Suicide in Women with Perinatal Mental Disorders

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Introduction

Motherhood is not protective against suicide for women with severe perinatal mental disorders[1]. Despite suicide remaining a leading cause of maternal death in the UK and other high-income countries[2-4], little is known about risk factors for later suicide in women who experience perinatal mental disorders. There is particularly sparse data on what happens to suicide risk beyond the one-year postnatal mark, despite evidence that self-harm and suicide increase towards the end of the first postnatal year[4,5].

Aims

1. To examine later suicide in a cohort of women who were in contact with a mental healthcare provider during the perinatal period
2. Describe the sociodemographic and clinical characteristics of the women who die by suicide
3. Understand when, in relation to delivery, most suicides tend to occur.

Methods

We used a case register of de-identified service-user electronic healthcare records of people accessing South London and Maudsley NHS Foundation Trust (SLaM) for secondary mental healthcare, called Clinical Record Interactive Search (CRIS). CRIS is linked with national Hospital Episode Statistics, a database giving information on hospital admissions for childbirth. This linkage allowed us to generate a clinical cohort of women aged 18-50 who gave birth in hospital and were in contact with SLaM during their perinatal period. Using a combination of Natural Language Processing and structured field extraction, we identified clinical and socio-demographic characteristics and, through further linkage with Office of National Statistics (ONS) mortality data, later suicide.

CRIS has pre-existing ethical approval via the Oxfordshire Research Ethics Committee C (ref 18/SC/0372). This project was approved by the CRIS Oversight Committee (approval 16-069). All analysis was done using STATA 15.0. The characteristics of women who did and did not die by suicide were compared (t-tests for means; Wilcoxon rank-sum tests for medians; Pearson's Chi2 test for comparisons of categorical variables apart from cases where cell sizes were less than n=5, when Fisher's Exact Test was used). The number of suicides occurring within each year of delivery were plotted as a line graph. Cell sizes <10 were suppressed to avoid any risk of case identification.

Results

Main Finding 1: Among 5204 women, clinical and demographic characteristics of women who did (n=22) and did not (n=5182) die by suicide were similar apart from indicators of illness severity, which were more common in women who died by suicide. Women who died by suicide were more likely to have had perinatal sedative medication prescription, higher levels of impaired functioning and a history of smoking.

Main Finding 2: . Suicide deaths occurred most frequently in the second year after delivery (see graph). Suicide deaths within two years were mostly by violent means, whereas those beyond two years were mostly due to overdose. The most common diagnosis within two years was depression, whereas after two years it was substance misuse.

Discussion

Our analysis suggests suicide risk in women with perinatal mental disorders peaks at two years postnatal. This highlights the need for careful risk assessment at this time, particularly in women with markers of illness severity, and supports NHS England's relatively recent extension of the recommended length of perinatal mental healthcare service provision to two years postnatal. Opiate overdose has recently been highlighted as a leading cause of death in the perinatal period in the US[6]. There may therefore be a cohort effect, whereby women with perinatal substance misuse disorders may be at greater risk in future.

Conclusions

This study provides support for extension of perinatal mental healthcare to two years post-delivery and highlights the need for careful risk assessment during this time, particularly for women with severe disorders.

References

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