REVERSE GENDER PATTERN FOR SUICIDE IN ASIAN POPULATION? A PERSPECTIVE FROM UK

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INTRODUCTION

Suicide is believed to exist in all cultures and it has been wrapped with mystery since early civilizations. Suicide as a form of human behaviour is probably as ancient as man himself [1]. In the UK, suicide and attempted suicide were decriminalised in 1961 [2]. This was followed by a sharp increase in the prevalence of attempted suicide. There has been a genuine desire in the UK to promote suicide prevention by setting specific targets [3] and appointing strategies [4].

Attitudes toward suicide have been affected by waves of condemnation and tolerance throughout the different ages and cultures. It is possible that moral and cultural views on suicide have had an effect on the incidence of suicide and statistics data. Therefore, it is essential to understand the meaning of suicide to people of different backgrounds, cultures, generations and experiences. It is important to study suicide within ethnic groups in the UK to understand the attitude of different cultures to suicide that could support efforts to reduce suicide rates in ethnic minorities. Despite the rapid increase in scientific publication on suicide research [5], there is paucity in studies addressing the issue of Asian suicide in the UK. Most of those studies were designed to study deliberate self-harm (DSH) and based on hospital samples that are not necessarily representative of suicide in the total population.

The challenge of defining suicide and its effect on suicide data:

One of the main reasons to try to look into countries of origin in studying suicide in migrants is to attempt to learn lessons that could be useful in designing suicide prevention strategies for some ethnic groups. However, it is not a straightforward comparison for many reasons. To carry out such a study, the condition in question should be clearly defined which is not easy, especially with different systems and definitions adopted by different countries. Farmer stated that "the first problem encountered in the study of suicide is its definition"[6]. The UK uses the Coroner's Court to determine the cause of death especially in cases of unnatural death such as suicide. The UK legal definition is based on a pragmatic approach which concentrates on finding a proof for deceased's intention and process of action, but does not give any clear understanding of suicide. It does not give any consideration to related phenomenon such as suicidal behaviour, which would be classified under misadventure or accidental death. Under the legal definition an unspecific number of cases, which clinicians consider to be suicide, will be classified differently. However, those cases that were classified as suicide are more likely to be suicide. This means that the legal definition provides a framework with a high specificity but its main failure is its potential low sensitivity. The Coroner's verdicts that related to suicide are suicide verdict, open verdict, misadventure verdict or accidental verdict. It appears that suicide verdict and open verdict are more likely to be 'true' suicides than the accidental or misadventure verdicts. The accidental and misadventure verdicts lack two main pre-requisites: the intention of self-killing and the proof that the act was self-inflicted.

It is widely believed that most cases of open verdicts are in fact suicides [7]. A study examined cases of open verdicts and suicide verdicts in Newcastle-upon-Tyne found that cases of open verdicts and cases of suicide verdicts shared the same characteristics [8]. A report from the Australian Bureau of Census and Statistics declared that probably 90% of the open verdicts were suicide [9]. For all those reasons, Barraclough and Hughes suggested that the true suicide rate is more likely to be the sum of the suicide verdict and the open verdicts [10]. The sum of the suicide verdict and open verdict was used in a large number of epidemiological research studies into suicide e.g. comparing suicide rates between different countries [11], examining differences between different immigrant groups [12] and the effect of social isolation [13]. The government used the sum of suicide verdict and open verdict as a performance indicator and a measure for the health of the nation [3]. It was also recently recommended that the sum of both of suicide verdict and open verdict should be used for the purpose of epidemiological studies [8].

Barraclough wanted to examine whether international suicide data could stand scrutiny or would only reflect the different practices and systems in different countries [7]. Therefore, he studied the suicide rates and the rates of undetermined deaths in 22 countries. He found that the rank order of the suicide rates of

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these countries correlated highly ($r = 0.89$, $P<0.001$) with the sum of the suicide rates and the undetermined deaths of these countries. This finding demonstrates that the differences between official suicide rates are independent of their individual ascertainment procedures.

The World Health Organisation (WHO) proposed a definition that was formulated by Van Egmond and Deikstra (1989). They defined suicide as: "an act with a fatal outcome, which the deceased, with the knowledge and expectation of a fatal outcome, had himself planned and carried out with the object of bringing about the changes desired by the deceased". However, the International Statistical Classification of Diseases – Version 10 (ICD-10, 1992) was published without a clear definition for suicide.

The Epidemiological challenge of gender differences in suicide in Asian population

In England & Wales the national and regional suicide data are compiled from the annual Coroners reports returned to the home-office [2]. In England and Wales, suicide rate reached a post-war peak in the early 1960's (15/100,000 male population & 9/100,000 female population). But, McClure showed that suicide rates for both genders declined between 1963 and 1975 [14]. This decline was associated with the detoxification of the domestic gas in the U.K. Suicide rates rose again between 1975-1980 due to an increase in suicide rates for males of all age groups particularly in 25- 54 year age group [15]. Although the suicide rate is not high compared to other countries in the European Union, the figures raise concern as on average a person dies every two hours in England as a result of suicide [4].

Almost 30% of all cases of suicide worldwide occurred in China and India, although suicide rate in China is similar to the global average and that of India is about half of the global suicide rate [16]. There is a large increase in suicide rates in South-East Asia and slight decrease in the Far East. The main concern in Asia is the rapidly increasing suicide rate in Sri Lanka, where suicide rates showed an eight-fold increase over the last 50 years [17].

Worldwide suicide rates for men are higher than those for women, with the exception of China Mainland where suicide rates for women are higher than those for men; male: female suicide ratio is 0.77:1. In Europe and the U.K. male: female suicide ratio is about 3:1, but in Ireland it is 5:1.

In Asia suicide rates are still higher in men than in women, but the difference is lower than that elsewhere[17]. The male: female suicide ratio in India is 1.3:1. The predominance of suicide among men is thought to be because men tend to use more lethal methods and have a greater propensity to impulsive violence [18]. Hawton in an editorial highlighted the universally known considerable gender differences in suicidal behaviour [19]. He also gave some possible reasons for the higher male suicide rates. In females, acts of deliberate self-harm are often based on non-suicidal motivations e.g. communicating stress, modify behaviour and reaction to others' behaviour, while in males deliberate self-harm is more often associated with greater suicide intent. However, in community samples, suicidal ideation is reported far more often by females than males. Males tend to use violent methods while females appear to be more concerned about bodily disfigurement. Increased occupational instability could be another factor behind the higher male suicide rates, as occupational factors are particularly important in suicide by males. More females than males seek help from general practitioners for mental health problems. Consequently more females are treated for depression and benefit from educational programmes.

Kelly & Bunting explained that, in England & Wales, suicide trends for men and women followed the same pattern from 1911 until the early 1980s [20]. In 1982 suicides amongst men accounted for 63% of all suicides. In 1996 suicides amongst women accounted for just 25% as the number of women suicides fell continuously from 1982 till 1996. The age-standardised suicide rate, for women, decreased steadily from 9.8/100,000 women population/year in 1982, to 5.6/100,000 women population/year in 1996. This constituted a reduction of 43%. Suicide rates for elderly women above the age of 75 did not show any reduction over the same period of time. The age-standardised suicide rate for men decreased from 19.1/100,000 men population/year in 1982 to 17.4/100,000 men population/year in 1996. This constituted a reduction of 9%. However, the age-standardised suicide rate for men showed a peak in 1988 when it rose to 20.7/100,000 men population/year.

Ethnic background and suicide rates in UK. Experience in Birmingham and Solihull

The coroners' statistics in UK provide one of the most robust data on suicide. The epidemiological data from many Asian countries such as India suffers from many methodological limitations, most notably those related to the definition of suicide as discussed as above. It would therefore be interesting to examine the suicide data from Asian ethnic minorities in UK. This will have obvious limitations most notably that related to generalizing data from migrant population but can provide some insight into the epidemiological challenge pointed out earlier.

Birmingham is a cosmopolitan city with multi-ethnic constitution. Census 2001 (www.statistics.gov.uk/census2001) shows that Birmingham has a population of 977,087 persons. People who were born outside the UK and Republic of Ireland constitute 14% of the population. Almost 65% of the population described their eth-

nic origin as white British, 3.2% Irish, 10.7% Pakistani, 8.9% other Asians, 1.5% other white, 1.6% black Caribbean and 0.5% Chinese (www.birmingham.gov.uk). Birmingham also has multi-faith representation: 59.1% Christian, 14.3% Muslim, 2.9% Sikh, 2% Hindu, 0.3% Buddhist, 0.2% Jewish, 12.4% had no religion and 8.4% did not state their religion. Faith representation was similar to the national figures with two main exceptions; a higher percentage of Muslims (14.3% Vs 3.1% for England) and a lower percentage of Christians (59.1% Vs 71.7% for England). Solihull has a different population construction, census 2001 shows that the total population of Solihull is 199,517 persons (96,683 males & 102,834 females). People from White British background form the vast majority of the Solihull population (94.5%) and people from Indian background formed the largest ethnic minority (1.8%). Regarding religion, 78% of the population considered themselves Christians, 0.9% Hindu, 0.8% Muslim, 0.8% Sikh, 0.2% Jewish, 12.5% had no religion and 6.7% did not state their religion.

Burke studied attempted suicide in the Asian population in Birmingham between 1969 and 1972 and reported that rates among the Asian population were less than those of the native population [21]. However rates of DSH among Asian women were higher than those of their peers in their countries of origin. He also commented that inter-personal dispute preceding DSH was a common theme. During the same period of time, DSH was also less prevalent among West Indians in Birmingham compared to the native population [21]. Soni et al studied suicide among immigrants from the Indian Subcontinent in Britain between 1970 and 1978, and found an excess of suicide among young Indian women, especially among married women, while suicide rates were low in Indian men [22]. They did not give any explanations for their findings. However, in India, male suicide rate (11.4/ 100,000 male population/ year) was higher than female suicide rate (8/100,000 female population/ year). Previously Tadros and Jolley (2001) argued that stigma attached to suicide is more likely to hinder people with suicidal thoughts to seek help.

A study in Birmingham, UK showed a reversed gender pattern among the Asian community [23]. Details of all cases of suicide verdict and open verdict, which were returned in inquests, held at the Coroner's Court of Birmingham and Solihull, between January 1995 and December 1999 were reviewed using a standard form. There is only one Coroner's office for the city of Birmingham, Solihull and their boroughs. Excluded from the data collection sheet were; persons who died under the age of 18, people who did not have a regular abode in Birmingham or Solihull, and those who came from outside the study area.

The study showed that the vast majority of the suicide cases (89.2%) were from white ethnic background. The Asian (from the entire Indian subcontinent) constituted only 6.8% of the sample while black people formed 3.2% of the sample. Others such as Chinese, Japanese, Arabs and Africans, and people from mixed race constituted 0.8% of the sample. The suicide rate for the White population (12/100 000 population/ year) is higher than that of the total population (10.8/100 000 population/ year). The second highest suicide rate was for Black people (8.4/100 000 population/year). The suicide rate for Asians (5.4/ 100 000 population/ year) is half that of the total population. The lowest suicide rate (4/100 000 population/ year) is for people from mixed and other races. The difference between males and females was statistically significant, (Chi-square= 17.80, d.f.= 3, P=0.001). Male representation is more than female representation in all the different ethnic origins with the exception of Asians. In the Asian group, more female (56.3%) than males (43.7%) committed suicide. Among White people, the male to female ratio in the sample was almost 3:1 (2.9:1), while among Asians the male to female ratio was 0.8:1. In the total population and all the different races, with the exception of Asians, suicide rate for the male population is higher than that for female population. In the total population, the White ethnic population and Black ethnic population male suicide rates are almost 3 times the female suicide rate. In Asians, the female suicide rate (5.8/ 100 000/ year) is higher than the male suicide rate (4.9/ 100 000/ year), Figure (1).

The study also showed that there are more Asians and Black people in the younger adults group than in the older adults group, and more white people in the older adults group than in the younger adults group. The difference in the ethnic structure between older people and younger adults was statistically significant, (Chi-square= 10.15, df = 3, P= 0.03). In the white population both the older people and younger adults have the same suicide rate (12/ 100 000/ year), while in the Asian population suicide rate for younger adults (5.5/ 100 000/ year) was higher than that of the older adults (4.5/ 100 000/ year).

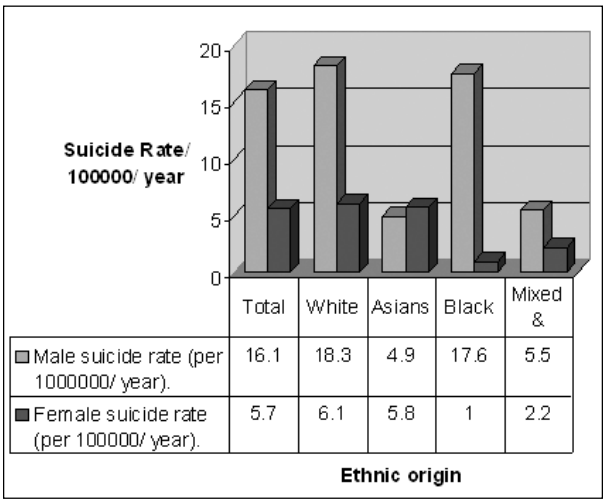

Fig. 1: Suicide rates in the whole sample by ethnic origin andgender

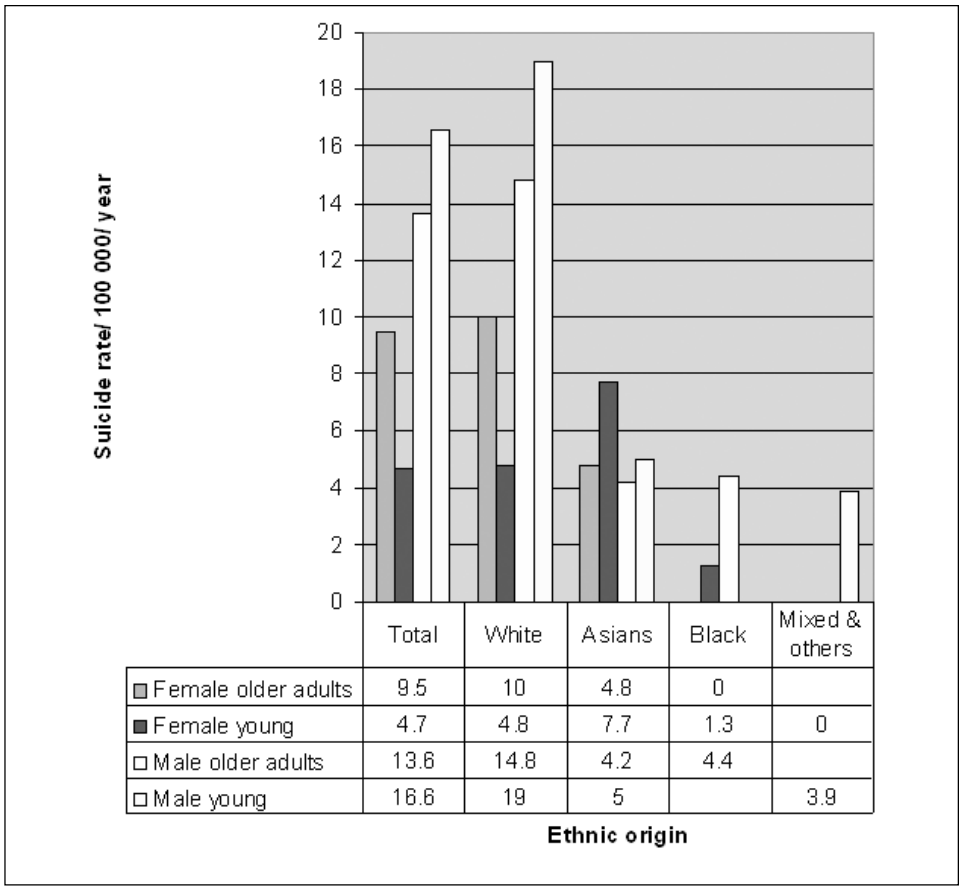

Fig. 2: Suicide rate by ethnicity and gender in the older people and younger adults

Suicide rate by ethnicity and gender in the older people and younger adults is shown in Figure (2). In the total population, the highest suicide rate was in the younger males followed by older males, older females and lastly younger females. In the white population suicide rate showed the same rank order as for the total population as far as ethnicity and gender distribution was concerned. In the Asian population, the highest suicide rate was for younger females followed by younger males, older females and lastly older males. In the Black population and people of mixed and other races, results did not show a complete picture because of small or absent figures.

CONCLUSION

The situation has not changed since the early 1970's [21]. White people are over-represented in the sample while Asian people are under-represented. The suicide rate for white people was the highest (12/100,000/ year) among the ethnic groups, while suicide rate for Asian people was one of the lowest (5.4/ 100,000/ year). However, Asians are the only ethnic group in the UK which shows a similar pattern to that of China i.e. the female suicide rate is higher than the male suicide rate for both younger adults and older people groups.

Future research

There is a great need for more studies addressing the possible reasons for the gender reversed pattern in Asian suicide in the UK, psychological autopsy studies would be the ideal solution though they need strong financial and academic support and infrastructure. Most of the studies, including Tadros [23], are usually not designed to give a satisfactory explanation for this finding as they tend to focus on epidemiological and published figures. Certainly, researches should look back at the countries of origin in their attempts to understand migrants' suicide but they should be aware of the great methodological challenges. Also, countries of origin should continue to have interest in the safety and well-being of their citizens who migrated to other parts of the world.

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