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Suicide Notes in Mexico: What Do They Tell Us?

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◂Au: PIs provide academic degrees

According◂ to international and Mexican official statistics, there is a dramatic rise in suicide in Mexico; however, research in this area is severely limited. This is the first study of suicide notes from Mexico in the international literature. From a population of 747 registered suicides, a sample of 106 note-writers and 106 non-note writers was examined. Using the demographic (descriptive) scheme of Ho, Yip, Chiu, and Halliday (1998), the results indicate that note writers do *not* differ greatly from other suicides. The less educated understandably wrote fewer notes. The most intriguing finding was that suicide in Mexico was associated with an array of factors, notably interpersonal problems.

◂Au: PIs confirm this is correct

Each year, worldwide, approximately one million people die by suicide (World Health Organization [WHO], 2002). According to the WHO, it is imperative that suicide research in the most populous regions of the world occurs; this includes countries such as China, India, and Mexico.

Mexico is a country with approximately 100 million inhabitants. The mortality rate for the years 2000–2005 was 4.2 per 100,000, whereas other American nations such as the United States, Argentina, Brazil, and Canada had rates from 7.0 to 9.0 per 100,000 (Instituto Nacional de Estadística, Geografía e Informática [INEGI], 2004b). The rates of suicide in Mexico are increasing. In 1999, the suicide rate in Mexico was 3.4 per 100,000 (Mondragón, Borges, & Gutiérrez, 2001). In 2003, 3,327 deaths by suicide were reported in Mexico, demonstrating a 5.3% increase when compared to the previous year. According to the 2004 official reports, 8.0% of violent deaths were caused by suicide, mainly in young people (15 to 24 years old) (INEGI, 2004a). There also has been an alarming increase in the rate of suicides of children (14 years and under) since the 1970s. From 1979 to 1997 the suicide rate for children increased 104%. The 10–14-year-old groups showed an even greater increase; suicides for girls in this group showed an increase of 307.7% while there was 142.6% increase for boys in this group (Celis, Gomez, & Armas, 2003).

The WHO (2001) worldwide survey of countries with a population of 100 million or more found that México had the highest percent increase in suicide for particular age groups (changes in age-standardized suicide rates) in specific time intervals. Mexico showed an increase of 61.9% across the 1981–1983 to 1993–1995 comparison periods. The countries, which followed Mexico, in descending order, were India (with a 54% increase in the 80–95 period), Brazil (13.2% increase from

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the 1979–1981 to the 1993–1995 period), and the Russian federation (5.3% increase from the 1980–1982 to the 1996–1998 period). Some countries have shown a decreasing percentage, such as the United States (5.3% decrease from the 1980–1982 to the 1995–1997 period) and Japan (14.3% decrease from the 1980–1982 to the 1995–1997 period).

Borges, Rosovsky, Gomez, and Gutiérrez's (1996) study, which spanned a longer time period (1970–1994), found an even more striking increase in suicide in Mexico. Specifically, they found a 156% increase (from 1.13 to $2.89 \times 100{,}000$ inhabitants). Thus, despite a relatively low suicide rate, data suggest that there exists a growing increase in suicide in Mexico.

Located in central Mexico, the state of Guanajuato has a population above the national average. In 2000, the population reached approximately 5.1 million (INEGI, 2000). Guanajuato is the sixth largest state in Mexico with 4.8% of the national population. In 2003, approximately 937,000 inhabitants were 15 to 24 years old, a proportion of one to five for the total population (Consejo Nacional de Población [CONAPO], 2003).

In Guanajuato slightly less than half (46.2%) of the young population are economically active. There is also a notable gender difference in the rate of economic participation (63.1% for men versus 31.7% for women). In 2003, only 24.3% of the 15–24 age group attended school. The study of Guanajuato State, in particular, is relevant because the suicide rate is higher than the national average: 8.3% of violent deaths, encompassing 6% of the suicide deaths of the entire country (INEGI, 2004a).

In Mexico, when a suicide is committed, although it is not currently a criminal act, the Bureau of Justice (Office of Attorney General) conducts a comprehensive investigation to determine whether other people intervened. They analyze as many indicators as possible by conducting interviews with relatives and acquaintances of the person who committed suicide and with the person who found the body, a physical autopsy is performed, and suicide notes and other evidence are reviewed. This procedure lasts approximately 1 month. The procedures to obtain and register official suicide data in México have recently improved, but there are still limitations and obstacles in carrying out psychosocial surveys on suicide topics. The official source in Mexico for suicide and suicide attempt registries is the INEGI, which collects data from death certificates. Another official source of suicide data is the Department of Health. Their death certificates contain information about the cause of death. In Mexico, as in other countries, there is an incongruency between the three official sources of suicide statistics mentioned above. The Bureau of Justice collects the majority of the information regarding each case of suicide. There are, furthermore, limitations (e.g., the study of police data) in such research (Ho et al., 1998). As Ho and his colleagues noted; for example, these types of investigations are not psychological in nature, but do offer some beginning insight into the facts that are studied.

The analysis of the symbolic productions of the suicidal person, particularly the notes written or drawn before the suicide act, has been recurrent in the history of suicidology (Leenaars, 1988) and has generated results of great value (Leenaars, 1988; Shneidman & Farberow, 1957). On average, about 18% to 37% of people that commit suicide leave notes (Leenaars, 1988; O'Connor, Sheeby, & O'Connor, 1999), although in some countries, such as India, it is much lower (Girdhar, Leenaars, Dogra, Leenaars, & Kumar, 2004). There is great variation in the rates of note writing, as well as in the characteristics of note writers worldwide; sometimes it is reported that females leave more notes, sometimes males; sometimes the elderly or young, and so on. Motivations, content, and so forth, also have been shown to vary (Leenaars, 1988). It would, indeed, be safe to conclude that there is no consistent pattern in rates or in characteristics (e.g., demographics) of suicide notes. This would suggest the need for international study, but such is lacking greatly in the field of suicidol-

ogy. Currently, Leenaars and others are carrying out cross-cultural studies of suicide notes, which may better inform global knowledge and comprehension of the suicidal phenomena (see Leenaars, 2004; Leenaars, De Wilde, Wenckstern, & Kral, 2001).

In México, there have been few content analyses of suicide notes, and they have not been reported in international journals (Chávez-Hernández, 1988; Chavez-Hernandez, Macías-García, Palatto, & Ramírez, 2004). Therefore, the aim of the present study, following the format of studies of several other countries (for example Girdhar et al., 2004; Ho et al., 1998), was to examine the characteristics of suicide notes and the sociodemographic characteristics of the suicidal population who wrote them (in the state of Guanajuato, 1995–2001), while further comparing them to a matched sample for age and sex who did not write a final note.

METHODS

The identification of the prevalence and central characteristics of completed suicide notes was conducted by analyzing the files of suicide deaths registered by the Bureau of Justice of Guanajuato State from 1995 to 2001. During these years, of the 747 registered suicide cases, 733 files were examined (14 files were missing due to administrative difficulties). One hundred and six suicidal subjects (14.46%) left one or more suicide notes, resulting in 216 notes. A comparison of some demographic characteristics of the writers of the suicide notes (group A) with an age- and sex-matched sample of nonwriters (group B) was conducted. For this comparison of variables, chi square tests were used. Fisher's test was used when the contingency tables presented a frequency of less than five.

The records obtained included demographic data and the suicide notes. The data constituted the available official records, albeit there were limitations with this type of data, as previously discussed.

RESULTS

Of the 733 cases of suicide analyzed, 79.1% were male and 20.9% were female. Of these suicides, 14.46% left one or more suicide notes. Specifically, 106 people with a similar distribution by sex to the total suicidal group left at least one note (80 men and 26 women or 75.47% and 24.53%, respectively). The age range of the note writers was 13 to 91 years: 13.3% were <18 years old, 39.6% were between 18 and 25 years old, 39.6% were between 26 and 55 years old, and 7.5% were >55 years old. The control group had a similar distribution by sex and age. Although the control group was not matched exactly, in this sample 77.4% were male and 22.6% were female.

Data presented in Table 1 refer to the question: "Do note writers differ on some key descriptive characteristics?" The characteristics of both note writers (Group A) and non-note writers (Group B) are shown. As can be seen in Table 1, there were some statistically significant differences. With respect to the educational status of suicide note writers, there was a significant number of note writers who had completed primary school ($p < 0.05$), we found as well a high frequency of note writers had completed high school and/or college ($p < 0.05$). A similar tendency was found in urban zones compared with rural zones ($p < 0.001$). Previous suicide attempts were significantly smaller in the note writers (Group A) when compared to the control group (Group B) ($p < 0.01$).

Table 2 presents some characteristics of the suicide notes such as number of notes written, and number of words. Most suicides left one note. Regarding the number of suicide notes written, the range was from 1 to 13, with an average of 2.13 notes per person. The number of words in the notes varied; the briefest was a simple "Good bye." Such brief notes are common around the world. Difficulties mentioned also varied with interpersonal problems being the most frequent. In our sample, 97 notes mentioned no difficulties.

When we examined affect in the notes (see Table 3), low mood and hopelessness

TABLE 1
*Demographic Profile of Suicide Note Writers (Group A) (*n = *106) Compared to Non-Note Writers (Group B) (*n = *106)*

	Suicide note writers	Non-Note writers	χ^2
Sex			.746 (1 df)
Male	80 (75.5%)	82 (77.4%)	.024 (1 df)
Female	26 (24.5%)	24 (22.6%)	.06 (1 df)
Age			.024 (3 df)
<18	16 (15.1%)	16 (15.1%)	
18–25	39 (36.8%)	40 (37.7%)	.012 (1 df)
26–55	43 (40.6%)	42 (39.6%)	.010 (1 df)
>55	8 (7.5%)	8 (7.5%)	0
Educational Status			22.894 (4 df)****
None	5 (4.7%)	13 (12.3%)	3.554 (1 df)
Primary	38 (35.8%)	61 (57.5%)	5.342 (1 df)*
Secondary	30 (28.3%)	22 (20.8%)	1.230 (1 df)
University	22 (20.8%)	8 (7.5%)	6.532 (1 df)**
Graduate and above	11 (10.4%)	2 (1.9%)	6.23 (1 df)**
Occupation			7.893 (2 df)**
Student	10 (9.4%)	5 (4.7%)	1.663 (1 df)
Salaried	48 (45.3%)	33 (31.1%)	2.776 (1 df)
Non-salaried	48 (45.3%)	68 (64.2%)	3.448 (1 df)
Zone of residence (202 cases)			22.907 (2 df)****
Urban	6 (6.1%)	33 (32%)	18.692 (1 df)****
Rural	77 (77.8%)	62 (60.2%)	1.618 (1 df)
Semiurban	16 (16.2%)	8 (7.8%)	2.666 (1 df)
Religious belief (102 cases)			1.886 (1 df)
Catholic	51 (96.2%)	49 (100%)	.04 (1 df)
Other	2 (3.8%)	0	0
Marital Status			4.039 (3 df)
Married	38 (35.8%)	47 (44.3%)	.952 (1 df)
Separated/divorced	7 (6.6%)	5 (4.7%)	.326 (1 df)
Single	58 (54.7%)	47 (44.3%)	1.152 (1 df)
Widow	3 (2.8%)	7 (6.6%)	1.6 (1 df)
Place of suicide act			2.857 (3 df)
Home	85 (80.2%)	90 (84.9%)	.142 (1 df)
Work	5 (4.7%)	1 (.9%)	2.66 (1 df)
Public area	5 (4.7%)	5 (4.7%)	0
Others	11 (10.4%)	10 (9.4%)	.047 (1 df)
Suicide method			8.398 (6 df)
Firearm	24 (22.6%)	33 (31.1%)	1.42 (1 df)
Intoxication (medicines)	5 (4.7%)	3 (2.8%)	.05 (1 df)
Hanging	68 (64.2%)	62 (68.5%)	.276 (1 df)
Wrist cutting	0	1 (.9%)	0
Poisoning	6 (5.7%)	2 (1.9%)	2.0 (1 df)
Vehicle in motion	0	3 (2.8%)	0
Others	3 (2.8%)	2 (1.9%)	.2 (1 df)
Previous attempt (159 cases)			.130 (1 df)
Present	10 (16.5%)	14 (14.3%)	.066 (1 df)
Absent	51 (83.6%)	84 (85.7%)	8.06 (1 df)***

Note. Frequencies and percentages (parentheses) are shown.
*$p < .05$; **$p < .02$; ***$p < .01$; ****$p < .001$

TABLE 2
Characteristics of Suicide Notes

Number of notes written	Frequency	Percentage
1	66	62.3
2	15	14.2
3	7	6.6
4	8	7.5
5	3	2.8
6	5	4.7
7	1	.9
>8	1	.9
Total	106	100.0
Number of words per note		
1–20	48	23.07
21–40	42	20.19
41–60	26	12.50
61–80	14	6.73
81–100	16	7.69
101–200	38	18.60
201–500	22	10.57
>500	2	0.96
>1000	1	0.48
Person to whom note was addressed		
Relative (father, mother, siblings, children	69	32.5
Beloved	50	23.3
Friend	33	15.4
Impersonal, official	58	27.1
None	4	1.8
Specific instructions		
Disposal of possessions	30	14.42
Care of family	35	16.82
Financial arrangement	13	6.25
Repaying debts	8	3.84
Any other	137	65.86
Difficulties mentioned in notes		
Physical/psychological illness	38	18.26
Job/financial problems	10	4.80
Interpersonal problems	70	33.65
Threats/academic difficulties	4	1.92
No difficulty mentioned	97	46.63

were the most prevalent (40.86%), followed by grievance and forgiveness (37.98% and 32.69%, respectfully). Most notes, consistent with previous analyses (see Leenaars, 1988), expressed more than one affect. In fact, every single note occupied one or more categories.

When we examined the general focus of the notes, the most frequently expressed was "giving instructions" (see Table 4). Two or more foci were given in various notes.

DISCUSSION

International studies have reported different percentages of suicide notes; in our

TABLE 3
Emotions Present in Notes

	Notes	Percentage
1. Forgiveness	68	32.69%
2. Anger	32	15.38%
3. Grievance	79	37.98%
4. Blame	32	15.38%
5. Low mood and hopelessness	85	40.86%
6. Relief	25	12.01%
7. Reunion and rebirth	13	6.25%
8. Nonspecified mood	59	28.36%

sample, 14.46% left a note. This percentage is consistent with previous reports, albeit at the lower end. It is consistent with Girdhar et al.'s (2004) reported rate in India. The most important finding is that note writers did *not* differ greatly from non-note writers. This finding is consistent with Stengel's (1964) prediction that there are essentially no meaningful differences between note writers and non-note writers who commit suicide, except maybe that they are better communicators. In our sample, the more poorly educated were less likely to write a note, which is consistent with the sample from India. Perhaps, as Stengel suggested, this simply reflects the fact that educated people are more likely to communicate their last words, like they would normally. Despite the few significant differences between note-writers and non-note writers, one may cautiously infer from the note writers to the general population of suicides in México, albeit this raises the whole issue of acceptance of the null hypothesis. It is possible that the suicide notes from the Guanajuato region differ from other areas in México. There is, however, in our knowledge no such study to allow for a comparison. With this caveat, the Guanajuato notes demonstrated that interpersonal factors were central in the process to suicide, but so are more intrapsychic factors, such as psychopathology. It is of note that the most frequent reason differed from Ho et al. (1998) in Hong Kong and Girdhar et al. (2004) in India. Their investigations found that physical illness and psychological/psychiatric illness were the most common reasons. These findings, however generally, support other findings from around the world regarding suicide notes (Leenaars, 2004). Suicide is multidimensional (Leenaars, 2004; WHO, 2002). There was not only *one* reason for suicide presented, but instead there appeared to be many diverse reasons. Even within a characteristic, such as mood, there were differences. The common moods expressed in our sample were low mood, hopelessness, forgiveness, and especially grievance. Other studies report the similar, but also different figural mood states (Girdhar et al., 2004; Ho et al., 1998).

TABLE 4
Focus of the Suicide Notes

Focus	Percentage
Instructions about money, insurance, possessions, funeral, etc.	24.20
Instructions to children, messages for others, etc.	22.20
Farewell	19.80
Praise to beloved	14.50
Non-guilt, only me	13
Mention of religión	9.20
Reference to act	9.20
Criticisms to beloved	8.70

The findings of the complexity of suicide in both the Hong Kong sample of Ho et al. (1998) and the New Delhi sample of Girdhar et al. (2004) are similar to what we found with our Mexican sample. Ho et al. state, "Most suicide notes are characterized by some concrete and specific instructions, a fairly rich emotional state, and some explanation of the suicide victim's difficulties" (p. 472). This is the same conclusion as Shneidman and Farberow (1957), 50 years ago. This was also true in our Méxican sample. Of course, there are methodological differences between the studies of Ho, Girdhar, and ourselves. This is primarily due to the procedure of the data gathering method in such investigations. Be that as it may, the main observa-

tion is that these studies show a greater number of commonalities, despite their cultural differences. Ho et al.'s scheme (1998) provides a useful descriptive method for quantitative analysis. It follows that the scheme may have international utility, which would allow for cross-cultural comparison. This is urgently needed in suicidology, not only for understanding the event worldwide, but also to more effectively predict and control it (Leenaars et al., 1997; O'Carroll et al., 1996). The more applicable a scheme is for classifying a disease or disorder worldwide—and that includes the suicides—the more useful.

The most obvious implication of this data, regardless of one's culture, is that suicide is multidimensional. The notes from Mexico and around the world validate this view. Finally, the data also imply that although there are common factors in the suicidal state, there also may be cultural differences that the clinician, crisis worker, and others must be aware of to be effective with respect to understanding that person.

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