CrossMark

Research report

Patterns of Stressful Life Events: Distinguishing Suicide Ideators from Suicide Attempters

Danielle McFeeters *, David Boyda, Siobhan O`Neill

School of Psychology and Psychology Research Institute, University of Ulster at Magee, BT48 5JL, Northern Ireland

ABSTRACT

Background: Suicidal ideation is an important indicator for subsequent suicidal behaviour, yet only a proportion of ideators transit from thought to action. This has led to interest surrounding the factors that distinguish ideators who attempt from non-attempters. The study aimed to identify distinct classes of life event categories amongst a sample of ideators and assess the ability of the classes to predict the risk of a suicide attempt.
Methods: A subsample of ideators was extracted based on responses to the suicidality section of the Adult Psychiatric Morbidity Survey ($N=7403$). Fifteen stressful life events (SLEs) were grouped into six broad categories.
Results: Using Latent Class Analysis (LCA), three distinct classes emerged; class 1 had a high probability of encountering interpersonal conflict, class 2 reported a low probability of experiencing any of the SLE categories with the exception of minor life stressors, whereas class 3 had a high probability of endorsing multiple SLE categories. The Odds Ratio for attempted suicide were highest among members of Class 3.
Limitations: The use of broad event categories as opposed to discrete life events may have led to an underestimation of the true exposure to SLEs.
Conclusions: The findings suggest the experience of multiple types of SLEs may predict the risk of transitioning towards suicidal behaviour for those individuals who have contemplated suicide. In application, this re-emphasises the need for a routine appraisal of risk amongst this vulnerable group and an assessment of the variety of events which may signal the individuals who may be at immediate risk.

1. Introduction

Suicidal behaviours present an ongoing public health concern given the high level of morbidity and mortality associated with attempt and death by suicide. Within the European Union, the average lifetime cost of each suicide has been estimated to equate to almost 2 million euros (McDaid et al., 2011). This is expected to rise since UK suicide statistics show a continuing growth in mortality rates despite efforts to counteract this trend (Office of National Statistics, 2013). Given the significant distress as well as the financial and personal loss which accompany suicide; identifying the factors which contribute to suicidal behaviours remains a sustained research objective and a potential means of informing subsequent intervention strategies.

To date, a considerable body of literature has been published surrounding the area of suicide from which a multitude of personal and social risk factors have been identified including gender, age, mental health diagnosis and prior suicidal ideation (Borges et al., 2010; Chen et al., 2006; Gururaj et al., 2004; Wong et al., 2008; Yoshimasu

et al., 2008). In fact, studies show that that suicidal ideation can increase in the interim immediately preceding a suicide attempt and therefore may act as a marker for the imminent threat of suicidal behaviour (Bagge, Littlefield, Conner, Schumacher, & Lee, 2014). Yet most of these risk factors fail to differentiate those individuals who will attempt from those who only contemplate suicide (Klonsky and May, 2014). While suicidal ideation is recognised as a significant indicator for a subsequent attempt, studies show that only a small minority of those who ideate will later progress to behavioural action (Nock et al., 2008). Indeed, those individuals who attempt suicide may constitute a fairly discrete class of ideators since the factors linked to suicidal thoughts may vary from those which motivate an individual to proceed to suicidal behaviour (O'Connor, 2011). Pinpointing the factors that distinguish ideators who ultimately attempt from non-attempters is therefore a priority for future research since this may hold significant preventative potential (Aleman and Denys, 2014; Klonsky and May, 2014; O'Connor and Nock, 2014).

Some of the latest theories of suicide (e.g. integrated motivational-volitional model) increasingly recognise the role of life stress in the aetiology of suicidal behaviour (O'Connor, 2011). Studies show that amongst ideators, individuals that attempt suicide are likely to have encountered a higher number of stressors; in particular stressful

interpersonal relationships have been linked to an elevated risk (Fairweather et al., 2006). Likewise, life stress has been implicated in alternative forms of psychopathology such as depression (Kendler et al., 1999) which are known to be an important intermediary of suicidal behaviours. By implication, life stress may be instrumental in the transition from thought to enactment, yet a recent systematic review by Liu and Miller (2014), concluded that most literature to date has merely touched upon the role of stressful life events (SLEs) or has concentrated on individual forms of life stress (e.g. child abuse).

Suicidal behaviours arise from a complex interplay of components in which a history of adversity represents one of the most significant factors in the decision to take ones own life (Foster, 2003). Financial difficulties (Stack and Wasserman, 2007), concern over work prospects or job loss (Almasi et al., 2009; Høyer et al., 2009), relational problems (Foster et al., 1999; Foster, 2011) traumatic events such as sexual abuse, bullying, victimization and conflict (Klomek et al., 2009; Maniglio, 2011; O'Neill et al., 2014) have all been implicated in the aetiology of suicidal behaviour. Yet, singular forms of adversity are unlikely to transpire in isolation since individuals typically encounter numerous stressors or multiple types of stressors at different periods over their lifetime. This is corroborated by reviews of psychological autopsy studies which demonstrate a dose response effect with a mean of almost three life events noted for suicide deaths compared to less than one for control groups (Foster, 2011). What's more, even distal stressors (e.g. bullying in childhood) have been shown to heighten the propensity for a suicide attempt in later life (Bagge et al., 2013; Beautrais et al., 1997; Conner et al., 2012; Meltzer et al., 2011; Pompili et al., 2011). Thus individuals are likely to encounter multiple distal ("indirect") or proximal ("causal") life events during their lifetime. Therefore, while studies have shown a cumulative effect of life stressors on suicidal behaviours; ongoing research is needed to ascertain whether certain combinations of events or event types are associated with a greater risk of transitioning from ideation to attempt (May et al., 2012).

In spite of mounting support for the co-occurrence of SLEs, few studies have attempted to identify homogeneous patterns which may be associated with a differential risk of suicidality. Such approaches are likely to have significant potential for advancing our understanding of the role of SLEs in suicidal behaviour. For instance, Latent Class Analysis (LCA) has been used previously to examine patterns of co-occurrence among suicide attempts (Karsberg et al., 2014) and deaths by suicide (Logan et al., 2011). One such study showed that adolescents who had attempted suicide were approximately six times more likely to be members of a violence, neglect, and bullying class (O.R=5.97) and almost four times more likely to be members of a multiple trauma class (O.R=3.87) compared to the baseline (Karsberg et al., 2014). Whilst these studies demonstrate the utility of techniques such as LCA, this work is not specific to those with a history of suicidal intention who may already possess a predisposition for enactment. As such, the current study aimed to complement existing research by utilising a subpopulation of ideators and identify latent classes based on their endorsement of SLE categories. The second aim was to determine whether certain classes are associated with a higher risk of attempted suicide.

2. Method

2.1. Sample

The current study utilised data from the Adult Psychiatric Morbidity Survey (APMS, 2007) which was the third national survey of psychiatric morbidity in British populations (McManus et al., 2009). The APMS was designed to be representative of the population living in private households in England. Fieldwork was carried out between October 2006 and December 2007 by experienced interviewers from the National Centre for Social Research. Using the small users' postcode address file (PAF), the National Centre for Social Research adopted a multi-stage stratified probability sampling design. The survey consisted of a phase one and a phase two (clinical) interview. For phase one, 13,214 potentially eligible private households were identified. One individual aged 16 years or over was selected for interview within each household using the Kish grid method (Kish, 1965). Where there was more than one person, one individual was chosen randomly in order to ensure that all eligible members of any household had an equal chance of being selected. In total 9% of sampled addresses were considered to be ineligible because they contained no private households, leaving an eligible sample of 13,171 addresses. Fifty-seven percent of eligible respondents agreed to participate which resulted in the completion of 7403 successful interviews (3197 males and 4206 females). Of those who did not take part, 31% refused, 5% were unable and the remaining 8% were not contactable. Phase one interview used standardised instruments to document the demographic variables along with the assessment of common mental disorders.

2.2. Weighting

The data was weighted to take account of non-response so that the results were representative of the household population aged 16 years and over in England. Weighting occurred in three steps. First, sample weights were applied to take account of the different probabilities of selecting respondents in different sized households. Second, to reduce household non-response bias, a household level weight was calculated from a logistic regression model using interviewer observation and area-level variables (collected from Census 2001 data) available for responding and non-responding households. Finally, weights were applied using the techniques of calibration weighting based on the age, sex and region to weight the data up to represent the structure of the national population, taking account of differential non-response between regions, and age-by-sex groups. Population Estimates for UK, England and Wales, Scotland and Northern Ireland. (2006) mid-year household population estimates were used as the population control totals. For the purpose of the current analysis, part one weights were applied.

2.3. Measures

2.3.1. Demographics

Suicide outcomes often vary by age and gender (Nock et al., 2008), both of which are also known to be associated with specific forms of SLEs (Walker et al., 2004). As such, these variables were included as controls in the current model.

2.3.2. Stressful Life Events (SLEs)

Fifteen items were selected from the life events section of the questionnaire and condensed into six broad categories of SLEs: (1) Injury or illness (to self or others) (2) personal loss (death of a family member or close relative) (3) interpersonal conflict (divorce or separation, problem with friend/neighbour) (4) financial crisis (e.g. loss of job, major financial crisis, unsuccessful in looking for work) (5) interpersonal abuse (sexual abuse, violence in the home or work, bullying) (6) Minor life stressors (an item of value being lost or stolen, problem with police). Respondents were asked if they had experienced each of the life events at any time in their life. Responses to each item were coded in a binary yes or no format (No=0, Yes=1). If individuals had endorsed one or more the items within each of the broad categories they were coded as 1=yes otherwise 0=no. Three items were excluded from the analysis based on low endorsement among the sample of ideators