



# Comparisons in the attitudes toward suicide among urban residents, lawmakers and community mental health workers in South Korea

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## ABSTRACT

The attitudes of the general public and lawmakers toward suicide can influence the degree to which suicide prevention is prioritized in public policymaking. In this study, we compared the attitudes of urban residents, lawmakers, and community mental health workers toward suicide. Urban residents ( $N = 501$ ) were surveyed through a telephone interview, while self-reported questionnaire was administered by lawmakers ( $N = 156$ ) and community mental health workers ( $N = 121$ ) through office visit and post, respectively. We used the Suicide Opinion Questionnaire to measure attitudes toward suicide in all three samples. Both the general public and legislators had insufficient knowledge and more permissive and uncaring attitudes toward suicide, whereas community mental health workers were more inclined to have sufficient knowledge of suicide and more intolerant and caring attitudes towards suicide. Therefore, lawmakers and the general public require education on suicide and suicide prevention, which may help lower South Korea's high suicide rate ranking among the Organization for Economic Co-operation and Development member states.

## 1. Introduction

South Korea (hereafter, Korea) has had one of the highest suicide rates among Organization for Economic Cooperation and Development (OECD) member states since 2004 (OECD, 2016). The high rates were initially attributable to the surge in suicides following the Asian financial crisis of 1997. Since 2004, the Korean government has developed and implemented a number of national suicide prevention strategies. Moreover, in 2011, the Korean parliament passed suicide prevention legislation in which both the central and local governments were required to implement suicide prevention policies, including controlling access to common means of suicide and providing gatekeeper education regarding suicide prevention for the general public. However, some have questioned whether the government has made sufficient effort to reduce the consistently high suicide rates over the past two decades.

Indeed, while Japan also experienced a spike in the suicide rate following the 1997 Asian financial crisis, it appears to have successfully reduced this rate over the past decade (World Health Organization, 2015). The reduction has been attributed to several factors. First, the Japanese Basic Act for Suicide Prevention, enacted in 2006, made suicide prevention the responsibility of all governmental ministries. Second, despite the 2008 global economic crisis, the Japanese government secured funding for reinforcing local suicide

prevention activities in 2009 through its “Regional comprehensive suicide prevention emergency strengthening fund.”

In contrast to Japan, Korea's national suicide prevention policy has been driven entirely by the Ministry of Health and Welfare (Kim and Yoon, 2013). Moreover, the annual budget of Seoul for suicide prevention is one-quarter of that of Massachusetts, in the United States, which has a substantially lower suicide rate and population than Seoul (Baek et al., 2015). Given that Seoul has the highest budget for suicide prevention activities of any region of Korea, it seems that national suicide prevention strategies lack sufficient resources.

While suicide is regarded as a severe public health concern, suicide prevention does not appear to be a priority of the Korean government. To explain why governmental suicide prevention activities lack sufficient resources, it might be necessary to explore the attitudes of people and lawmakers toward suicide. Such attitudes might influence the extent to which suicide prevention is prioritized in public policymaking. Several studies have shown that when depressive patients are more permissive of suicidal behavior, they have a much higher risk of suicide than do those without such an attitude (Gibb et al., 2006; Jeon et al., 2013; Joe et al., 2007). Similarly, if permissive attitudes toward suicide predominate the general population, governmental suicide prevention activities might not draw the public's interest. Therefore it can lead to a lack of financial resources for suicide prevention policy

Similarly, lawmakers' view of suicidal behavior may play an

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important role in preventing suicide because of their own power to initiate and invest public resources for suicide prevention (De Leo, 2002; Wasserman, 2004). The uncomfortable feeling that this topic sometimes engenders might also contribute to inadequate funding for suicide prevention policies (Wasserman, 2004). Moreover, countries with higher suicide rates and no national suicide prevention strategy (e.g., Lithuania, Hungary) tend to have local lawmakers with more permissive attitudes toward suicide when compared to countries with low suicide rates and a national suicide prevention strategy in place (e.g., Sweden, Norway; Skruibis et al., 2010). Gallien (2005) argued that Lithuania has never engaged in any serious or long-lasting suicide prevention activities, despite the fact that it has had high suicide rates for some time, because politicians saw suicide as an acceptable way out of difficult situations. Based on these previous findings, we explored the attitudes of the Korean general population and lawmakers toward suicide.

We also examined the attitudes toward suicide of community mental health workers caring for suicidal persons. Ostensibly, these individuals would have a caring and empathetic view of suicidal persons and therefore would seek the promotion of suicide prevention through suicide prevention training and clinical services (Osafo et al., 2012; Ramberg et al., 2016). In other words, one would expect them to have attitudes conducive to the prevention of suicide. By comparing the attitudes toward suicide of the general public, legislators, and community mental health workers, we could determine to what extent ordinary people and lawmakers have attitudes conducive to suicide prevention. In addition, the results would contribute to the body of evidence regarding the association between the high suicide rate of a country or society and the attitudes of the public and lawmakers towards suicide.

## 2. Method

### 2.1. Study subjects

For the general population sample, we recruited individuals aged 20–69 years from among residents of 5 metropolitan cities in Korea (Busan, Daegu, Gwangju, Incheon, Seoul) via proportional sampling based on gender (male, female) and age group (20s, 30s, 40s, 50s, 60s); these individuals were all part of an established market research panel run by a commercial marketing company. These individuals were contacted by email and invited to participate in an on-line survey between October and December 2013. Recruitment continued until we had conducted 501 interviews. The web-based questionnaires were sent to those who agreed to participate in this survey via email, and afterward the completed forms were returned to us.

For the lawmaker sample, two surveyors delivered questionnaires to the offices of all members of the South Korean National Assembly ( $N = 298$ ). These surveyors then visited the lawmakers' offices every two days from November 3 to December 17, 2013 to collect questionnaires. Thirty-nine (13.1%) questionnaires were collected by the surveyors during this period. The low response rate seemed in part due to their reluctance to expose their attitudes to the public and in part due to their busy schedule; thus, we permitted the senior assistants of lawmakers, who had not yet responded, to complete the survey forms. Assistants from a total of 117 lawmakers' offices handed out completed questionnaires to the surveyors who visited their offices. Therefore, 156 (52.4%) of the 298 National Assembly members ultimately responded to our survey.

We sent questionnaires by post to incumbent community mental health workers in charge of suicide prevention in 200 community mental health centers across the country. The postal survey was conducted between November 3 and December 1, 2013. We asked for one member of the team responsible for suicide prevention in each center to complete the form. A total of 121 community mental health centers responded to the survey.

### 2.2. Measurement tool

To evaluate attitudes toward suicide, we used the Suicide Opinion Questionnaire (SOQ) developed by Domingo et al. (1982). The SOQ has 66 items that constitute 15 latent factors. Each item is rated on a 5-point Likert scale, as follows: 5 ("strongly agree"), 4 ("agree"), 3 ("undecided"), 2 ("disagree"), and (1) "strongly disagree." Higher scores indicated stronger agreement. For this study, the 66-item SOQ was translated into Korean using forward and backward translation. First, the English version of the SOQ was translated into Korean by a psychologist and a psychiatrist. Then, we reviewed these two versions and reached a consensus on the Korean draft version. Second, a Korean-Australian bilingual expert translated the draft back into English. The translator and researchers subsequently compared the back-translated English version with the original English version to ensure conceptual equivalence, and then revised the Korean version slightly based on the comparison. Third, the Korean version was piloted among eight undergraduate students, who helped improve the readability and grammar of the draft.

A psychometric examination of the Korean version was then conducted among 195 undergraduates at Chung-Ang University, Seoul. We evaluated the construct validity of the Korean SOQ via exploratory factor analysis (EFA), while the internal consistency and test-retest reliability were evaluated using Cronbach's  $\alpha$  and intraclass correlation coefficient (ICC), respectively. We conducted an EFA instead of a confirmatory factor analysis (CFA) in order to derive a shorter SOQ. A 66-item questionnaire was deemed too lengthy to administer to a busy group such as lawmakers. Moreover, the SOQ has shown some variation in its factor structure in past studies, and there is an overall lack of theoretical background for its original factor structure (Kodaka et al., 2011). Consequently, we did not think it problematic to extract the key latent variables via EFA. The results of the EFA indicated that the Korean version of the SOQ had twelve factors (51 items in total) accounting for 55.6% of the total variance; all the items had factor loadings over 0.4. Eight of the twelve factors had acceptable internal consistency (Cronbach's  $\alpha \geq 0.7$ ) and good stability over four weeks ( $ICC \geq 0.6$ ). These results are displayed in detail in the supplement. The remaining four factors—Factor IX (getting even, four items), X (reversibility, four items), XI (impulsivity, three items), and XII (unknown, six items) were excluded because they did not meet the reliability criteria.

The eight factors included in the study were as follows. Factor I contained six items related to the role of religion. For many, suicide is the result of a lack of religious conviction or a violation of religious instructions. Factor II (nine items) concerned morality, namely that suicide is an evil, immoral act and that those who commit suicide are cowards or attempting to get sympathy. Factor III contains five items centered on when suicide is considered acceptable, such as in the event of incurable disease, old age, or severely difficult situations. Of the three items loading onto Factor IV, two related to the notion that older people are more likely to commit suicide than are other age groups; the remaining item pertained to man's nature being inherently aggressive or destructive. Factor V contained four items, three of which related to the notion that suicide is related to loneliness, while the remaining item pertained to how suicide is not due to individual attitudes but rather the cultural values of a society. Factor VI contained three items centered on suicidal motivation; two of these items related to the motivation for getting even and the other item expressed the notion that to commit suicide is to seek public attention. Factor VII contained two items describing suicide as a semi-serious act. Finally, the two items in Factor VIII centered on preparedness to help: that is, suicide attempts should be controlled by others because the individual making the attempt has poor judgment capability, and suicide can be easily predicted.

We also examined the sociodemographic characteristics of the three samples. These included gender, age, marital status, religion, education level, subjective health, the experience of suicidal ideation, and

whether participants had acquaintances (e.g., family members, close neighbors) with a history of attempted suicide.

### 2.3. Data analysis

The Chi-Square test was used to compare the sociodemographic characteristics of the urban residents, lawmakers, and community mental health workers. The eight subscales of the SOQ were scored, and the differences in the mean scores of these subscales between the groups were analyzed via an analysis of covariance (ANCOVA), after adjusting for all confounding variables (e.g., age, gender, marital status, religion, education level, subjective health, and experience of suicide ideation) that showed a significant between-groups difference. Furthermore, the Fisher's least significant difference (LSD) test was used as a post hoc test to examine the differences between groups in more detail.

### 2.4. Ethics statement

The Institutional Review Board of Chung-Ang University College of Medicine approved the protocol, survey instruments, and consent documents (IRB No. 1041078-201311-HR-0093-02). Verbal informed consent was obtained from all participants.

## 3. Results

Table 1 shows differences in socio-demographic features between urban residents, lawmakers, and community mental health workers for suicide prevention. Most of the community mental health workers were female (85%), while about half of each of the other two groups was female. The younger age group (20–39 years) made up a larger proportion (about two-thirds of the samples) of the lawmakers and community mental health worker samples than the urban resident sample. The urban resident and community mental health worker samples had larger proportions of married participants (around 59%) than did lawmakers (44%). Nearly all the community mental health workers (99%) had a religion, while only 56% and 61% of the urban residents and lawmakers, respectively, did so. Most lawmakers, community mental health workers, and urban residents had a college or postgraduate degree. More than half the urban residents reported having good health, whereas less than half reported this in the other groups. Around 14% of lawmakers and community mental health workers had mentioned suicide ideation more than once in the last year, as did 34% of urban residents. Around 17%, 10%, and 21% of the urban residents, lawmakers, and community mental health workers, respectively, had acquaintances with a history of attempted suicide. A chi-square test showed that the three groups exhibited significant differences according to gender, age, marital status, religion, education level, subjective health, and experience of suicide ideation, but not in having acquaintances with a history of attempted suicide.

Table 2 shows differences in attitudes toward suicide among the three groups. All the subscales of attitude toward suicide, except for morality, showed significant differences among the three groups according to the ANCOVA (adjusted for all confounding variables showing significant differences among the groups). The results of the ANCOVA post-hoc tests are reported in Table 2.

For the religion scale (Factor I), the three groups showed significant difference ( $p < 0.01$ ) in their mean scores: lawmakers ( $3.37 \pm 0.83$ ), urban residents ( $3.15 \pm 0.83$ ), and community health workers ( $2.51 \pm 0.42$ ). A similar pattern was observed for the acceptability scores (Factor III): legislators ( $3.60 \pm 0.65$ ), urban residents ( $3.33 \pm 0.69$ ), and community mental health workers ( $1.78 \pm 0.57$ ). For the aging scale (Factor IV), we did not observe a significant difference in mean scores between urban residents ( $3.53 \pm 0.65$ ) and legislators ( $3.63 \pm 0.62$ ); however, both these groups had significantly higher scores ( $p < 0.001$ ) than did the community mental health

**Table 1**

Comparison of socio-demographic characteristics between urban residents, legislators/senior assistants, and community mental health workers.

	Urban residents (N = 501)	Lawmakers <sup>a</sup> (N = 156)	Community mental health workers (N = 121)	$\chi^2$
Gender				
Male	249 (49.7)	81 (51.9)	18 (14.9)	51.161***
Female	252 (50.3)	75 (48.1)	102 (84.3)	
No response	–	–	1 (0.8)	
Age (years)				
20–39	225 (44.9)	97 (80.2)	83 (68.6)	47.692***
40–64	224 (50.7)	37 (30.6)	38 (31.4)	
65 and over	22 (4.4)	1 (0.8)	–	
No response	–	21 (17.4)	–	
Marital status				
Unmarried	184 (36.7)	87 (55.8)	46 (38.1)	21.782***
Married	302 (60.3)	67 (42.9)	68 (56.2)	
Divorced and bereaved	15 (3.0)	–	3 (2.5)	
No response	–	2 (1.3)	3 (3.3)	
Religion				
Yes	280 (55.9)	93 (59.6)	115 (95.1)	76.461***
No	221 (44.1)	60 (38.5)	1 (0.8)	
No response	–	3 (1.9)	5 (4.1)	
Education				
High school or below	130 (25.9)	6 (3.8)	1 (0.8)	66.742***
College or above	371 (74.1)	150 (96.2)	116 (95.9)	
No response	–	–	4 (3.3)	
Subjective health				
Poor	176 (35.1)	100 (64.1)	66 (54.5)	48.842***
Good	325 (64.9)	56 (35.9)	51 (42.2)	
No response	–	–	4 (3.3)	
Suicide ideation in the last year				
Yes	170 (33.9)	21 (13.5)	17 (14.7)	35.764***
No	331 (66.1)	135 (86.5)	99 (85.3)	
No response	–	–	5 (4.0)	
Acquaintances with a history of attempted suicide				
Yes	85 (17.0)	16 (10.3)	24 (19.8)	5.892
No	416 (83.0)	140 (89.7)	93 (76.9)	
No response	–	–	4 (3.3)	

<sup>a</sup> The lawmakers comprised 39 lawmakers and 117 senior assistants of legislators.

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

workers ( $2.63 \pm 0.72$ ). The motivation scale (Factor VI) showed a similar pattern as the acceptability and religion scales, in that all the groups significantly differed from each other. For loneliness (Factor V) we did not find a significant difference ( $p > 0.05$ ) between urban residents ( $2.6 \pm 0.68$ ) and lawmakers ( $2.66 \pm$ ), but the scores were significantly higher in the community mental health workers group ( $3.04 \pm 0.49$ ) ( $p < 0.001$ ) than in the other two groups. For the semiserious act scale (Factor VII), the mean score for lawmakers ( $2.93 \pm 0.65$ ) was almost the same as that for urban residents ( $2.92 \pm 0.067$ ), and both groups had significantly higher scores ( $p < 0.001$ ) than did the community mental health workers ( $2.1 \pm 0.65$ ). Finally, in the preparedness to help scale (Factor VIII), the mean score for community mental health workers ( $3.51 \pm 0.68$ ) was significantly higher ( $p < 0.001$ ) than were those for urban residents ( $2.53 \pm 0.71$ ) and lawmakers ( $2.44 \pm 0.68$ ).

## 4. Discussion

Urban residents and lawmakers both tended to agree more with the items in the religiosity, acceptability, aging, and motivation scales, whereas community mental health workers had relatively greater tendency to disagree with those items. Moreover, community mental

**Table 2**Differences in the mean scores of the Suicide Opinion Questionnaire between urban residents, legislators, and community mental health workers using ANCOVA and post hoc tests<sup>a</sup>.

Attitudes toward suicide	Urban residents (N = 501)	Lawmakers <sup>b</sup> (N = 156)	CMH workers (N = 121)	F	Pairwise comparisons <sup>a</sup>		
					Urban residents vs Legislators	Legislator's group vs CMH workers	CMH workers vs Urban residents
Religiosity (6 items)	3.15 (0.83)	3.41 (0.83)	2.4 (0.42)	36.02***	**	***	***
Morality (9 items)	2.97 (0.75)	3.38 (0.7)	2.85 (0.29)	0.99	NA	NA	NA
Acceptability (5 items)	3.29 (0.69)	3.64 (0.65)	1.93 (0.57)	250.26***	***	***	***
Aging (2 items)	3.53 (0.65)	3.67 (2.62)	2.62 (0.72)	79.45***	NS	***	***
Isolation (4 items)	2.59 (0.68)	2.70 (0.64)	3.01 (0.49)	17.6*	NS	***	***
Motivation (3 items)	3.24 (0.73)	3.47 (0.69)	2.5 (0.69)	52.14***	**	***	***
Semiserious act (2 items)	2.92 (0.67)	2.94 (0.65)	2.11 (0.65)	59.56***	NS	***	***
Preparedness to help (2 items)	2.53 (0.71)	2.47 (0.60)	3.44 (0.68)	85.40***	NS	***	***

CMH: community mental health, NS: not significant, NA: not available.

<sup>a</sup> Fisher's least significant difference.<sup>b</sup> The lawmakers comprised 39 lawmakers and 117 senior assistants of lawmakers.\*  $p < 0.05$ .\*\*  $p < 0.01$ .\*\*\*  $p < 0.001$ .

health workers tended to show greater agreement with the items in the loneliness and preparedness to help scales, whereas the other groups showed relative disagreement.

Lawmakers tended to agree with attitudes concerning religiosity ( $3.41 \pm 0.83$ ) and morality ( $3.38 \pm 0.7$ ) as associated factors of suicide. These attitudes attribute the cause of suicide to individual characteristics instead of external factors (Knizek et al., 2008). Moreover, agreement with the morality subscale suggests that individuals view suicide as a crime, which could impose stigma on it (Domino et al., 1989b; Knizek et al., 2008). This might mean that suicide in South Korea is a taboo in the Korean parliament, as in Lithuania and Hungary (Knizek et al., 2008). Meanwhile, community mental health workers were below the midpoint toward the disagreement pole on the morality scale ( $2.85 \pm 0.29$ ) and scored higher in the disagreement direction on the religiosity scale ( $2.4 \pm 0.42$ ).

Lawmakers tended to agree with items relating to a permissive attitude toward suicide ( $3.64 \pm 0.65$ ), whereas community mental health workers had strong tendency to disagree with that attitude ( $1.93 \pm 0.57$ ). These findings align somewhat with the findings of Skruibis et al. (2010), which indicated that in countries with high suicide rates and no national suicide prevention strategy (e.g., Lithuania, Hungary), local politicians tended to have a more permissive attitude toward suicide, whereas those in countries with low suicide rates and national suicide prevention strategy (e.g., Sweden, Norway) are more likely to show disagreement with such attitudes. Urban residents also showed relative agreement with the items of the acceptability scale. This is in accordance with findings showing that countries with high suicide rates tend to have more permissive attitudes toward suicide behavior (Dervic et al., 2006; Domino and Takahashi, 1991; Etzersdorfer et al., 1998; Lester and Akande, 1994; Skruibis et al., 2010).

For the loneliness scale, urban residents ( $2.59 \pm 0.68$ ) and lawmakers ( $2.70 \pm 0.64$ ) tended to show relative disagreement. Meanwhile, community mental health workers had a mean of approximately 3.0 ( $3.01 \pm 0.49$ ), suggesting that they had ambivalent attitudes. In general, health care professionals who have cared for patients at risk of suicide tend to regard self-harm behavior as having

some relation to loneliness (Taylor et al., 2009). One reason that community mental health workers had such an ambivalent position might be the heterogeneity of the loneliness scale, which contains four items. Three of these items were related to loneliness, and while the remaining one pertained to suicide as the result of cultural values (e.g., suicide among elderly people may be regarded as a normal phenomenon).

The attitude that suicide attempts are primarily manipulative and communicative has a dangerous corollary—that is, the threat of suicide may be disregarded (Domino et al., 1980; Domino and Leenaars, 1989, 1989a). Legislators ( $3.47 \pm 0.69$ ) and urban residents ( $3.24 \pm 0.73$ ) both tended to agree with the items related to motivation for self-harm behavior.

The attitude that suicidal behavior is regarded as a semiserious act is also a misconception of suicide (Domino and Leenaars, 1989). Lawmakers had a mean score that was almost at the midpoint ( $2.94 \pm 0.65$ ) for the semiserious act subscale, indicating that they are ambivalent about this attitude. However, community mental health workers showed relatively greater disagreement for this subscale ( $2.11 \pm 0.65$ ). The difference here might be the result of differences in their clinical knowledge of self-harm behavior and experiences in caring for people at risk of suicide.

Community mental health workers, all of whom had experience in caring for people at risk of suicide, had relatively greater agreement with the preparedness to help subscale ( $3.44 \pm 0.68$ ). We can attribute this finding to their greater clinical experience in dealing with individuals with suicidal behavior and their stronger sense of responsibility for their patients (Anderson, 1997). Other scholars also found that the effect of treatment by health care professionals is much greater when the professionals have positive attitudes toward suicidal behavior (Osafu et al., 2012; Sethi and Uppa, 2006; Sun et al., 2007; Taylor et al., 2009). Lawmakers ( $2.47 \pm 0.6$ ) and urban residents ( $2.53 \pm 0.71$ ), however, showed relative disagreement with the preparedness to help scale. This finding seems to correspond to that mentioned above—that suicidal behavior tends to be perceived as a motivated action among legislators and urban residents, but less so among community mental health workers.

This study has some limitations. First, the use of an internet-based research panel for collecting data from urban residents might have led to bias due to the sampling of “professional respondents.” Specifically, when joining a panel, some participants feel obliged to prepare for future surveys and take steps to increase their awareness and knowledge of current events. Moreover, research panels can lead to selection bias. Therefore, we might have attained different answers using online research. However, this disadvantage cannot outweigh the potential benefits of online panels: ready access to research participants, targeted sampling of low-incidence groups, and availability of previous background data on participants (Dennis, 2001). Second, we replaced the lawmakers who did not participate in the survey with their senior assistants. Senior assistants cannot represent the lawmakers but are able to influence their attitudes and opinions during the process of legislation, as their duties often involve monitoring impending legislation, conducting research, drafting legislation, giving advice and counsel to lawmakers, and making recommendations. Moreover, we found no significant differences in the scale answers between legislators and senior assistants. Third, to collect data, we used different methods of delivering the questionnaire to respondents: by email for urban residents, in person for politicians, and by post for community mental health workers. This variation in methods might have influenced the accuracy and quality of the data obtained. However, the accuracy and quality of the data differ to a much greater extent according to the mode of questionnaire administration (self-administered vs. interviewing) (Bowling, 2005) than according to the method of delivery. In this study, all three delivery methods used the same mode (self-administered).

In sum, both the general public and lawmakers tended to have insufficient knowledge and more permissive and uncaring attitudes toward suicide, whereas community mental health workers were more inclined to have sufficient knowledge and more intolerant and caring attitudes towards suicide. These findings imply that politicians are not likely to prioritize suicide prevention in policymaking. Consequently, both politicians and the general population should be educated on suicide and its suicide prevention.

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## Conflicts of interest

The authors declare that they have no conflict of interest to declare in relation to this article.

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