JOURNAL OF FORENSIC SCIENCES

J Forensic Sci, 2020
doi: 10.1111/1556-4029.14471
Available online at: onlinelibrary.wiley.com

PAPER

PSYCHIATRY & BEHAVIORAL SCIENCE

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A Preliminary Report of Psychiatric Diagnoses in a Scottish County Sample of Persons of National Security Concern*

ABSTRACT: Increasing anecdotal, empirical, and research evidence indicates mental disorder history is one of the several factors associated with increased risk of involvement in lone-actor terrorist activities. Currently, few studies have been conducted on the mental disorder histories of individuals assessed as at risk of involvement in terrorist activities (Meloy, *J Threat Assess Manag* 2019;6:93). This pilot study describes demographic, psychiatric, and criminal characteristics of a sample of Scottish individuals identified by the Prevent element of the U.K. national counterterrorism strategy, and outcome data after follow-up at 2 years. Twenty-three individuals were referred to Prevent as posing a national security risk from a county in Scotland. Their records were studied for psychiatric and criminal histories. Nine (39%) had previous psychiatric contact, all were "lone actors", and none were embedded with organized terrorist groups. The most common diagnoses were substance use disorder, personality disorder, depression, and psychotic disorder. The sample displayed factors associated with increased risk of violence including previous offending, early behavioral difficulties, school problems, substance misuse, cluster B personality disordered traits. After 2 years, 44% of the mentally disordered group had re-offended. The offense types were generally similar to those prior to the individual being involved with the Prevent counter terrorism program. Only one of the mentally disordered group committed a further national security offense. In this sample, mental disorder history is overrepresented in individuals who come to the attention of the U.K. Prevent counter terrorism strategy. Further empirical studies with additional power are required to develop the empirical evidence base in this under-researched area.

KEYWORDS: mental disorder, counter terrorism, risk assessment, forensic psychiatry, prevent program, lone-actor terrorism

Recent empirical studies have demonstrated that lone-actor terrorists have substantially elevated rates of psychiatric disorder, especially when contrasted with those individuals embedded in a terrorist group or organization (1,2). Most notably, there appears to be a greater frequency of schizophrenia, delusional disorder, and autistic spectrum disorder among lone-actor terrorists (3). Although these data are intriguing, little work has been conducted by psychiatrists and psychologists to explore the "nexus of psychopathology and ideology" (4) that is apparent in some such subjects (5); and there are only a few studies, which have documented the psychiatric status of individuals judged by counterterrorism professionals to be *at risk* for committing a terrorist act (6). Such further work would eliminate the retrospective or hindsight bias inherent in the determination of a psychiatric disorder after a terrorist act has occurred and would also take advantage of the clinical acumen of mental health professionals. This study is a preliminary attempt to advance such research and understanding.

The United Kingdom's Strategy for Countering Terrorism

"Contest" is the United Kingdom's overall strategy for countering terrorism (7). This is made up of 4 elements, called Prevent, Pursue, Protect, and Prepare. Prevent is the element that aims to stop vulnerable individuals from being drawn into terrorist activities.

The objectives of Prevent, as described by the U.K. Government (7), are to:

- tackle the causes of radicalization and respond to the ideological challenge of terrorism.
- Safeguard and support those most at risk of radicalization through early intervention, identifying them and offering support.
- Enable those who have already engaged in terrorism to disengage and rehabilitate.

Prevent works by identifying individuals who may be at risk of being exploited by violent extremist narratives and drawn into terrorism; assessing the nature and the extent of their vulnerability, and, where necessary, providing an appropriate support package tailored to their needs.

Prevent officers operate within a multi-agency approach, with police working alongside statutory partners such as education, health, fire service, social work, and housing, to support those at risk from all forms of extremism. Prevent Police officers and

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Received 24 Oct. 2019; and in revised form 10 Feb 2020, 7 May 2020, 14 May 2020; accepted 14 May 2020.

staff play a key role in making initial assessments and coordinating between different organizations that might be involved.

In the U.K., individuals are referred to Prevent through a variety of means, including, but not limited to, expressing views or threats suggestive of vulnerability to, or involvement in terrorist activities; viewing of terrorist-related websites videos or social media; and/or criminal acts and expressions of concern about potential vulnerability to involvement in terrorist activities expressed by friends, family, or professionals.

The referral can be made by a wide range of individuals and organizations, most commonly from schools, colleges, social workers, and health services. Such referrals are assessed and triaged by Prevent officers, using a framework that focuses on so-called vulnerabilities to radicalization. The actual vulnerability framework is classified as a Restricted Document, having been assessed as having the potential to cause "undesirable effects" if publicly available.

Upon completion of assessment and triaging using the vulnerability framework, officers may decide that no action is required, that sign posting to other agencies (e.g., health, social work) is required, or that the individual should be taken on by Prevent as a so-called "Prevent nominal."

Where a vulnerable individual has been identified, multi-agency partners will usually come together as part of the Prevent Multi-Agency Panel (PMAP). A PMAP case conference is convened allowing partners to consider the circumstances surrounding an individual and work together to safeguard the individual and identify and provide appropriate support.

Support may include signposting individuals to other professionals, and may also include an opportunity for potentially vulnerable persons to debate issues with an accredited mentor, who can challenge and suggest credible alternative viewpoints. Or, as is often the case, it may be about providing access to mainstream services, which can then enable the individual to make a more positive contribution to society.

Where there is specific vulnerability, Prevent officers can seek specialist assessment and management advice; for example, where mental disorder is assessed to be a vulnerability, an assessment can be instructed by a forensic psychiatrist or psychologist. Although not emphasized as part of their role, Prevent officers, when necessary, can also liaise with other elements of the Contest program, and on rare occasions with the domestic security service also known as MI5 (Military Intelligence, Section 5).

Prevent officers generally meet with a Prevent nominal on a regular basis to assess and monitor their situation. In some cases, it may become clear that the individual requires to be subject to the so-called "Channel duty" (8). This involves a range of multi-agency partners collectively assessing the risk and deciding whether a support package is needed. The group may include statutory and nonstatutory partners, as well as lead safeguarding professionals. If the group feels the person would be suitable for Channel, it will look to develop a package of support that is bespoken to the person. The multi-disciplinary partnership approach involving the Police, Fire, Social work, Health, Housing, and Education departments ensures those with specific knowledge and expertise around the vulnerabilities of those at risk are able to work together to provide the best support. Channel interventions are delivered through local partners and specialist agencies. The support may focus on a person's vulnerabilities around health, education, employment, or housing, as well as specialist mentoring or faith guidance and broader diversionary activities such as sport. The specific professionals involved are dependent on the nature of the assessed vulnerabilities. For example, a homeless individual with mental health and social problems assessed as vulnerabilities, would require input from the housing department, a psychiatrist or psychologist as well as a social worker. However, an individual whose sole vulnerability relates to mental health problems may just require input from a psychiatrist. Each support package is tailored to the person and their particular circumstances.

The empirical evidence supporting the effectiveness of Prevent is unclear, and as yet unpublished, and the program has been subject to a variety of criticisms (9). These criticisms include that its secretive processes preclude any objective assessment of its effectiveness and that there is little or no empirical evidence base for its theoretical underpinning. The most concerning criticism is the accusation that the Prevent program could be actively counterproductive, by further marginalizing and radicalizing groups such as Muslims. If such groups perceive Prevent as a form of State surveillance, there are concerns that this might stop them from flagging up members of their community who are progressing down a pathway to terrorist violence to law enforcement.

However, at its core is the principle of identifying individuals at risk of traveling down a pathway toward terrorist violence, and diverting them away from such.

European Context of Prevent

The Prevent program can be seen in the context of other similar strategies operating in Western European countries, including the Netherlands, Denmark, and Norway (10).

The Dutch "Polarisation and Radicalisation Action Plan (2007–2011)" (11) and later "National Counterterrorism Strategy (2011)" included targeted actions such as education, traineeships, and personal development programs aimed at "binding" at-risk individuals to mainstream society.

For the Dutch, tackling polarization and radicalization is seen primarily as a matter for the local government and municipalities. Actions at this local level are aimed at prevention, signaling, and intervention. These are performed together with professionals such as neighborhood police officers, youth workers, teachers, and truancy officers and embedded in the local (security) policy. In addition, general and specific policies at a national level support and facilitate this local approach.

A third element of the program relates to the cooperation at an international level with the reduction of polarization and radicalization (inside and outside of the EU) and the alignment with foreign policy.

In terms of specific details, the local Dutch approach consists of giving neighborhoods or places where signals of polarization or radicalization are visible, a neighborhood-oriented treatment, which consists of a combination of "soft" and "hard" tactics. The local government assumes the lead role in this process.

"Soft" tactics include the organization of meetings and debates, promotion of discussion about, and introduction to, various ideologies, creation of traineeships or workplaces, specific labor market supervision for high-risk groups, and monitoring school dropouts.

"Hard" tactics can, for example, consist of enforcing compulsory school attendance and a clear approach to tackling truancy, agreeing and enforcing conduct rules, more supervision on the street, inspection of social security, and a zero-tolerance policy with regard to discrimination.

The Danish strategy, entitled "A common and safe future: An action plan to prevent extremist views and radicalisation among young people. (2009)" (12) included a project, called "De-radicalization: Targeted Intervention" aimed at developing various mentoring schemes for individuals who are displaying signs of radicalization. The guiding idea is that, most often, local actors are the first to identify signs of extremist views among young people, and the possibility for early preventive efforts also lies within the local communities.

The Danish Government implements a total of 22 specific initiatives divided into seven focus areas a summary of which is as follows:

- Direct Contact with Young People—targeted individual preventive talks; mentoring schemes.
- Inclusion Based on Rights and Obligations—counter-radicalization efforts are incorporated into the local crime preventive cooperation in line with other types of worrying behavior: drug abuse, property crime, etc. Local network meetings are arranged where a broad spectrum of actors may strengthen the local cooperation on prevention and ways of handling young individuals who display signs of being involved in extremism.
- Dialogue and Information—this includes use of role models and specific campaign activities.
- Democratic Cohesion—strengthening of democracy and civic education including Danish Language Education for adult foreigners; civic citizenship training for religious preachers.
- Efforts in Vulnerable Residential Areas—efforts to prevent parallel societies and ghettoization; inclusion of children and young people in democracy.
- Special Initiatives in Prisons—educational program for prison staff enabling them to identify signs of radicalization. Practical lessons in local democracy in prisons; social reabsorption measures and coaching for prison inmates; and approval scheme for religious preachers in prisons.
- Knowledge, Cooperation, and Partnerships—strengthening of the knowledge and cooperation of the authorities; international sharing of knowledge.

The Norwegian counter-radicalization strategy, the "Action Plan to prevent radicalization and violent extremism (2014)" (13) was partly based on a previously successful program specifically targeted at extreme right-wing (XRW) violence the country experienced in the 1990s. With a somewhat different ethos, this seeks to utilize "Empowerment Conversations," which are essentially intervention programs run by local police forces.

The Norwegian Government counter-radicalization strategy encompasses a total of 30 different action points. These action points have been grouped under six headings by the authors and summarized below:

- Research and Knowledge—development of a research strategy, including research on local preventative efforts, processes of radicalization and motivating factors related to foreign fighters; provision of a National conference on prevention of radicalization and violent extremism; development of guidance materials for government and nongovernmental organizations; improving knowledge through education in the justice sector; and development of competence in the health sector's work with violent extremism.
- Youth Sector—dialogue conferences for youths; development of teaching resources for use in lower secondary schools, and upper secondary education and training; and provision of guidance to parents and guardians.
- Criminal Justice—improving the Norwegian Police Security Service's central advisory role on preventative efforts; establishing responsibility for the prevention of radicalization and violent extremism in individual police districts; penal regulation of private citizens' participation in armed conflict and expulsion of foreigners who have committed war crimes; and notification when persons who have taken part in military actions abroad (foreign fighters) return home and follow-up of such persons.
- Mentoring—preparation of guidance materials for individually adapted mentoring and exit (from violent extremist groups) schemes; mentoring scheme in the Norwegian Correctional Services.
- Cyber—enhancing the police's presence on the Internet; preventing discrimination, harassment, and hate expressions on the Internet.
- Miscellaneous—support for voluntary organizations working to prevent radicalization and violent extremism; improving interfaith dialogue and the interfaith team in the Norwegian Correctional Services; and improvement of Nordic, European, and global cooperation.

Accordingly, the Prevent program can be seen as part of the European response to terrorism, which seeks to intervene at an early stage with individuals thought to be vulnerable to starting on a pathway toward engagement in terrorist activities, with the aim of altering this potential trajectory. The pathway to violence among targeted attackers in general, and terrorists in particular, has received strong empirical support (14,15).

Method

Prevent officers anecdotally report a high prevalence of mental disorder in individuals who come to their attention. Given the absence of studies on the epidemiology of mental disorder in Prevent subjects, this study aims to provide the first empirical evidence, while identifying traditional risk factors for violence in this mentally disordered group, informed by the HCR-20, a structured professional judgment tool for assessment and management of violence risk (16).

This is the first study to present evidence of the prevalence and type of specific diagnosed mental disorders in a group of individuals prospectively thought to pose a risk to national security, along with a 2-year follow-up of the cases. This initial pilot study is now in the process of being rolled out nationally to facilitate the production of results with greater power.

During the initial referral assessment process, Prevent officers (counterterrorism police) submit an enquiry to the National Health Service (NHS) regarding the presence, or otherwise, of a mental disorder history in the subject. This is because such conditions may be relevant in understanding and managing concerns about an individual. Once a request for psychiatric contact history is received from Police Scotland (National Civil Police Force) officers working for Prevent, NHS secretarial staff investigate the electronic patient register to see whether the subject has had previous psychiatric contact. The electronic patient register is an information technology system that allows a name and date of birth of a patient to be entered, and a search conducted for any contacts that individual has with any NHS provider in the locality.

If no previous psychiatric contact with the NHS is found, this is communicated to Prevent officers, and the request is closed. If psychiatric contact is found, the mental health notes are requested; only clinical NHS link staff review them and provide feedback to Prevent officers. This feedback is specifically aimed at addressing whether mental disorder is or is not likely to be of relevance to the behavior that has led the individual coming to the attention of Prevent. This feedback involves the individuals' psychiatric notes, if they are found to have any, being reviewed by a mental health clinician, and an opinion given as to whether active mental disorder is likely to be influencing the behavior that has led to their coming to the attention of counter terrorist police (e.g., a persecutory delusion that the CIA are monitoring them and they must kill the president to stop this) or not (e.g., a brief reactive depressive episode 20 years ago following the death of the individual's mother). If indicated, this information can be fed back to the local psychiatric service to offer assessment and treatment. This information can also be used for threat assessment and management purposes.

Over a 24-month period (November 2013–November 2015), a total of 23 individuals in the county of Fife (Pop. = 370,000; just north of the capital, Edinburgh) were subject to Prevent referrals. It was confirmed with Prevent Delivery Unit East (Police Scotland Operational Prevent Unit for the County of Fife) that they had contacted the service about every single Prevent referral during the study timeframe and requested an NHS mental health search on all 23 cases. Of these 23 enquiries, 9 individuals had a previous psychiatric history, and their psychiatric notes were requested. These psychiatric notes were reviewed by the first author, a consulting forensic psychiatrist, and information recorded using a standardized data collection sheet. The information collected was aimed at recording previous psychiatric diagnoses and histories, as well as guided by risk factors for violence and psychiatric disorder (16).

The information collected included gender; age; ethnicity; behavior leading to Prevent interest; terrorist group association; incident leading to Prevent interest; psychiatric diagnoses; previous detention under the Mental Health Act (MHA); any previous criminal history; any previous imprisonment; previous offenses types(s); personal history information including parental separation; developmental problems; early behavioral disturbance; special school attendance; disciplinary problems at school; and employment. Evidence suggestive of personality disordered traits and cluster type was also collected.

The limitations of attempting to code for personality disorder from notes are recognized and accepted by the authors. It is not suggested that individuals who scored positively in this item meet the diagnostic threshold for personality disorder. However, it is suggested that documented behavioral expressions, consistent with probable underlying personality disordered traits, provide some utility in understanding the individual, why they are behaving in a way that brings them to the attention of counterterrorism police, and how to assess and manage these behaviors.

Descriptions suggesting possible manifestations of underlying personality disordered traits included statements such as:

dissocial group (antisocial personality): "argumentative … anger management problems … takes little responsibility … frequent street fights … pseudo-hallucinations … voices inside head … conduct difficulties … problems controlling anger … Jekyll and Hyde character … impulsive … angry."

Emotionally unstable group (borderline personality): "volatile … empty inside … self-harm … overdose … rapid mood change … self-harm … cutting … attempted hanging … pseudo hallucinations."

Results

Demographics

The sample of nine subjects with a history of mental disorder was 89% (n = 8) male and 11% (n = 1) female. Age ranged from 23 to 72 years, with an average age of 46 years (median = 45 years). Eighty-nine percent (n = 8) of the subjects were of white British ethnicity, and 11% (n = 1) were of Pakistani origin. It appears that only one subject was Muslim. While this sample is ethnically and religiously atypical at a U.K. level, the prevalence of Muslims in the study county (semi-rural Scotland) is low by U.K. standards, and consequently, the sample group reflects the population of the study area.

A planned forthcoming study will undoubtedly contain a higher proportion of Islamist inspired individuals. However, the representation of Far Right inspiration even in this small sample appears relevant, given the increasing importance of this ideology in framing lone-actor terrorist violence (17).

Terrorist Inspiration and Motivation

For those individuals for whom information was available (n = 6) regarding their terrorist type inspiration, there were the following:

- three Northern Irish—related to individuals expressing support of both Protestant/Unionist terrorist groups such as the Ulster Defence Association, and Catholic/Republican terrorist groups such as the Irish Republican Army.
- One Extreme Right Wing (XRW)—an individual expressing extreme anti-immigrant and racist views justifying violent action against such groups.
- One Jihadist—expressing a belief that they were required to participate in Islamist-related violence against Western targets.
- One Anti-politician—related to threats of violence against a specific locally-based national politician.

There was no evidence to indicate that any of the subjects were a member of an organized terrorist group, and consequently, they would be described as "lone actors."

Where known, the individual's motivations for the behavior that led to the involvement of Prevent was the following: one personal work grievance that led to threats of serious violence involving firearms and explosives; one psychotically motivated and making threatening statements; one expressing sympathy for a Northern Irish terrorist organization; one making threats against a politician; and one making threats against an international politician and aircraft. Four subjects' behaviors that led to the Prevent referral were not disclosed to the authors for National Security reasons.

Psychiatric History

Thirty-nine percent (n = 9) of the referrals (n = 23) had a history of psychiatric disorder, leading to contact with mental health services. The history of psychiatric disorder was based on ICD-10 psychiatric diagnoses made by treating Consultant Psychiatrists as documented in their psychiatric notes. All of the nine individuals referred for psychiatric assessment had at least

one, and often more than one, psychiatric diagnosis made by a psychiatrist.

By far, the most common mental disorder in the group was a substance use disorder (ICD-10: F10-19), with 67% ($n = 6$) having previous or current evidence of an alcohol or drug use disorder. The next most common psychiatric diagnosis was personality disorder, with 44% ($n = 4$) having this diagnosis. Two subjects had diagnoses of emotionally unstable borderline personality disorder (EUPD) (F60.3), one had a diagnosis of dissocial personality disorder (DSPD) (F60.2), and one had a diagnosis of mixed personality disorder with dissocial and borderline/emotionally unstable traits.

Depression (F32) had been diagnosed in a third of the individuals ($n = 3$). Psychotic disorder (F20-F29) had been diagnosed in 22% ($n = 2$). Twenty-two percent ($n = 2$) of individuals had been diagnosed with an anxiety disorder (F40-48). One had a diagnosis of dyslexia, and one was described as being of low-normal IQ. One third (3) had previously been a detained patient in a psychiatric hospital under the Mental Health Act. Diagnoses exceed total number of subjects with a psychiatric condition due to multiple diagnoses in some subjects.

Criminal History

All nine of the individuals had some form of prior criminal history. This was documented in the Scottish Criminal Records Office printout of previous convictions that were reviewed for all 9 mental disorder subjects. A small number of offenses that the individual was charged with but did not result in a conviction are also included.

In descending order of frequency, these were for violent offense 67% ($n = 6$), theft offense 55% ($n = 5$), drug offenses 33% ($n = 3$), and threatening behaviors 33% (=3). Other types of previous offense convictions included a road traffic act ($n = 2$), vandalism ($n = 2$), breach of the peace ($n = 2$), firearms ($n = 1$) and explosives ($n = 1$) offenses, and racial abuse ($n = 1$). Previous imprisonment was common with 78% ($n = 7$) individuals having served at least one custodial sentence. A number of offenses are greater than sample size since there were multiple offenses per individual subject.

Childhood Events, Behaviors, and Employment History

A third ($n = 3$) of the individuals experienced parental separation as a child; 44% ($n = 4$) exhibited early behavioral problems as a child; none had attended a Special or List D school, although a third ($n = 3$) had documented disciplinary problems at school; (in Scotland, a Special or "List D" school, is a state run school for children who are admitted due to severe behavioral disturbance, repeated criminal activities or being out of control of their parents. It is commonly seen as a marker of early behavioral disturbance and is over represented in the backgrounds of individuals who go on to become recidivist criminals); and eighty-eight percent ($n = 8$) had past or current employment.

Presence of Behavioral Descriptors Suggestive of Personality Disordered Traits

While formal diagnoses of personality disorder had been made in 4 of the group (2 EUPD, 1 DSPD, 1 mixed DS & EUPD), when all the notes were reviewed clinical descriptions suggesting traits of personality disorder were potentially present in seven individuals. Using this broader measure, together with previous clinical diagnoses, four individuals displayed potential evidence of both emotionally unstable borderline and dissocial traits, one had dissocial personality traits, one had emotionally unstable borderline traits, and one exhibited schizoid personality traits.

Outcomes

At the time of writing, Prevent officers were not in a position to release follow-up information on the nine subjects, but information was obtained from publicly available records and reporting of offending.

To permit a meaningful period of time in which reoffending could occur, the evaluation occurred 2 years (November 2017) following the Prevent referral of the last subject (November 2015).

The evaluation involved searches of publicly available sources (press reports, court rolls, etc.) for information regarding later convictions. Such information was found for 4 out of 9 subjects, indicating that 44% ($n = 4$) had re-offended in the intervening 24-month period. The only subject who appears to have committed a further terrorist-related offense was the sole female subject, who re-offended in a similar manner, sending threatening communications to a US politician (threats to kill President Obama) and airlines (threats to bomb US civilian aircraft), which brought her to the attention of Prevent. She was convicted of these offenses and received a further custodial sentence. The precise motivation for this offending remained unclear as psychiatric interview was attempted but refused by the subject. However, on balance, the opinion was that these behaviors were most likely driven by an abnormal personality structure as opposed to an affective or psychotic disorder.

None of the other three subjects for whom information on subsequent offending was available appear to have offended in a manner suggestive of terrorist activity: one subject was convicted of threatening behavior toward a female and Police officers; one subject was convicted of drug and violent offenses; and one subject was convicted of dangerous driving/driving while intoxicated and without insurance, theft, and drug offenses.

In summary, the subsequent offense types of the subjects who re-offended during the subsequent 2 years were two drug offenses, two violent offenses, two threatening behaviors, and one road traffic offense. These offense types appear to broadly reflect the most frequent previously reported offense types for the group as a whole. Accordingly, while the limitations of this very small group are recognized, in this sample only a small percentage (11%; 1 in 9) of Prevent subjects with a history of mental disorder went on to commit any form of national security offense.

Those who were subsequently convicted of a non-national securityrelated offense (33%) were likely to reoffend in a manner similar to offending recorded for the group prior to Prevent involvement. The majority (55%) do not appear to have re-offended in the subsequent 2 years following Prevent involvement. Whether or not the rate of subsequent national security and other offending relates to the involvement of the subject with Prevent is not possible to determine from this sample.

Discussion

This is the first empirical study in Europe of the demographics, psychiatric diagnoses and criminal histories in individuals, assessed prospectively by the authorities as posing a potential

national security risk and then followed for a period of 2 years to determine subsequent criminal offenses, if any. The numbers in this study are, however, too small to demonstrate any causative or correlational relationship between mental disorder and alleged extremist attitudes/behaviors, and the findings of this study cannot be taken as evidence of this. It is a small descriptive pilot study. The authors are also very aware of the need not to attach additional unhelpful stigma to those who suffer from mental disorder.

The single most important finding of this study is the high prevalence (39%) of a history of diagnosed mental disorder in all subjects of potential national security concern referred to Prevent throughout an entire county in Scotland. This finding is consistent with previous research (2) that found that the odds of a lone-actor terrorist having a mental illness are 13.49 times higher than the odds of a group actor having a mental illness. This proportionality, despite the very small sample size, is also very similar to the 41% frequency of mental disorder among a sample of European and North American lone-actor terrorists (18), the 32% of lone-actor terrorists who had a history of mental illness (2), the 40% of extreme right-wing offenders with mental illness (19), and the very high frequency of mental disorder for those at risk (94%) vs. those who attacked (48%) in the recent study by Meloy (6). Elevated rates of mental disorder were also found among public figure attackers and assassins (20,21) for which a primary ideological motivation was very unusual.

Corner and Gill (2) also performed a multivariate statistical analysis on their dataset of 119 lone-actor terrorists and a matched sample of group actor terrorists and gave results that individuals who injure in an attack are 11.63 times more likely to have a diagnosis of schizophrenia, and 250 times more likely to have a mood disorder. It should, however, be emphasized that the mood disorder was not thought to be causative, but instead may demonstrate a susceptibility to stressors. It should also be noted that the dataset was constructed from open source materials unlikely to include complete access to an individual's psychiatric records.

The high prevalence of substance misuse problems, emotionally unstable and dissocial (cluster B type) personality disorders and traits, and previous offending in our study population, suggests the mechanism for coming to the attention of Prevent is similar to that for general offending behaviors. There also appears to be a smaller group for whom their behaviors are driven by psychosis or other specific mental disorder drivers.

In terms of an explanatory or causative function of psychiatric diagnoses in this sample, several potential mechanisms can be proposed, although by no means confirmed by this preliminary study. Although in a couple of cases mental disorder, namely, intoxication with alcohol (as part of an alcohol use disorder) and direct psychotic drive (persecutory delusion), could potentially be seen as a proximal risk factor, in general it is the view of the authors that mental disorder functions as a distal risk factor as described in the Terrorist Risk Assessment Protocol (TRAP-18) (6,22).

In Scotland, substance use disorders, particularly alcohol use, are the biggest single risk factor for violent offending, primarily through disinhibition. Substance use disorders can also be seen both as a marker for mental disorder, for example, so-called "self-medication," and a cause of mental disorder. An example of this mechanism in action in our sample is one individual with a diagnosis of psychotic illness and alcohol use disorder, whose disinhibited expression of support for a Northern Irish terrorist group while intoxicated led to a Prevent referral.

The next most frequent diagnosis was a personality disorder of either an emotionally unstable borderline or dissocial type, or a combination of both. It is perhaps unsurprising that both are so-called cluster B personality disorders, characterized by overly emotional unpredictable thinking or behavior and interactions with others. In the DSM-5 (23), these diagnoses are referred to as borderline personality disorder and antisocial personality disorder, respectively. Both diagnoses are also overrepresented in prison populations. Such individuals often display patterns of behavior that most people would regard as dramatic, erratic, threatening, and/or disturbing. It is therefore not difficult to understand how core symptoms of both EUPD and DPD could potentially lead individuals to behave in a manner that makes it more likely for them to be the subject of a Prevent referral compared to the general population. The rapid emotional change, distress, anger, and threatening behaviors to self and others seen in persons with these conditions, if labeled a terrorist risk, certainly do seem to be a mechanism by which a Prevent referral can occur. An example of this mechanism in the study group would be the emotionally unstable and dissocial personality disordered individual who, following a workplace dispute, was unable to contain his emotional response of anger and hostility, and formulated a plan involving a firearms and explosives attack on his place of employment to resolve the matter.

In the context of terrorism, however, such anger and loss of control should *not* be misconstrued as a warning behavior for a targeted attack. Terrorist attacks are usually acts of targeted violence, evidencing a calmness in preparation and control in execution which are hallmarks of predatory (instrumental), rather than affective (emotional) violence (24). Police misinterpretation of civility, calmness, and cooperativeness as markers for *no* risk of violence in a person of national security concern can be a prelude to tragedy if no proximal warning behaviors are considered (22,25).

The presence of a history of depression in two of the subjects is harder to explain as a potential causative factor for Prevent involvement, given that an active depressive disorder is generally associated with a reduced risk of most offending types. The same can be said about the individuals with a previous diagnosis of an anxiety disorder. However, the position suggested in previous research (2) that mood disorders demonstrate an individual's susceptibility to stressors would appear to be a potential explanation for this. There is also a substantial literature that has reported depression among targeted attackers, whether ideologically motivated or not (26,27). Depression can also contribute to violence through other channels, for example, irritability, anger, a skewed view of others' worth, and delusions from psychotic depression.

Some researchers have also advocated for understanding such mass attacks as extended suicides (28). Clinical interviewing of a patient who presents with suicidal ideation should always include a careful and thorough exploration of any fantasies, urges, or impulses to also kill other people before one's own self-inflicted death.

The group with a history of suffering from a psychotic illness potentially replicates the small but significant increased risk of violence exhibited by a minority of individuals with these conditions. There does seem to be a very small group for whom psychotic symptoms lead to behaviors that trigger Prevent involvement. Just as the content of psychotic symptoms such as auditory hallucinations and delusions reflects the cultural context of the society in which the psychotic individual lives (such as the predominantly religious type psychotic symptoms described

in the nineteenth century), so our current preoccupation with terrorism can color current psychotic symptoms. For example, an individual experiencing persecutory delusions is now more likely to attribute these to current societal fears such as Islamic terrorism, rather than previously reported societal concerns such as demons. This mechanism occurred in one of the study group who expressed persecutory delusions concerning a terrorist group whose activities were frequently reported in the media.

The need for continued development of risk assessment instruments for terrorism remains, although substantial progress has been made (29). This work has been urged by the Royal College of Psychiatrists position statement (30) on psychiatry and counterterrorism. It is with this in mind that permission has been obtained to roll out this pilot study on a national basis with the cooperation of the Scottish Government, Police Scotland, and NHS Scotland. Once this research has been completed, it is anticipated that there will be sufficient evidence to produce results with statistical significance regarding any association, or otherwise, between the subgroup of Prevent subjects who have a history of mental disorder, and risk of involvement in terrorist-related activity. However, comparison groups will be critical.

The atypicality of the study group on a U.K. wide basis is also noted, and in particular, the fact that only one subject was Muslim, although this finding was not atypical for the study area of semi-rural Scotland. While current attention is focused on the Islamist terror threat, recent attacks and arrests of extreme right-wing terrorists in both the U.K. and the United States show that the threat is much broader than just that posed by Muslim extremists, and to ignore this would be a mistake. Although the ideologies and religions of Prevent subjects differ, the underlying psychological and psychiatric processes are likely to be similar. Mental disorder does not respect religion or ideology, meaning that the prevalence of mental disorder in subjects from different terrorist ideologies is likely to be similar.

The 2-year follow-up of this small cohort also provided interesting data. Although the criminal re-offense rate was substantial (44%), and quite similar to re-offense rates among individuals who homicidally threaten (31), only one of the offenses was arguably related to terrorism and involved threats to a US politician and US aircraft. It is unclear whether this was ideologically motivated. Such findings in this small study reiterate the general violence risk research that the best predictor of future criminal behavior is past criminal behavior, and other targets may be at the same or greater risk than the specific target which is threatened (32).

Limitations

The very small number of individuals in this uncontrolled study means it lacks power for the application of inferential statistics, and the findings should be treated with great caution. However, this pilot study, in particular the high prevalence of a history of mental disorder in Prevent subjects (39%), which concurs with the anecdotal evidence of Prevent officers, has facilitated Scottish Government, NHS Scotland, and Police Scotland support in rolling out a similar study on a national basis to address this limitation. It is the only study known to the authors wherein psychiatric status has been documented in a sample of persons of national security concern prior to an act of terrorism, and then is prospectively followed for a period of time, in this case 2 years. Whether the subjects would have been true or false positives without intervention is unknowable.

The significant limitations of attempting to infer personality disordered traits from case notes are recognized and accepted. In particular, it is difficult to disentangle the behavioral descriptions of individuals from mental disorder, particularly substance abuse, without repeated clinical interviews and supporting collateral information. However, it is suggested that just ignoring anything other than the very high threshold required for a clinical diagnosis of personality disorder, would be to miss potentially relevant information. Threat assessment should first focus on *behaviors* of concern, and not become enmeshed in quibbling over the presence or correctness of a particular diagnosis. Such potential behavioral manifestations of personality disordered traits may have utility in understanding and addressing the causes of potentially concerning terrorist-related behavior.

While this study suggests that a variety of mental disorder diagnoses are overrepresented in the group who come to the attention of the Prevent counter terrorism program, we are also cognizant of the potential misattribution of risk for violence to just the mentally ill. This is the point of documenting whom has been identified as a "risk" by the Prevent program. It is quite conceivable that they are identifying the wrong individuals. They may be singling out those with a mental disorder much more readily than those who are more quietly planning an attack, and have no mental disorder (at least 60% according to Gill's research [2,3]), yet do have a personal grievance joined with moral outrage and an ideology, both of which are TRAP-18 indicators for terrorist risk (22).

Accordingly, the authors are keen to emphasize that this study only suggests that those flagged as vulnerable to involvement in terrorist activities have a high prevalence of mental disorder. It does not indicate that individuals with mental disorder are at higher risk of terrorist violence and should not be used to perpetuate the stigma that most perpetrators of violence are mentally ill.

The final limitation is that there are missing data in this small study which, among other things, did not allow for the formal coding of the HCR-20 (16) or the TRAP-18 (6,22), and thus the validation of these instruments as structured professional judgment guides for use in counterterrorism programs such as Prevent.

Acknowledgments

Dr. Alistair Morris is grateful to NHS Scotland for approving study leave for its completion, as well as to medical secretary Sarra Naylor for her administrative work.

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