



Research report

Changes in commonly used methods of suicide in England and Wales from 1901–1907 to 2001–2007



Kyla H. Thomas*, Ed Beech, David Gunnell

School of Social and Community Medicine, University of Bristol, 39 Whatley Road, Bristol BS8 2PS, UK

ARTICLE INFO

Article history:

Received 23 February 2012

Received in revised form

26 June 2012

Accepted 26 June 2012

Available online 4 August 2012

Keywords:

Suicide

Poisons

Hanging

Drowning

England and Wales

ABSTRACT

Objective: To investigate changes in the range of suicide methods used in two time periods a century apart (1901–1907 and 2001–2007) in England and Wales.

Method: Suicide mortality and population data were obtained for England and Wales from the ONS and used to calculate gender and method-specific mortality rates.

Results: There have been striking changes in the methods of suicide used since the 1900s. Hanging was the most commonly used method during both time periods. However suicides involving drowning (22.5% of suicides in 1901–1907) and weapons (e.g. firearms and razors, 24.2% of suicides in 1901–1907) were rarely used in 2001–2007 (2.6% and 5.8% respectively). Although the use of poisons was popular in both time periods, the types of poisons used differed substantially over time. Household cleaning products and disinfectants accounted for almost half of poisoning suicides in the early 1900s whereas self-poisoning with medicines accounted for most poisoning suicides in 2001–2007.

Limitations: There were changes in the coding of suicides over time. Additionally, deaths by drowning and poisoning are more difficult to confirm as suicides than those that occur due to hanging or the use of weapons.

Conclusions: The changes in popularity of some suicide methods can be mainly attributed to changes in the physical availability (access) of these methods over time. Other methods which remain readily available have fallen out of fashion in recent times, suggesting a contributory role of other factors such as cognitive availability and personal preference/acceptability in influencing the choice of suicide method.

© 2012 Elsevier B.V. All rights reserved.

1. Introduction

Ease of access to particular methods of suicide (method availability) may have an impact on both method-specific and overall suicide rates. For example, there was an epidemic rise in domestic gas poisoning suicides in England and Wales in the 1920s and 1930s when coal gas became widely available in homes, which led to an increase in overall suicide rates (Thomas et al., 2011). Likewise, an epidemic of sedative drug suicides (barbiturates) in Australia from 1960 to 1967 coincided with increased prescribing of these drugs on the subsidised health care scheme, which in turn influenced suicide rates (Oliver and Hetzel, 1973).

Variations in preferences for particular methods of suicide between different populations (method acceptability) may also contribute to international differences in suicide rates. Farmer and Rohde (1980) showed that in the 1970s, hanging was much

less common in the UK than in many other countries in continental Europe. Since hanging is a method that is unlikely to be affected by limited access to the instrument, the authors hypothesised that the variations were probably due to international differences in method acceptability.

Method acceptability may also change over time within the same population. Although hanging was relatively unpopular in England and Wales during the 1970s and 1980s, it had become the most common method of suicide by 1995 in men and 2005 in women (Thomas and Gunnell, 2010). A qualitative study in the UK of people who had attempted suicide showed that participants who favoured hanging did so because of its easy accessibility and the fact that it was perceived as a highly effective, rapid and painless method of suicide (Biddle et al., 2010).

Florentine and Crane (2010) have described the concept of cognitive availability or 'how accessible something is in one's mind' as an important contributor to an individual's choice of suicide method. As an example they highlight the rapid emergence of barbecue charcoal burning as a popular suicide method in Hong Kong and Taiwan in the late 1990s and early 2000s as a result of the widespread media reporting of a single case in

* Corresponding author. Tel.: +44 117 928 7200; fax: +44 117 928 7325.
E-mail address: kyla.thomas@bristol.ac.uk (K.H. Thomas).

November 1998 (Chang et al., 2010; Chung and Leung, 2001). They noted the low frequency of charcoal burning suicides in the Western world despite the absence of any limitations in accessing the instrument (barbecue charcoal). Therefore although the method is physically available to people in Western countries, it is rarely used, perhaps due to a lack of cognitive availability. In keeping with this, a study in Taiwan showed that suicide attempters who chose charcoal burning were more likely than those who chose poisons to be influenced by media reporting of the method as well as a perception that death by charcoal burning would be peaceful, and not physically damage the body or alter its appearance (Tsai et al., 2011). A further possible influence on the relatively high use of this method in South East Asia compared to Europe is that small, confined places (which are more likely to ensure death occurs from charcoal burning) are less available in Europe due to larger domestic room sizes.

In a recent study (Thomas and Gunnell, 2010), we described the long term trends in suicide over almost 150 years in England and Wales. In this paper we investigate the range of methods used in two time periods a century apart in more detail, focussing in particular on the extent to which people's choice of poisons may have changed between these two time periods and whether any changes may have been affected by availability.

2. Methods

Suicide mortality and population data for England and Wales were obtained from the Office for National Statistics (ONS) for all ages from 1901–1907 to 2001–2007. These years were chosen as they were representative of the earliest data for which detailed information about methods (such as the names of poisons) was available, as well as the most recent data. Data from 1901 to 1907 were transcribed from paper records provided by the ONS. For 2001–2007 we obtained specific data on poisons used in suicides for all ages from the ONS, based on the ONS database of deaths from drug related poisoning (Office for National Statistics, 2008). These data excluded deaths from poisonous vapours.

International Classification of Disease (ICD) version 10 codes were available for the most recent data but not for the paper transcripts. In the 1901–1907 data suicides using some methods (e.g. poisons and gases, weapons and implements) were combined in the method-specific summary tables. To facilitate comparison across the 100 year study period we therefore combined the most closely matching categories of method using the following ICD-10 codes: poisons and poisonous vapours (X60–X69), hanging, strangulation and suffocation (X70), drowning (X71), weapons and implements (X72–X74, X78–X79), burns, scalds and explosions (X75–X77), falls/jumping (X80), vehicles

and railway (X81,X82) and other and ill-defined causes including machinery (X83,X84). We excluded the ICD codes for deaths from injury undetermined whether deliberate or accidental even though as many as 75% of these deaths are thought to be suicides (Linsley et al., 2001) and focussed on suicides only so that our suicide mortality data from the earlier time period (when “undetermined deaths” did not exist as a cause of death category) would be comparable to the newer data. Crude method-specific rates were also calculated.

3. Results

3.1. Suicide methods

Table 1 shows the numbers of suicides by method and sex for each of the two time periods. There have been major changes in the popularity of certain methods. Hanging was the most common method used overall (by men and women combined) in each of the time periods, increasing from 26.5% of all suicides from 1901–1907 to 52.7% from 2001–2007. Weapons and implements, drowning and poisons/poisonous vapours were very popular methods in both sexes in 1901–1907. However by 2001–2007 weapons and drowning were rarely used, accounting for 5.8% and 2.6% of all suicides respectively.

Hanging was also the most commonly used method in men in each of the time periods, accounting for 29.1% and 56.8% of all suicides in 1901–1907 and 2001–2007, respectively. The two other main methods used by men in 1901–1907 were weapons and implements (28.3%)—mainly throat cutting with razors ($n=3335$, 18.6% of suicides) and gunshot wounds ($n=1735$, 9.7% of suicides) and drowning (18.9%). In recent years, drowning has accounted for only 2.1% of all suicides in men. Very few suicides were caused by weapons and implements in either sex in 2001–2007 (6.8% of male suicides and 2.4% of female suicides).

Most suicides in women from 1901 to 1907 were due to drowning (33.2%), although this method accounted for only 4.4% of suicides by 2001–2007 (Table 1). Poisons and poisonous vapours resulted in the most female suicides from 2001 to 2007 (41% of all deaths) while hanging was the second most common method (38.7%).

The percentage of suicides caused by falls/jumping and other and ill defined methods remained relatively constant in each sex over the 100 year period (between 2% and 4%). The findings for crude method-specific suicide rates by gender (Fig. 1) were similar to those based on absolute numbers of deaths. Although the contribution of hanging and poisoning to overall suicide rates has substantially changed over time, the absolute rates per 100,000 of suicide using these methods have changed relatively little (see Fig. 1).

Table 1
Suicide methods by gender for time periods 1901–1907 and 2001–2007 in England and Wales.

Method of suicide	1901–1907			2001–2007		
	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)
Hanging, strangulation and suffocation	5213 (29.1)	1078 (18.4)	6291 (26.5)	9973 (56.8)	2023 (38.7)	11,996 (52.7)
Weapons and implements	5070 (28.3)	674 (11.5)	5744 (24.2)	1186 (6.8)	123 (2.4)	1309 (5.8)
Drowning	3392 (18.9)	1949 (33.2)	5341 (22.5)	362 (2.1)	228 (4.4)	590 (2.6)
Poisons and poisonous vapours	2417 (13.5)	1607 (27.4)	4024 (16.9)	3879 (22.1)	2143 (41.0)	6022(26.4)
Vehicles,horses and railway	869 (4.9)	129 (2.2)	998 (4.2)	822 (4.7)	229 (4.4)	1051 (4.6)
Falls/jumping	376 (2.1)	223 (3.8)	599 (2.5)	475 (2.7)	194 (3.7)	669 (2.9)
Burns, scalds, explosions	17 (0.1)	40 (0.7)	57 (0.2)	211 (1.2)	88 (1.7)	299 (1.3)
Other and ill defined causes	557 (3.1)	163 (2.8)	720 (3.0)	638 (3.6)	202 (3.9)	840 (3.7)
Total (percentage %)	17,911 (100)	5863 (100)	23,774 (100)	17,546 (100)	5230 (100)	22,776 (100)

Download English Version:

<https://daneshyari.com/en/article/4186158>

Download Persian Version:

<https://daneshyari.com/article/4186158>

[Daneshyari.com](https://daneshyari.com)