The Eco-System of Extremist Violence (ES-EV): Exploration of radicalisation in forensic psychiatric populations

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ABSTRACT:

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First, a Delphi study with 19 experts established consensus on factors applicable to forensic mental health settings. Second, interviews with five radicalised adult male forensic patients in a UK high-security hospital provided lived experiences. Third, clinical notes on 32 patients with radicalisation indicators, extreme views, or organised crime involvement were compared with 42 individually violent offenders.

The first study established most consensus related to environmental and contextual factors linked to radicalisation. In study two, discourse analysis revealed key themes in interviews, including membership as survival, natural determination, innocence, and support for these ideologiesâ€™ importance. Although no significant differences emerged between influences on extremist versus general violence in study three, Smallest Space Analysis identified distinct factor compositions for violence types. For extremist violence, three clusters emerged: (1) Injustice Collector, (2) Social Offender, and (3) Dominance Seeker. Notably, ideology was absent across cases.

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The study introduces a preliminary Eco-System of Extremist Violence model to assist risk management and clinical formulations. It also reintroduces the term â€˜group-based violenceâ€™ to destigmatise and better reflect risk factor overlaps across violence types linked to group membership.

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This project offers the first clinical guidance for assessing extremist violence risk in forensic psychiatric populations.

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Abstract

Purpose: While risk assessment tools for extremist violence have shown initial validation in community settings, little guidance exists for forensic psychiatric settings due to limited empirical evidence on mental health's role in radicalisation and overlaps between extremist and general individual violence. This research comprises three linked studies to explore factors relevant to radicalisation in forensic mental health patients. This is summarised in a conceptual model to aid the formulation of risk assessments where clinical guidance is currently lacking.

Design: First, a Delphi study with 19 experts established consensus on factors applicable to forensic mental health settings. Second, interviews with five radicalised adult male forensic patients in a UK high-security hospital provided lived experiences. Third, clinical notes on 32 patients with radicalisation indicators, extreme views, or organised crime involvement were compared with 42 individually violent offenders.

Findings: The first study established most consensus related to environmental and contextual factors linked to radicalisation. In study two, discourse analysis revealed key themes in interviews, including membership as survival, natural determination, innocence, and support for these ideologies' importance. Although no significant differences emerged between influences on extremist versus general violence in study three, Smallest Space Analysis identified distinct factor compositions for violence types. For extremist violence, three clusters emerged: (1) Injustice Collector, (2) Social Offender, and (3) Dominance Seeker. Notably, ideology was absent across cases.

Practical implications: The study introduces a preliminary Eco-System of Extremist Violence model to assist risk management and clinical formulations. It also reintroduces the term 'group-based violence' to destigmatise and better reflect risk factor overlaps across violence types linked to group membership.

Originality: This project offers the first clinical guidance for assessing extremist violence risk in forensic psychiatric populations.

Keywords: Radicalisation; Eco-System of Extremist Violence; Forensic patient; Psychiatric; Risk formulation; group-based violence

Introduction

The past decade has seen an acceleration of research attempting to understand radicalisation and sharing the view that the pathway towards extremist violence is non-pathological and determined by a multitude of psychological and social factors (e.g., Peels, 2023). *Terrorism* and *extremist violence* lack a universally agreed-upon definition, but Schmid (2011) achieved consensus among experts by conceptualizing it as using violence to achieve political goals through intentional fearmongering among victims and the broader population. Research regarding the processes leading to extremist violence has developed a plethora of assessment instruments (Lloyd, 2019), with limited validation and a focus on identifying factors with most predictive validity (Augestad Knudsen, 2020). These include tools such as the Violent Extremist Risk Assessment 2 Revised (VERA-2R; Pressman *et al.*, 2012) and Terrorist Radicalization Assessment Protocol-18 (TRAP-18; Meloy and Gill, 2016), the Extremism Risk Guidance 22+ (ERG-22 +; Lloyd and Dean, 2015), used as a risk assessment in British prison settings, and the Multi-Level Guidance (MLG; Cook *et al.*, 2013), which supports wider comparison to organised crime.

But the counterterrorism discourse lacks clarity in understanding the relevance of factors and their interplay (Clemmow *et al.*, 2023) due in part to a lack of theoretical underpinning (Parker and Sitter, 2016) and inconsistent use of concepts and terminology (e.g., Horgan, 2005; Schmid, 2011; Weinberg *et al.*, 2004). Recent systematic literature reviews (Wolfowicz *et al.*, 2021; Henrich *et al.*, 2024) identified the Significance Quest Theory (Kruglanski *et al.*, 2014) as a promising explanation offering empirical evidence to the notion that (re)gaining personal significance is a central driver of radicalisation. This can be triggered by humiliation, discrimination, or entitlement (Kruglanski *et al.*, 2014).

Alongside influences like exposure to extremist content or association with extremist peers (Kruglanski *et al.*, 2014), radicalisation can be seen as a procedural learning process (Webber and Kruglanski, 2017) making aggressive responses more available. This arguably aligns with the Cognitive Appraisal Theory (e.g., CT: Lazarus and Folkman, 1984) and the Information Processing Model for the Development of Aggression (IPMDA: Huesmann, 1988), both proposing aggressive scripts as the result of the individual's subjective interpretation of events based on normative beliefs or personality styles. Although this has not been directly tested in the context of extremist violence, these conceptualisations were chosen as they align with the goals of this project to explain individual differences in response to situational and social stimuli, while being based on an extensive body of empirical evidence (e.g., Hewett *et al.*, 2018; Smeijers *et al.*, 2020; Navas-Casado *et al.*, 2023).

The gap in research is especially evident regarding radicalisation in forensic populations. A recent systematic literature review (Henrich *et al.*, 2024) yielded five publications that offered empirical insight into the development of extremist violence in prisons and forensic hospitals (Decker and Pyrooz, 2020; Jensen *et al.*, 2020; LaFree *et al.*, 2020; Thijssen *et al.*, 2023; Trujillo *et al.*, 2009). This review suggested that prisons have a radicalising effect on individuals (LaFree *et al.*, 2020), especially when exposed to peer influences (Jensen *et al.*, 2020; Thijssen *et al.*, 2023; Trujillo *et al.*, 2009) or when cynical about pro-social engagement with the criminal justice system (Decker and Pyrooz, 2020).

Yet, mental health issues are notably absent from this research, despite being central to the complex needs of individuals' care in forensic settings (Henrich *et al.*, *2024*). Localising the relevance of certain diagnoses to the radicalisation process has proven

challenging (e.g., Al-Attar, 2020; Gill and Corner, 2017). A wide variety of psychopathology is discussed as potentially linked to extremist violence, including substance use (Gill *et al.*, 2021) or antisocial personality disorder (Candilis *et al.*, 2021). Pavlović and Wertag (2021) found a link between Dark Triad and cognitive radicalisation in a college sample, mediated by pro-violent attitudes, thus, reiterating the importance of extremist mindsets in the pathway towards violence (Stankov *et al.*, 2018). Previous research by McGregor *et al.* (2015) characterised these attitudes as belief in power and authority, low morality, and individual's superiority, allowing them to distance themselves from their 'enemies', while Doosje *et al.* (2013) findings suggest that radical beliefs are a result of personal uncertainty, perceived injustice, and experiencing the in-group under threat.

These issues can also be extrapolated to protective factors (i.e., influences mitigating the risk of extremist violence, e.g., Borum, 2015). A systematic literature review of factors supporting rehabilitation by Silke *et al.* (2021) concluded that since 2017 research has re-focused on including protective factors, such as pro-social role models, distrusting extremist peers or joining prison interventions, in its efforts to understand radicalisation. A later review by Wolfowicz *et al.* (2021) reiterated some of these findings, emphasising social connectedness, political satisfaction, and institutional trust as moderate mitigating influences. The findings highlight a variety of factors internal and external to the radicalised individual.

In forensic settings, it remains unclear whether the array of influences is specific to the development of extremist violence (Smith, 2018; Dhumad *et al.*, 2020) or part of the broader complexity in patients' presentations, where radicalisation may be one among many challenges. Radicalised individuals often exhibit criteria found in general violence risk assessment tools (Hart *et al.*, 2017), such as a history of aggression or persistent antisocial

behaviour. Hart *et al.* (2017) categorised extremist violence under group-based violence (Cook *et al.*, 2013), which encompasses offences where intent is tied to a real or perceived group. This includes extremist activities like lone actors or hate crimes, as well as gang violence (Cook *et al.*, 2013). To date, no comparative study has been conducted in forensic mental health populations to distinguish between group-based violence and individual violence unrelated to radicalisation.

Reviewing the literature, it becomes clear that clinicians are facing a wide array of challenges when conducting risk assessments pertaining to extremist violence. This includes insights specific to mental health forensic populations, how their psychopathology links to the risk of extremist violence, what protective factors can mitigate this risk, and how these are distinct or not distinct from other forms of violence. The goal is to identify influences relevant to radicalisation in forensic mental health populations, understand how these present in an assessment context, and whether they are unique to extremist violence. This will lead to the proposal of a preliminary conceptual model, *Eco-System of Extremist Violence* (ES-EV), to address the lack of formulation guidance.

Study One - Important radicalisation factors: An expert Delphi

To address the lack of clarity regarding relevant radicalisation factors (Clemmow *et al.*, 2023), especially for forensic mental health populations (Henrich *et al.*, *2024*), a Delphi was conducted to establish consensus on those matters across experts.

Method

Participants

Twenty-seven experts initially responded, with 19 continuing the survey after the initial confidence question to confirm they viewed themselves as experts. Twelve were academics with an average of 14.5 years of experience in counterterrorism. Three were forensic psychologists with an average of nine years of experience, and two were police officers with an average of four years of experience. Eleven participants completed round 2 and round 3.

Delphi

The specific items employed in the Delphi are presented in Table 1. The areas captured were obtained by the author via a previously conducted systematic study (see Henrich et al, 2024), with participants having the option to include further items in open-ended questions (e.g., for protective factors, where the literature base was slim). Three rounds seeking item consensus were conducted, with each item presented for agreement on a 5-point Likert-scale, ranging from strongly agree (1) to strongly disagree (5). Items were explored in three categories: terrorism definition; factors influencing radicalisation in forensic mental health populations; and assessment guidance. In each subsequent round, participants received feedback about the items that reached consensus. A cut-off of at least 80% was chosen for the level of (dis)agreement (Vosmer *et al.*, 2009).

Procedure

Ethical approval was obtained from the [redacted]. A purposive and snowballing sampling technique was used to recruit experts using following the inclusion criteria to identify them: (a) Academics who had published in two scientific journals on the topic of radicalisation (Vosmer *et al.*, 2009); or (b) practitioners who worked with extremist offenders

or consulted on cases of radicalisation. The survey was conducted online via Qualtrics. Participants were encouraged to forward the survey link to their colleagues.

Results

After three rounds, with a total of 41 responses, 44 out of 67 items reached consensus (see Table 1). Experts primarily agreed on items that related to environmental and contextual factors and considerations for assessments and formulations. Protective factors were explicitly elicited from participants in open questions during round two, thus, were only rated in the final round.

<Insert Table 1 here>

Summary

The exploration replicated central aspects previously found by Schmid (2011). Additionally, participants included extreme forms of activism and hate crimes in the definition, while distinguishing terrorism from organised crime. This partially expands the terrorism definition to align with 'group-based violence' (Cook *et al.*, 2013), further noting social emphasis. The utility of sociodemographic factors was refuted, reiterating findings by Henrich *et al.* (2024). Thus, this study offers a catalogue of factors relevant to radicalisation that the participating experts could agree upon, including best practices for assessment. Despite the tentatively found overlap of extremist violence with general violence (Hart *et al.*, 2017), items, such as substance use, did not reach consensus. Participants likely understood the instructions as exploring factors *exclusively* relevant to radicalisation.

Study Two - Lived experiences of radicalised forensic patients

Continuing from the overview of factors, Study Two explored the lived experiences of those who had experienced radicalisation, aiming to understand how those previously identified factors present in an assessment context. As of yet, this is neglected as an area of study and allows for 'experts by experience' to be included.

Method

Participants

The study was conducted in a high secure forensic hospital that housed adult men. Participants met one of the following inclusion criteria: (1) they had committed an extremist offence; or (2) they exhibited extremist tendencies within forensic care, such as showing increased engagement with ideologies or peers who had committed extremist offences. Eighteen patients from the wider hospital population of 197 (9% of all patients) met the inclusion criteria. Five consented to be interviewed (response rate of 28%). No sociodemographic features were recorded to maintain anonymity and no collateral information was available, as the focus was not to establish ground truth but to represent the expression of lived experiences.

Procedure

Care teams of nurses, psychologists, and psychiatrists on each ward decided on suitable patients. The community-centred Vulnerability Assessment Framework (Lloyd and Dean, 2015) was supplied to guide those discussions. The British government recommends this guidance to identify individuals in the community who are likely vulnerable to radicalisation (HM Government, 2012). This includes three dimensions; *engagement* (e.g.,

motivations or contextual factors that lead to extremist involvement), *intent* (i.e., a pro-violent mindset), and *capability* (i.e., skills and resources that enable extremist violence). This process replicates the approach under which patients would usually be selected for additional risk assessment related to extremist violence. Responsible clinicians (RC) consented for the researcher to approach identified patients and inform them about the study. Ethical approval was received from the Research Ethics Committee of the NHS and the [redacted].

Interview method and analysis of transcripts

The five identified patients took part in semi-structured interviews (contact lead author for interview outline). The interviews were conducted on-site, lasted up to 60 minutes, and were recorded via Dictaphone. They were transcribed verbatim while ensuring anonymity (Gill, 2000). To keep the amount of detail manageable, a simplified version of the notation system by Jefferson (2004) was used to indicate paralinguistic characteristics coherently and concisely, as presented in Table 2.

<Insert Table 2 here>

The established 5P approach (e.g., Weerasekera, 1996) was used to allow individualized exploration of experiences. The interacting influences (Weerasekera, 1996; Dudley and Kuyken, 2006; Logan, 2014) explain the (a) problematic behaviour, and are as follows: (b) Predisposing, including problems in childhood or as suggested in the survey 'moments of crisis'; (c) Perpetuating, which increase the likelihood of the present issues occurring through socialisation dynamics; (d) Precipitating, also called triggers; and (e) Protective factors mitigating the likelihood of extremist violence. The latter two appear understudied (Henrich et al, 2024).

A Discourse Analysis (DA) was conducted (Potter and Wetherell, 1987) to explore how forensic patients view their membership in extremist groups or movements. DA is used in disciplines like sociology and psychology (Willig, 2000) and explores how language conveys meaning (e.g., Gee and Handford, 2013). In the extremism context, it has been utilised to explore terrorists' online communication (Abdalla *et al.*, 2021) but can also be generally applied to research interviews (Gough *et al.*, 2019). Although DA lacks a universal approach (Burr, 1998), general steps include identifying analysis units like *discourse strategies*, which reflect the communication methods, and content (Gill, 2000; Gough *et al.*, 2019). The units differ from the interview structure: the latter ensures all clinically relevant functions are addressed, while the former reflects societal and situational contexts.

Results

In the transcripts, 'Int.' represents interviewer, 'P' represents participant, and numbers represent the respective participant. Additional conventions had to be introduced to capture other details, as follows:

- Context descriptors (e.g., non-verbal behaviour, audio issues) were marked with asterisks.
- Unspecified long pauses were marked with '...'.
- Direct quotes were marked with " ".
- Interruptions were marked with '//'.
- Censored content was marked with 'X'.

Most interview sections elicited detailed accounts, except for questions about triggers and coping strategies, which yielded little response, likely due to a lack of insight among the interviewees. In other areas, interviewees rationalized their group membership, presented themselves positively, and normalized violence. These neutralization techniques are believed to be attempts at impression management to counter the interviewer's control.

Independent of the discourse strategies, interviewees exhibited a wide range of interrelated narratives, which are presented separately next.

Membership to guarantee survival

All participants reported prevalent threats when discussing their political or religious views, often in the context of their detentions. For instance, P1 explained his apprehension towards Muslims by referencing past violent experiences in prison. (P1, l. 45-57):

> Int.: […] Like how was that relationship back then with those gangs? Was that really hostile or//?
>
> P1: Very hostile. It was, we were training on the yards, and the 20 extremist and 20 other lads, all training, on the same yard, for one purpose, for the up and coming fight that be coming. […]
>
> Int.: So, had it ever come to physical fights?
>
> P1: Yeah, loads of time, yeah. I'm been involved in three myself, three altercations myself. […]

The 'enemy' was usually referred to in derogatory language, especially questioning their sanity. Examples include 'Friday fanatics' (P1, l. 46), suggestions by P2 that the enemy was 'weak mind' or 'coached' (P2, l. 331-332), and P4 describes the enemy as believing

'nonsense'. Devaluing the enemy was common among participants who saw Muslims as a threat, but P3, who faced racist violence, did not use such language.

Participants often rationalized these derogatory views using professional lingo, such as 'extremist' (P1, l. 34), 'terrorists' (Part 2., l. 411; P5, l. 58), 'radicalised people' (P3 l. 326), or 'converted' (P4, l. 241). Despite the interviewer's avoidance of that terminology, participants were likely influenced by the interview context. The interviewees had been likely exposed to such language before (e.g., P2 mentioned that prison staff had labelled him as radicalised).

In normalising their behaviour amid perceived threats, all interviewees concluded that joining a group or movement was a practical decision for survival. For example, P1 reflected that his friends kept him safe in prison as follows (P1, l. 59-74):

> Int.: Did they shared kind of the similar believes as you did?
>
> P1: = No, no, it was lads, all lads being in trouble with these kinds. All sorts have come together in this one jail, and even the staff… prison staff would get us all together and tell us 'This male just got out, phone call today, somebody gets attacked." So, we all stick together. And you sort of fall down into a little clique.
>
> […]
>
> P1: It was a survival thing. […] To get into the shower, you needed 4 of you to get in the shower together. […]

The participant explicitly described group membership as crucial for his 'survival,' citing reliance on peers for everyday tasks in prison. Similarly, P4 emphasised that 'loyalty'

was vital for his friends, particularly in violent encounters. Violence happened, people get hurt, it's nice to know you got someone's help, in case something does go on.', P4, l. 69-80).

Pragmatic concerns seemed to override ideological content. This is further highlighted by P1 and P5, revealing they converted from Christianity to Islam and back to Christianity. This interchangeableness of ideology is illustrated in P5's statement (P5, l. 52-56):

> Int.: […] What do you think of other religions?
>
> P4: I did ehm… I was a Muslim once. I was an Christian, then Muslim, then I converted back to Christian. Which is a bad thing to do but…
>
> Int.: Why is this a bad thing to do?
>
> P4: Cause I turned my back on God and… threw my beliefs out the window… *mumbling* Muslim, cause they're terrorist […]

Membership being naturally determined

The common narrative was that participants automatically affiliated themselves with groups. For example, P3 describes how a family member already had ties to a local gang, making his membership inevitable ('One of my brothers was a gang member from the area anyway.', P3, l. 122-129). Most interviewees portrayed the transition between everyday life and group-based violence as seamless. For example, when asked why he grew close to members of a criminal organization, P4 replied (P4, l. 87-91):

> P4: No, just that… we enjoyed each other company. Everything we did was together. The kids grew up together. The… we all went out together. All our families, all together. It was very close knit. […] They're like my brothers.

The interviewee described a family-like relationship with other violent group members. His account highlights a discursive strategy seen in other participants: normalizing group membership by not distinguishing between family-like ties and violent group members. P1 contrasted the religion that he was part of at the time (i.e., Islam) and the religion his family was part of (P1, l. 130-131):

P1: Yeah. Cause, I, he schooled me that we're protestant in our family, but we're not really religious so don't get stuck into a religion, you know?

Throughout this, two aspects became apparent: (1) He viewed his family as significant influences despite their violent past ('Yeah, very good role models. They were not like criminals.', P1, 373); (2) He deeply identified with his group, seeing it not just as a belief system but as integral to his identity. Overall, most interviewees viewed their involvement as inevitable, perceiving no opportunities that could have prevented it.

This perceived inevitability of the pathway towards extremist violence is so central to some reports that one interviewee even voiced pessimism for his own son (P4, l. 297-302):

P4: […] But you can't listen, when you're a kid, cause I didn't. I've got a son who is doing exactly the sort of same stuff that I was doing when I was a kid. […] *shrugging* It seems to me that when you're a kid you think you're right anyways. So, whatever you feel as a kid you carrying forward.

For others, this idea of automatic affiliation also extended to their group exit. Rather than claiming agency in this process, several participants disclosed being labelled as members of certain groups, which they felt made a safe exit without victimisation impossible.

Membership to support their own importance

Interviewees countered their perceived powerlessness by emphasizing their status within the group. Discourse strategies included downplaying the effects that the experienced violence had on them when exiting (P2, l. 343-344):

P2: = No, no, they wouldn't have been angry at me. Some of them might fell out with me, but ehm… yeah. He got shot. People were trying to shoot us. Things like that.

Similar phrasing was used by P3 describing how he was stabbed when attempting to leave ('Yeah, that was about it, really.', l. 193) and P2 when listing his survived prison attacks ('It was hectic.', l. 73-74).

Furthermore, interviewees referenced their status within a group directly and indirectly. P1 directly emphasised his outstanding role in his white supremacist movement by giving himself several titles, for example, 'enemy of the state' when discussing past violent altercations (l. 56). More subtle strategies for interviewees to convey their power included portraying themselves as reckless and fearless (P2, l. 253-265):

P2: […] But people from other gangs still labelled me a gang member. And that didn't apply to me, that hit me. And I thought, you know, 'Fuck it, I was fighting them as well'.

While emphasising their status and perceived significance, interviewees were careful not to reveal compromising details, as discussed in the last section.

Members as innocent

Interviewees portrayed their group in stark contrast to how they described their enemies. While demonising and blaming their enemies, they portrayed their membership as

normal and innocent. They humanized their in-group by discussing topics such as friendship, neighbourhood, family, or community. For example, P2 interrupted the interview and shifted the focus away from the violent retaliation of his group against alleged racist prison officers (l. 241-245):

> P2: while] in jails, where I've been, there's a big Muslim population. White, Black, Asian, everyone just… a big Muslim population. They're all friends. […] You only get the certain individuals that come to the prison and they're racist and they don't like the way we living and then they get into fights and then…

P1 was more extreme in his employment of the same discourse strategy, suggesting that 'even staff' had come together to form a 'little clique' (l. 60-63) to downplay severity. In conjunction with self-deprecating language ('little hitman', l. 154) he was likely refusing to acknowledge his violence. Similar rejection was witnessed in P4's account of prison peers (l. 248-251):

> P4: […] Not I ever was part of a gang, but in prison… half the lads were good lads, they would probably get on together. […] I suppose you could say it was a gang, but it's not really a gang. Cause that… no… you know what I mean?

Other interviewees explicitly presented themselves as innocent, most notably observed in P5's session. The participant appeared reclusive, non-collaborative and only engaged in moments where he could demonstrate prosocial attitudes (P5, l. 178-183):

> P5: I hurt a lot of people.
>
> Int.: Was that verbally aggressive or physical?
>
> P5: = Both.
>
> Int.: […] what do you think about it now that you're looking back to those things?

P5: That's all in the past, you know. *mumbling* Living my best…

Other interviewees linked their change in attitude to the treatment they had received in the setting in which the interview was conducted. However, those accounts lacked detail.

P2 followed a similar strategy. At the end of the interview, when asked if he wanted to clarify anything, he revealed that prison staff had reported he had been radicalised. He countered, stating that he was 'the most unradicalised person' (l. 405). However, prior, he implied that he was not part of the group anymore, merely because 'all the gang things has played out now' (l. 267-277).

This framed his disengagement from the group and membership in terms of practicality and available support, echoing themes of what benefits a group can provide its members, such as survival.

Summary

The interviews question the importance of ideology in the radicalisation process, with participants showing an unclear or fluctuating understanding of extremist content. Thus, the influence appears to be replaced with opportunism, such as participants securing their status. This expands beyond the scope defined by experts in study one but aligns with notions from the Significance Quest theory (Kruglanski *et al.*, 2014), as the DA yielded narratives centring reinstating significance by violent means, in the interview often raised after discussing experiences of grievances. Furthermore, the study identified common narratives that can be observed in radicalised forensic patients during assessments. This includes normative beliefs

with a social focus, for example, the automatic recruitment framing of an extremist group as a family.

Study Three - Comparison between radicalised and non-radicalised forensic patients

After identifying factors relevant to radicalisation and understanding how they present in the assessment context with forensic mental health populations, study Three explores the notion that the catalogue of risk factors is not unique to the context of extremist violence (Smith, 2018; Dhumad *et al.*, 2020).

Hypothesis 1: The comparison between the presence of risk factors in group-based violence cases with general violence cases will yield no significant differences.

Hypothesis 2: The comparison between the composition of risk factors in group-based violence cases with general violence cases will yield differences.

Method

Data collection approach: Crisis profiles

A qualitative comparison of clinical case files was undertaken. Hospital approval and university ethics were obtained to gain access and a clinical team member anonymised all available documents for access to the researcher.

All crisis profiles collected in one high secure forensic hospital housing adult men (n = 74 out of approximately 190 patients) were considered. These are pre-existing security documents which the care team collate during admission for patients at risk of committing service-disrupting incidents (e.g., hostage-taking, barricading) to aid the resolution of these

events. Such profiles include incident details (e.g., incident type, threats), mental health issues (e.g., diagnosis, triggers), relationships (e.g., peer conflicts, staff contacts), and background information. The background information was rich in detail and was coded following the guidance by the VERA-2R (Pressman and Flockton, 2012), TRAP-18 (Meloy and Gill, 2016;), ERG-22+ (Lloyd and Dean, 2015), and MLG (Cook *et al.*, 2018), as well as drawing on the findings of the previous two studies. This included pre-offence behaviour (e.g., level of planning, state of mind, and *leaking* [i.e., disclosing plans to disapproving third parties; Dudenhöfer *et al.*, 2021], violent attitudes, need for dominance, need for excitement, personal grievance, need for belonging, and need for defending). Furthermore, political and/or religious views were captured, as well as specifications for patients' risk, including the type of violent behaviour, victim type, and potential self-harming behaviour. All areas captured in the crisis profiles are presented in Table 3.

<Insert Table 3 here>

Participant groups

Patients with radicalisation indicators, extreme views, or organised crime involvement (n = 32) were compared to a sample of individually violent offenders (n = 42). The indicators for the former included past terrorist offences or affiliation with a terrorist organisation, staff viewing past incidents as motivated by extremism, or staff reporting patients endorsing extreme religious and/or political views. Thus, the profiles were divided into five groups, with the 'group-based and/or indicators of radicalisation' sample comprising *terrorist cell*, *lone actor*, *hate crime*, and *organised crime*. The non-radicalised sample committed their offences individually and presented with none of the indicators. The groups are summarised in Table 4.

<Insert Table 4 here>

Hate crime had considerable conceptual overlap with terrorist cell and lone actor. Hence, the group was excluded in the initial research steps, where the independence of groups was a prerequisite.

Results

The groups were statistically compared two-fold concerning the coding. As most variables were categorical, group comparisons were achieved via Pearson's correlation or the Chi-square tests for the independence of the proposed groups. Smallest Space Analysis (SSA; Lingoes and Roskam, 1973) was performed to explore radicalisation dynamics. The explorative method visualises correlations in a scatterplot, with the distance between variables representing correlational strength. Correlation clusters can be identified through partitioning and are expected to inform the formulation of group-based violence.

Table 4 summarises the frequency of each group and Table 5 summarises the frequency of reported features across all profiles. The most common critical incidents included risk to staff and others (N= 58; 78.4%), while the most common offence was assault (N= 36; 48.7%). The least reported offence was terrorism (N= 1; 1.4%). Patients appeared commonly motivated by violent attitudes (N= 56; 75.7%), as well as personal grievances (N= 45; 60.8%). The most reported protective factor was leisure activity (N= 71; 95.9%). Psychotic disorders (N= 63; 85.1%) were most often diagnosed, including prominent triggers like threat to safety (N= 29; 39.1%), needs not met (N= 24; 32.4%) and relapse indicators, such as anger (N= 56; 75.7%) and withdrawal (N= 41; 55.4%).

<Insert Table here here>

Group Comparisons

Two forms of group comparison were conducted; first, all patients who committed group-based violence were compared to the comparison group. Most analyses yielded no significant results. The group-based violence sample appeared more likely to have prosocial relationships with their partners, $X^2(1, N = 74) = 6.008$, $p = .014$, than the comparison sample and was more likely to be driven by a need for belonging in their violence, $X^2(1, N = 63) = 8.110$, $p = .004$. The link between capability and group membership was also significant, $X^2(1, N = 67) = 4.509$, $p = .034$, but the review of the expected values did not elicit a clear direction of the relationship.

The second comparison focused on the sub-categories within the group-based violence sample, mostly yielding no significant results. Nevertheless, members of organised crime appeared significantly more likely to exhibit withdrawal from social interactions as a relapse indicator, $X^2(2, N = 31) = 6.241$, $p = .044$, as opposed to the other groups. When reviewing relationships with peers, lone actors were much more likely to be isolated, while members of organised crime were much less likely, $X^2(2, N = 19) = 9.919$, $p = .007$. The latter were also more likely to have conflictual relationships with their intimate partners, $X^2(2, N = 18) = 6.923$, $p = .031$. When reviewing motivators for violence, the need for belonging was more likely found with lone actors, $X^2(2, N = 27) = 7.364$, $p = .025$.

Smallest Space Analysis

SSA was employed to explore the composition of radicalisation influences for the group-based violence sample. The analysis was conducted stepwise due to the software's

maximum variable limit being exceeded. The final scatterplot, covering 87.1% of variance, is presented in Figure 1.

<Insert Figure 1 here>

No universal guidance is available on how to divide the SSA results. Brown and Barnett (2006) suggest several structures that can be overlayed to split the data into separate regions. Figure 1 depicts three emerging clusters: (1) *Injustice collector*; (2) *Social offender*; and (3) *Dominance seeker*.

(1) Injustice Collector: Central to this cluster is the extreme closeness of personal grievances and attitudes that support violence. Both variables are in the vicinity of capability, suggesting that injustice collectors are more likely to prepare themselves (e.g., practising with weapons). Fittingly, threats with weapons are in the same region. Individuals in this cluster use threats more frequently and act upon them, seemingly motivated by crises and conflicts equally. The victim types are members of the LGBTQIA+ community and White individuals, spatially close to 'religious ideology'. The prevalent diagnoses here are mood- and trauma-related, close to the relapse indicator 'declining self-care'.

(2) Social Offender: This plot region includes more social construct-related variables to other clusters. Individuals here are more likely to offend with others, affiliate with criminal organisations, and are seen as more suggestible. However, this cluster also shows indicators of social withdrawal, deteriorating relationships, disorganised speech and thought, and changes in sleep patterns, which may relate to diagnoses such as psychotic disorders, personality disorders, anxiety-related disorders, substance-related disorders, and neurodivergent disorders. These presentations may also explain the occurrence of unspecified

victim types here. Violence in this cluster is characterised by heightened anger and a strong urge to defend against perceived threats. Additionally, disclosure of offence plans to third parties (i.e., leakage) is also observed within this cluster.

(3) Dominance Seeker: Central to this cluster is the desire for dominance, closely linked with various types of victims: adults and children, as well as members of the BAME community. This cluster also involves cognitive preoccupation as a relapse indicator and political ideology. Additionally, it includes a need for excitement, belonging, and identity. These factors seem connected to occurrences of self-harm, proximity to past traumatic events, and experiences of positive symptomatology like hallucinations. Incidents in this category appear more premeditated and planned compared to others.

Lastly, the partitioning was compared to the scatter plot of the comparison group (Figure 2). The variables account for 87.5% of the variance. The same type of partitioning was overlayed. While not a structured comparison, this highlights qualitative differences between the two samples, indicating that similar variables impact violent behaviour differently.

<Insert Figure 2 here>

Summary

The same risk factors appear present in cases of extremist violence and general violence, reiterating findings by Hart *et al.* (2017) and Dhumad *et al.* (2020) and confirming hypothesis one. The composition of the factors seems different, as expected in the second hypothesis, supporting an individualised formulation approach, with findings emphasising the impact of social influences and personality-driven information processing. This includes characteristics

related to the Dark Triad (Paulhus and Williams, 2002), with the observed clusters resembling the maladaptive styles, Machiavellianism, Narcissism and Psychopathy (Paulhus and Williams, 2002; Tetreault and Sarma, 2021). For example, the manipulative element of Machiavellianism (e.g., Paulhus *et al.*, 2002) echoes the Dominance Seeker cluster, with items including 'need for dominance' operationalised as asserting influence over others and 'pre-offence planning'. Narcissistic tendencies, including reactive violence after perceived slights against an individual(s), bear resemblance to the Injustice Collector cluster, with central items such as 'grievance' in close proximity to 'pro-violent attitudes'. Finally, the antisocial tendencies central to the Social Offender cluster, including items such as 'social withdrawal', 'self-harming tendencies', and 'anger', relate to psychopathy (e.g., Paulhus *et al.*, 2002).

Discussion

Collectively, the studies highlighted interactions between grievances, social cognitions, and appraisal processes among three clusters of clinically relevant variables crucial to radicalization influences in diverse forensic mental health patients. The common thread among these individuals is their intent to commit violence linked to real or perceived group memberships. Consequently, extremist violence is seen as detached from ideology, a perspective reinforced throughout the studies. In study two, for example, interviewees demonstrated a shallow ideological understanding, prioritizing pragmatic incentives like survival. Similarly, study three could not find a conclusive role for ideology in the radicalisation process. The studies become part of a growing number of publications

questioning the relevance of ideology in the escalation towards extremist violence (e.g., Patel and Hussain, 2019).

Instead, the interaction between self-identity and group identity appears central to arriving at extremist violence as a viable behavioural alternative. This is implied by the experts' feedback, which suggests an underlying value system influencing this perception, including a distorted worldview and fixation on political events. In study two, interviewees endorsed pro-violent attitudes, justifying or normalizing violence. Radicalized individuals viewed violence as an effective way to secure their survival and status. The findings align with CT (e.g., Lazarus and Folkman, 1984) and the IPMDA (Huesmann, 1988), both proposing aggressive responses resulting from individual's subjective event interpretation, a mechanism driven cognitively, but not to be confused here with ideology. Aggressive scripts, captured by the IPMDA as social cognition, can include normative beliefs, representing norms or expectations about appropriate behaviour (Huesmann and Guerra, 1997). But none of the current studies could explore the learning experiences leading to the development of these aggressive scripts due to limited data availability.

Social cognitions impacting the interpretation process toward extremist violence include self-importance: Experts' feedback (Study one) connected a grandiose sense of self with radicalisation; interviewees' responses emphasised how their extremist group membership ensured their status (Study two); and self-importance was a central feature of Injustice Collector (Study 3). Understanding radicalisation as an attempt to (re)gain a personal sense of importance is central to the Significance Quest Theory (Kruglanski *et al.*, 2014) and thus the current findings support a conceptualisation that has received a wealth of good empirical evidence in recent time (Wolfowicz *et al.*, 2021; Henrich *et al.*, 2024).

Importantly, Kruglanski *et al.* (2014) frame this need fulfilment as maladaptive while recognising that the need itself is a common in all humans. This reflects current common notions in forensic services, for example, conceptualised in the Good Lives Model (Ward *et al.,* 2007), recognising the aspirations of the individuals who have offended and promoting more pro-social goal achievement. This likely also explains the lack of differences found between the groups in Study 3, pointing towards a larger human experience not unique to radicalised individuals.

Needs and underlying value systems are likely shaped by personality, with study three uncovering three clusters resembling Dark Triad (e.g., Paulhus *et al.*, 2002), appearing unique to individuals who committed group-based violence, thus, partially reiterating findings by McGregor *et al.* (2015). Like the Dark Triad, the three clusters partially overlap, offering preliminary insight into how personality may contribute to radicalisation.

Opposite of the self, individuals associate with a perceived or real extremist *in*-group, which includes lone actors positioned on the fringes of extremist movements yet align their intentions with the group (Cook *et al.*, 2013). This inclusion of group identity reflects the social emphasis evident in all current studies, where the in-group is humanised as 'family'. It is plausible that the in-group serves both as stimuli in the appraisal process, facilitating pro-extremist interpretations (Webber and Kruglanski, 2017), and as a source for learning aggressive scripts (Huesmann, 1988).

Several factors were deemed less critical across the three studies, including anger and impulsivity. Factors presumed not to directly contribute to the risk of extremist violence include capability and its various operationalisations (Lloyd and Dean, 2015). Instead, these factors are seen as indicative of the severity of future offences, allowing for conclusions about

an individual's progression toward future acts (e.g., Lloyd and Dean, 2015; Meloy and Gill, 2016). Assessors can observe these dynamics through the disclosure of plans to third parties aka leakage (Dudenhöfer *et al.*, 2021). Other optional influences, including protective factors such as pro-social role models, echo findings from Silke *et al.* (2021).

These findings led to the preliminary conceptual model - the Eco-System of Extremist Violence (ES-EV: see Figure 3)—with the previous paragraphs referencing each section of the model. This draws on the observed interplay of self- and group-identity, and their assumed impact on the appraisal process. As such, it is the first practical formulation guidance that applies existing theories to an established risk formulation approach to substantiate existing assessments. It is hoped that this allows practitioners to understand the relevance of present radicalisation risk factors. <Insert Figure 3 here>

Limitations

Limitations are acknowledged, including the restricted generalisability of the studies to a small cohort of adult men in highly secure forensic hospitals, limiting scope of statistical analyses and applicability to other service settings. Additionally, mental health indicators were either not readily available in the documentation, limited in scope, or limited to self-report measures. Data on specific personality traits (e.g., narcissism) and threat assessment concepts (e.g., leaking, capability) were also sparse.

The study design was exclusively retrospective, investigating radicalisation pathways post-hoc. Therefore, the sequence of influences can only be assumed. Additionally, the retrospective approach did not allow for tracking participants across different settings,

including conditions before high-security detainment, or establishing causality. Thus, discussed influences are limited to how they present themselves in forensic services.

Future research

Future research should focus on validating the ES-EV across diverse populations and assessing its utility as a risk formulation approach. Investigating the mechanisms underlying radicalisation and their evolution over time through longitudinal studies would be valuable. The studies suggest that cognition plays a crucial role in this process, distinct from ideology. Thus, future research should align closely with social cognition models (e.g., IPMDA, Huesmann, 1998) to gain insights. Exploring personal identity and its transition to group identity or alignment, informed by the Significance Quest Theory (Kruglanski *et al.*, 2014), could also provide additional insights. Overall, there is a need to recognise the heterogeneity among those involved in radicalisation, extending research to include individual factors such as personality, mental health, learning experiences, and protective factors, beyond high-security contexts in the UK.

Conclusion

The current studies aim to advance understanding of radicalisation in forensic mental health populations. They employ novel methodologies in counterterrorism research, such as DA and SSA, on an understudied sample. Findings highlight a complex interplay of factors influencing extremist violence risk, including motivations for group-based violence and connections to the Dark Triad. The studies also reveal the pivotal role of self- and group identity in pathways toward extremist violence. Unique protective factors within secure forensic settings were identified. Overall, this research contributes empirical evidence to the

debate on radicalisation processes in forensic settings, offering a conceptual model to aid clinicians in understanding and managing extremist violence effectively.

Practical Implications

- Framing extremist violence in the broader bracket of group-based violence enables practitioners to (a) recognise the considerable overlap of risk factors in violence where its intent is linked to a real or perceived group; and (b) to refer to their patients with a person-centric, destigmatising language.
- The overlap of risk factors can be resolved in a risk assessment by utilising formulation-based approaches such as the ES-EV, as the composition of risk factors appears to be distinct between different violence types.
- In this context, mental health issues should not be judged based on their presence but on their relevance to the radicalisation process.
- While protective factors remain significantly understudied, they constitute an integral part of the exploration of the risk of extremist violence. Current research indicates that particular attention should be placed on the group processes in which the assessed individual participates.

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Table 1

Agreement and disagreement for all items

Items	Agreement in %	Disagreement in %	Round item reached consensus
Section 1: Environmental/ contextual factors			
1. Exposure to extremist content.	**90.9**	0.0	Round 2
2. Exposure to extremists or other pro-criminal peers.	**90.9**	0.0	Round 2
3. No pro-social networks.	**81.8**	9.1	Round 2
4. Institutionally enforced segregation resulting in social divides.	72.8	27.3	
5. Institutionally enforced segregation resulting in discrimination.	**100**	0.0	Round 3
6. Preoccupation with current political events resulting in sense for imminent need for action.	**90.9**	0.0	Round 2
7. Preoccupation with current political events resulting in feeling of threat to own group.	**100**	0.0	Round 2
8. Moving between different institutions (e.g., from prison to hospital).	18.2	**81.8**	Round 3
Section 1: Criminal needs			
9. Previous problems with violence.	**90.9**	0.0	Round 2
10. Opportunistic motivation to gain financial resources.	54.5	45.5	
11. Opportunistic motivation to gain protection.	72.8	27.3	
12. Previous criminal record	72.8	27.3	
13. Affordance/capacity.	63.6	36.4	
Section 1: Individual factors			
14. Symptoms of depression (e.g., hopelessness)	63.6	36.4	
15. Suggestibility	**88.9**	0.0	Round 1
16. Experienced grievance	**88.9**	5.6	Round 1
17. Perceived discrimination	**94.4**	0.0	Round 1
18. Previous victimisation	**90.9**	9.1	Round 3
19. Grandiose sense of self	**100**	0.0	Round 3
20. Distorted cognitive style/worldview (e.g., conspiracies)	**81.8**	9.1	Round 2
21. High levels of impulsivity	72.7	27.3	

Items	Agreement in %	Disagreement in %	Round item reached consensus
22. Boredom or tendency for sensation seeking	72.7	27.3	
23. Feelings of guilt and/or need for redemption	63.6	36.4	
24. Substance misuse	45.4	54.5	
Section 1: Protective factors			
25. Pro-social role models in secure forensic settings (e.g., officers)	**90.9**	9.1	Round 3
26. Pro-social role models outside of secure forensic settings(e.g., peers)	**90.9**	9.1	Round 3
27. Needing to take care for others outside of secure forensic settings (e.g., sick family members, children)	**90.9**	9.1	Round 3
28. Meaningful pro-social engagement with system (e.g., school engagement)	**100**	0.0	Round 3
29. Peers present with diverse backgrounds	**100**	0.0	Round 3
30. Content with own life	**81.8**	18.2	Round 3
31. Mindfulness	72.8	27.3	
32. Respecting others	72.8	27.3	
33. Cognitive flexibility	**90.9**	9.1	Round 3
34. Not externalising blame	**90.9**	9.1	Round 3
35. Hope for meaningful pro-social life outside of secure forensic settings	**100**	0.0	Round 3
36. Aware of hypermasculinity	63.6	36.4	
Section 2: Considerations for assessment			
37. Consideration of alternative hypotheses to engage in extremism.	**80.0**	0.0	Round 2
38. Continuous assessment to evaluate development.	**90.0**	0.0	Round 2
39. Assessments must include formulations to account for functions of factors specific to each individual.	**90.0**	0.0	Round 2
40. Assessment of needs, instead of prediction of risk.	**80.0**	10.0	Round 2
41. Un-targeted, general assessment runs the risk of contributing to radicalisation dynamics (e.g., making individual feeling even more oppressed, hence, seeking out other extremists).	**80.0**	0.0	Round 2
42. Verification and access to collateral information.	**90.0**	0.0	Round 2
43. Establishing trust.	**90.0**	0.0	Round 2

Items	Agreement in %	Disagreement in %	Round item reached consensus
44. Awareness that warning signs for grooming are often lacking.	**90.9**	9.1	Round 3
45. Awareness that some crucial concepts have no established measurements.	**90.9**	9.1	Round 3
Section 3: Perpetrator			
46. Terrorism can be used by individuals.	**94.7**	5.3	Round 1
47. Terrorism can be used by groups.	**100**	0.0	Round 1
48. Terrorism can be used by state agents.	54.5	45.5	
49. Terrorism should be defined by a specific cluster of psychological traits.	45.4	54.5	
Section 3: Target			
50. Immediate targets are mostly civilians.	**80.0**	20.0	Round 2
51. Immediate targets are mostly representations of targeted state/government.	45.4	54.5	
Section 3: Goals			
52. A terrorist attack aims to change behaviour.	**90.9**	9.1	
53. An attack has the purpose to elicit support in like-minded individuals/groups.	**80.0**	0.0	Round 2
54. An attack must inflict fear or panic in the target.	72.8	27.3	
55. An attack is intended to inflict helplessness in the target.	72.8	27.3	
56. An attack has the purpose of expressing grief or supremacy.	54.5	45.5	
57. Terrorists attacks are indiscriminate.	36.4	63.6	
Section 3: Motivation			
58. A terrorist attack is motivated by political reasons.	**90.0**	10.0	Round 1
59. A terrorist attack is motivated by ideological reasons.	**90.0**	10.0	Round 2
60. A terrorist attack is motivated by a personal vendetta.	30.0	70.0	
61. Terrorists' motivation is considered to be heterogeneous.	**100**	0.0	Round 3
Section 3: Nature of violence			
62. Extreme forms of activism can be considered terrorism if violence is a key aspect of activism.	**90.0**	0.0	Round 2
63. Terrorist attacks are predominantly premeditated.	**90.0**	10.0	Round 2
64. Violence by terrorists is not static (like a trait), but dynamic (like behaviour).	**90.0**	10.0	Round 2

Items	Agreement in %	Disagreement in %	Round item reached consensus
65. Terrorism should be defined as a warfare strategy.	50.0	50.0	
66. Hate crimes can be considered terrorism.	**80.0**	20.0	Round 3
67. Terrorism is clearly different to other form of organised crime.	**90.0**	10.0	Round 3

Note. Values presented in bold reached the cut-off ≥80% for consensus.

Table 2

Transcriptions conventions by Jefferson (2004)

Symbol	Meaning
[ ]	Onset and end of overlapping talk between conversation partners.
=	Direct response to an utterance without break.
(.)	Unspecified long break between utterance and response.
.	Indication of a falling intonation.
,	Indication of a continuing intonation.
!	Indication of a louder intonation (e.g., because conversation partner is animated, agitated, etc.)
?	Indication of a questioning intonation.

Note. This overview utilises the convention system by Jefferson (2004) but shortened the system to fit the study goals. For that purpose, adaptations by Benneworth (2009) were used as guidance.

Table 3

Overview of crisis profile items

Item	Description
Incident type	(Potential) escapee, terrorist activity/affiliation, barricades, (potential) hostage taker, involved in disturbance, roof top incidents, assaults on staff, assaults on others, risk to staff
Mental health diagnosis[ACD]	Mood disorder (e.g., depression), anxiety disorders, personality disorder, psychotic disorder, trauma-related disorder, substance abuse disorder, neurodivergent disorder
Level of planning[D]	Incident premeditated or unplanned/impulsive
Threats[D]	Utterance of verbal threats or physically threatening behaviour prior to incidents
Leaking[D]	Presence of disclosed plans to disapproving third parties indicative of future violent behaviour
Risk rating for future violence	Prediction of future violent behaviour, including sexual violence, physical violence against people and/or objects, verbal violence, or undermining services
Risk rating for future victim(s)	Prediction of future victims, including male and female adults, male and female children, members of BAME or LGBTQ+ communities, victims of White ethnicity, or unspecified victim types
Self-harm	Presence of self-harming behaviour with or without suicidal intentions
Relapse indicators[B]	Emergence of positive symptoms (e.g., hallucinations); increased irritability, anger, impulsivity; increased thought or speech disorganisation; deterioration of personal or social functioning; sudden decline in self-care; sudden cognitive preoccupation; changes in sleeping pattern; withdrawal; self-harming
Triggers of violent behaviour	Threat to status, threat to safety, related to trauma, overstimulation, embarrassment, needs not met

Item	Description
Offences[ABC]	Homicide/manslaughter, battery/assault, child abuse, rape/sexual violence, domestic abuse, kidnapping/hostage taking, terrorism, arson, crimes against property, statutory crimes
Co-offenders[B]	Presence of other individuals who committed offence together with patient
Substance use	Substance use linked to the reported incident
Relationships (with family, peers, intimate partners)[ABCD]	No contact/deceased, isolated, contact not further specified, prosocial support, deviant support, extremist endorsement, conflict
Protective factors[A]	Secure attachment in childhood, empathy, adaptive coping, self-control, leisure activities, motivation for treatment, positive attitudes towards authority, life goals, compliance with medication
Religion[ADC]	Mentions of different religions, including extremist tendencies
Politics[ADC]	Mentions of different political ideologies, including extremist tendencies
Stress responses	Withdrawal, paranoia, verbal confrontation, physical confrontation, self-harm, understanding/acceptance, somatic responses, adaptive coping
Attitudes about violence[BC]	Presence of attitudes endorsing the use of violence
Personal grievance[ABCD]	Experience of personal grievance that is reportedly linked to patient's aggression
Need for excitement[AC]	Boredom, lack of excitement, or impulsivity reportedly linked to patient's aggression
Need for dominance[AC]	Dominating behaviour or need for status reportedly linked to patient's aggression
Individual's group affiliation[BC]	Patient reportedly part of group (e.g., gang)
Traumatic events	Presence of traumatic events reported in patient's past
Suggestibility[AC]	Patient reportedly vulnerable to exploitation by others
Capability[ACD]	Patient reportedly prepared for his violent behaviour (e.g., due to weapon crafting skills, martial arts training)
Pronounced need to defend against threat[AC]	Patient's aggression reportedly motivated by increased threat perception
Pronounced need for belonging, identity[AC]	Patient's aggression reportedly motivated by increased sense of fraternity or need for affiliation

Item	Description

Notes. Basis for item development is indicated from 'A' to 'D: *A* = VERA-2R (Pressman *et al.*, 2012); *B* = MLG (Cook *et al.*, 2013); *C* = ERG-22+ (Loyd and Dean, 2016); *D* = TRAP-18 (Meloy and Gill, 2016). Items with no indication were informed by the crisis profile sections themselves. 'BAME' describes Black, Asian, and ethnic minorities. 'LGBTQ+' describes sexualities and gender identities, including Lesbian, Gay, Bisexual, Trans, and Queer, amongst other identities.

Table 4

Frequencies of Various Groups and their Indicators

Group	Variable Indicators	Frequency (*N* = 74/%)
Terrorist Cell	- 'Group Affiliation' and/or 'Co-Offenders' - Radicalisation indicators[a]	4 / 5.4%
Lone Actor	- No 'Group Affiliation' and/or no 'Co-Offenders' - Radicalisation indicators[a]	15 / 20.3%
Hate Crime	- Victim type 'BAME', 'Adult Female' and/or 'LGBTQIA+', unless in-group violence or predominantly sexualised violence	10 / 13.5%
Organised Crime	- 'Group Affiliation' and/or 'Co-Offenders' - No radicalisation indicators[a]	12 / 16.2%
Comparison group	- All remaining patients	42 / 56.6%

Note. a = Any type of terrorist offence or affiliation in the past, staff reporting concerns, and/or recorded extreme religious or political views. The groups are not cumulative, as 'Hate Crime' has conceptual overlap with 'Terrorist Cell' and 'Lone Actor'.

Table 5

Frequencies of main features across all profiles

Reported feature	Frequency of *N*=74 *n* (%)	Minimum	Maximum	Mean
Involved in critical incidents	64 (86.5%)	4	11	8.41
Past offences	62 (83.8%)	2	131	29.5
Motivational influences	74 (100%)	1	9	4.54
Protective factors	71 (96%)	1	4	1.55
Relationship with family*	72 (97.3%)			
Relationship with peers*	50 (67.6%)			
Relationship with intimate partners*	45 (60.8%)			
Diagnoses	70 (94.3%)	1	6	2.01
Triggers	46 (62.2%)	1	6	2.28
Relapse indicators	74 (100%)	1	7	3.49

Note. 'Frequency' refers to the percentage of patients for which features were reported in the profiles. Variables marked with * are categorical, hence, no descriptive indexes could be calculated.

Figure 1

Finale SSA Scatterplot with Partitioning

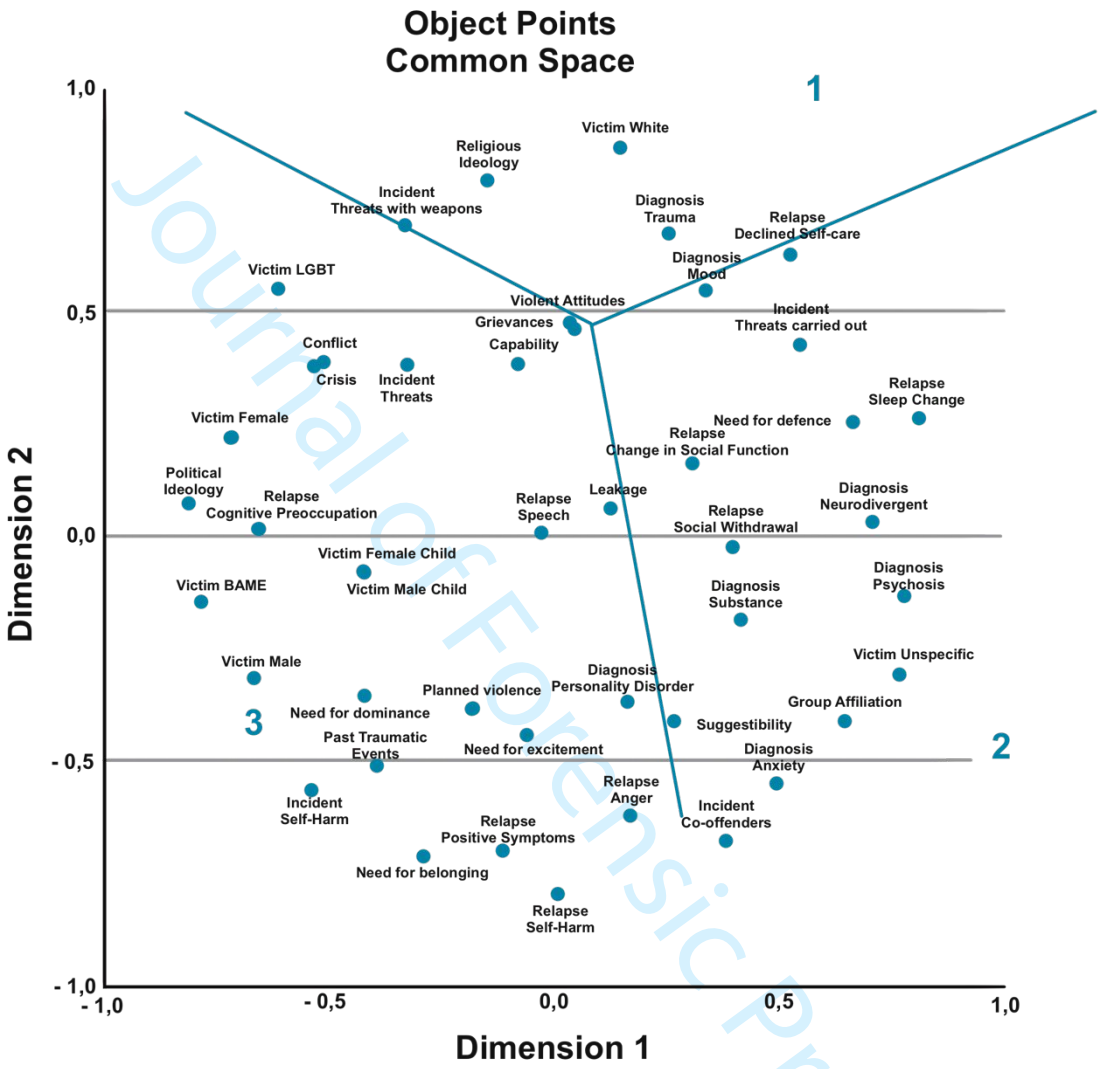

Figure 2

Scatterplot of Finale SSA Pertaining to the 'Individual Actor – No Radicalisation' Sample

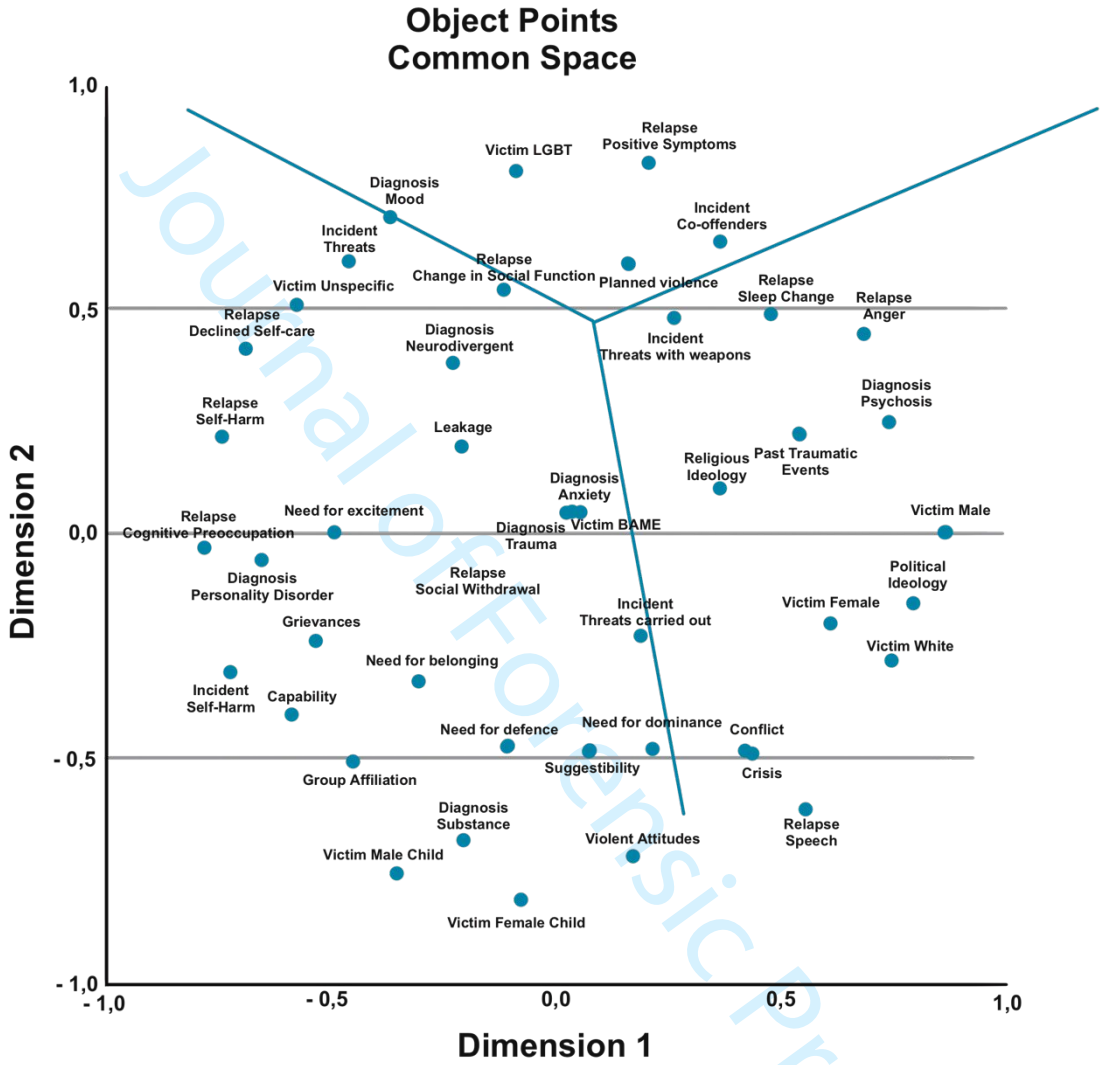

Figure 3

The Proposed Eco-System of Extremist Violence Model (ES-EV)