which became a common feature of news headlines in

69   England and Wales during the early 2000s. Currently, despite ongoing media

70   attention afforded to the matter, there is currently no Home Office definition of knife

71   crime (Williams & Squires, 2022). As a result, low level crimes such as possession of

72   a weapon or threatening using a knife fall under the same definition as more serious

73   crimes such as knife-enabled homicide and knife-enabled sexual offences (Eades et

74   al., 2007).

75

76   According to the World Health Organisation (WHO), violence is defined as:

77

78   *"The intentional use of physical force or power, threatened or actual, against oneself,*

79   *another person, or against a group or community, that either results in or has a high*

80   *likelihood of resulting in injury, death, psychological harm, maldevelopment, or*

81   *deprivation."* (Krug et al., 2002: p1084).

82

83   The above definition recognises threatening behaviour as an act of violence and

84   includes consequences of violence other than physical injury. In contrast to the WHO

85   approach, the current research does not include threat of violence in its definition.

86   The approach suggested herein allows for differentiation between 'low level' knife

87   crimes and those which include actual wounding. In the present paper, VKC is

88   defined as "The intentional and actual use of physical force or power using a knife or

89   sharp instrument against another person or persons that results in injury or death."

90

91   **Literature review**

92

93   Aetiologically, the literature suggests that austerity, cuts, and reduced availability of

94   youth services may have contributed to increases in knife crime, while social media

95   use and feelings of unsafety may perpetuate the problem (Phillips et al., 2022).

96   Furthermore, discussions around causality have centred around the availability of

97   knives, in particular kitchen knives (Eades, 2006; Foster, 2013; Golding & McClory,

98   2008) which were the most common type of knife used in homicide cases in the year

99   ending March 2023 (*Office for National Statistics*, 2024b).

100

101   The academic literature on knife-enabled crime has indicated a range of risk factors

102   related to both victims and offenders of knife crime inclusive of gender (Ajayi et al.,

103   2021; Bailey et al., 2020; Lemos, 2004; Vinnakota et al., 2022), deprivation and

104   poverty (Haylock et al., 2020; Phillips et al., 2022; Reilly et al., 2023), exposure to

105   gangs (Harding, 2020) which is also linked to deprivation and poverty (Dupéré et al.,

106   2007), adverse childhood experiences, and mental ill health (Haylock et al., 2020).

107   In terms of offender and offence characteristics, Browne et al., (2022) indicated that

108   offenders are more likely to be male when the offence occurs in the community,

109   however when females offended, this was more likely to occur in a domestic setting.

110   According to Wood (2010), both offenders and victims were more likely to be male

111   and while those that resided within London and Greater London where more likely to

112   be Black and minority ethnicities with connections to gangs, those outside of London

113   were more likely to be white with no gang involvement. In contrast, Bailey et al.

114   (2020), found that victims and offenders in the Thames Valley area were more likely

115   to be white males which is substantiated by homicide statistics (*Office for National*

116   *Statistics*, 2024b).

117

118   Low socio-economic status, previous victimisation and/or offending, substance

119   misuse and mental ill-heath were also identified as characteristics of knife crime

120   offenders (Browne et al., 2022). Motivations for knife carrying include feelings of

121   mistrust towards police and other agencies (Foster, 2013; McVie, 2010; Traynor,

122   2016), and peer influence and status (Lemos, 2004). Fear of crime and a need for

123   protection have also been identified as significant motivations for knife-carrying

124   (Foster, 2013; Gilbert & Sinclair, 2019; Harding, 2020; Lemos, 2004; Ramshaw &

125   Dawson, 2022; Squires, 2009; Stephen, 2009).

126

127   A limitation of the existing research on knife crime, and the initiatives aimed at

128   addressing it, is the tendency to focus on young offenders and gang related violence

129   (Williams & Squires, 2022). However, research indicates that the majority of knife

130   related violence is not gang-related and is more likely to be an instance of 'one-off'

131   reactive violence between strangers (Bailey et al., 2020). More recent research has

132   addressed the need for research outside of that which solely focuses on young

133   offenders in community settings. Cook and Walklate (2020) note that in the context

134   of intimate partner homicide, the most commonly used weapon is a knife. However,

135   this presentation of VKC is often overlooked within the knife crime literature (Williams

136   & Squires, 2022), it may be that the IPV literature can offer some insight into this

137   presentation. Academic evidence indicates that a history of previous domestic

138   incidents is likely in cases of IPV, particularly in cases of intimate partner homicide

139   and that IPV is likely to occur in a private setting, such as the home (Jung & Stewart,

140 2019). Drivers of IPV include jealousy and anger (Neal & Edwards, 2017; Pichon et

141 al., 2020) which is in response to perceived threats to the relationship (Wright, 2017).

142 Research also indicates that revenge driven violence is deemed by perpetrators to

143 be an appropriate response to perceived threats to the relationship and grievances

144 (Weldon & Gilchrist, 2012). Furthermore, rejection sensitivity has been found to be a

145 predictor of IPV, with the perception of rejection likely to result in jealousy and

146 hostility (Downey & Feldman, 1996; Inman & London, 2022). When this occurs in the

147 home, where knives are easily accessible, it is inevitable that some cases of IPV will

148 escalate into VKC.

149

150 **Public Health Approach**

151

152 Despite a body of literature which has sufficiently established a range of risk factors

153 for involvement in knife crime, it continues to be a significant problem in the UK. That

154 said, Scotland's public health approach to tackling knife enabled-crime via the

155 implementation of Violence Reduction Units is said to have contributed to significant

156   reductions in gang related violence and weapon use in Scotland (McVie, 2010; Skott

157   & McVie, 2019). Public health approaches take an evidence-based preventative

158   approach to addressing violence through primary, secondary, and tertiary prevention

159   strategies (Sethi, 2010). It is therefore necessary for academic research to be

160   conducted to provide a contemporary evidence base upon which prevention

161   strategies can be developed. The current research aims to propose a model of

162   differentiation of behavioural styles across cases of VKC which may be utilised to

163   inform primary, secondary, and tertiary prevention strategies that contribute to a

164   public health approach.

165

166   **Theoretical Approaches**

167

168   *Criminal Narrative Theory*

169

170   Narrative identity refers to the way in which individuals make sense of and give

171   meaning to their lives via the internalisation of evolving and self-defining stories in

172   which their role is central (McAdams, 2006). According to McAdams (1993) the

173   narrative self, the personal myth, is an inner story which is subject to ongoing

174   development across the life span. These personal myths are thematically organised

175   across two domains: agency (related to concepts of power and achievement) and

176   communion (related to concepts of love and intimacy) (McAdams, 1993; Youngs &

177   Canter, 2011).

178

179   Canter and Youngs (2009) argue that the detailed analysis of inner-narratives,

180   narrative roles, and the role assigned to the victim by the offender are fundamental

181   to understanding crime. According to Youngs and Canter (2011) agency and

182   communion are comparable to concepts of intimacy and potency, and high or low

183   levels of these within offense behaviours are indicative of the relevance of the victim

184   to the offender. Canter's Victim Role Model (Canter, 1994) highlights the way in

185   which the interplay of control and empathy deficits produce one of three ways in

186   which offenders view victims; as object, as vehicle, and as person. Within the victim

187   as object role, the offender views the victim as less than human, and has a tendency

188 towards physical control (Ioannou & Oostinga, 2014). The victim as vehicle role is

189 one in which the crime represents the expression of anger and/or desire towards the

190 victim, and in the victim as person role, the victim is recognised as human and

191 control is gained via manipulation (Ioannou & Oostinga, 2014).

192

193 In addition, offences can be distinguished thematically as expressive or instrumental.

194 Feshbach (1964) proposed an instrumental – expressive dichotomy of violence and

195 defines expressive violence as violence which occurs in response to psychological

196 stressors, such as emotional responses, while instrumental violence, also known as

197 proactive aggression (Vitaro & Brendgan, 2005), is committed in order to achieve

198 some other goal. The expressive/instrumental dichotomy is suggested to be

199 indicative of the role of the victim to the offender, with expressive crimes suggested

200 to be those in which the victim is recognised as a person (Salfati, 2000) where

201 violence is often the result of an emotional outburst (Fritzon & Garbutt, 2001).

202 Whereas instrumental crimes indicate the view of victim as object from which the

203 offender can gain something (Salfati, 2000).

204

205 In light of the above concepts, Youngs and Canter (2011) propose four fundamental

206 offender narrative roles: 'The Revengeful Mission', the 'Tragic Hero' , 'the

207 'Professional', and the 'Victim'. Narrative analysis has been the focus of a number of

208 pieces of academic research within the criminal context which provide evidence for

209 these thematic inner narratives roles inclusive of rioting (Willmott & Ioannou, 2017),

210 female offending (Ciesla et al., 2019), homicide including dismemberment (Pointon &

211 Wright, 2023), and its utilisation has proven fruitful when applied to cases of missing

212 children (Hunt, 2021).

213

214 Such consistency of dominant narrative themes across empirical research indicates

215 the presence of a framework from which offenders and offence styles can be

216 differentiated and may be applicable to any type of crime (Willmott & Ioannou, 2017).

217 Application to the empirical study of VKC may allow for the development of a model

218 of differentiation which enables police, policy makers, and agencies tasked with

219   addressing VKC to understand its varying presentations and the contexts from which

220   they occur, and therefore consider preventative strategies to address it.

221

222   *Social Identity Approach*

223

224   While criminal narrative roles may provide insight into the internal processes which

225   inform behaviour, there is a need to better understand the social and cultural

226   contexts from which inner-narratives operate. One approach that pays particular

227   attention to context is the social identity approach (SIA): the SIA posits identity as

228   actively generated in contexts, an emergent property of social interaction (Levine,

229   1999). In the context of crime, it is noteworthy that, from a social identity perspective,

230   identity and self-categorization processes are understood as structuring social

231   interaction (Haslam et al., 2009). Social identity was defined by Tajfel (1982) as an

232   individual's knowledge that they belong to certain social groups and that membership

233   of these groups has emotional and value significance for them. It focuses on the

234 'we's' people ascribe to and how when 'we' self-categorise as a group member 'we'

235 interact with 'them'.

236

237 The SIA is a psychological metatheory which comprises Social Identity Theory (SIT)

238 and Self Categorisation Theory (SCT). SIT is concerned with meaningfulness,

239 belonging and wellbeing derived from identification with particular groups (Tajfel &

240 Turner, 1979), while SCT is concerned with the mechanisms associated with

241 assigning the self to social groups (Turner, 1985).

242

243 One way of understanding crime is as a social transaction between victim(s) and

244 offender(s) (Canter, 1994) and thus, social psychology may offer a means of

245 understanding psychological mechanisms from which crime, and more specifically

246 VKC may arise. If VKC is understood as a form of conflict, then it becomes

247 necessary to understand the social contexts from which it occurs (Billig, 2002). Billig

248 (2002) argues that the study of conflict should consider the attitudes and beliefs that

249 groups hold about each other. Therefore, to understand VKC, the psychology of

250   group processes, attitudes, and perceptions should be examined. An application of

251   SIA enables examination of these mechanisms.

252

253   The Integrated Social Identity Model of Stress (ISIMS; Haslam & Reicher, 2006)

254   provides a model which conceptualises how responses to stress relate to

255   identification with, and security within, social groups. The model suggests that low-

256   status group members with low levels of shared identity will respond to stressors

257   related to social identity through avoidance. In the absence of opportunities for

258   avoidance and when social identity status is secure, individuals are likely to react to

259   stressors with denial. Finally, resistance is likely when social identity status is high

260   but perceived group security is low (Haslam et al., 2018). It is here suggested that

261   the ISIMS can be applied to VKC to explore the underlying processes that contribute

262   the presentation of offence characteristics.

263

264   **The Current Study**

265

266   The current research aims to analyse a range of characteristics associated with

267   offenders, victims, and offences of VKC in England and Wales. It is argued that

268   patterns in the co-occurrence of these characteristics will allow differentiation of

269   behavioural styles of VKC offending. Offence characteristics and their co-occurrence

270   are often analysed within Investigative Psychology (IP) research using Smallest

271   Space Analysis (Canter & Youngs, 2009). However, a literature search of Wiley,

272   Emerald, ProQuest, Sage, Science Direct, and Elsevier, conducted on 20th April

273   2024, using the terms ("Knife crime" OR "Knife-enabled") AND ("Smallest space

274   analysis") AND ("United Kingdom" OR UK OR England OR Ireland OR Scotland OR

275   Wales) returned no results which specifically utilised SSA to propose a model of

276   differentiation across cases of knife-enabled violent crime. It is thus suggested that

277   the current study's contribution to literature is that it is likely to be the first exploratory

278   piece of empirical study to be published, that aims to differentiate between offending

279   styles across cases of VKC. Ultimately, the current study aims to answer the

280   question "What are the clusters of variables present in SSA that are associated with

281   different offending styles in the context of violent knife crime?" and address this

282   literary gap.

283

Methods

285 **Ethical considerations**

286

287 Ethical approval was granted by the institution (IRB number: 42440). While all of the

288 details of cases are accessible via open sources, to ensure confidentiality, names or

289 identifiable details of individuals are not included in this report. Such details were

290 collected in the initial stages of data collection but were not included in the final

291 analysis.

292

293 **Sample**

294

295 The sample was comprised of 70 cases of VKC to mirror the methodology of Canter

296 and Heritage (1990), who pioneered the use of SSA to differentiate behavioural

297 styles of offending across 66 cases of stranger rape. The first inclusion criteria were

298   that the offence was committed by individuals aged 24 and under. This reflects

299   consistent trends with regards to age ranges with the highest levels of offending

300   (Office for National Statistics, 2022; Office for National Statistics, 2023c). The lower

301   age limit for offenders was decided based upon the age of criminal responsibility in

302   England and Wales (Crown Prosecution Service, 2022), which is currently set at 10

303   years of age.

304

305   In addition, it was determined that cases should have occurred in England and

306   Wales between 2015 and 2020 to provide the best representation of VKC in England

307   and Wales without any distortions due to the impact of Covid-19 restrictions. The

308   current research considers VKC to be a social transaction between victims and

309   offenders (Canter, 1994), thus, social restrictions on a national level will have

310   undoubtedly impacted the nature of those transactions. Therefore, it was decided

311   that pre-pandemic data would provide the most accurate depiction of VKC in the UK.

312   According to Phillips et al., (2022), increases in prevalence and severity suggest that

313   the nature of knife crime is changing over time, thus it was decided that a sample

314   obtained across a five-year period would best reflect current picture of VKC in

315   England and Wales, while a longer period of ten to twenty years would be less

316   indicative of the way that VKC has manifested in recent years.

317

318   In cases where there was more than one offender, the details of the offender first

319   identified as meeting the inclusion criteria were recorded for the purpose of analysis

320   and in cases in which there was more than one victim, the details of the victim with

321   the most severe injuries were recorded to reflect the severity of the crime.

322

323   **Data collection**

324

325   Data were collected from online open sources, firstly by identifying cases using The

326   Law Pages, a website that lists cases of crimes heard in Crown court. The Law

327   Pages only records cases leading to a conviction, thus ensuring validity of the

328   sample of cases by excluding anyone charged but later found not guilty (Collie &

329   Shalev Greene, 2019). The use of The Law Pages reduced the impact of media bias

330 regarding the cases that were collected as they were first identified via a source

331 independent from media influence. Selection of cases was conducted in a systematic

332 randomised manner. To ensure an even spread, the number of cases (N=70) was

333 divided by the number of years (5), indicating that 14 cases per year should be

334 collected. The details of every third case identified as knife-enabled from the list of

335 results per year were included until the sample size of 14 per year was met.

336

337 While 'The Law Pages' provides some details of cases, the depth of the details

338 provided can be inconsistent with some listings providing full Judges sentencing

339 remarks and others only minimal case details such as the date of the offence and

340 location. This made it necessary to obtain further details following case identification

341 and this was achieved using news websites (BBC News, Sky News, The

342 Independent, Mirror, ITV News). While it was recognised that alternative data

343 sources, such as police or court records may have been preferable to open-source

344 data, concerted efforts to gain access to such material proved to be unsuccessful.

345 While police and court reports may provide more robust and comprehensive data, an

346   inability to access such data meant that media reports provided the most direct data

347   obtainable (Collie & Shalev Greene, 2019) for the purpose of the current research.

348

349   Once the 70 cases were collected, the data was analysed and offender, victim, and

350   offence characteristics were recorded. A coding dictionary was devised (see

351   Appendix 1) by recording and labelling the characteristics present in each case for

352   example, 'offender acted alone', 'offender acted as part of a group.' A dichotomous

353   approach to recording the presence and absence of characteristics was adopted and

354   variables were coded '0' when a characteristic was absent and '1' when a

355   characteristic was present. Previous research has argued that a dichotomous

356   approach ensures maximum clarity and reliability when utilising data which was not

357   initially collected for the purpose of conducting academic research (Almond et al.,

358   2006). Initially, a total of 96 variables were identified. Due to the use of open-source

359   media, there was a notable amount of missing data across the dataset, and variables

360   which were significantly impacted by missing data were excluded from the analysis.

361   Variables that occurred in more than 90% (almost certain to occur) of cases and

362 those that occurred in less than 5% (almost never occurs) of cases were also

363 excluded to facilitate differentiation. Finally, variables which measured the same

364 outcome from opposite viewpoints, for example 'offender acted alone' and 'offender

365 acted as part of a group' were considered and selected to ensure an even spread of

366 frequencies across variables to enable differentiation. Following exclusion of

367 variables in this manner, it was determined that 25 variables were suitable for further

368 analysis.

369

370 **Data analysis**

371

372 Data were analysed using SSA which is a non-metric Multidimensional Scaling

373 procedure developed by Guttman (1954) and commonly utilised within IP research to

374 identify behavioural themes across cases of various offences. This is inclusive of

375 homicide (Santtila et al., 2001) serial homicide (Salfati & Bateman, 2005), school

376 shooting incidents (Gerard, Whitfield, et al., 2015) and rape (Canter & Heritage,

377 1990). A Jaccard's similarity matrix was used to produce a visual representation of

378   the variable co-occurrence against every other variable across the 70 cases of VKC.

379   Variables are represented by points within a geometric space, with the distance

380   between points representative of variable correlation (Canter & Heritage, 1990).

381   Therefore, a smaller distance between two variables within the plot would be

382   indicative of a higher correlation between those variables (Gerard, Browne, et al.,

383   2015). It was hypothesised that variables that are thematically similar would often co-

384   occur across the cases of VKC and therefore group together within the space of the

385   SSA plot, depicting distinct behavioural styles (Canter & Youngs, 2009).

386

Results

388

Smallest Space Analysis

390

391   The SSA plot depicts the co-occurrence of 25 variables (see Table 1) that occurred

392   during 70 incidents of VKC. Regional interpretation of the SSA plot identified three

393   regions in which the offence characteristics appeared to have a coherent

394 interrelationship. Tucker's coefficient of congruence is representative of how well the

395 spatial distribution within the SSA represents the actual co-occurrence of variables.

396 Tucker's coefficient of congruence was .96 with 17 iterations and according to

397 Lorenzo-Seva and ten Berge (2006) a coefficient of congruence higher than .95

398 indicates a good fit.

399

400   INSERT TABLE 1

401

402 The SSA output depicts three distinct behavioural styles (see figure 1) which are

403 labelled from the top right clockwise as 'Reactive Violence', 'Intimate Partner

404 Violence' and 'Gang Influenced'. Visual interpretation of the plot identified the

405 clusters of variables present which informed the placement of lines to distinguish the

406 regions. Differentiation was further supported by consideration of thematic similarity

407 of the variables present in each region and how they differed thematically from the

408 variables present in other regions (Salfati & Canter, 1999). Internal consistency of

409 the groupings within the SSA was tested using the Kuder-Richardson coefficient (K-

410   R 20), which is a measure of reliability for dichotomous data. According to Tucker

411   (2007), values below 0.50 are indicative of low internal consistency, while values

412   between 0.50 and 0.80 suggest a moderate level of reliability. Scores above 0.80

413   indicate a high level of reliability.

414

415   INSERT FIGURE 1

416

417   *Reactive Violence*

418

419   The top right region depicts a grouping of variables which together form

420   characteristics which can be attributed to incidents of VKC in which interpersonal

421   reactions escalated the violence: the knife was carried for protection, the offender

422   acted in self-defence, the incident occurred following a disagreement, the incident

423   occurred following a perceived disrespect, the victim and offender were strangers

424   and the incident involved one victim. The K-R 20 value for these items is 0.31 which

425   is indicative of a low level of reliability.

Intimate Partner Violence

428

429   The bottom right region of the SSA depicts variables attributed to cases of IPV: the

430   offence occurred following a perceived rejection, jealousy was a motivation in the

431   offence, the offender was reported to have mental health difficulties, the attack was

432   sustained, the attack was unprovoked, the attack was frenzied, there had been

433   conflict prior to the circumstance leading to the attack, and revenge was a motivator.

434   The K-R 20 value for these items is 0.69 indicating a moderate level of internal

435   consistency.

436

Gang Influenced

438

439   The left hand side of the SSA depicts a grouping of variables which is attributed to

440   gang influenced cases of VKC: The attacked occurred in a secluded area, the

441   offender affiliated with a post code gang, there was an ongoing feud between the

442   victim and offender, the offence was premeditated, the attack was a blitz attack, the

443   offender was affiliated with a drug dealing gang, the offender acted as part of a

444   group and the offense occurred during the course of another crime. The K-R 20

445   value for this grouping of items was 0.71, which is indicative of a moderate level of

446   reliability.

447

448   *Testing the Framework*

449

450   SSA analysis depicts three regions which indicate a model of differentiation of

451   behavioural styles in cases of violent knife crime. However, it does not assign those

452   cases to a dominant type. To classify cases to their dominant themes, the

453   percentage of present characteristics per theme was calculated. Cases were

454   assigned to a dominant type if the intra-group percentage of characteristics present

455   belonging to one region were greater than the sum of the percentages of present

456   characteristics belonging to the other two groups. Cases that could not be assigned

457   to a dominant behavioural style in this manner were categorised as non-classifiable.

458   Table 2 depicts the distribution of cases across behavioural styles.

459

460   INSERT TABLE 2

461

462   **Discussion**

463

464   The current study applied SSA to examine offence characteristics across cases of

465   VKC in England and Wales. The cases collected occurred between February 2015

466   and February 2020 to avoid the impact of Covid-19 restrictions on the data. Regional

467   analysis (Canter & Youngs, 2009) of the SSA identified three distinct behavioural

468   themes indicating different offending styles across cases of VKC: intimate partner

469   violence, gang-influenced, and reactive violence. Of the 70 cases, 69% could be

470   classified as belonging to one of three dominant behavioural themes. In contrast,

471   31% of cases were classified as non-classifiable and were not characteristic of one

472   dominant theme.

473

Smallest Space Analysis

475

Intimate Partner Violence

477

478   The IPV region of the SSA depicts variables suggestive of a relationship with

479   interpersonal emotions. According to Youngs and Canter (2011), offending that is

480   characteristically high in intimacy suggests an explicit intention to affect the victim.

481   The presence of emotive variables such as revenge, rejection, and jealousy suggest

482   a behavioural theme heavily influenced by reactions to perceived threats to the

483   relationship (Neal & Edwards, 2017; Pichon et al., 2020; Wright, 2017) in which

484   emotional outbursts (Fritzon & Garbutt, 2001) of anger and rage escalate into

485   violence that is intentionally directed towards the victim and is therefore high in

486   intimacy and expressive in nature. According to Downey and Feldman (1996) and

487   Inman and London (2022), rejection sensitivity within a relationship has the potential

488   to lead to jealousy and hostility, which may explain the close proximity of jealousy

489 and rejection within this region. The variable frenzied may be indicative of a loss of

490 control due to emotional outburst, which Youngs and Canter (2011) state is

491 indicative of low potency. In addition, the presence of the prior conflict variable

492 aligns with findings that previous domestic incidents are likely in cases of IPV (Jung

493 & Stewart, 2019).

494

495 Canter & Youngs (2009) state the expressive-instrumental model can be mapped

496 onto the role assigned to a victim by an offender, with the 'victim as person' role

497 more characteristic of crimes that are more expressive in nature and

498 characteristically higher in intimacy. In the 'Victim as Person' role, the offender

499 recognises the victim as a person from whom they wish to gain something. Coercion,

500 manipulation, and abuse of the victim, which can be extreme due to the highly

501 expressive nature of the crime, would be characteristic of this offense style (Ioannou

502 & Oostinga, 2014). The presence of frenzied and sustained attacks within this region

503 of the SSA is demonstrative of extreme abuse directed towards the victim during the

504 incident.

505

506 Offences characteristically high in intimacy and low in potency are suggested by

507 Youngs and Canter (2011) to involve perpetrators that align with the 'Victim'

508 narrative. The victim criminal narrative is characterised by a state of confusion and

509 helplessness in which an offender perceives a crime, in this case VKC, as something

510 that they are powerless to avoid (Canter & Youngs, 2009; Ioannou et al., 2016).

511 Research suggests that male perpetrators of IPV experience dual self-perception as

512 both perpetrator and victim (Zrihan-Weitzman & Buchbinder, 2014), which may

513 explain such feelings of confusion and helplessness.

514

515 From a social identity approach, particularly with consideration of the ISIMS (Haslam

516 & Reicher, 2006), offenders of IPV often resort to victim blaming attributions, placing

517 their own violent behaviour outside of their control (Lila et al., 2013). The placing of

518 blame outside of the offender's control suggests denial of responsibility for the

519 actions directed towards an intimate partner in response to emotive stressors and

520 threats to the relationship. According to the ISIMS (Haslam & Reicher, 2006), the

521   presence of denial indicates that the offender's perceived social status within the

522   relationship is high. Interestingly, this indicates security within the relationship. While

523   insecurity may be expected and the presence of jealousy within this region suggests

524   it is indeed present, social identity security may arise from repeatedly being forgiven

525   following incidents of IPV, indicated by the presence of the prior conflict variable

526   within this region. Indeed, the presence of forgiveness is suggested to maintain the

527   status-quo within IPV relationships, which in turn enables the perpetrator to assign

528   elements of blame for violent incidents onto the victim, and thus assign the role of

529   victim onto themselves (Zrihan-Weitzman & Buchbinder, 2014).

530

531   *Gang-Influenced*

532

533   The characteristics present in the gang influenced region of the SSA depict

534   premeditated, targeted attacks, fuelled by feuds. Context, fundamental to a social

535   identity understanding, is to the fore. This suggests purposeful and intentional

536   attacks which are high in potency and not heavily influenced by emotional responses

537   to the victim, that might be understood in social identity terms as depersonalisation

538   (Tajfel & Turner, 1979). Depersonalisation is the theory that personal identity is much

539   less prevalent when group identity is salient (Tajfel, 1969). Therefore, individuals are

540   more likely to behave in line with group expectations. In this context,

541   depersonalisation is extended to the victim by the offender, who would view the

542   victim as a component of the out-group (or gang) as opposed to a human being. The

543   'professional' offender minimises the seriousness of the harm inflicted on the

544   individual by viewing an attack on the individual as an attack on the rival gang.

545   Further, they frame their offending as part of a 'job' with violence being secondary

546   (Canter & Youngs, 2012). This calm/unemotional approach in which the offender is

547   focused on achieving his own objectives is suggestive of the 'Professional' Criminal

548   Narrative. Within this narrative, the victim is assigned the 'victim as object' role and

549   thus the offender views them as less than human and more as a means to achieve a

550   particular objective (Canter & Youngs, 2009).

551

552   The presence of the premeditated variable within this region suggests planned,

553   proactive offending as opposed to reactive or spontaneous offending. Proactive

554   aggression is described as an instrumental means of securing goods or dominating

555   others (Vitaro & Brendgan, 2005) and in the case of postcode gangs, potential gains

556   include territory, status, and protection (Pitts, 2008) while drug gangs stand to gain

557   money and business (Whittaker et al., 2020).

558

559   The escalation of violence and VKC in gang affiliated cases can be conceptualised

560   by applying the ISIMS (Haslam & Reicher, 2006). Individuals associated with gangs

561   are reported to be more likely to come from low socio-economic backgrounds

562   (Dupéré et al., 2007). When the salient social identity is that of someone belonging

563   to a community with a low socio-economic status, low social status may be present.

564   Gang involvement offers individuals a social structure which enables them to

565   increase status through avoidance of the low status social identity and identification

566   with the perceived higher status group (Haslam et al., 2018). When gang social

567   identity is salient, social status may be perceived as being high, while the associated

568 risk of violence and/or legal repercussions may make social identity insecure. The

569 ISIMS suggests that under these circumstances, threats to social identity are likely to

570 be met with active resistance in the form of conflict and hostility (Haslam & Reicher,

571 2006). In this context, it is argued that such resistance takes the form of violence and

572 VKC.

573

574 *Reactive Violence*

575

576 The final region of the SSA is 'reactive violence' which is representative of incidents

577 in which victims and offenders cross paths at random and violence escalates into

578 VKC. Canter & Youngs (2009) describe the 'revenger' criminal narrative as one

579 involving retaliation to unfair treatment which ultimately leads to disaster. The

580 characteristics 'disagreement' and 'protection' are suggestive of this type of narrative

581 which suggests the presence of some perceived threat (unfair treatment). Further,

582 Canter and Youngs (2009) discuss a narrative in which the offender feels justified in

583   their actions, which would align with the presence of 'self-defence' and 'protection'

584   characteristics within the SSA.

585

586   The key consideration within the reactive violence region is the presence of the knife.

587   Had the knife not been present, the same circumstances would have not escalated

588   beyond a fist fight. Theoretically, the reactive violence offender may socially identify

589   via self-categorisation as a potential victim of VKC which may feed into this fear of

590   crime and victimisation. This fear, which could be interpreted as insecurity, may

591   result in knife carrying as a means of protection as is suggested in academic

592   literature (Foster, 2013; Gilbert & Sinclair, 2019; Harding, 2020; Lemos, 2004;

593   Squires, 2009; Stephen, 2009). Status displays are described within the empirical

594   literature as another motivation for the carrying of knives (Foster, 2013) suggesting

595   that some individuals perceive knife carrying as a way to increase social status.

596   Application of the ISIMS (Haslam & Reicher, 2006) allows insight into how cases of

597   reactive VKC may manifest. The revengers perceived insecurity due to fear of

598   victimisation may lead to the offender's decision to carry a knife. In turn, the

599   perception of the offender that they are of a high social status due to carrying a knife,

600 coupled with the insecurity resulting from fear of victimisation and the tendency to

601 react to treatment that is perceived as unfair would result in a threat response of

602 resistance in the form of violence and VKC.

603

604 The revenger narrative is one which Youngs and Canter (2011) explain is

605 characteristic of high potency and high intimacy, where the offender views

606 themselves as powerful (high social status) and where the reactions of the victim are

607 highly significant. Within this narrative the victim is assigned the role of vehicle,

608 suggesting that violence results from an anger response (Ioannou & Oostinga,

609 2014). That said the emotional state of the revenger is said to be one of calmness

610 (Youngs & Canter, 2011) which is at odds with the expressive nature of a fear/anger

611 response (Youngs & Canter, 2011) characteristic of the reactive violence region.

612

613 A fourth narrative within criminal narrative theory is that of the hero, which is

614 characteristically more expressive in nature and in which the victim is also assigned

615 the role of vehicle (Youngs & Canter, 2011). The hero tends to perceive their crime

616 as a manly thing do and expresses bravery despite the associated risks (Ioannou et

617 al., 2016). Here, social identity threats to masculinity are significant. Bailey et al.,

618 (2022) describe incidents of one-off violence which are characteristic of the reactive

619 violence region in the SSA, as do Cook and Walklate (2020) who note that these are

620 often gendered in that they are predominantly perpetrated by males and usually take

621 place in the public domain. This demonstrates links between the hero criminal

622 narrative and incidents of VKC which are characteristic of reactive violence. The

623 merging of the revenger and hero narratives within this region seems logical, given

624 the role of the victim is the same for each of these narratives. However, the merging

625 of narratives in this region indicates a need for further analysis of VKC to identify

626 whether cases classified as reactive violence within this research can be further

627 differentiated in terms of behavioural themes. The finding of low internal consistency

628 within this theme, would also suggest that there is a need for further differentiation

629 within this region.

630

631 *Implications*

632

633   The current study differentiated between behavioural styles of VKC offending to

634   contribute to the current evidence-base which informs primary, secondary, and

635   tertiary strategies. In analysing victim and offender characteristics, it is possible to

636   identify risk factors and strategies methods to prevent their emergence as part of

637   primary prevention strategies. Understanding the criminal narratives of offenders,

638   relevance of the victim to the offender, and psychological mechanisms which result

639   in denial, avoidance, and resistance, can identify antecedents to behaviour.

640   Therefore, while risk factors may be present, targeted efforts at preventing those

641   antecedents from manifesting may prove to be effective secondary prevention

642   strategies. In addition, understanding the narrative roles of offenders may enable

643   practitioners to tailor offender treatment strategies that incorporate narrative theory

644   to prevent future re-offending. Further, understanding reactions to stress as products

645   of group processes may enable practitioners to promote social belonging in a

646   manner that deters violent reactions and thus inform tertiary prevention strategies.

647

648   *Study Strengths, Limitations and Future Recommendations*

649

650   The current study aimed to evidence the existence of different behavioural styles of

651   VKC. However, the research should be understood as an exploratory piece which

652   proposes a thematic model of differentiation and thus further research in the area of

653   VKC is necessary. Strengths of the current research are the successful

654   differentiation of offence styles and the application of SIA and Criminal Narrative

655   Theory to understand different presentations of VKC and how they may manifest.

656   One limitation of the research is the availability of data which relates to incidents of

657   VKC. Consequently, the use of open-source news media resulted in the current

658   study being limited to differentiation of behavioural styles based upon the media's

659   commonly reported characteristics and those made public which may not be

660   representative of all characteristics. More detailed data, such as police and court

661   reports may allow for the inclusion of more variables to identify whether other

662   behavioural styles are present within VKC offending.

663

664   Additionally, this research has shown that there is a need to further differentiate

665   cases of VKC which are characteristic of reactive violence cases. The current

666   findings suggest low internal consistency and a merging of criminal narratives within

667   this region and thus it is expected that further analysis, using more comprehensive

668   data sources which allow for the inclusion of more variables, would enable further

669   differentiation of behavioural themes in cases of reactive violence.

670

671   **Conclusion**

672

673   The current study addressed the question "What are the clusters of variables present

674   that are associated with different offending styles in the context of violent knife

675   crime?" and utilised SSA to evidence the existence of thematically different

676   presentations of VKC. Three distinct behavioural styles of VKC were identified:

677   'Intimate Partner Violence', 'Gang Influenced' and 'Reactive Violence'. The

678   application of Criminal Narrative Theory and SIA was used to explain the different

679   behavioural themes and give insight into the underlying psychological processes

680   which precipitate their manifestation. Cases of VKC that arose from incidents of IPV

681   were contextualised within the 'victim' criminal narrative, in which the victim is

682   assigned the role of person and where the ISIMS indicates that denial of

683   responsibility on the offenders part is validated by repeated forgiveness for conflict

684   within the relationship. Gang-influenced cases were suggested to be aligned with

685   the 'professional' offender with the victim assigned the role of object, and where

686   threats to social identity threats are met with resistance. Finally, cases of reactive

687   violence involved cases in which the victim was assigned the of vehicle. These

688   cases were characteristically cases of one-off violence in which social identity threats

689   to masculinity were suggested to be significant. Within this region there appeared to

690   be merging of the 'revenger' and 'hero' criminal narratives suggesting the need for

691   further differentiation of cases of reactive violence.

692

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Appendices

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INSERT APPENDIX 1

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Table 1.

Table detailing the frequencies of variables in each of the behavioural styles.

Characteristics	Number of Cases (%)
Reactive Violence	
OneVic	58 82.9%)
Disagreement	35 (50%)
Disrespect	32 (45.7%)
Strangers	27 (38.6%)
OffSelfDefence	6 (8.6%)
Protection	5 (7.1%)
Intimate Partner Violence	
Revenge	24 (34.3%)
Unprovoked	23 (32.9%)
PriorConflict	22 (31.4%)
Frenzied	21 (30%)
Sustained	10 (14.3%)
OffMH	8 (11.4%)
Jealousy	5 (7.1%)
Rejection	4 (5.7%)
Gang Affiliated	
Street	46 (65.7%)
Targeted	40 (57.1%)

WMulti	37 (52.9%)
Premed	27 (38.6%)
OffGroup	26 (37.7%)
Blitz	24 (34.3%)
OffDrugGang	12 (17.1%)
Feud	12 (17.1%)
Crime	10 (14.3%)
Secluded	10 (14.3%)
OffPostCodeGang	9 (12.9%)

Figure 1

Smallest space analysis plot depicting variable co-occurrence across 70 cases of VKC with regional analysis.

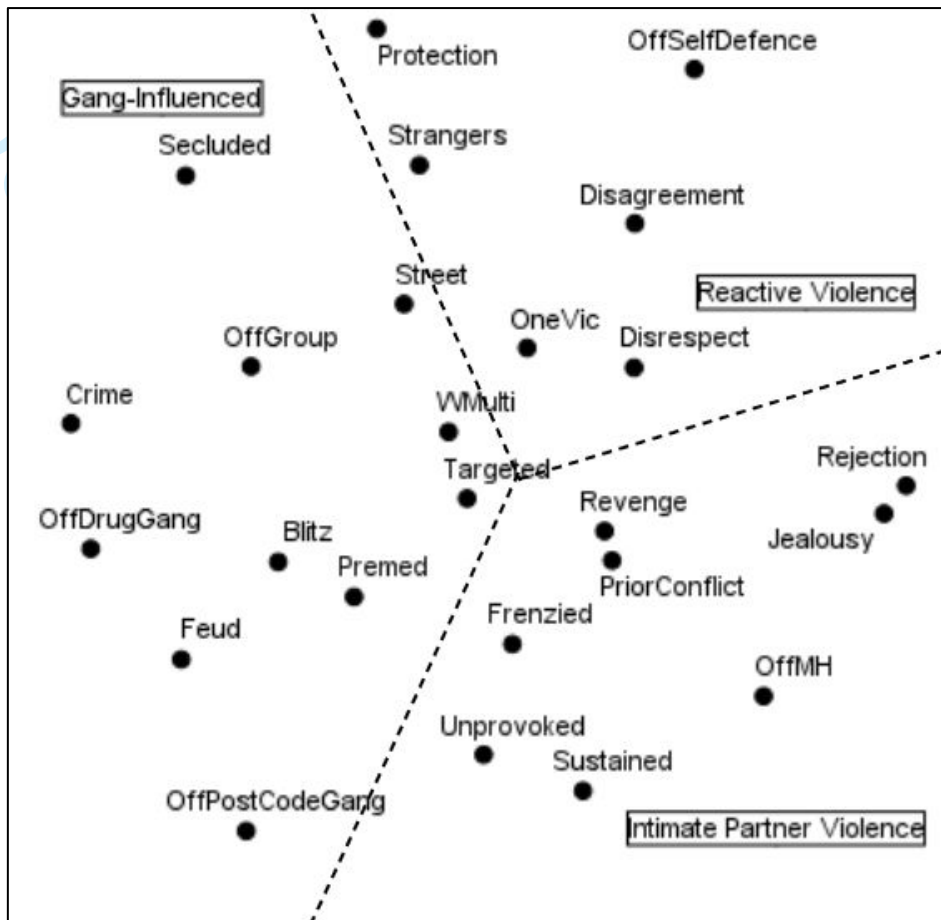**Table 2**

Distribution of cases across behavioural styles

Behavioural Style	Number of Cases (%)	Cumulative Number of Cases (%)
Gang-influenced	17 (24.3)	17 (24.3)
Intimate Partner Violence	4 (5.7)	21 (30)
Reactive Violence	27 (38.6)	48 (68.6)
Non-classifiable	22 (31.4)	70 (100)

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Appendix 1: Smallest Space Analysis Variables

Coding Dictionary

Table 1: Variable Coding Dictionary

Variable Label	Full Variable Label
OffCrimeFinance	The offender made their living through crime
OffEducation	The offender was in education
OffPreconKnife	The offender had a previous conviction for knife carrying
OffPreconViolent	The offender had previous violent convictions
OffPreconDrugs	The offender had previously been convicted of drug offences
OffPreconProperty	The offender had previous property convictions
OffProlific	The offender was a prolific offender
OffPreIPV	The offender had previously engaged in Intimate Partner Violence
OffMH	The offender had current or previous mental health difficulties
OffPostCodeGang	The offender was affiliated with a 'post code gang' operating from a specific territory
OffDrugGang	The offender was affiliated with a gang involved in drug distribution
OffAlone	The offender acted alone
OffAccom	The offender acted with an accomplice
OffGroup	The offender acted as part of a group
Joint Enterprise	The offending group was convicted of joint enterprise
Purpose	The offender carried the knife for the purpose of carrying out the attack
Habitual	The offender was a habitual knife carrier
KnifePickedUp	The offender saw the knife during the incident and picked it up
Protection	The offender carried the knife for protection/fear
Status	The offender carried the knife to display status
TakenFromV	The offender took the knife from the victim
KnifeThirdParty	The offender was either given the knife by or took it from a third party
KnifeKitchen	The offender obtained the knife from a kitchen
OffInitiated	The offender initiated the violence
OffHunting	The offender searched for their victim(s)
OffReturn	The offender returned to the scene of a previous altercation.
OffVicsHome	The offender went to the victim's home
OffKillUrge	The offender reported that they had urges to kill
OffPlanRandom	The offender planned to attack victim(s) at random
OffPreVic	The offender had previously been a victim of violence
OffRemove	The offender was removed from, or denied entry to a party
OffUInf	The offender was under the influence of drink or drugs
OffSelfDefence	The offender acted in self defence

VPostCodeGang	The victim was affiliated with a 'post code gang'	
VDrugGang	The victim was affiliated with a drug gang	
Valone	The victim was alone when the incident occurred	
VAccompanied	The victim was accompanied by one other person when the incident occurred	
VGroup	The victim was part of a group when the incident occurred	
VArmed	The victim carried a knife at the time of the incident	
VUnarmed	The victim did not carry a knife at the time of the incident	
Vinitiated	The victim initiated the violence	
VPreVic	The victim had previously been a victim of violence	
VAttackOther	The victim had attacked other people prior to the incident	
VIntervene	The victim had attempted to de-escalate violence directed at someone else	
VUInf	The victim was under the influence of drink or drugs	
TPInitiated	A third party initiated the violence	
Premed	The offence was premeditated	
Coordinated	The attack was described as coordinated	
MistakenID	The victim was attacked due to mistaken identity	
OneVic	The incident involved just one victim	
Targeted	The offender targeted the victim	
Random	The victim was attacked at random	
School	The incident occurred within the grounds of a school or as the victim left school grounds	
Park	The incident occurred in a park	
Indoors	The incident occurred indoors	
VHome	The offence occurred in the victim's home	
Vchased	The victim was chased during the incident	
Secluded	The incident occurred in a secluded area or in an area where there were few or no witnesses	
Public	The offense occurred in a place or at a time when there would likely be witnesses	
VMoved	The victim was moved by the offender following the attack	
VLeft	The victim was left in situ following the attack	
HiddenDispose	Following the incident, the knife was hidden or disposed of	
OffFled	The offender fled the country following the attack	
Wone	The victim sustained one wound	
WTwo	The victim sustained two wounds	
WMulti	The victim sustained multiple wounds during the attack	
Brawl	Reports indicate there was a brawl connected to the incident	
Feud	The victim and the offender (or the groups they belong too) had a long-standing feud	
VCarHit	The victim was purposely hit with a car prior to being stabbed	
Lured	The victim was lured to the area where the incident took place	
DrugDispute	A drug dispute occurred	
Blitz	The victim was ambushed and taken by surprise	
Frenzied	The offender reportedly lost control	

Sustained	The incident took place over a prolonged period of time
Arranged	The victim(s) and offender(s) had arranged to meet
Disagreement	There was a disagreement prior to the incident
PriorConflict	There had been some prior conflict separate to the any disagreement immediately prior to the incident occurring
Disrespect	The incident occurred followed a perceived disrespect
Revenge	The incident occurred in revenge
Crime	The offence occurred during another crime being committed
Message	The incident occurred to send a message/warning
Racial	The incident was racially motivated
Jealousy	The motive for the incident was jealousy
Rejection	The motive for the incident was rejection
EasyTarget	The victim was attacked due to being perceived as an 'easy target.'
Justice	The attack was perceived as justice by the offender
Unprovoked	The victim did nothing to provoke the offender
Partner	The victim and offender partners/ex-partners
Associates	The victim and offender knew of each other but were not friends
Family	The victim and offender were related
GangMembers	The victim and offender were affiliated to gangs, and this is how they knew of each other
Friends	The victim and offender were friends or ex-friends
Rivals	The victim and the offender engaged in rivalry with each other
Enemies	The victim and the offender saw themselves as enemies
Fatal	The incident resulted in death caused by knife or sharp object
HandedIn	The offender handed themselves in to Police following the incident