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In order to understand differences in suicide rates between the countries affiliated to the International Association for Suicide Prevention (IASP), the present paper investigates whether there is a relationship between the existence of religious sanctions and aggregate national suicide rates as reported to the World Health Organization. Through their participation in this study, 49 IASP national representatives reported on the existence of religious sanctions against suicide.

It was discovered that countries with religious sanctions were less likely to return rates of suicide to the WHO. Comparative analysis revealed that the average reported rates for countries with sanctions are lower than those for countries without religious sanctions. The difference is particularly significant for females. Overall, then, at an aggregate level, it would appear that an inverse relationship does exist; however, while countries with religious sanctions against suicide return lower rates of suicide, as recorded by the WHO, recording and reporting procedures may be affected by the existence of sanctions, thus diminishing the reliability of reported rates. Furthermore, distinctions between rates among the different denominations seem to have been somewhat blurred, in particular between Catholics and Protestants, to the extent that in certain societies Catholics have a higher reported rate of suicide—despite the fact that, doctrinally, Catholicism is more severe in the condemnation of suicide than the majority of Protestant churches (with a few notable exceptions, such as the Orthodox Calvinists).

Keywords: Religious sanctions, suicide, IASP, official rates.



Introduction

Doctrinally, the three monotheistic religions, Judaism [Greenstone, 1971], Christianity [Kelleher, 1996], and Islam [Umri, 1987], all condemn suicide. However, the strength of this condemnation has varied over time

and within the religions themselves. Orthodox and conservative church members have been the most outspoken against suicide, at least throughout most of the Common Era.

This was not always the case. The Old Testament describes ten suicides, each in a factual manner, without censure [Rosen, 1971; Barraclough, 1992]. The early

centuries of the Common Era, however, witnessed the development of religious condemnation of deliberate self-killing. As an expression of condemnation, the suicide was discriminated against in burial practices [MacDonald & Murphy, 1993]. The Islamic faith, which developed two hundred years after Augustine's death, accepted the Jewish and Christian condemnatory attitude toward suicide.

In previous centuries, some philosophers and thinkers believed that individuals have a natural tendency towards suicide. The 17th century poet John Donne was among them; he believed that this tendency is stimulated by our conscience as the voice of primary reason. Donne believed that religious and civil prohibition, which was effective in his view, came about because of this tendency or disposition [Battin, 1995]. Emile Durkheim, writing 100 years ago, similarly recognized religion as morally regulating. Noting a lower rate of suicide among Catholics as opposed to Protestants and also a low rate among Jews, he pointed to social integration as the determining factor [Durkheim, 1897]. This emphasis implied that the more public and the more prevalent the religious practice is within the given culture, the more effective it will be in providing moral regulation. However, Durkheim's concept of religion differed from Donne's, ignoring the individual and concentrating rather on the collective. It is a flaw in his work that he effectively ignored the psychological component and considered man a homo-duplex, in other words, solely a social and biological entity [Thompson, 1982]. This flaw has also been stated, more recently, by Maris [1997].

Also writing from a sociological perspective, the Slovakian scholar Thomas Masaryk placed religion, and more particularly its decline, at the center of his explanation for the increase in the suicide rate. Before the Renaissance the rates of suicide in Europe are thought to have been relatively low [Giddens, 1970]. It was thought that suicide rates were negligible in the Middle Ages "because religion inspired all aspects of life" giving them "a fixed support for the tragic vicissitudes of life in the Middle Ages" [Masaryk, 1881, translated 1970]. However, with the birth of secular philosophy at the time of the Renaissance and the Reformation, Christianity was undermined to a certain extent. Masaryk believed this time of irreligiosity coincided with an increase in the suicide rate. According to his writings, all other factors, including the effects of nature, social factors such as occupation or economic stability, and individual factors such as psychological well-being, were merely disposing and not causal [Lester, 1997]. Irreligiosity was considered the primary reason for suicide in nearly any country.

This article addresses the following question: Are religious sanctions against suicide really associated with a lower rate of suicide worldwide?



Method

Fifty-one countries are affiliated to the IASP, each of which has a national representative who was sent a questionnaire dealing with suicide, attempted suicide, physician-assisted suicide, and euthanasia (see Appendix 1). We enquired as to whether there are religious sanctions against suicide in the country represented. Obviously, a sanction may exist in theory, but may not be applied in practice, which is probably the norm in many countries. For the purpose of this study, the opinion of the national representative was accepted as final.

The WHO Statistics Annuals [1988–1995] were then consulted and suicide rates for the years 1987-1991 (or the nearest available years) were recorded by gender, for each available country. At the time of the study, figures were not comprehensive for years after 1991. Five-year averages were calculated in order to minimize the effect of random fluctuations in suicide rates, particularly of countries with relatively small populations, such as Iceland, Slovenia, and Estonia. Although rates of suicide are affected by misclassification, it was not possible to reformulate them by combining them with rates of undetermined death, the most common alternative verdict in cases of possible suicide, as these are unavailable in the WHO Yearbooks. As Brazil and Korea returned only number of suicides, crude rates were calculated. China returned separate urban and rural rates based on sample populations; the male and female rates for China were then calculated using UN demographic data which give figures for the urban and rural population of the country [United Nations, 1997].

The countries surveyed were divided into those with reported religious sanctions and those without. Comparisons were then made between the average

suicide rates of the countries with and without sanctions against suicide. The non-parametric Mann-Whitney U-test was used because the rates exhibited a nonnormal distribution and the number of countries being compared is relatively small. The rates were then normalized by taking their cubed root, and *t*-tests were carried out in order to investigate the magnitude of the differences between countries with and without religious sanctions. Using UN demographic data, male and female suicide rates were calculated separately for the entire population in countries with religious sanctions against suicide and the population in countries without sanctions. This involved calculated the geometric means of the rates weighted by the populations of the respective countries.



Results

Two countries did not return the questionnaire (Nigeria and Peru). Of the other 49 who did, 21 countries reported religious sanctions and 28 did not (Table 1). Three countries without religious sanctions (Cuba, Korea, and South Africa) and nine countries with sanctions (Brazil, India, Indonesia, Iran, Liechtenstein, Pakistan, Sudan, Taiwan, and Turkey) did not return rates to the WHO for the years under investigation. Brazil and Korea, as already mentioned, returned only number of suicides. Rates were available for only some of the years in question (at least two) for 11 countries. Two of these had reported religious sanctions (Romania and Russia), while those without religious sanctions were Belgium, Brazil, China, Estonia, Germany, Lithuania, Spain, Sweden and Yugoslavia.

The average suicide rates reported for countries

with religious sanctions are lower than for countries without sanctions (Figures 1 and 2). While the difference is significant for men (Mann-Whitney U-test, p = 0.011), it is more marked for females (Mann-Whitney U-test, p < 0.001) (Figure 3). When the suicide rates were normalized by taking their cubed root, t-tests also found the differences to be significant for males (p = 0.005) and females (p < 0.001). Cubing these mean rates showed the rates in countries with religious sanctions against suicide to be, on average, 44% and 59% lower than in countries with no sanctions for males and females, respectively.

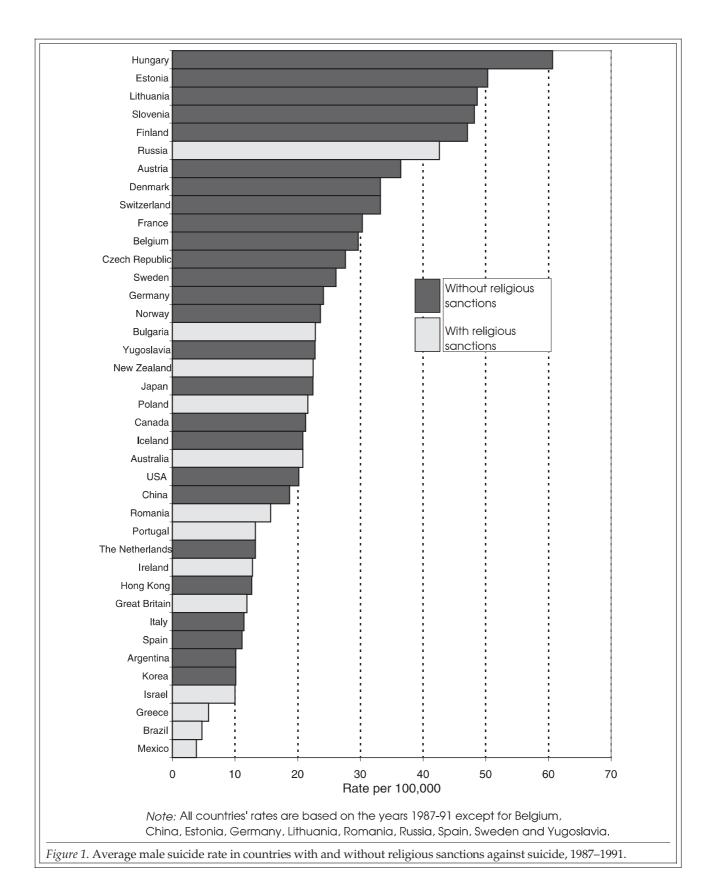
The population in the countries in this study with religious sanctions makes up 1.96 billion of the world population (1.22 billion alone from China). The average male and female suicide rates for this population, as calculated using geometric means, are 18.8 and 16.3 per 100,000, respectively (20.2 and 7.9 per 100,000 if China is excluded). China thus has a dramatic effect on the overall female rate. There are 0.56 billion people in the countries in our study that are without religious sanctions. Their male and female suicide rates are 16.7 and 4.9 per 100,000, respectively.

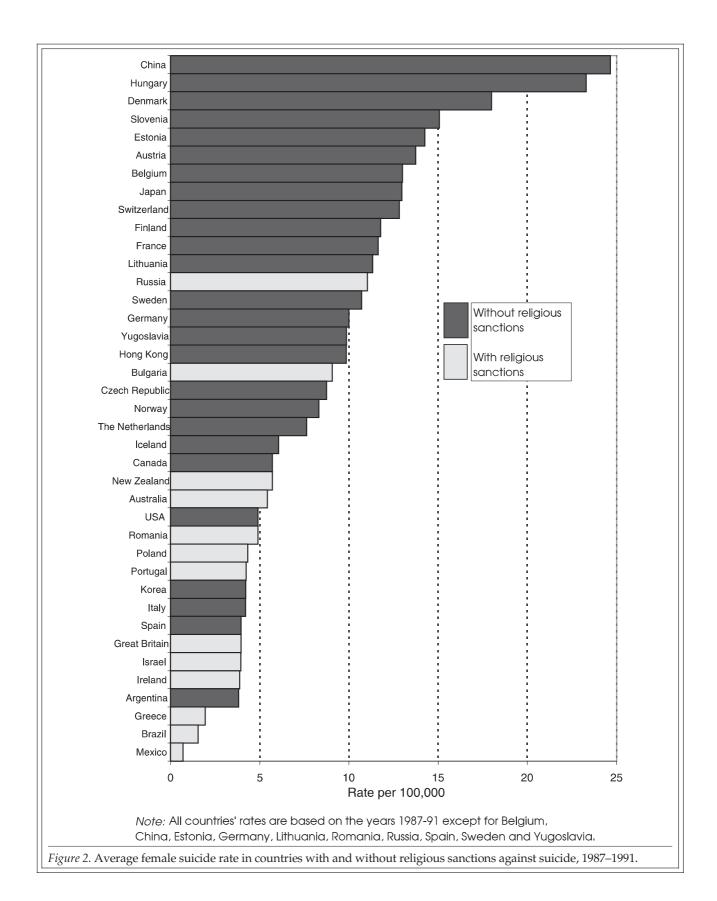


Discussion

The findings of this study support the hypothesis that official suicide rates are lower in countries with religious sanctions against suicide. This appears to be more striking for women than for men. Obviously, because of the intangible nature of the subject matter, i. e., religious sanctions, the report of the national representative may not be definitive as it relies solely on informed interpretation. Sanctions may exist (or have

Table 1 Participating IASP-Affiliated Countries.						
Without Religious Sanctions				With Religious Sanctions		
Argentina	Denmark	Iceland	Slovenia	Australia	Iran	Poland
Austria	Estonia	Italy	South Africa	Brazil	Ireland	Portugal
Belgium	Finland	Japan	Spain	Bulgaria	Israel	Romania
Canada	France	Korea	Sweden	Great Britain	Liechtenstein	Russia
China	Germany	Lithuania	Switzerland	Greece	Mexico	Sudan
Cuba	Hong Kong	Netherlands	USA	India	New Zealand	Taiwan
Czech Rep	Hungary	Norway	Yugoslavia	Indonesia	Pakistan	Turkey





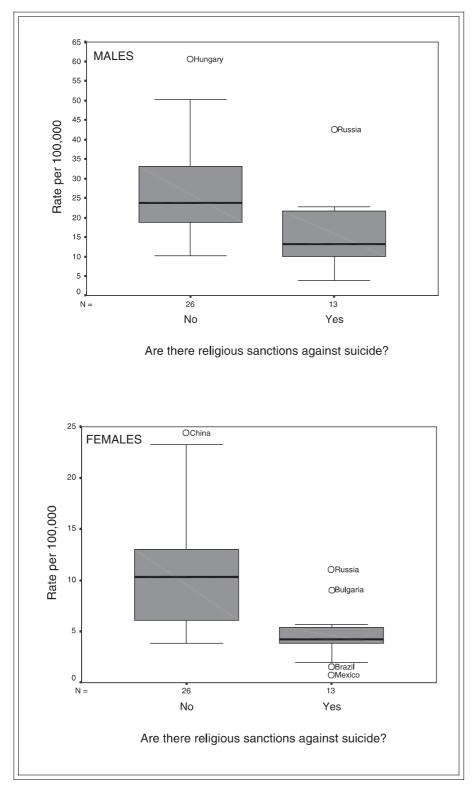


Figure 3. Average male (top) and female (bottom) suicide rates in countries with and without religious sanctions against suicide, 1987–1991.

existed) but rarely, if ever, be applied. The imposition of sanctions is increasingly less likely to occur amidst the ongoing process of secularization.

However, where they exist, religious sanctions affect many things. The reporting of suicide is a salient example. Family, friends, and professionals may attempt to conceal the phenomenon of suicide at the local level, or indeed it may be underrecorded on a national level. Furthermore, the returning of suicide figures to the WHO may be less likely to be prioritized in countries with religious sanctions. In favor of the latter hypotheses is the fact that all but three of the 28 countries without reported sanctions regularly return suicide statistics to the WHO, whereas nine of the 21 countries with reported sanctions failed to return rates. That there is, undoubtedly, underreporting from countries with religious sanctions may not provide the whole explanation for the lower suicide rates in these countries, although this is yet to be determined.

On the surface, it is difficult to confirm the existence of a direct relationship between religious commitment and suicide, even although it has been shown previously that an inverse relationship may exist between religious commitment and suicide acceptability [Stack, 1983]. While this work on influence of religion on suicide requires the analysis of aggregate data, it is imperative also to address the association between individual religious commitment and suicidal ideation on an individual level. To increase our understanding of this complex distinction, the function that religion performs in the regulation of suicide needs to be seen in terms of both Durkheim's and Donne's treatment of it, i. e., from the collective as well as the individual perspective. Durkheim effectively reduced its efficacy to its influence on integration [Stark et al., 1983]. In support of this, Catholic areas in The Netherlands have traditionally returned lower rates of suicide than Protestant areas and continue to do so, even though church attendance for both has fallen off greatly in recent years [Kerkhof & Kunst, 1994]. In Hungary, as another example, the rate of suicide among Catholics is lower than among Protestants [Moksony, 1996].

The influence of religion may vary, however, between a small country like the Republic of Ireland, which may be considered uni-denominational as it is 94% Catholic [Central Statistics Office, 1991], and the United States where many different denominations coexist. As a refinement of Durkheim's theory, recent de-

velopments in research in the United States show that the particular Christian religious denomination is less important than attendance at religious services [Stack & Wasserman 1993; Lester, 1995]. Through a literature review, Stack [1992] found that Catholics sometimes have a higher rate of suicide than Protestants. It was concluded that a convergence of religious beliefs and practices has taken place between Catholics and Protestants, with the result that membership of a particular religious denomination is no longer a significant determinant of suicide. This disregards doctrinal differences between denominations in the strength of condemnation of suicide. From this point of view, actual church attendance-regardless of denomination-can be used as an indirect indicator of religious commitment, and in turn can be considered protective against sui-

As a further test of Durkheim's position on religious denomination, Stack and Lester [1991] did a study on attitudes towards suicide, an area previously neglected. Analysis introducing controls for socio-economic variables showed suicide attitudes to be independent of religious affiliation. This supports the notion that religious condemnation of suicide in general, and not just Catholicism in particular, may be effective in protecting against suicide.

From the individual perspective, Donne considered moral conscience to be a deterrent against suicide. His focus was very much on the effect of religious doctrines on the religious individual rather than the effect on the congregation as the religious collective [Battin, 1995]. Recent studies have also considered the effect of religion at an individual level, including a major national psychological autopsy study done in Finland [Henriksson et al., 1993]. It was found that religious people who committed suicide were likely to be more mentally ill than the rest of the sample. This may imply that religion is protective to the point that a religious individual would have to have a severe mental illness before committing suicide. As an explanation for Henrikkson's findings, the condemnation of suicide, although delivered collectively, may have greater influence on vulnerable individuals. If it does, it is likely to have a greater effect on the mildly mentally ill or on those who ruminate on suicide in the absence of illness than it does on those who are severely disturbed.

Besides religion and trends towards secularization, there are many other major social and cultural

changes occurring worldwide which are likely to have a more direct influence on the suicide rate. These include the improving role of women, increasing industrialization, urbanization, migration, educational reform, increasing media influence, and substance abuse. These changes are part of the overall transformation of the public sphere, whereby each element of the social domain becomes differentiated and thus society becomes less of an integrated whole. The ultimate effect on the individual is an increase in autonomy of thought and action which may be associated with an increase in suicidal behavior.

In conclusion, religious sanctions are undoubtedly associated with significantly lower official rates of suicide worldwide. However no evidence is presented here to support the view that "actual" rates are actually reduced. The existence of religious sanctions, in general, is likely to have far greater effect on the morbidity of those bereaved by suicide than on the frequency of suicide itself.

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Appendix

The questionniare on suicide, euthanasia, and assisted suicide which was distributed included the following instructions and the 21 "yes/no" questions listed:

"Answer for the people and country you represent. Please give, on a separate sheet of paper, explanations and numbered notes for each question answered positively. Also, state your own personal views if they differ from the views of those you represent."

- 1. Is suicide a crime?
- 2. Are there civil sanctions against suicide?
- 3. Are there religious sanctions against suicide?
- 4. Is attempted suicide (parasuicide) a crime?
- 5. Are there civil sanctions against attempted suicide?
- 6. Are there religious sanctions against attempted suicide?
- 7. Is active euthanasia (i. e., direct killing) permitted in law?
- 8. Does active euthanasia occur in practice?
- 9. Is active euthanasia, if known, prosecuted?
- 10. Is passive euthanasia permitted in law? (e.g., switching off the life-support machine or not giving artificial feeding)

- 11. Does non-voluntary active euthanasia occur? (non-voluntary means the patient is incompetent, e.g., advanced dementia or permanent vegetative state)
- 12. Does non-voluntary passive euthanasia occur?
- 13. Do physicians actively assist in administration of capital punishment? (as opposed to pronouncing the executed dead)
- 14. Are advanced directives (living wills) used?
- 15. Have living wills the force of law?
- 16. Is assisted suicide a crime?
- 17. Are physicians allowed to assist in suicide?
- 18. Can the physician be present while the patient commits suicide?
- 19. Will the Medical Council, or equivalent professional body, prosecute physicians who assist in suicide?
- 20. Are books or manuals on how to commit suicide legally on sale?
- 21. Have you personal views, as opposed to the collective ones you represent, which you would like to express?