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Research report

Suicidal behaviours in South East London: Prevalence, risk factors and the role of socio-economic status

L. Aschan [a,(*)], L. Goodwin [a], S. Cross [b], P. Moran [c], M. Hotopf [a], S.L. Hatch [a]

[a] King's College London, Psychological Medicine, Institute of Psychiatry, United Kingdom
[b] South London and Maudsley NHS Foundation Trust, Department of Psychological Medicine, King's College Hospital, United Kingdom
[c] King's College London, Health Service and Population Research Department, Institute of Psychiatry, United Kingdom

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ABSTRACT

Background: Low socio-economic status (SES) is an established risk factor of suicidal behaviours, but it is unknown to what extent its association is direct, indirect or confounded, given its strong association to mental health. We aimed to (I) estimate the prevalence of suicidal behaviours; (II) describe relevant risk factors; and (III) investigate direct and indirect effects of SES on suicidal behaviours.
Methods: We used cross-sectional community survey data of adults from randomly selected South East London households (SELCoH). Suicidal outcome measures replicated the 2007 Adult Psychiatric Morbidity Survey in England (APMS). Lifetime prevalence was described by socio-demographics, SES, mental health indicators, and life events. Structured symptom screens and a drug use questionnaire measured mental health. Structural equation models estimated direct and indirect effects of a latent SES variable on suicidal ideation and suicide attempts, adjusting for covariates.
Results: 20.5% (95% CI: 18.4–22.7) reported suicidal ideation and 8.1% (95% CI: 6.8–9.7) reported suicide attempts (higher than APMS estimates: 13.7%, 4.8%, respectively). Unadjusted risk factors included poor mental health, low SES, and non-married/non-cohabitating relationship status. Black African ethnicity was protective, and women reported more suicide attempts. SES was directly associated to suicide attempts, but not suicidal ideation. SES had indirect effects on suicidal outcomes via mental health and life events.
Limitations: The cross-sectional design and application of measures for different time periods did not allow for causal inferences.
Conclusions: Suicidal behaviours were more prevalent than in the general UK population. Interventions targeting low SES individuals may prove effective in preventing suicide attempts.

1. Introduction

Indicators of low socio-economic status (SES) have been reliably identified as risk factors for suicidal behaviour in community settings. Unemployment, low income and educational attainment are all associated with suicide morbidity and mortality (Blakely et al., 2003; Borges et al., 2006; Fergusson et al., 2007; Kposowa, 2001; Lorant et al., 2005; Nicholson et al., 2009; Qin et al., 2003). Associations between low SES and suicidal behaviours are likely to partly be driven by mental illness, but SES may nevertheless play a fundamentally causal, rather than confounding, role. Recent multi-factorial theoretical frameworks further propose that "predisposing" risk factors, such as SES, may also affect suicide risk directly, as well as indirectly through "precipitating" factors (Lorant et al., 2005; Phillips et al., 1999). Empirical research supports this (Mortensen et al., 2000; Taylor et al., 2004). A detailed community level understanding of SES in the aetiology of suicide could have important implications for local prevention and treatment. In order to address this, we applied a community epidemiological approach to a socio-economically diverse area in South East London and aimed to (I) estimate the prevalence of suicidal behaviours (ideation and attempts); (II) describe relevant risk factors in detail; and (III) investigate direct and indirect effects of SES on suicidal behaviours. We hypothesised that (H1) indicators of low SES would be associated with a greater frequency of suicidal behaviours, and that (H2) after accounting for a priori covariates (mental disorder and life events), SES would still have a direct effect on suicidal behaviours.

2. Methods

2.1. Setting and sample

We used data from the South East London Community Health Study (SELCoH), a cross-sectional community survey of physical

(*) Correspondence to: King's College London, Psychological Medicine, Institute of Psychiatry, Weston Education Centre, 10 Cutcombe Road, London SE5 9RJ, United Kingdom. Tel.: +44 20 7848 0895.
E-mail address: lisa.aschan@kcl.ac.uk (L. Aschan).

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and psychiatric morbidity. SELCoH contains detailed information on psychiatric symptoms, socio-demographics and SES from 1698 adults from 1075 randomly selected private households in the London boroughs Lambeth and Southwark.

2.2. Data collection

Participants were recruited between 2008 and 2010. Households were identified through stratified random sampling applying similar methods to those of the British National Psychiatric Morbidity Surveys (Jenkins et al., 1997). This involved randomly sampling addresses from the Small User Postcode Address File, which excludes addresses receiving more than 50 items of post per day. All private households were sent letters describing the study and were visited by two interviewers; non-residential, shared, or vacant accommodations were excluded. Residents aged 16 and over were invited to take part. This resulted in a household participation rate of 51.9%, and a within household participation rate of 71.9%. For a detailed description of the recruitment procedure, see Hatch et al. (2011). The area's ethnic and socio-economic composition is diverse. Overall, socio-economic deprivation levels in the two boroughs are higher than the national average, and compared to other areas of London, the catchment area has higher proportions of persons from Black Caribbean and Black African ethnic groups, and a lower proportion of persons from Asian groups (Office for National Statistics, 2012a). The sample was similar to the 2011 UK Census information with regards to socio-demographic and socio-economic indicators for the catchment area under study.

Trained interviewers conducted structured face-to-face interviews assisted by computers in participants' homes after describing the study, reminding participants that participation was voluntary and gaining written informed consent. Data was collected on socio-demographics, SES, physical and mental health symptoms, treatment and health service use, social adversity and psychosocial resources. Translators assisted in interviews with non-English speaking participants. Each completed interview was reimbursed with £15. Ethical approval was granted by the King's College London research ethics committee; reference CREC/07/08-152.

2.3. Measures

2.3.1. Suicidal behaviours

Suicidal ideation and suicide attempts (hereafter collectively referred to as suicidal behaviours) were the main variables of interest. Suicidal ideation was measured by asking: “have you ever thought of taking your own life, even if you would not really do it?”, and suicide attempts by asking: “have you ever made an attempt to take your life, by taking an overdose or in some other way?”. Tiredness of life, death wishes and treatment for self-harm were similarly measured with single item questions but were not used beyond descriptive analysis in this study. Tiredness of life was indicated by asking “have you ever felt that life was not worth living?”; death wishes by “have you ever wished you were dead?”; and professional treatment for self-harm “have you ever been seen by a psychiatrist, psychologist or counsellor because you had harmed yourself?”. Positive responses to all questions but treatment receipt were followed by asking participants to specify whether this last occurred: in the past week, past year or some other time. These measures replicated those used by the 2000 and 2007 British National Psychiatric Morbidity surveys (Meltzer et al., 2002; Nicholson et al., 2009).

While tiredness of life, death wishes, and suicidal ideation are overlapping suicide-related cognitive constructs, empirical literature supports a suicidal spectrum ranging from tiredness of life to death wishes to suicidal ideation, with decreasing prevalence and increasing severity (Bebbington et al., 2010). For this study we chose to focus on the more severe cognitive indicator of suicidal ideation, in addition to the behavioural measure of suicide attempts, as these are theoretically further along the spectrum of severity and would thus be stronger predictors of completed suicide.

2.3.2. Socio-demographic indicators

Demographic variables included gender, age, ethnicity and relationship status. Age was measured continuously and grouped as 16–25, 26–35, 36–45, 46–60 and ≥61 years. Ethnicity was measured by allowing participants to self-identify as White British, Black Caribbean, Black African, Indian, Pakistani, Bangladeshi or Other. Small cell counts did not allow examination of South Asian groups (i.e. Indian, Pakistani, and Bangladeshi) separately, and they were thus collapsed with the Other category. The four-group ethnicity variable was used for the descriptive statistics and was regrouped as White British and non-White British for the structural equation modelling (SEM) due to small cell counts. Relationship status was measured as married/cohabiting, single, divorced/separated or widowed, and recoded to married/cohabitating vs. non-married/non-cohabitating.

2.3.3. Socio-economic indicators

Socio-economic indicators included household income, educational attainment, benefit receipt, housing tenure, employment status, and debt. Gross yearly household income from all sources before any deductions was categorically measured: £0–5475, £5476–12,097, £12,098–20,753, £20,754–31,494 and £31,495 or more. Educational attainment was grouped as no qualifications; GCSE (or equivalent), A-level (or equivalent); and higher degree or above. The binary variable of any benefit receipt was measured by participants indicating which, if any, benefits they currently received from a provided list of nine benefit types. Housing tenure was classified as owning the property (outright or with a mortgage), or renting/part-rent, part-mortgage/living in the property rent-free. Employment status distinguished between full-time employed, part-time employed, unemployed, students (not working) and other (temporarily or permanently sick/disabled, retired, or looking after children at home). A binary variable used in the SEM analysis grouped those in paid employment (full-time and part-time, including students in paid employment); and not in paid employment (all others). Debt was indicated by participants reporting being seriously behind on any past-year payments including rent, mortgage repayments, and utility bills among others.

2.3.4. Mental health

Mental health indicators included common mental disorders (CMDs), post-traumatic stress disorder (PTSD), personality dysfunction (PD) and substance use. CMD, PTSD and PD were coded dichotomously as positive or negative screens of their corresponding symptom checks. The Clinical Interview Schedule Revised (CIS-R) (Lewis et al., 1992), a structured interview that can be carried out by lay interviewers, measured CMD. It identifies common neurotic and depressive disorders, asking about the following 14 symptom domains: somatic symptoms, fatigue, subjective memory and concentration, sleep problems, irritability, worry about physical health, depression, depressive ideas, worry, anxiety, phobias, panic, compulsions and obsessions. It also generates a total score of psychiatric morbidity, identifying CMD by using a cut-off score at 12. The four-item Posttraumatic Stress Disorder Checklist (PCL-4) identified probable PTSD cases, using a cut-off at three (Bliese et al., 2008). The eight-item Standardised Assessment