

International research

Knowledge and attitudes of nurses, nursing students and psychiatric social workers concerning current suicide-related issues in Japan

Chiaki Kawanishi MD PhD
Associate Professor, Department of Psychiatry

Ryoko Sato MD
Psychiatrist, Department of Psychiatry

Tomoki Yamada MD
Assistant Professor, Advanced Critical Care and Emergency Center

Haruka Ikeda MSc
Psychologist, Department of Psychiatry

Akira Suda MD
Psychiatrist, Department of Psychiatry

Yoshio Hirayasu MD PhD
Director and Professor, Department of Psychiatry

Yokohama City University School of Medicine, Yokohama, Japan

ABSTRACT

Aims Education of those involved in general and psychosocial patient care can contribute greatly to suicide prevention. We administered a questionnaire to psychiatric nurses, psychiatric social workers and nursing students to examine their knowledge about the current situation relating to suicide in Japan, and their attitudes toward suicide victims. Countermeasures against suicide are urgently needed in Japan where a high suicide rate has been observed.

Method Seventy psychiatric nurses, 47 psychiatric social workers and 116 nursing students participated in the study. The questionnaire developed by the authors included both multiple-choice and open-ended questions. Responses to questions were compared between subject groups

including medical students who had been questioned previously.

Results Overall, participants showed insufficient knowledge about suicide including the current increase in Japan. Risk factors for suicide were not correctly identified, and responses overrated economic problems. Regarding attitudes, we observed resignation, unconcern or criticism in the responses of 19.1–30.2% of participants.

Conclusions All physicians and others involved in direct patient care are in a position to act as gatekeepers for suicide prevention interventions. The present study confirmed the necessity of educating these students and workers about characteristics of suicide and its victims.

Keywords: education, suicide prevention

Introduction

Suicide is a serious problem in Japan. The numbers of suicide victims have increased since 1994, with a marked increase between 1998 (24 391) and 1999 (32 863). Over 30 000 victims annually have been recorded in subsequent years; 32 552 suicides (25.5 per 100000) occurred in 2004, when male suicides accounted for 72.0%; persons over 60 years old accounted for 33.5%, and victims in their 40s and 50s accounted for 39.3%.¹ When the Japanese National Police Agency examined notes left by suicide victims, the most frequently given reason for suicide was a physical condition or disease. Since analysis of those cases allowed for only one stated reason per suicide, that report might have oversimplified problems underlying suicide, but health issues are highly important reasons for suicide. Psychological autopsy studies have indicated that over 90% of suicide victims had mental disorders such as depression.²⁻⁴

However, a World Health Organization (WHO) study suggested that depression is frequently overlooked in patients who consult general practitioners (GPs).⁵ A pilot study showed that more than 90% of Japanese patients with depression did not go to a psychiatrist for their first medical examination, even though the medical insurance system allows patients to consult a psychiatrist directly without a referral from another doctor.⁶ Early in depression, patients may disproportionately focus on the physical symptoms arising from depression; alternatively, or in addition, the stigma associated with psychiatric illness might deter them from consulting psychiatrists. In other countries, persons committing suicide were frequently found to have consulted their GPs; up to 71% had gone to their GP within six months preceding suicide,⁷ and up to 66% within one month.⁸ Since medical personnel apart from psychiatrists frequently encounter patients who subsequently commit suicide, they have an opportunity to act as gatekeepers for interventions to prevent suicide. Previous studies focused on attitudes toward suicide and attempted suicide.^{9,10} Herron *et al* investigated attitudes of GPs, emergency nurses, psychiatrists in training and community psychiatric nurses.⁹ More-positive attitudes were associated with mental health professionals, working in the community, and training in suicide risk assessment. Sun *et al* investigated the attitudes of casualty nurses in Taiwan, and found that casualty nurses who had suicide care experience had more positive attitudes towards suicide attempters.¹⁰ Uncapher and Areán examined attitudes of primary care physicians in California toward suicidal ideation, finding that physicians were less willing to treat suicidal ideation in older patients while suicide

rates are generally highest in late life.¹¹ As Herron *et al* pointed out, negative attitudes might make staff less likely to assess risk or to accept training in risk management.⁹ Knowledge of the nature of suicide and suicide victims is necessary for prevention of suicide, making accurate knowledge concerning suicide necessary for all patient care staff.

We recently examined medical student knowledge about suicide and attitudes toward suicide victims.¹² Most medical students were found to underestimate the current problem of suicide in Japan, commonly harbouring judgmental attitudes toward suicide victims. In the present study we extended the inquiry to nurses working in a mental hospital, nursing students and psychiatric social workers, comparing knowledge and attitudes between various groups including the previously queried medical students.

Methods

Seventy nurses working in a mental hospital (Fujisawa Hospital, Fujisawa, Japan; mean age, 38.3 years; standard deviation (SD) = 13.0 years), 47 psychiatric social workers (members of the Association of Psychiatric Social Workers in Kanagawa, Japan; mean age, 30.0 years; SD = 7.3 years, and 116 nursing students (Yokohama City University School of Medicine, Japan, and Shakaihoken Yokohama Nursing School, Japan; mean age, 20.7 years; SD = 2.8 years) who had not yet been given lectures on mental health were asked to participate in the study when a lecture associated with mood disorders and suicide was given to them by the authors. A questionnaire previously developed by the authors, with eight multiple-choice questions and three open-ended questions was administered to assess current knowledge about suicide in Japan, including statistical characteristics and risk factors for suicide, as well as attitudes toward suicide and its victims (Appendix 1).¹³ Answers to the questions referred to statistics announced by the Ministry of Health, Labour and Welfare, Japan,¹² and WHO SUPRE.¹⁴ Each correct answer to multiple-choice questions was scored as 1; the maximum full score was 8. Attitudes were classified as sympathetic, critical, unconcerned or resigned, or declining to comment. The classification of attitudes was made by agreement between two authors (CK and RS). The content of the questionnaire, also used for the medical students, is shown in Appendix 1. The questionnaire was administered separately to each of the additional groups listed above from June to October 2004; it was handed out to and returned anonymously by those who agreed to participate in

this survey. Results were analysed and compared between groups, including the previous responses of the medical students.

Statistical analysis was carried out using SPSS software version 11 (SPSS, Chicago, IL, US). Mean scores for multiple-choice questions were compared between groups by one-way analysis of variance (ANOVA) and multiple comparisons (Tukey-HSD). Prevalences of various attitude categories were compared between groups by χ^2 tests.

This study was approved by the Ethics Committee of Yokohama City University School of Medicine.

Results

A total of 233 individuals (70 nurses, 47 psychiatric social workers and 116 nursing students) filled in the questionnaire, a response rate of 100%.

Multiple-choice questions

Table 1 presents mean scores for multiple-choice questions (Q1–Q8) in each group. A significant difference was observed between groups. The highest mean score was attained by nursing students, with mental hospital nurses showing the lowest mean score. More than 95% of all participants in each group gave a correct answer for Q1 that suicide rates had increased, but only 22.4% of the nurses correctly answered that the number of suicide victims per year exceeded 30 000 in Japan (Q2), with the highest score (60.9%) seen among psychiatric social workers. Some 40% in each group correctly answered that suicide accounted for over 3% of all deaths in Japan in 2003 (Q3; 3.2%). In Q4, we asked which of eight countries had the highest suicide rate (Canada, France, Germany, Italy, Japan, Spain, UK or US).

Japan has the highest rate, but only 31.1% of psychiatric social workers and 39.8% of nursing students answered correctly. Among ages of suicide victims (Q5), the 50s were considered most common by all participant groups; in fact, the age group over 60 years accounted for the majority of Japanese suicide victims. Nearly all participating nursing students and psychiatric social workers gave a correct answer to Q6 (male suicide victims outnumber female), but less than 90% were correct among the nurses. Participants in all groups answered incorrectly that the most common direct cause of suicide (Q7) was financial problems (43.5–53.8% according to the various groups surveyed). Only 13.8% of psychiatric hospital nurses gave the correct answer, health problems, as did 13.1% of medical students;¹³ approximately one-third of nursing students and psychiatric social workers correctly chose health problems. In the last question (Q8) we asked whether suicide was related to mental disorders; more than 80% of nursing students answered affirmatively, as did 80.5% of medical students,¹³ but only 61.7% of psychiatric social workers and 60.6% of psychiatric hospital nurses gave this correct answer.

Risk factors for suicide

Participants were asked to list risk factors for suicide. No participant except for one nurse listed a previous suicide attempt, one of the most reliable indicators, as a risk factor. The presence of a mental disorder, another confirmed risk factor, was cited by 17% of psychiatric social workers, 25.4% of nurses, and 27.8% of nursing students. Overall, financial problems were listed most commonly and mentioned by 51.1% to 64.2% of participants in the various groups. Separation, divorce, or widowhood was mentioned most often (20.9%) by the nurses, but only two nurses included family history of suicide.

Table 1 Mean scores for multiple-choice questions (Q1–Q8) in nurses, psychiatric social workers, nursing students investigated and medical students previously queried¹¹

	Mean score (\pm SD)	median
1 Nurses ($n = 70$)	3.46 (1.30) ^a	3.00
2 Psychiatric social workers ($n = 47$)	4.30 (1.18)	4.00
3 Nursing students ($n = 116$)	4.38 (1.35)	4.00
4 Medical students ($n = 160$) ¹¹	4.21 (1.28)	4.00

^a Significant difference was observed from 3 and 4 ($P < 0.05$) by one-way analysis of variance (ANOVA) and multiple comparisons (Tukey-HSD)

Attitudes toward suicidal behaviour and suicide victims

Table 2 shows the results concerning attitudes toward suicide and suicidal behaviour in the three groups in the present study, including comparisons with results from medical students.¹³ A significant difference was detected in the prevalence of attitudes as categorical variables between groups ($P = 0.002$, degrees of freedom (df) = 6, two-tailed χ^2 test). Nurses showed the highest frequency of empathy toward suicide attempters among the four groups, considerably higher than that seen in medical students (58.6% versus 40.6%). Critical attitudes toward suicide attempters were less frequent in nurses (22.4%) than in medical students (32.5%). Numbers of participants feeling either unconcerned or resigned, or offering no comment, were smaller among nurses than in other groups. Among psychiatric social workers, a critical attitude was fairly uncommon; instead, they frequently answered that they felt unconcerned or resigned, or had no comment. No association was found between scores of multiple-choice questions and attitude categories (data not shown).

Discussion

Having studied knowledge about suicide and attitudes toward suicide victims in medical students,¹³ we extended the investigation to include nursing students, psychiatric nurses and psychiatric social workers. Medical students tended to underestimate current suicide rates in Japan, and overestimated problems as a factor underlying suicide. Overall, medical students showed a poor grasp of the problem of suicide as they might encounter it in patient

care. Attitudes shown by students were notably unsympathetic; critical responses were particularly frequent in the early student years.

In the present study, nursing students and even nurses at a mental hospital and psychiatric social workers showed serious knowledge gaps concerning suicide and the current problem of increasing suicide in Japan. Multiple-choice questions showed a significant difference in scores between groups (Table 1). The nurses, with the lowest mean score, worked in a mental hospital in the centre of Fujisawa, a city of 390 000 people located 50 km from Tokyo. The suicide rate in Fujisawa in 2004 was lower (16.8 per 100 000; Kanagawa Prefecture, 2004)¹⁵ than Japan overall in 2004 (25.3 per 100 000).¹ The hospital has 498 beds for inpatients, among whom approximately 65–70% have schizophrenia. Although the hospital has 120 beds designated for acute psychiatric care, it does not take part in the psychiatric emergency system at night implemented in Kanagawa Prefecture. Almost all nurses taking part in this study worked in wards for patients with chronic schizophrenia. As a result they may have less experience with patients who attempted suicide. These nurses also had the highest mean age among the groups currently studied. Suicide victims were relatively few, and suicide was not regarded as a major social problem when they attended nursing school.

Almost all participants knew that suicide rates had increased during the past decade in Japan, with male victims being more frequent. On the other hand, study subjects tended to underestimate numbers of victims. Almost all participants considered the 40s or 50s to be the most common age among suicide victims. When figures for these decades are combined, amounting to 39.8%, they do exceed the numbers of victims aged over 60 years, although we did not show a breakdown by decade of victims aged over 60 years. Mass media may tend to over-emphasise

Table 2 Attitude of nurses, psychiatric social workers, nursing students investigated and medical students previously queried toward suicide and suicidal behaviour¹¹

	Sympathetic, <i>n</i> (%)	Critical, <i>n</i> (%)	Unconcerned or resigned, <i>n</i> (%)	No comment, <i>n</i> (%)
1 Nurses (<i>n</i> = 70)	41 (58.6)	15 (22.4)	6 (8.6)	8 (11.4)
2 Psychiatric social workers (<i>n</i> = 47)	24 (51.1)	3 (6.4)	6 (12.8)	14 (29.8)
3 Nursing students (<i>n</i> = 116)	60 (51.7)	21 (18.1)	14 (12.1)	21 (18.1)
4 Medical students (<i>n</i> = 160) ¹¹	65 (40.6)	52 (32.5)	22 (13.8)	21 (13.1)

A significant difference was observed in prevalence of attitudes of as categorical variables between groups by χ^2 tests ($P = 0.002$, df = 6, two-tailed)

economic problem as a cause of suicide, while neglecting the problem of suicide in the elderly. Subjects' lists of risk factors for suicide often showed confusion; many participants mentioned recent stressful life events or gave answers such as 'stress', 'circumstances' or 'lack of interpersonal relationships'. Some lists included specific methods of suicide rather than risk factors. The presence of mental disorders, an established risk factor, was listed by only 25.3% of all participants, even though 72.5% agreed in a multiple-choice question that mental disorders had an important role. Participants who cited separation, divorce or widowhood amounted to only 19.2%, while economic problems were mentioned most frequently as a risk factor (62.0% of all participants). This tendency was most pronounced among medical students (70.0%).¹³ Other established risk factors including previous suicide attempts and family history of suicide were listed only rarely. Although suicide rates have roughly paralleled increased unemployment rates in Japan, excessive emphasis on economic causes obscures much of the nature of suicide. The influence of mental disorders and other established factors, as well as much information truly useful for preventing suicide, receives little attention from the media.

Attitudes toward suicide and its victims, reported by every group, were more frequently empathetic than judgmental. Frequent expressions of unconcern or 'no-comment' answers were observed in the present groups as well as among the medical students (Table 2). We suspect that the results reflected insufficient knowledge concerning the actual problems and behaviour of suicide victims. We presented a special lecture concerning suicide to all participants after completion of the questionnaire. The first author presents a lecture about suicide to medical students at his institution, in connection with a lecture dealing with mood disorders. In Japan a new postgraduate educational rotation system for clinical trainees was implemented in 2004, making psychiatric training mandatory for every trainee. We also give a special lecture concerning suicide to all trainees in our university hospital during the psychiatric rotation.

Suicide is a complicated and multifaceted problem. At the same time, however, suicide is a matter of public health, and changing environmental factors has been shown to decrease suicide rates.¹⁶ Importantly, medical staff members apart from psychiatrists have many opportunities to act as gatekeepers for suicide-prevention interventions. From 1983 to 1984, the Swedish Committee for the Prevention and Treatment of Depression offered an educational programme about diagnosis and treatment of depressive disorders to all GPs on the island of Gotland, which was associated with decreases in suicides and

inpatient admissions for depressive disorders. At the same time, the Gotland study showed that repetition of the educational programmes is necessary to maintain the effect.¹⁷ In recent years, Bruce *et al* indicated by a large-scale randomised controlled study that providing primary care physicians with treatment guidelines tailored for the elderly with depression, and care management implemented by trained social workers, nurses and psychologists reduced depressive symptoms and suicidal ideation.¹⁸ Nutting *et al* indicated that educating and training primary care physicians and depression care managers in implementation of interventions for depression improved detection of suicidal ideation.¹⁹

The following limitation to our study should be noted: because our sample size was small and did not cover all generations, we cannot judge whether the findings are representative of Japanese health professionals and nursing students; the relevance of the multiple questions to clinical practice has not been fully analysed, and we did not follow the attitude change and its relevance to clinical practice after giving the lecture to students. The present study underscores the importance of relevant and ongoing education about suicide. Even more important than up-to-date knowledge about suicide statistics, education concerning commonly overlooked mental disorders and the importance of mental disorders underlying successful and failed suicide attempts is critical, as is accurate diagnosis of depressive disorder and patient access to appropriate specialised practitioners and support networks.

ACKNOWLEDGEMENT

This study was supported by a Grant-in-Aid for scientific research No 16591152, from the Ministry of Education, Culture, Sports, Science and Technology, Japan.

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CONFLICTS OF INTEREST

None.

ADDRESS FOR CORRESPONDENCE

Dr Chiaki Kawanishi, Associate Professor, Department of Psychiatry, Yokohama City University School of Medicine, 3–9 Fukuura, Kanazawa-ku, Yokohama 236–0004, Japan. Tel: +81 45 787 2667; fax: +81 45 783 2540; email: chiaki@yokohama-cu.ac.jp

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Appendix 1

1 In Japan, the number of suicides is (1: increasing, 2: shows a plateau, 3: decreasing) compared to that 10 years ago.

Answer: increasing

2 The number of suicides in Japan in 2002 is:

- 1 5000 to 10 000
- 2 10 000 to 15 000
- 3 15 000 to 20 000
- 4 25 000 to 30 000
- 5 more than 30 000

Answer: more than 30 000

3 The percentage of suicides in the total annual number of persons who died is:

- 1 0.1%
- 2 0.5%
- 3 1%
- 4 2%
- 5 more than 3%

Answer: more than 3%

4 With respect to the percentage of the population, how does Japan rank for the number of suicides among the G7 countries (including the United States, England, Canada, France, Germany, Italy and Japan)?

Answer: First position

5 With respect to age, suicides are most frequent in persons:

- 1 aged 20 to 29 years
- 2 aged 30 to 39 years
- 3 aged 40 to 49 years
- 4 aged 50 to 59 years
- 5 aged 60 years or older

Answer: aged 60 years or older

6 With respect to gender, suicide victims are more frequent in :

- 1 males
- 2 females, or
- 3 the number of suicides is similar between males and females.

Answer: males

7 According to a statement announced by the National Police Agency, the most common causes of suicides are:

- 1 health problems
- 2 financial problems
- 3 domestic problems
- 4 human relationships at the workplace
- 5 problems involving intimate relationships

Answer: health problems

8 The relationship between suicides and psychiatric diseases is

- 4 present
- 2 absent
- 3 difficult to evaluate
- 4 unclear

Answer: present

9 What are risk factors for suicides?

10 What is required for the prevention of suicides?

11 How do you feel about suicides or attempted suicides?