

# **Kent Academic Repository**

Turnbull, Pauline, Hunt, Isabelle M., Woodhouse, Tim, Monk, Helen, Kapur, Nav and Appleby, Louis (2025) *Domestic violence and suicide in women under the care of mental health services in the UK, 2015-2021: a national observational study.* The Lancet Regional Health - Europe, 55 . ISSN 2666-7762.

## **Downloaded from**

https://kar.kent.ac.uk/110634/ The University of Kent's Academic Repository KAR

## The version of record is available from

https://doi.org/10.1016/j.lanepe.2025.101350

## This document version

Publisher pdf

**DOI** for this version

## Licence for this version

CC BY-NC-ND (Attribution-NonCommercial-NoDerivatives)

### **Additional information**

## Versions of research works

#### Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

## **Author Accepted Manuscripts**

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in *Title* of *Journal*, Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

## **Enquiries**

If you have questions about this document contact <a href="ResearchSupport@kent.ac.uk">ResearchSupport@kent.ac.uk</a>. Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies).

# Domestic violence and suicide in women under the care of mental health services in the UK, 2015-2021: a national observational study



oa

Pauline Turnbull,<sup>a,\*</sup> Isabelle M. Hunt,<sup>a</sup> Tim Woodhouse,<sup>b,c</sup> Helen Monk,<sup>d</sup> Nav Kapur,<sup>a,e,f</sup> and Louis Appleby<sup>a</sup>

<sup>a</sup>National Confidential Inquiry Into Suicide and Safety in Mental Health (NCISH), Centre for Mental Health and Safety, School of Health Sciences, University of Manchester, Manchester, UK

#### Summary

Background There is growing evidence of a link between domestic violence and suicidality. We present the first national analysis of women with mental disorders who died by suicide having experienced domestic violence. We aim to make recommendations to improve the safety of services, particularly for women who experience domestic violence.

The Lancet Regional Health - Europe 2025;55: 101350

Published Online xxx https://doi.org/10. 1016/j.lanepe.2025. 101350

1

Methods We obtained data on women who died by suicide under the care of UK mental health services (2015–2021). We compared women who experienced domestic violence with women with no known history. Logistic regression identified associations between person and care characteristics and domestic violence.

Findings We identified 630 women who experienced domestic violence, 26% of all women with mental disorders who died by suicide. These women were younger (median age 42 vs. 47), and more often unemployed (366, 64% v. 641, 39%; p0.002). Adverse life events were common (378, 66%), most often serious financial problems (104, 23% v. 163, 10%; p < 0.001) and/or loss of job, benefits, or housing (97, 20% v. 198, 13%; p < 0.001). Many had a diagnosis of PTSD (83, 13% v. 72, 4%), self-harm (500, 83% v. 1,077, 62%), and alcohol misuse (371, 63% v. 477, 27%). They were more likely to have a history of violence as a perpetrator (124, 22% v. 87, 5%; p < 0.001).

Interpretation Many factors associated with suicide are also associated with domestic violence (e.g., unemployment, serious financial problems), suggesting intersecting disadvantages. Mental health clinicians have a responsibility to enquire about domestic violence and address its impacts as an integral part of suicide prevention.

Funding The Healthcare Quality Improvement Partnership.

Copyright © 2025 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Keywords: Suicide; Domestic violence; Women; Mental health; Service contact

#### Introduction

Experience of domestic violence has been shown to be associated with an increased risk of suicidality. Domestic abuse is defined by the UK Government as "any incident or pattern of incidents of controlling, coercive or threatening behaviour, violence, or abuse between those aged 16 or over who are or have been intimate partners or family members regardless of

gender or sexuality. This can encompass psychological, physical, sexual, financial, and emotional abuse".<sup>3</sup> Other terms include "domestic violence" and "intimate partner violence"; this article uses the term "domestic violence" unless a different term is specified in the literature being cited.

The 5-year Suicide Prevention Strategy for England published in 2023 for the first time highlights domestic

<sup>&</sup>lt;sup>b</sup>Kent County Council, Kent, UK

<sup>&</sup>lt;sup>c</sup>University of Kent, Kent, UK

<sup>&</sup>lt;sup>d</sup>School of Justice Studies, Liverpool John Moores University, Liverpool, UK

<sup>&</sup>lt;sup>e</sup>NIHR Greater Manchester Patient Safety Research Collaboration, University of Manchester, Manchester, UK

<sup>&</sup>lt;sup>f</sup>Mersey Care NHS Foundation Trust, Prescot, UK

<sup>\*</sup>Corresponding author. National Confidential Inquiry into Suicide and Safety in Mental Health, Centre for Mental Health and Safety, Jean McFarlane Building, University of Manchester, Manchester M13 9PL, UK.

E-mail address: p.turnbull@manchester.ac.uk (P. Turnbull).

#### Research in context

#### Evidence before this study

We searched MEDLINE, PsycINFO and Scopus databases for peer-reviewed articles and reviews published up to 2024 in English, on domestic abuse and suicide in women. Our search terms were "suicide", "suicid\*", and "self-harm", combined with "domestic abuse", "intimate partner violence", "domestic violence" and "women" or "female". We checked citations of relevant publications and searched the reference lists of selected articles. We included national policy documents and reports relating to mental healthcare provision, suicide prevention and domestic abuse for women. There is increasing evidence that domestic violence is linked with suicide; local real time surveillance of suspected suicides by the Kent and Medway Suicide Prevention Programme identified that 30% of all suicides were impacted by domestic violence, experienced, perpetrated, or witnessed. The Domestic Homicide Review (now the Domestic Abuse Related Deaths Review) in England and Wales now includes domestic violence related suicides, and in 2022-23 the number of suicides outnumbered homicides for the first time. Survey data from the Adult Psychiatric Morbidity Survey in England reported that 50% of people who attempted suicide had experienced intimate partner violence, 23% in the last year. Domestic violence is known to be associated with psychiatric disorders, and in a recent survey of psychiatrists, 59% stated that violence and abuse contributed to mental illness in their female patients. The link between domestic violence and suicide has been highlighted as a focus in the Suicide Prevention Strategy for England: 2023 to 2028.

#### Added value of this study

This is the first national study to examine suicide by women under the recent care of mental health services who had

experienced domestic violence. We identified that 26% of all women with mental disorders under the care of mental health services who died by suicide had experienced domestic violence at some point, though this is based on clinician knowledge and is likely to be an underestimate. These women had accumulated multiple social and mental health adversities, many of which are known to be associated with both an increased risk of suicide and with domestic violence.

#### Implications of all the available evidence

At least 1 in 4 women who died by suicide under the recent care of mental health services had experienced domestic violence. We do not know if the domestic violence experienced was current. There is emerging evidence that domestic violence is associated with increased risk of suicide, as well as social adversity and psychiatric disorders, which are in turn common risk factors for suicide. These factors combine to suggest that women with mental disorders who have experienced domestic violence are a particularly highrisk group for suicide. The women in our analysis who had experienced domestic violence were experiencing more social adversities (unemployment, serious financial problems, and/ or loss of job, benefits or housing) than women under the care of mental health services who died by suicide having no known history of domestic violence, indicating that a public health approach including economic, employment, and housing support is likely to be effective suicide prevention. Mental health services need to acknowledge the impact of domestic violence among many of their female patients and jointly work with domestic violence services to offer appropriate clinical and societal support.

violence as being a risk factor for suicide at a population level.<sup>4</sup> The strategy outlines a future focus on improving understanding of domestic violence and suicide, and equipping services to support people at risk. This is an area of emerging evidence, and to date little is known about the prevalence of domestic violence-related suicide and the characteristics of those people who die by this method.<sup>5-7</sup>

Real Time Surveillance data of suspected suicides collected by the Kent and Medway Suicide Prevention Programme reported that 30% of suicides were impacted by domestic violence, experienced, perpetrated, or witnessed.<sup>5</sup> The most recent Domestic Homicide Review report in England and Wales published by the National Police Chief's Council reported that in 2022–2023 the number of domestic violence related suicides has increased, and outnumbered domestic homicides for the first time.<sup>6</sup> The majority of these suicides (69 of 93, 74%) were in women. The

review has since been renamed the Domestic Abuse Related Deaths Review to better reflect the types of deaths that fall into scope, and to ensure that lessons are learned from all fatal domestic abuse cases. The increase in the number of cases recorded is likely to partly reflect improvements in identification and awareness of domestic abuse related suicides. This sits alongside reported increases in the prevalence of domestic violence related to the social impact of the COVID-19 pandemic.<sup>8</sup>

Much of the research examining the link between domestic violence and suicidal behaviour has been based on public health surveys. Analysis of the 2014 Adult Psychiatric Morbidity Survey in England reported that 50% of people who had attempted suicide had experienced intimate partner violence, 23% in the past year. People who had experienced intimate partner violence at any time (65% of women, 35% of men) were 3 times more likely than those who had not to attempt

3

suicide. This increased to 4 times more likely for those who had experienced intimate partner violence in the last year (35% of women, 9% of men).

In addition to the association with suicidality, domestic violence is known to be associated with psychiatric disorders.9 In a recent survey of 515 psychiatrists, 59% said that violence and abuse are contributing to mental illness in women under the care of mental health services, also citing relationship issues (49%) and home and family pressures (48%) as causing harm.10 Research into the links between domestic violence and suicide is particularly relevant in mental health services where (1) suicide risk is increased, 11 and (2) women with mental disorders have often experienced abuse.10 which may have (3) directly led to their subsequent poor mental health.9 Taking a suicide prevention focus with this group of women is important given our increasing understanding of the links between abuse, poor mental health, and suicide. Understanding the characteristics of women who have died by suicide having experienced domestic violence could facilitate risk formulation and support clinicians to prioritise provision of appropriate therapeutic support. 10,12

In this study, we have analysed data from the National Confidential Inquiry into Suicide and Safety in Mental Health (NCISH) to examine the characteristics of women who experienced domestic violence and who died by suicide within recent (12 month) contact with mental health services. The NCISH dataset was established to examine factors associated with suicide by people under the care of mental health services with a view to making recommendations to improve the safety of those services. Therefore, our focus is on women who have experienced domestic violence, with no information about the perpetrators of that violence. We acknowledge that this lack of a focus on perpetrators of violence against women and girls in the literature reflects a fundamental bias in violence prevention by diminishing the agency and responsibility of the perpetrator. 13,14 In this analysis, we focus on recommendations for suicide prevention in mental health services.

We aimed to (1) describe the sociodemographic, behavioural, and clinical characteristics of women who had experienced domestic violence, and had been cared for by mental health services, (2) make comparisons with other women under the care of mental health services who died by suicide having no known history of domestic violence to identify factors common to women with a history of violence, and (3) make recommendations to improve safety within mental health services for women who have experienced domestic violence.

#### Methods

In this cross-sectional study, data were collected as part of NCISH for all patients who died by suicide within recent (12 month) contact with mental health services in the UK between 1st January 2015 and 31st December 2021. Full details of NCISH data collection methodology are available on their website. 15 In brief, all deaths by intentional self-harm (ICD-10 codes X60-X84) or undetermined intent (Y10-Y34, excluding Y33-9, Y87-0 and Y87-2) for people aged 10 years and older were identified from national mortality data providers (the Office for National Statistics for England and Wales, The National Records service for Scotland, and the Northern Ireland Statistics and Research Agency). Mental Health providers then identified which of these people had contact with mental health services in the 12 months before they died. Detailed information about the people under the care of services and the care they received was collected via a questionnaire, completed by the supervising clinician, most often a consultant psychiatrist. Questionnaire completion rate was high, at 93%. Since 2015 we have collected data on whether people under the care of mental health services had experienced domestic or intimate partner violence (referred to here as domestic violence). As 2015 was the beginning of data collection for this variable, this is therefore an incomplete year. The wording of the question offered more limited categorisation than the government definition, specifically: "Did the patient have a history of domestic/intimate partner violence as a victim?" with response options of: "No", "Yes, sexual assault", "Yes, physical assault" and "Yes, both sexual physical assault". Therefore psychological, emotional, and financial abuse were not included in this analysis.

#### Independent variables

The independent variables for this study were: (1) sociodemographic characteristics: age (years), sex (1 = Male, 2 = Female); marital status (0 = married/co-habiting; 1 = divorced; 2 = single; 3 = widowed), living circumstances (0 = not living alone; 1 = living alone), employment status (0 = not unemployed; 1 = unemployed), on long-term sick leave (0 = no; 1 = yes), ethnic minority group (0 = white; 1 = ethnic minority group, including black British, black Caribbean, black African, black other, South Asian, Asian British, Chinese, Asian other, Arab/Middle Eastern and mixed/multiple ethnic group); homeless (0 = no; 1 = yes); (2) method of suicide (0 = no; 1 = yes): hanging/strangulation; self-poisoning; jumping/multiple injuries; other suicide method; (3) behavioural characteristics (0 = no; 1 = yes): history of self-harm or recent (<3 months) self-harm, history of violence as a perpetrator; history of alcohol or drug misuse, any recent (<3 month) adverse life events (excluding being a victim of violence); (3) clinical characteristics (0 = no; 1 = yes): ICD-10 diagnosis (primary and secondary diagnosis) of (0 = no; 1 = yes): schizophrenia and other delusional disorders, affective disorder, alcohol dependence/misuse,

dependence/misuse, personality disorder, post-traumatic stress disorder, history of illness >5 years; (4) service-related characteristics (0 = no; 1 = yes): being an in-patient, died within 3 months of discharge from in-patient care, under crisis resolution/home treatment services, missed last contact with services, non-adherence with medication, any previous admissions, first contact within 12 months of suicide, receiving psychological treatment, last contact within a week of death, risk of suicide low or not present.

#### Statistical analysis

Descriptive statistics are presented as frequencies and proportions. Socio-demographic and clinical characteristics of women with and without experience of domestic violence who died by suicide within 12 months of contact with mental health services are described. After evaluating variables for homogeneity of variance and normal distribution, we used Pearson's chi-squared (or Fishers exact tests where expected frequencies were less than 5) to test for associations between the two groups. An exception was age which was not normally distributed and therefore assessed using the Mann-Whitney U test. Missing data was determined to be missing not at random by the Little's MCAR (Missing Completely at Random) test (p < 0.000). Missing data was handled using pairwise deletion, i.e., if a response of a variable was missing for a person, this person was excluded from the analysis of that variable. Univariable logistic regression models were first fitted with a history of domestic violence before suicide being the outcome and no history of domestic violence before suicide being the reference group. The model was repeated adjusting for age. Multivariable logistic regression analysis was then conducted to examine the effect of person and clinical characteristics and experience of domestic violence. These are presented as odds ratios (ORs) with 95% confidence intervals (CIs). For the logistic regression analyses, we also undertook a multiple imputation sensitivity analysis to examine whether missing data changed the effect estimates of any associations between person characteristics and experience of domestic violence before suicide. Five imputed data sets were created, and results of the imputed data were pooled and compared with the standard multivariable logistic regression results (Appendix 1). Statical significance was indicated at the two-sided 5% level. Analyses were conducted using Stata 16 software.16

#### Ethics approval

NCISH has ethical approval from the National Research Ethics Service (NRES) Committee North-West (Greater Manchester South) (reference: ERP/96/136). Exemption under Section 251 of the NHS Act 2006, enabling access to confidential and identifiable information without consent in the interest of improving care, was obtained from the Health Research Agency

Confidential Advisory Group (HRA-CAG) (reference: 23/CAG/0024).

#### Role of the funding source

The funders played no part in the design, data collection and analysis, or interpretation and writing up of the study.

#### Results

There were 3908 women in the UK who died by suicide and had contact with mental health services in the 12 months before they died between 2015 and 2021. Information about experience of domestic violence was available for 2416 (62%) of these women. There were 630 women who died by suicide and who were known to have experienced domestic violence, 26% of women who died by suicide while under the care of mental health services during this period. Numbers of women who had experienced domestic violence increased between 2015 and 2018 and have remained stable in recent years. It is likely that this increase in the earlier years reflects better data collection, as missing values for this question decreased between 2015 and 2018, also remaining stable in the latter years.

Women who had experienced domestic violence were younger than other women who died by suicide under the care of mental health services and had no known history of domestic violence (median 42 v. 47 years) and were more likely to be unmarried, the majority being single (273, 48% v. 720, 42%) or divorced/ separated (177, 31% v. 268, 16%) (Table 1). More were living alone (298, 51% v. 671, 39%) and unemployed (366, 64% v. 641, 39%). Ninety-two percent were white, the same proportion as all women who died by suicide under the recent care of mental health services. More women who had experienced domestic violence had adverse life events in the previous 3 months (378, 66% v. 857, 50%), the most common relating to serious financial problems (104, 23% v. 163, 10%; p < 0.001), loss of job, benefits or housing (97, 20% v. 198, 13%; p < 0.001), and family issues (93, 20% v. 80, 5%; p < 0.001). More women who had experienced domestic violence died by self-poisoning than women with mental disorders who died by suicide and had no known history of domestic violence (224, 36% v. 516, 29%).

A history of self-harm (500, 83% v. 1,077, 62%), violence as a perpetrator (124, 22% v. 87, 5%), and alcohol (371, 63% v. 477, 27%) or drug misuse (289, 48% v. 319, 18%) were all more common for women who had experienced domestic violence compared to women with mental disorders who had no known history of domestic violence. Overall, nearly half (273, 45% v. 305, 18%; p < 0.001) had a combination of previous self-harm, a comorbid psychiatric diagnosis, and a history of alcohol or drug misuse, indicating clinical complexity.

	Women who experienced domestic violence		Women with no known experience of domestic violence  N = 1786		Crude OR (CI)	p	OR (CI)	р
	n	valid %	n	valid %				
Socio-demographic characteristics								
Age:								
<25 (reference)	72	11	253	14	1.00	< 0.001	NA	-
25-44	281	45	559	31	1.77 (1.31-2.38)			
45-64	246	39	664	37	1.30 (0.96-1.76)			
≥65	31	5	310	17	0.35 (0.22-0.55)			
Marital status:								
Married/cohabiting (reference)	103/566	18	577/1702	34	1.00	< 0.001	1.00	<0.001
Divorced/separated	177/566	31	268/1702	16	3.70 (2.79-4.91)		3.66 (2.76-4.86)	
Single	273/566	48	720/1702	42	2.12 (1.65-2.73)		1.76 (1.34-2.32)	
Widowed	13/566	2	137/1702	8	0.53 (0.29-0.97)		0.65 (0.35-1.21)	
Living alone (reference: no)	298/590	51	671/1737	39	1.62 (1.34-1.96)	<0.001	1.85 (1.52-2.25)	< 0.001
Unemployed (reference: no)	366/568	64	641/1658	39	2.87 (2.36-3.50)	< 0.001	2.66 (2.18-3.25)	< 0.001
On long-term sick leave (reference: no)	60/568	11	147/1658	9	1.21 (0.88-1.67)	0.23	1.24 (0.90-1.70)	0.19
Ethnic minority group <sup>a</sup> (reference: white)	46/608	8	132/1703	8	0.97 (0.69-1.38)	0.88	0.85 (0.60-1.22)	0.39
Homeless (reference: no)	18/628	3	15/1784	1	3.48 (1.74-6.95)	<0.001	3.02 (1.50-6.06)	0.002
Method of death								
Hanging/strangulation (reference: no)	283/628	45	758/1778	43	1.10 (0.92-1.33)	0.29	1.00 (0.83-1.20)	0.98
Self-poisoning (reference: no)	224/628	36	516/1778	29	1.36 (1.12-1.64)	0.002	1.45 (1.19-1.77)	<0.001
Jumping/multiple injuries (reference: no)	62/628	10	246/1778	14	0.68 (0.51-0.92)	0.01	0.67 (0.50-0.91)	0.009
Other method <sup>b</sup> (reference: no)	59/628	9	258/1778	15	0.61 (0.45-0.82)	0.001	0.68 (0.50-0.92)	0.013
Behavioural characteristics								
History of self-harm (reference: no)	500/606	83	1077/1740	62	2.90 (2.31-3.66)	< 0.001	2.64 (2.08-3.35)	<0.001
Recent (<3 months) history of self-harm (reference: no)	269/540	50	600/1689	36	1.80 (1.48-2.19)	< 0.001	1.59 (1.29-1.96)	<0.001
History of violence (as a perpetrator) (reference: no)	124/570	22	87/1777	5	5.68 (4.21-7.67)	<0.001	5.28 (3.91-7.15)	<0.001
History of alcohol misuse (reference: no)	371/592	63	477/1736	27	4.43 (3.64-5.40)	<0.001	4.21 (3.45-5.13)	<0.001
History of drug misuse (reference: no)	289/597	48	319/1754	18	4.22 (3.45-5.16)	<0.001	3.98 (3.23-4.92)	<0.001
Adverse life events <3 months <sup>c</sup> (reference: none)	378/576	66	857/1729	50	1.94 (1.60–2.36)	<0.001	1.87 (1.54-2.28)	< 0.001

Denominators are presented for variables with missing data. OR = odds ratio adjusted by age; CI = 95% confidence interval; NA = not applicable. <sup>a</sup>Ethnic minority group included black British, black Caribbean, black African, black African, black other, South Asian, Asian British, Chinese, Asian other, Arab/Middle Eastern and mixed/multiple ethnic group. <sup>b</sup>Includes drowning, gas inhalation, cutting/stabbing, burning, electrocution, suffocation and other specified methods. <sup>c</sup>Excludes the life event of being a victim of violence.

Table 1: Unadjusted and adjusted logistic regression models showing socio-demographic, suicide method, and behavioural characteristics of women with mental disorders who died by suicide, comparing women who had experienced domestic violence and women with no known history of domestic violence in the UK (2015–2021).

The diagnostic profile for women who had experienced domestic violence suggests multiple areas of mental health adversity. There were higher rates of personality disorder compared to women with mental disorders who died by suicide with no known experience of domestic violence (201, 33% v. 276, 16%) (Table 2), a diagnosis common among people with previous traumatic experience such as abuse. More women who had experienced domestic violence had a diagnosis (primary or secondary) of post-traumatic stress disorder (PTSD) (83, 13% v. 72, 4%). Women who had experienced domestic violence were also more likely to have a diagnosis of drug dependence/misuse (32, 5% v. 20, 1%), though numbers remain low. The majority (432, 70%) had a comorbid (i.e., additional) mental health diagnosis, most often alcohol dependence/misuse (126, 21%), depressive illness (115, 19%), or personality disorder (96, 16%).

Half (279, 50%) had previously been admitted to in-patient care, a proportion similar to all women with mental disorders who died by suicide (819, 52%). Many of the women who had experienced domestic violence had been discharged to unresolved problems, according to the responding clinician; nearly a third (71, 30% v. 79, 10%; p < 0.001) were discharged to alcohol or drug misuse problems and 52 (22%) had been discharged to poor social support, significantly more than women with mental disorders who had no known history of domestic violence at discharge from in-patient care (73, 10%; p < 0.001). Women who had experienced domestic violence had a longer duration of illness, more often more than 5 years since the clear onset of symptoms (380, 67% v. 835, 52%). Fewer were under crisis resolution home treatment services at the time of death (61, 10% v. 253, 14%) and they were less likely to be receiving psychological treatment (110, 19% v. 375,

	Women who experienced domestic violence  N = 630		Women with no known experience of domestic violence N = 1786		Crude OR (CI)	p	OR (CI)	p
	n	valid %	n	valid %				
Clinical characteristics								
Primary ICD-10 diagnosis:								
Schizophrenia & other delusional disorders	49/616	8	184/1762	10	0.74 (0.53-1.03)	0.08	0.75 (0.54-1.05)	0.10
Affective disorders	177/616	29	824/1762	47	0.46 (0.38-0.56)	< 0.001	0.50 (0.41-0.61)	<0.00
Personality disorder	201/616	33	276/1762	16	2.61 (2.11-3.22)	< 0.001	2.33 (1.87-2.90)	<0.00
Alcohol dependence/misuse	34/616	6	55/1762	3	1.81 (1.17-2.81)	0.01	1.82 (1.18-2.83)	0.01
Drug dependence/misuse	32/616	5	20/1762	1	4.77 (2.71-8.41)	< 0.001	4.36 (2.47-7.70)	<0.00
Post-traumatic stress disorder (PTSD)	18/616	3	20/1762	1	2.62 (1.38-4.99)	0.003	2.33 (1.22-4.46)	0.01
Any (primary or secondary) diagnosis of PTSD	83/616	13	72/1762	4	3.66 (2.63-5.09)	< 0.001	3.31 (2.37-4.62)	<0.00
Any secondary diagnosis	432/614	70	1024/1753	58	1.69 (1.39-2.06)	< 0.001	1.66 (1.36-2.02)	<0.00
History of illness >5 years	380/564	67	835/1602	52	1.89 (1.54-2.31)	< 0.001	1.99 (1.62-2.44)	<0.00
Service characteristics								
In-patients	38/625	6	123/1783	7	0.87 (0.60-1.27)	0.48	0.78 (0.53-1.14)	0.20
Recent (<3 months) discharge	77/582	13	244/1657	15	0.88 (0.67-1.16)	0.38	0.87 (0.66-1.15)	0.34
Crisis resolution home treatment services	61/620	10	253/1777	14	0.66 (0.49-0.88)	0.01	0.67 (0.50-0.90)	0.01
Missed last contact in previous month	133/573	23	298/1635	18	1.36 (1.08-1.71)	0.01	1.28 (1.01-1.62)	0.04
Non-adherence with medication	72/561	13	220/1696	13	0.99 (0.74-1.31)	0.93	0.99 (0.74-1.32)	0.93
Contact with services								
Previous admission to in-patient care	279/556	50	819/1590	52	0.95 (0.78-1.15)	0.59	0.98 (0.81-1.19)	0.85
First contact with services (<12 months)	54/603	9	358/1738	21	0.38 (0.28-0.51)	<0.001	0.39 (0.29-0.53)	<0.00
Receiving psychological treatment	110/571	19	375/1666	23	0.82 (0.65-1.04)	0.11	0.72 (0.57-0.92)	0.01
Last contact within 7 days of death	289/624	46	992/1776	56	0.68 (0.57-0.82)	<0.001	0.67 (0.56-0.81)	<0.00
Immediate risk: low or none	411/530	78	1172/1552	76	1.12 (0.89-1.42)	0.34	1.18 (0.93-1.50)	0.17
Long-term risk: low or none	249/499	50	773/1465	53	0.89 (0.73-1.09)	0.27	0.96 (0.78-1.18)	0.71

Denominators are presented for variables with missing data. OR = odds ratio adjusted by age; CI = 95% confidence interval.

Table 2: Unadjusted and adjusted logistic regression models showing clinical and service-related characteristics of women with mental disorders who died by suicide, comparing women who had experienced domestic violence and women with no known history of domestic violence in the UK (2015–2021).

23%). More women who had experienced domestic violence had missed their last contact with services (133, 23% v. 298, 18%).

Factors that were significantly associated with experience of domestic violence at the univariable level were entered into a multivariable logistic model (Table 3). Being unemployed, a diagnosis of PTSD, having a history of self-harm and violence (as a perpetrator), alcohol misuse, drug misuse, and recent adverse life events remained statistically significant. Receiving psychological treatment was negatively associated with experience of domestic violence.

In the sensitivity analysis using multiple imputation, similar variables of significance were found with the exception that psychological treatment was no longer negatively associated with women who had experienced domestic violence (Appendix 1).

#### Discussion

This paper presents the first national study of suicide by women who were under the care of mental health services, and who had experienced domestic violence. We report that at least 1 in 4 women with mental disorders had experienced domestic violence. Many of these women were also experiencing unemployment and adverse life events (mostly financial problems and/

	Odds Ratio	95% CI	p
Unemployed	1.68	1.25-2.26	0.001
History of self-harm	1.93	1.30-2.87	0.001
History of violence (as a perpetrator)	2.80	1.82-4.32	<0.001
History of alcohol misuse	2.28	1.66-3.13	<0.001
History of drug misuse	1.52	1.08-2.15	0.018
Recent (<3 months) adverse life events <sup>b</sup>	1.80	1.34-2.42	<0.001
Any <sup>a</sup> diagnosis of PTSD	3.50	2.11-5.78	<0.001
Receiving psychological treatment	0.57	0.39-0.84	0.004

<sup>a</sup>lncludes primary or secondary ICD-10 diagnosis of post-traumatic stress disorder (PTSD). <sup>b</sup>Excludes life event of being a victim of violence.

Table 3: Multivariable analysis of factors significantly associated with women with mental disorders who died by suicide, comparing women who had experienced domestic violence and women with no known history of domestic violence in the UK (2015–2021) (number of observations = 1470).

or loss of job, benefits, or housing), alongside PTSD, self-harm, violence as a perpetrator, and substance misuse. These factors are known to be associated with both an increased risk of suicide and with violence and abuse, suggesting an intersection of vulnerabilities and disadvantage. The literature shows that experience of domestic violence can lead to subsequent mental illness, and both PTSD and personality disorder—a diagnosis associated with past trauma—were common in the women in our analysis.

Research based on the Adult Psychiatric Morbidity Surveys has shown women in poverty, those unemployed or unable to work, and those in debt to be more likely to have experienced domestic violence than other women.18 This aligns with characteristics of the women who died in our analysis, who were more often unemployed and experiencing adverse life events including serious financial problems, loss of job, benefits or housing than women with mental disorders who died by suicide and had no known experience of domestic violence. These economic adversities may add to women's vulnerability, leading to them also being vulnerable to harmful relationships, or serving to trap women in abusive situations with fewer resources to escape.18 Leaving domestic violence to access interventions designed to protect women from perpetrators may cause or exacerbate unemployment, financial problems, or loss of job, benefits, or housing. Effective suicide prevention for this group of women would include economic, employment, and housing support, acknowledging that suicide risk may increase for women who experience domestic violence and do not have sufficient economic resource and/or appropriate housing. A public health approach to suicide prevention for women who experience domestic violence through economic, employment, and housing support is likely to be most impactful at the population level.<sup>19</sup> A key point from the emerging literature that warrants further examination is that suicide can occur months or years after the abuse stopped, which may be linked to the ongoing impact of the trauma.5 We do not know whether the domestic violence experienced by the women who died in our study was current, though we do know that they were more often unmarried and living alone, which may indicate that the abuse was not necessarily occurring at the time of death.

Clinically, many of these women had a primary or secondary diagnosis of PTSD, and many had been given a primary diagnosis of personality disorder; a diagnosis that is often associated with trauma, stigma, and inconsistent standards of treatment and care nationally,<sup>20,21</sup> though this did not retain significance in our multivariable analysis. Drug and alcohol misuse, self-harm, and violence as a perpetrator were all more common among women who had experienced domestic violence than women with mental disorders who died by suicide and had no known experience of

domestic violence and may be related to the experience of violence. In combination, these characteristics could signal a complexity for clinical management; in particular drug and alcohol misuse, self-harm, and a diagnosis of personality disorder can all be used as a means to exclude patients from some services. Further research is indicated to identify whether this complexity is especially disadvantaging women who have experienced domestic violence.

High levels of alcohol use have been shown to be associated with experience of domestic violence, mediated by drinking to cope.<sup>23,24</sup> It is possible that substance use mediates the relationship between domestic violence, mental illness, and suicide in the women in our sample. In our analysis, the women who had experienced domestic violence were significantly more likely than women with mental disorders who died by suicide and had no known experience of domestic violence to have a history of violence as a perpetrator. We are unable to examine this relationship in more detail. While it may be that women who are known to have experienced domestic violence are more prone to perpetrating violence, there is evidence in the literature that this may reflect the criminalisation of women who have experienced domestic violence as a tactic by perpetrators to extend their control.<sup>25</sup> There have been recent calls for reforms in law to address the response to women and girls as victim offenders.26 Violence as a perpetrator is a sensitive finding in this sample of women who died by suicide having experienced domestic violence, requiring further research focus.

A key question is how mental health services can support women under their care who have experienced domestic violence, with a view to improving safety and reducing suicide. The relationship between mental illness and domestic violence may be bidirectional. While there is some evidence that experience of domestic violence may lead to developing mental ill health,9 women who are vulnerable through economic, employment and housing problems and clinical circumstances may also have an increased chance of becoming involved in violent relationships. Enquiring specifically and consistently about domestic violence should be a key element of taking a full history, and of risk formulation. Clinicians should be aware that the impacts of this trauma can be long-lasting, potentially contributing to suicide sometime after abuse has

Health professionals have reported feeling unprepared to ask about domestic violence, unconfident, and concerned about the impact on their relationship with the person under their care.<sup>27,28</sup> Many studies have reported that women who have experienced domestic violence value direct questioning about domestic violence, and that training that gives healthcare professionals the opportunity to observe and model good practice is effective.<sup>29</sup> Clinician education in the impacts

of domestic violence–including suicide risk–is integral to supporting women with mental disorders, and to suicide prevention.<sup>30</sup> Guidance for health professionals has been published by the Department for Health and Social Care<sup>31</sup> and the Royal College of Psychiatrists,<sup>32</sup> emphasising the need to ask direct questions and acknowledge the impact of exposure to domestic violence on mental disorders, as well as the importance of knowing how to refer to specialist services. Given the prevalence of social and financial adversity and substance misuse in this cohort, risk formulation should also address current financial problems, and alcohol use.<sup>23,33</sup>

Mental health services need to shift focus to include consideration of the impacts of domestic violence, and appropriate clinical management. Joint working with domestic violence services, including domestic violence training for mental health practitioners, and mental health training for domestic violence practitioners, could support risk formulation and safety planning. Clinicians need to have the breadth of skill to respond to clinical complexity in this group and mitigate against the potential for these women to be excluded from services due to their combination of clinical characteristics.

To our knowledge, this manuscript is the first published analysis of suicide by women under the care of mental health services who had experienced domestic violence, and the first to identify that domestic violence was experienced by at least a quarter of all women who died by suicide while under the recent care of mental health services. This dataset was not designed specifically to collect information on this group; further focussed research into the specific needs and clinical management of this group is indicated. We have focussed on women as (a) the largest group impacted by domestic violence, and (b) the group where violence and abuse has recently been reported to be a major contributor to mental illness.10 The majority of domestic violence is perpetrated by men against women,6 but some men experience domestic violence and some of those men do die by suicide.5 We suggest that further analysis into domestic violence and suicide continue to be disaggregated by sex. Future research on suicide and domestic violence should include information on the sex, age and relationship of the perpetrator. Suicide prevention for this group should include a focus on prevention of male violence against women and not be limited to alleviating the damage that this violence inflicts on women's psychological and physical health. 13,14

Our conclusions are preliminary in the context of some limitations. Firstly, we recognise that using terms such as "mental disorders" may serve to medicalise women who have sought mental health support as a result of being traumatised. We used this language to reflect the clinical setting of the data collection by the National Confidential Inquiry into Suicide and Safety in Mental Health. Clinical terms such as these are used

for every person in the NCISH dataset and not limited to women who had experienced domestic violence. Secondly, the specific phrasing of the question in relation to experience of domestic violence limits responses to sexual and physical violence for the data in this analysis. We recognise that this is not aligned with the UK government definition of domestic abuse. We have used the term "domestic violence" in this manuscript to reflect the specific wording in the data collection questionnaire. The question has since been expanded to include "psychological or emotional abuse", though it will be some time before this additional information can be explored. We assume that our current sample did not completely capture coercive control or financial abuse and would underestimate the overall prevalence of domestic violence. We did capture physical and sexual domestic violence, which is likely to be associated with coercive control, and can be considered inherently psychologically harmful. The question does not capture when the domestic violence occurred.

Thirdly, there has been an increase in societal focus on domestic violence as understanding grows about the links with mental illness, psychological distress, and suicide. It is likely that the increase in the number of women who died by suicide in recent contact with mental health services having experienced domestic violence between 2015 and 2018 reflects this increase in awareness and focus by clinical staff, enquiry, and data recording, as reflected in guidance published by the Department for Health and Social Care and the Royal College of Psychiatrists rather than being an accurate reflection of a real-world increase in numbers. 31,32 Even in the context of increased societal awareness, information was known about domestic violence for just 62% of women under the care of mental health services. In general, the proportion of women identified as having experienced domestic violence is likely to be an underestimate, as there will be women who did not disclose this information to their clinical team, and clinicians who did not ask.

Fourthly, the data collected for the NCISH dataset was based on case records and clinical judgement rather than standardised assessments. However, the quality of the NCISH questionnaire has previously been shown to be reliable, with most variables based on objective information.<sup>15</sup> Fifthly, and finally, this analysis of an existing dataset centres women who have experienced domestic violence, with a focus on suicide prevention recommendations for mental health services. We have no information about perpetrators, including their sex. We acknowledge the lack of even basic information about perpetrators adds to a fundamental bias in much of the literature on violence against women and girls, obscuring the responsibility and distracting attention from the (majority male) perpetrators who should be the primary targets of serious intervention. 13,14

Our study shows that 26% of women under the care of mental health services who died by suicide had experienced domestic violence. Exposure to domestic violence confers many of the risks we know to be associated with suicide, including social isolation, economic hardships, mental ill health, and clinical complexities. The women in our analysis who had experienced domestic violence faced multiple adversities before their deaths by suicide, being disadvantaged by mental illness and economic, employment and housing problems. Mental health services should recognise the impacts of domestic violence on mental illness and suicide risk, and work with domestic violence services to support this traumatised and vulnerable group of women.

#### Contributors

PT, IMH, NK and LA were responsible for data acquisition and had access to the raw data. IMH was responsible for verifying the data and data analysis. PT, IMH, NK and LA were responsible for study conception and design. PT and IMH wrote the initial draft of the manuscript. All authors commented on drafts of the manuscript with PT and IMH preparing subsequent drafts. All authors read and approved the final manuscript. As first author, PT had final responsibility for the decision to submit for publication. LA is the guarantor for the study.

#### Data sharing statement

These data are taken from UK electronic health records. These are considered sensitive data under the General Data Protection Regulation (UK GDPR) and cannot be shared via public deposition because of information governance restrictions in place to protect patient confidentiality.

#### Declaration of interests

LA is Chair of the National Suicide Prevention Strategy Advisory Group, DHSC. NK is a member of the Department of Health and Social Care (England) National Suicide Prevention Advisory Group. He chaired the NICE Guideline Development Group for the Longer-Term Management of Self-Harm and the NICE Topic Expert Group (which developed the quality standards for self-harm services). NK was also chair of the updated NICE Guideline for Depression and topic advisor for the latest NICE Self-harm Guideline. He is supported by Mersey Care NHS Foundation Trust and the Greater Manchester Patient Safety Research Collaboration (NIHR204295). NK, LA, IMH, and PT report grants from the Healthcare Quality Improvement Partnership and the Medical Protection Society Limited (MPS). NK, LA and PT report grants from the Department for Education and NHS England. PT, NK and IH report a grant from the National Institute for Health and Care Research (NIHR). PT reports a grant from the Gambling Research Exchange Ontario (GREO). TW reports funding from the Churchill Foundation, and the National Institute for Health and Care Research (NIHR). All other authors declare no competing interests.

#### Acknowledgements

The study was carried out as part of the National Confidential Inquiry into Suicide and Safety in Mental Health (NCISH). We would like to particularly thank Lana Bojanić for assistance with multiple imputation. We thank all the other members of the research team: Alison Baird, Cathryn Rodway, India Garry, James Burns, Jane Graney, Pauline Rivart, Phil Stones, Rebecca Lowe, Saied Ibrahim, and Su-Gwan Tham. We would like to thank administrative and clinical staff from NHS Trusts and Health Boards for their invaluable contribution to this data collection.

The study was supported by the Healthcare Quality Improvement Partnership (HQIP NCA 802205063, Mental Health Clinical Outcome Review Programme). All researchers are independent from the funders. The funders of the study had no role in study design, data collection and

analysis, interpretation of data, preparation of the manuscript, or decision to publish. NK is supported by the National Institute for Health Research (NIHR) Greater Manchester Patient Safety Translational Research Centre (Grant Reference Number PSTRC-2016-003). NK is also funded by Mersey Care NHS Foundation Trust.

#### Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.lanepe.2025.101350.

#### References

- McManus S, Walby S, Barbosa EC, et al. Intimate partner violence, suicidality, and self-harm: a probability sample survey of the general population in England. *Lancet Psychiatry*. 2022;9:574–583. https://doi.org/10.1016/S2215-0366(22)00151-1.
- McLaughlin J, O'Carroll RE, O'Connor RC. Intimate partner abuse and suicidality: a systematic review. Clin Psychol Rev. 2012;32: 677–689. https://doi.org/10.1016/j.cpr.2012.08.002.
- 3 Domestic abuse Act (England and Wales) 2021 c17. Available at: https://www.legislation.gov.uk/ukpga/2021/17/contents/enacted. Accessed July 5, 2024.
- 4 Department of Health. Suicide prevention in England: 5-year cross-sector strategy 2023 to 2028; 2023. Available at: https://www.gov.uk/government/publications/suicide-prevention-strategy-for-england-2023-to-2028/suicide-prevention-in-england-5-year-cross-sector-strategy. Accessed July 5, 2024.
- Woodhouse T, Abbott M. Highlighting the link between domestic abuse and suicide: briefing paper; 2022. Available at: https://nspa. org.uk/resource/link-domestic-abuse-and-suicide/. Accessed July 5 2024
- 6 Hoeger K, Gutierrez-Munoz C, Sadullah A, et al. Vulnerability knowledge and practice Programme (VKPP) domestic homicides and suspected victim suicides 2020-2023 Year 3 report; 2024. Available at: https://www.vkpp.org.uk/vkpp-work/domestic-homicide-project/. Accessed July 5, 2024.
- MacIsaac MB, Bugeja LC, Jelinek GA. The association between exposure to interpersonal violence and suicide among women: a systematic review. Aust N Z J Public Health. 2017;41(1):61–69. https://doi.org/10.1111/1753-6405.12594.
- 8 Piquero AR, Jennings WG, Jemison E, et al. Domestic violence during the COVID-19 pandemic - evidence from a systematic review and meta-analysis. J Crim Justice. 2021;74:101806. https://doi. org/10.1016/j.jcrimjus.2021.101806.
- 9 Chandan JS, Thomas T, Bradbury-Jones C, et al. Female survivors of intimate partner violence and risk of depression, anxiety, and serious mental illness. *BJPsych*. 2020;217:562–567. https://doi.org/ 10.1192/bjp.2019.124.
- 10 Royal College of Psychiatrists. Violence and abuse are driving mental illness in women and girls, psychiatrists warn. https:// www.rcpsych.ac.uk/news-and-features/latest-news/detail/2024/03/ 08/violence-and-abuse-are-driving-mental-illness-in-women-and-girlspsychiatrists-warn. Accessed July 5, 2024.
- National Confidential Inquiry into Suicide and Safety in Mental Health (NCISH). Annual report 2024: UK patient and general population data 2011-2021. Manchester, UK https://sites. manchester.ac.uk/ncish/reports/annual-report-2024/. Accessed July 5, 2024.
- 12 Iverson KM, Shenk C, Fruzzetti AE. Dialectical behavior therapy for women victims of domestic abuse: a pilot study. *Prof Psychol Res Pract*. 2009;40(3):242–248. https://doi.org/10.1037/a0013476.
- 13 Lamb S. Acts without agents: an analysis of linguistic avoidance in journal articles on men who batter women. Am J Orthopsychiatry. 1991;61(2):250–257. https://doi.org/10.1037/h0079243.
- 14 Kuskoff E, Camerson P. Striving for gender equality: representations of gender in "progressive" domestic violence policy. Violence Against Women. 2021;27(3–4):470–488. https://doi.org/10.1177/1077801220909892.
- 15 National confidential Inquiry into suicide and safety in mental health (NCISH). NCISH methodology. University of Manchester; 2023. Available at: https://sites.manchester.ac.uk/ncish/resources/ #methodology.
- 16 StataCorp. Stata statistical software: release 16. College Station, TX: StataCorp LLC; 2019.
- 17 Agenda Alliance. Underexamined and underreported: suicidality and intimate partner violence: connecting two major public health domains;

## **Articles**

- 2023. London, UK. Available at: https://www.agendaalliance.org/ our-work/projects-and-campaigns/underexamined-and-underreported/. Accessed July 8, 2024.
- 18 Monckton-Smith J, Siddiqui H, Haile S, Sandham A. Building a temporal sequence for developing prevention strategies, risk assessment, and perpetrator interventions in domestic abuse related suicide, honour killing, and intimate partner homicide. Project Report. Cheltenham, Gloucestershire: University of Gloucestershire; 2022.
- 19 Pirkis J, Bantjes J, Dandona R, et al. Addressing key risk factors for suicide at a societal level. Lancet Public Health. 2024 Oct;9 (10):e816–e824. https://doi.org/10.1016/S2468-2667(24)00158-0.
- Plynn S, Graney J, Nyathi T, et al. Clinical characteristics and care pathways of patients with personality disorder who died by suicide. BJPsych Open. 2020;6:e29. https://doi.org/10.1192/bjo.2020.11.
- 21 Flynn S, Raphael J, Graney J, et al. The personality disorder patient pathway: service user and clinical perspectives. *Personal Ment Health*. 2019;13:134–143. https://doi.org/10.1002/pmh.1444.
- 22 Allsopp K, Kinderman P. The use of diagnoses in mental health service eligibility and exclusion criteria. J Mental Health. 2019;30 (1):97–103. https://doi.org/10.1080/09638237.2019.1677875.
- 23 Øverup CS, DiBello AM, Brunsen JA, Acitelli LK, Neighbors C. Drowning the pain: intimate partner violence and drinking to cope prospectively predict problem drinking. Addict Behav. 2015;41:152–161. https://doi.org/10.1016/j.addbeh.2014.10.006.
- 24 Kaysen D, Dillworth TM, Simpson T, Waldrop A, Larimer ME, Resick PA. Domestic violence and alcohol use: trauma-related symptoms and motives for drinking. *Addict Behav.* 2007;32 (6):1272–1283. https://doi.org/10.1016/jaddbeh.2006.09.007.
- 25 Prison Reform Trust. "There's a reason we're in trouble" Domestic abuse as a driver to women's offending. London, UK: Prison Reform Trust; 2017. Available at: https://prisonreformtrust.org.uk/wpcontent/uploads/old\_files/Documents/Domestic\_abuse\_report\_final\_ lo.pdf (Accessed February 2025).

- 26 Swaine Williams K. Double Standard. Ending the unjust criminalisation of victims of violence against women and girls. London, UK: Centre for Women's Justice; 2022. Available at: https://www. centreforwomensjustice.org.uk/double-standard (Accessed November 2024).
- 27 Knipe D, Gregory A, Dangar S, et al. 'Once you've opened that can of worms': qualitative study to understand why liaison psychiatry staff are not asking about domestic abuse following self-harm. BJPsych Open. 2024;10(6):e177. https://doi.org/10.1192/bjo.2024. 779
- 28 Kirk L, Bezzant K. What barriers prevent health professionals screening women for domestic abuse? A literature review. Br J Nurs. 2020;29(13):754–760. https://doi.org/10.12968/bjon.2020.29. 13.754
- 29 Heron RL, Eisma MC. Barriers and facilitators of disclosing domestic violence to the healthcare service: a systematic review of qualitative research 2020. Health Soc Care Community. 2021;29:612–630. https://doi.org/10.1111/hsc.13282.
- 30 Oram S, Fisher HL, Minnis H, et al. The Lancet Psychiatry Commission on intimate partner violence and mental health: advancing mental health services, research, and policy. *Lancet Psychiatry*. 2022;9 (6):487–524. https://doi.org/10.1016/S2215-0366(22)00008-6.
- 31 Department for Health and Social Care (DHSC). Responding to domestic abuse: a resource for health professionals. Crown Copyright; 2020.
- 32 Royal College of Psychiatrists. Leading Colleges launch joint campaign to tackle domestic violence. https://www.rcpsych.ac.uk/ news-and-features/latest-news/detail/2020/11/25/leading-collegeslaunch-joint-campaign-to-tackle-domestic-violence. Accessed October 16, 2024.
- 33 Evans K. Treating financial difficulty the missing link in mental health care? *J Mental Health*. 2018;27(6):487–489. https://doi.org/ 10.1080/09638237/2018/1520972.