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These observers excluded journeys where only their own healthcare team was present because no healthcare professional, patient, or visitor was present to witness a compromise of patient confidentiality. Observers, who were identifiable as medical students, recorded all breaches of patients' confidentiality by hospital staff and any reactions by witnesses to these comments.

Hospital caregivers made 18 comments deemed to compromise a patient's confidentiality on 13 out of 113 lift journeys (observers overheard multiple comments on some journeys). Doctors made the most comments (11), then allied health professionals (6), and then nurses (1). Most comments referred to patients by their initials or reason for admission, but names were used four times.

Reactions attempting to minimise breaches of patients' confidentiality happened only twice. Both times medical students naive to the existence of our study politely asked that the conversation be continued in another location. The students' interventions were successful.

Comment

Patient confidentiality was compromised on more than one in ten lift journeys, strengthening the evidence that public lapses in patient confidentiality are widespread.¹² Most comments disguised patient identity, which shows awareness of the need for discretion in public spaces and the motivation to uphold it. But clarification of what constitutes a breach in patient confidentiality is needed. The small number of reactions (to less than a tenth of comments) shows that other healthcare workers in elevators are either reticent or lack awareness. The silence of witnesses may even perpetuate the problem; on several occasions, breaches in confidentiality started conversations that further compromised patients' privacy.

Breaches of a patient's confidentiality compromise ethical health care and undermine patients' confidence in caregivers. Healthcare institutions must provide effective training to minimise these breaches. We hope that providers here and in all healthcare institutions will heed the call to improve discretion for the patients who entrust us with their care.

We thank our observers, all medical students at the University of Toronto at the time we did the study: Melissa Albin, Sonia Butalia, Patrick Cervini, Jared Peck, and Gregory Silverman.

Contributors: JMAB conceived of the study. All authors designed the study, interpreted the data, and revised the paper. SNV analysed the data and drafted the paper. CMB and JMAB approved the final draft. JMAB is guarantor.

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Ethical approval: Research ethics board, St Michael's Hospital.

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Risk of suicide and spouse's psychiatric illness or suicide: nested case-control study

Esben Agerbo

Suicides cluster in families with histories of psychiatric disorders and suicides.^{1 ²} Genetic and environmental factors may play a role in the familial aggregation of suicides but are inseparable in most studies. Because married couples are usually genetically unrelated, studying them can identify environmental factors and means of protection. Your spouse dying or your spouse having a psychiatric disorder is stressful; mortality is increased in the surviving spouse.³ I investigated the association between a spouse's psychiatric illness, suicide, and other causes of death and own suicide.

Participants, methods, and results

I got data by linking population based registers using unique personal identification numbers, which are assigned to all people living in Denmark. Until 1993, suicide was defined as ICD-8 (international classification of diseases, 8th revision) codes E950-E959; after 1994, ICD-10 codes X60-X84. I matched each person aged 25 to 60 years who had committed suicide during

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1982-97 to a random subsample of 20 people stratified by sex and year of birth. I only enrolled people who had been living in Denmark for the past two years. I identified all spouses and children who were living with these people on 31 December two years before the suicide. I got admission and discharge dates and diagnoses from the Danish psychiatric central register, which has monitored all facilities for inpatients since 1969.^{1 2} I analysed the data with conditional logistic regression.

I identified 9011 suicides, 180 220 controls, and 111 172 spouses (table). People whose spouse had ever been admitted with a psychiatric disorder were at greater risk of committing suicide, particularly if the first admission had been recent (risk ratio 5.09; 95% confidence interval 3.53 to 7.35). People whose spouse had died, especially by suicide (21.69; 11.10 to 42.37), were also at a greater risk of committing suicide. An adjusted analysis found weaker associations, but a spouse's suicide remained indicative of own suicide (P=0.01).

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Own suicide and spouse's psychiatric admission, suicide, or other mode of death for 9011 Danish people who committed suicide and 180 220 controls

Risk factor	Cases/controls	Risk ratio (95% confidence interval)	
		Crude*	Adjusted†
Spouse's psychiatric admissions:			
After 31 December two years before own suicide	57/256	5.12 (3.55 to 7.40)	5.09 (3.53 to 7.35)
Before 31 December two years before own suicide	190/2821	1.32 (1.05 to 1.65)	1.27 (1.02 to 1.60)
Never	3167/104681	1	1
Both spouses admitted	137/217	0.93 (0.66 to 1.30)	0.91 (0.65 to 1.27)
Spouse's suicide and death since 31 December two years b	efore own suicide:		
Suicide	21/29	22.80 (11.66 to 44.57)	21.69 (11.10 to 42.37)
Death by other cause	38/132	7.89 (5.12 to 12.18)	7.65 (4.97 to 11.78)
Not dead	3355/107597	1	1
Marital status on 31 December two years before own suicid	e:		
Living alone	4535/48010	1.92 (1.81 to 2.04)	1.70 (1.59 to 1.81)
Cohabiting with partner	1062/24452	1.35 (1.24 to 1.47)	1.27 (1.17 to 1.38)
Married and living with spouse	3414/107758	1	1

*Mutually adjusted and adjusted for own psychiatric admission.

†Adjusted for length of current discharge period and diagnoses, number of children and children's suicide or death, job status and gross income the previous year, and educational achievement.

Comment

A greater risk of committing suicide was associated with a spouse who had been admitted to hospital with a psychiatric disorder or had died, particularly if the cause was suicide. Both spouses having been admitted was not associated with any additional effect.

Risk of suicide was particularly great in people whose spouse had been first admitted within the previous two years, which advocates a causal relationship. A severe mental illness can have an impact on other family members' social life, leisure time, and economy. Shared environmental factors may put cohabiting partners at risk of the same diseases.⁴ That the effect of assortative mating, measured here as both spouses previously admitted, however, did not further increase the suicide risk is striking. This finding suggests that behavioural traits associated with some psychiatric disorders, or that the admission itself, increase the suicide risk in spouses.

Research based on routine registers has limitations—for example, data about episodes of illness that did not lead to admission and attempted suicides are unavailable.² Conjugal bereavement has an impact on mortality among surviving spouses,³ and bereavement due to suicide increases own risk of suicide more than bereavement after other modes of death. Suicide may induce particularly difficult grief,⁵ and suicide of a spouse increases the other spouse's awareness of suicide as a possible means to end grief. Assortative mating for suicidal behaviour is less likely because preference for mating between people with psychiatric illness did not increase the risk of suicide.

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