HHS Public Access

Author manuscript

Psychiatry Res. Author manuscript; available in PMC 2018 June 01.

Published in final edited form as:

Psychiatry Res. 2017 June ; 252: 57–62. doi:10.1016/j.psychres.2017.02.042.

Gender Differences among Medically Serious Suicide Attempters aged 15–54 Years in Rural China

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Abstract

China is one of few countries which reported higher female suicide rates in the worldwide. However, little is known about the gender differences among Chinese rural suicide attempters. This study aims to analyze the gender differences among medically serious suicide attempters aged 15–54 years in rural China. Subjects were 791 medically serious suicide attempters and 791 controls aged 15–54 years in rural China. Socio-demographic, psychological and some critical variables were assessed in the interview. The results showed that all of the factors (education years, family suicide history, negative life events, social support, impulsivity and mental disorder) associated with male suicide attempters also could be found for females. Physical disease, mental disorder and pesticide ingestion played more roles on male suicide attempters. Ever married, peasant, religious belief, and less social support played more roles on female suicide attempters. Compared with male suicide attempters, female ones are mainly influenced by social factors. A gender-specific approach should be emphasized in suicide prevention.

Keywords

Gender; Suicide Attempt; Youth; Rural China

1. Introduction

According to the World Health Organization (WHO), there were approximately 804,000 reported suicide deaths worldwide in 2012, which amounts to an annual global age-standardized suicide rate of 11.4 per 100,000 population (WHO, 2014). Temporally, that represents one suicide related death every 40 seconds. Further, suicide attempts has been identified as the single greater predictor of suicide related deaths (Bostwick and Pankratz, 2000). Previous estimates place the ratio at approximately nine attempts per suicide death (Crosby et al., 2011). In this respect, suicide attempts must be considered as a global public

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health issue; hence further research is needed to better understand suicide attempts in order to strengthen programmatic suicide prevention strategies.

China has become a country of concern for suicide research, given that suicide rates were found to escalate in the 1990s (Phillips et al., 2002). Perhaps due to this increased social economic status to better understand this phenomenon in China, these rates have begun to recently decline. However, there are still some peculiar patterns related to suicide rates in China when compared to Western countries (Zhang et al., 2014). For example, in China the suicide rates in rural communities is much higher than in urban settings, and rates among Chinese females approach those of Chinese males whereas in Western countries the rates among females are much lower than for males (Hee Ahn et al., 2012).

One essential continuing research focus then would be on identifying unique gender specific factors that might ultimately help address issues specifically related to suicide prevention among females in China. Specifically, there is a pressing need to identify factors that differentiate suicide attempts in females from those in males. From previous studies, it is currently understood that females are at greater risk for attempted suicide worldwide (Emet et al., 2015; Jeon et al., 2013; Plattner et al., 2007), but males utilize violent methods more frequently in Western countries (Lucas et al., 2014) which may account for their higher rate of suicide death compared to females. Other studies have also noted gender differences in socio-demographic and psychiatric factors (Chau et al., 2014; Tsirigotis et al., 2014). Similarly, within China, there is also growing evidence of potential gender differences among suicide attempts and suicide fatalities. For example, in a recent study among four urban general hospitals, evidence emerged regarding sociological differences between female and male attempters (Wei et al., 2013). Further, in a national psychological autopsy study (Yang et al., 2005), greater pesticide ingestion was found among female suicides, while another study (Zhang et al., 2010) found greater prevalence of mental illness among male suicides. Thus, there is reason to support further investigations of potential gender differences among suicide attempters.

To our knowledge, there are currently few studies that focus on potential gender difference among suicide attempters in rural China, despite the fact that there is known to be a considerable difference between rural and urban suicide rates (Wang et al., 2014). Therefore, the present study was designed to examine potential gender differences among suicide attempters in rural China, focusing on demographic, psychological (negative life events, hopelessness, social support, impulsivity), psychiatric, and suicide history factors.

2. Method

2.1. Study sample and the general design

In an attempt to increase the representation of the sample, two provinces in China were selected which vary in geographic and commercial factors. Hunan province is located in the southern region of China and is predominantly an agricultural region. In contrast, Shandong province from the north of China represents a more economically prosperous region known for manufacturing and petroleum. In total, 13 rural counties from each province were selected for recruitment occurred between May 2012 and July 2013. Every attempt was

made to ensure that the recruitment process in each county remained as consistent with one another as possible. On a monthly basis, hospital personnel from the emergency departments in each of the target counties would notify the research team of any attempted suicide cases.

This study was a case-control design. There were also strict inclusion criteria for the cases and controls. For the cases, the inclusion criteria were (1) those with wounds/injuries that were considered serious enough to warrant immediate care or hospitalization; (2) aged 15–54 years; (3) living in rural region more than six months. After reviewing each case, we need to recruit a control who was interviewed by the same interviewee. The controls were introduced by the headers of the sampling rural villages according to the inclusion criteria for the controls. Inclusion criteria for the controls were (1) those who had never attempted suicide; (2) the same gender with the case; (3) living in the same or neighbor rural village with the case more than six months; (4) less than 3 years for the age range between each case and control; (5) aged 15–54 years.

As part of the informed consent process, the recruitment criteria, purpose, and procedure of the study were explained prior to inquiring about consent to participate. This informed consent process represented a mandatory component of the IRB approval obtained from both the Chinese and US institution affiliations of the Principal Investigator, as well as the ethical regulations of the NIMH, which is the source of funding for this project. Once consent was obtained an appointment was scheduled for a one-on-one interview. Table 1 contains descriptive statistics for the obtained sample.

2.2. Interview procedure

Prior to the onset of the study, each interviewer underwent a strict training process in order to ensure consistency across the sample, and to maximize the welfare of the participants. Upon gaining consent, all interviews were scheduled between one and six months following release from the hospital due to concerns over their physical condition while in the hospital. All scheduled interviews occurred in a secluded room within the village medical facility or in the participant’s own home. All interviews were conducted privately between interviewer and participant, unless in rare cases of participant weakness where the participant consented to a family member’s assistance. The average duration of the interviews was approximately 1.5 hours.

2.3. Measures

Guided interview questions collected basic demographic information about participants, including age, gender, marital status, years of education, current occupation, and religious beliefs. Health (physical and mental) and family history questions were also included, such as history of disease, history of pesticides in their home, family suicide history, negative life events, hopelessness, social support, impulsivity, and mental disorders. Finally a series of questions asked about prior suicide attempts, suicide intent, and prior methods of attempted suicide.

2.4. Question and item coding process

Age and education years were open ended responses. Age was measured by the subjects' date of birth. For the cases, age was calculated until the time when they attempted suicide. For the controls, it was calculated until the time when they were interviewed. Education years were estimated by the number of years that the subjects were educated in school. Dummy coding was employed to dichotomize responses to gender (male = 1 or female=0), religious beliefs (yes = 1 or no = 0), marital status (ever married = 1 or never married = 0, with the former including those who were divorced, separated, or widowed), occupation (peasant = 1 or other = 0), pesticide at home (yes =1 or no = 0) and family suicide history (yes = 1 or no = 0). Occupation was dichotomized this way because most participants identified "peasant" from the original options (peasant, businessman/woman, public service staff, student, factory worker, rural doctor, teacher, housewife, unemployed or other) leading to a skewed distribution. Religious belief was estimated by four items (having a religious belief, attending religious events, believing in God and afterlife). The participants who gave all of the positive answers would be recoded into having religious belief, and others were recoded into having no religious belief.

Physical disease was assessed with a single item asking if they had any physical illness at the time of interview (yes = 1 or no = 0). A single item was also used to identify if pesticides (farming chemicals) were stored in the home (yes = 1 or no = 0). Similarly a single item inquired about whether a family members had previously died of suicide (yes = 1 or no = 0).

Participants were then asked to indicate whether or not they had experienced a series of life events over the past 12 months using a revised Chinese version of the Interview for Recent Life Events (IRLE). This included 64 items, involving 19 events specific to Chinese culture which were added by the current authors (Paykel et al., 1971). If an event was identified by a participant, they were subsequently asked to distinguish if the experience had a positive or negative life impact. For the present study, analyses focused on the sum of the items that participants personally classified as negative life events (NLEs) (Zhang and Ma, 2012).

Social support was measured using a Chinese version of the four item social interaction sub-scale from the Duke Social Support Index (DSSI). The items focus on the number of people that participants have connected or communicated with recently. Response options ranged from 1 (nobody), 2 (1–4 people), or 3 (5 or more people) with scoring consisting of the sum of the four items. The Chinese version of this scale has previously shown good validity (Jia and Zhang, 2012).

A Chinese version of the Dickman Impulsivity Inventory (DII) was used to measure impulsivity. The DII consists of 23 item which describe moments of impulsivity, and participants are asked to indicate (yes = 1 or no = 0) if each items describes them in general (Dickman, 1990). Previous research has demonstrated the Chinese version of the DII to have good validity (Gao et al., 2011).

The Chinese version of the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders (SCID) (Spitzer et al., 1988) was used to generate diagnoses for both cases and controls. The Department of Psychiatry of Kaohsiung Medical College in

Taiwan (Gu and Chen, 1993), provided the Chinese version of the SCID and permission was granted for use in the current study. This tool has been successfully used for the past few decades among Chinese populations in Taiwan, Hong Kong, Macau, and mainland China (Lyu and Zhang, 2014). Written information from the interviewers on each suicide attempt participant and community control participant was provided to the psychiatrists, who then rendered a diagnosis. In total there were 27 Axis I diagnoses identified, and were dummy coded to represent the presence or absence of a diagnosis (yes = 1 or no = 0).

To identify repeat suicide attempts, participants were asked to indicate the number of previous attempts, which was then dummy coded (one or more = 1 or none = 0). Subsequently, a Chinese version of Beck Suicide Intent Scale (SIS) was administered to identify suicide intention (Beck et al., 1974). Previous study has identified that the Chinese version of SIS to have sound reliability and validity (Zhang and Jia, 2011). Finally, they were asked to identify the method used during their suicide attempt. Given that the strong majority of attempters utilized pesticide methods, for statistical analysis this was also ultimately dummy coded (pesticide = 1 or other = 0).

2.5. Statistical methods

SPSS for Windows (version 21.0) was used for data analysis. T-tests or Chi-square tests were used to compare the difference on categorical and continuous variables across groups. Logistic regression analysis was performed to examine the factors related to attempted suicide. All of the factors were chosen as the independent variables. All tests were two-tailed and a p value of <0.05 was considered statistically significant.

3. Results

In the current study, we analyzed the factors associated with male and female suicide attempters comparing with the male and female controls. In addition, we also compared the male and female suicide attempters to identify the differences between them.

Table 1 contains descriptive data for each key variable. Additionally, comparative analyses for these variables are presented between male cases and controls, female cases and controls, and between male and female cases. When comparing male suicide attempters against controls, significant risk factors included fewer years of education (7.35 vs. 9.71, $p<0.001$), occupation identified as peasant (25.9% vs. 21.8%, $p<0.05$), indication of having some religious beliefs (15.7% vs. 7.8%, $p<0.01$), self report of a physical disease (21.8% vs.9.9%, $p<0.001$), family suicide history (8.9% vs.6.0%, $p<0.001$), experience of greater negative life events (1.88 vs. 0.68, $p<0.001$), less perceived social support (7.94 vs. 9.56, $p<0.001$), elevated impulsivity (10.25 vs. 8.90, $p<0.001$), and the presence of a diagnosed mental disorder (23.5% vs. 4.8%, $p<0.001$). The significant risk factors were similar when comparing female suicide attempters versus controls, with the exception of religious beliefs which did not reach significance.

When the makeup of the samples of male and female suicide attempters were compared, female suicide attempters were on average older than male attempters (32.28 vs. 30.54, $p<0.01$), had fewer years of education (6.64 vs. 7.35, $p<0.01$), were less likely to be never

married (11.2% vs.. 25.9%, p<0.001), more likely in peasant occupations (64.1% vs. 35.2%, p<0.001), less likely to have a physical disease (13.9% vs. 21.8%, p<0.01), perceive less social support (7.52 vs. 7.94, p<0.01), and less likely to have received a diagnosis of a mental disorder (16.5 vs. 23.5%, p<0.001).

Comparisons were also subsequently conducted between male and female suicide attempters on the clinical conditions. As can be seen in Table 2, no differences emerged regarding prior suicide acts (10.9% vs. 10.6%, p>0.05) or suicide intent (9.37 vs.9.86, p>0.05). However, the method of suicide attempt did differ by gender where female attempters were less likely to use pesticides as their method compared to males (71.5% vs. 80.9%).

Separate multiple logistic regression models were then conducted to compare male cases vs. controls, female cases vs. controls, and male vs. female cases (see Table 3). In Model 1, when comparing male suicide attempters and controls, several factors emerged as predictors. Specifically, years of education (OR=0.71, 95% CI 0.65–0.78), family suicide history (OR=4.30, 95% CI 1.40–13.26), negative life events (OR=1.64, 95% CI 1.38–1.95), social support (OR=0.74, 95% CI 0.66–0.82), impulsivity (OR=1.09, 95% CI 1.03–1.15), and mental disorder (OR=2.38, 95% CI 1.19–4.77) were associated with male suicide attempt behavior. Model 2 compared the differences between female suicide attempts and controls. Age (OR=0.97, 95% CI 0.94–0.99), education years (OR=0.90, 95% CI 0.85–0.94), family suicide history (OR=2.93, 95% CI 1.12–7.68), negative life events (OR=2.05, 95% CI 1.77–2.38), social support (OR=0.80, 95% CI 0.74–0.86), impulsivity (OR=1.09, 95% CI 1.04–1.14) and mental disorder (OR=7.88, 95% CI 3.54–17.55) were predictive of female suicide attempts.

Finally, Model 3 represents the comparisons between male and female suicide attempters. Results showed that, compared to male attempters, female attempters tended to be more likely ever married (OR=0.39, 95% CI 0.23–0.67), in peasant occupations (OR=0.31, 95% CI 0.22–0.43), and to hold religious belief (OR=0.62, 95% CI 0.41–0.96). In addition they were less likely to report a physical disease (OR=2.29, 95% CI 1.50–3.51), to perceive social support (OR=1.10, 95% CI 1.02–1.19), to receive mental disorder diagnosis (OR=1.98, 95% CI 1.29–3.02) and to use a pesticide method for their suicide attempt (OR=2.47, 95% CI 1.62–3.75).

4. Discussion

The main objectives of the present study were to identify specific gender differences in risk factors that might exist among medically serious suicide attempters aged 15–54 in rural China. This was due in large part to the fact that, compared to suicide research in Western cultures, studies done in China have noted a much more elevated level of suicide among females; in fact approaching the rates of males. As a result it is essential to understand the factors that are similar and different between genders that increase the risk of suicide threat.

The present findings initially showed that when comparing to controls there does not appear to be much variation in the factors that differentiate male and female attempters from their respective controls. In fact, the risk factors that emerged are generally consistent with those

found in other suicide attempt studies in Western countries and China, including lower levels of education (Wiktorsson et al., 2010), family suicide history (Buus et al., 2014), negative life events (Weyrauch et al., 2001), less social support (Goldman-Mellor et al., 2014), greater impulsivity (Dougherty et al., 2009) and the presence of mental disorders (Kuramoto et al., 2012). However, when comparing between male and female attempters, some important distinctions did emerge.

Compared with male attempters, female attempters tended to be never married less often, more typically in peasant occupations and to hold religious belief. This is, in part, consistent with previous studies showing that marriage (Zhang, 2010) and religion (Zhang and Liu, 2012) are risk factors for female suicides in China. Further, these factors are different from findings in studies using samples from Western countries (Cutright et al., 2007; Stack, 1992). In the traditional Chinese marriage relationship, which is dominant in rural China, one central social rule is that the female should be subordinate to the male. Still today, females are also expected to obey their husbands in also need to obey their husbands in many Chinese rural families. This lack of control and individual social identity may heighten the risk for psychological problems such as stress, hopelessness, or depression which could then subsequently increase risk for suicide among these females. Further, in traditional Chinese culture religious beliefs are considered to be deviant (Liu et al., 2011). Given that females are more prone to hold religious beliefs, they may feel a stigma from this belief system. Subsequently, they may be treated differently than those without religious beliefs, which may increase negative emotions and self-evaluations or esteem, thus increasing the risk of suicide. This would be consistent with other research that has shown a strong relationship between greater degree of religiosity and suicide intent among Chinese women (Zhang and Xu, 2007).

Another factor that was found to differ across gender in the present study was the degree of perceived social support. Overall female attempters generally reported lower levels of social support than did male attempters. This relationship might also be due to the relative lower level of social position among females in rural China discussed previously (Zhang and Liu, 2012). With a low level of status, it is possible that many women do not feel that they are supported by others in their family network and in society at large. This is consistent with other studies which have found that lower social support can elevate the risk of suicide attempts among Chinese females (Zhang and Sun, 2014).

Physical disease and a mental disorder diagnosis were both found to be greater among male attempters than female attempters. These results are consistent with the findings in the Third National Health and Nutrition Examination Survey in Unite States (US) (Zhang et al., 2005). For males, perhaps the presence of a physical disease or a mental illness may lead to elevated levels of hopelessness and depression in some cases where the disease if feared to be life threatening or the mental disorder is socially stigmatized. These may exaggerate the desire to commit suicide as an escape. It should be noted though that the percentage both physical disease and mental disorders is quite low among all attempters. The low percentage of mental disorder in Chinese suicide attempters has been discussed in previous studies (Bi et al., 2010).

Finally, gender differences emerged in the prevalence of pesticides in the suicide attempt. Pesticide use was the most common for both genders, which is why the present study only compared across gender for this method only. None the less, males were more likely to choose this method than were females. This is in line with many previous studies in Western countries that have found males to use more lethal and violent methods in suicide attempts (Callanan and Davis, 2011; Kposowa and McElvain, 2006). However, it should be noted that one study in India (another Asian country) showed that females are as likely to use lethal and violent methods as were males (Kanchan et al., 2009). This difference may be potentially explained by the accessibility of various materials used for lethal and violent suicide attempts. This study did not find pesticide at home was different between male and female cases. In rural China, pesticides are common and very easily obtained. This may be the reason why we do not find the difference between the genders. In Western countries, firearms are another often utilized lethal and violent method. However, they are illegal in China and thus difficult to obtain.

There were several limitations that should be addressed when interpreting these results. First, as a case-control study, causal inferences are difficult to justify. Second, all of the data were collected in medically serious suicide attempters, the results may not be extended to other kinds of suicide attempters. Third, the participants were interviewed within a one to six month range following the suicide attempt, so memory and recall biases may limit the accuracy of the outcomes. Finally, there was nearly a two to one ratio of interviews of females to males. This might reflect a self-selection bias among female participants to some degree. And while we cannot conclude that females are twice more likely to attempt suicide than males, it is clear that the prevalence of female suicide attempters in rural China is much higher than males. This is consistent with another study in Chinese general hospitals where more females were interviewed than males as well (Wei et al., 2013). This trend is also supported in studies in other countries as well (Bertolote et al., 2005; Borges et al., 2006), although the female suicide rates are much lower than males in Western countries (Hee Ahn et al., 2012).

Despite these limitations, the present study does help highlight risk factors that are unique between male and female medically serious suicide attempters in rural China. The results showed that male suicide attempters are associated with physical disease, mental disorder and pesticide ingestion, while female suicide attempters are associated with ever married, peasant, religious belief, and less of social support. All of those highlight that social factors do potentially play a strong role in Chinese rural female suicide attempt. Thus, it is suggested that a gender-specific approach should be emphasized in future suicide prevention.

Acknowledgments

Funding

The research was supported by the United States National Institute of Mental Health (R01 MH068560) and National Natural Science Foundation of China (71603149).

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Highlights

1. This is a study based on a large sample of attempted suicides in rural China;
2. Medically serious suicide attempters were consecutively recruited in selected emergency rooms, which ensure the validity of the sample.
3. Risk factors were compared for male and female suicide;
4. It is the first report on the comparison between male and female attempted suicide in rural China.

Table 1

Comparing the demographics and characteristics between the samples

		Mean±SD/f (%)				χ^2/t		
		Male Cases (N=293)	**Male Controls (N=293)**	**Female Cases (N=498)**	**Female Controls (N=498)**	**MCA vs MCO**	**.FCA vs. FCO**	**MCA vs. FCA**
Age	-	30.54±7.88	30.77±7.88	32.28±8.01	32.35±8.01	−0.37	−0.13	-2.98^{**}
Education years	-	7.35±2.74	9.71±3.23	6.64±3.51	8.35±3.89	-9.55^{***}	-7.29^{***}	2.97^{**}
Marital status	Never married	76 (25.9)	64 (21.8)	56 (11.2)	70 (14.1)	1.35	1.78	28.65^{***}
	Ever married	217 (74.1)	229 (78.2)	442 (88.8)	428 (85.9)			
Occupation	Peasants	103 (35.2)	76 (25.9)	319 (64.1)	268 (53.8)	5.86^{*}	10.79^{***}	61.92^{***}
	Others	190 (64.8)	217 (74.1)	179 (35.9)	230 (46.2)			
Religious belief	Yes	46 (15.7)	23 (7.8)	102 (20.5)	90 (18.1)	8.69^{**}	0.93	2.77
	No	247 (84.3)	270 (92.2)	396 (79.5)	408 (81.9)			
Physical disease	Yes	64 (21.8)	29 (9.9)	69 (13.9)	43 (8.6)	15.66^{***}	6.80^{**}	8.41^{**}
	No	229 (78.2)	264 (90.1)	429 (86.1)	455 (91.4)			
Pesticide at home	Yes	187 (63.8)	169 (57.7)	291 (58.4)	262 (52.6)	2.32	3.42	2.24
	No	106 (36.2)	124 (42.3)	207 (41.6)	236 (47.4)			
Family suicide history	Yes	26 (8.9)	6 (2.0)	30 (6.0)	7 (1.4)	13.22^{***}	14.85^{***}	2.28
	No	267 (91.1)	287 (98.0)	468 (94.0)	491 (98.6)			
Negative life events	-	1.88±1.91	0.68±1.11	1.80±1.68	0.56±0.96	9.31^{***}	14.24^{***}	0.60
Social support	-	7.94±2.31	9.56±1.73	7.52±2.07	8.82±1.82	-9.58^{***}	-10.50^{***}	2.65^{**}
Impulsivity	-	10.25±4.11	8.90±3.04	9.68±4.05	8.84±3.38	4.53^{***}	3.59^{***}	1.88
Mental disorder	Yes	69 (23.5)	14 (4.8)	82 (16.5)	8 (1.6)	42.46^{***}	66.89^{***}	6.00^{*}
	No	224 (76.5)	279 (95.2)	416 (83.5)	490 (98.4)			

Note:

*** p<0.001;

** p<0.01;

* p<0.05.

MCA=Male Cases, MCO= Male Conrols, FCA=Female Cases, FCO=Females Controls, SD=Standard Deviation.

Table 2

Comparing the male and female suicide attempters on the critical conditions

Variable		Male Cases (N=293)	Females Cases (N=498)	χ^2/t
		Mean±SD/f (%)	Mean±SD/f (%)	
Prior suicide act	Yes	32 (10.9)	53 (10.6)	0.02
	No	261 (89.1)	445 (89.4)	
Suicide intent	-	9.37±4.96	9.86±4.84	−1.38
Suicide method	Pesticide	237 (80.9)	356 (71.5)	8.69**
	Others	56 (19.1)	142 (28.5)	
	Other toxicant	10 (3.4)	31 (6.2)	
	Hanging	1 (0.3)	0 (0.0)	
	Drowning	3 (1.0)	3 (0.6)	
	Jumping	4 (1.4)	2 (0.4)	
	Overdose	27 (9.2)	73 (14.7)	
	Wrist cutting	2 (0.7)	8 (1.6)	
	Gas chamber	1 (0.3)	0 (0.0)	
	Train rails	1 (0.3)	0 (0.0)	
	Others	6 (2.1)	20 (4.0)	

Note:

** p<0.01;

SD=Standard Deviation

Table 3

Logistic regressions of risk factors on male and female suicidal attempters (OR and 95% CI)

Variable	MCA vs. MCO (N=586)	FCA vs. FCO (N=996)	MCA vs. FCA (N=791)
Age	0.99 (0.95, 1.02)	0.97 (0.94, 0.99) **	1.02 (0.99, 1.05)
Education years	0.71 (0.65, 0.78) ***	0.90 (0.85, 0.94) ***	1.04 (0.98, 1.10)
Ever married	0.53 (0.27, 1.04)	1.12 (0.64, 1.96)	0.39 (0.23, 0.67) ***
Peasants	0.97 (0.61, 1.57)	1.04 (0.72, 1.48)	0.31 (0.22, 0.43) ***
Religious belief	1.92 (0.97, 3.78)	0.86 (0.58, 1.26)	0.62 (0.41, 0.96) *
Physical disease	1.81 (0.98, 3.33)	0.84 (0.51, 1.40)	2.29 (1.50, 3.51) ***
Pesticide at home	0.89 (0.58, 1.38)	1.02 (0.75, 1.38)	1.20 (0.85, 1.69)
Family suicide history	4.30 (1.40, 13.26) *	2.93 (1.12, 7.68) *	1.73 (0.93, 3.24)
Negative life events	1.64 (1.38, 1.95) ***	2.05 (1.77, 2.38) ***	1.03 (0.94, 1.13)
Social support	0.74 (0.66, 0.82) ***	0.80 (0.74, 0.86) ***	1.10 (1.02, 1.19) *
Impulsivity	1.09 (1.03, 1.15) **	1.09 (1.04, 1.14) ***	1.02 (0.99, 1.07)
Mental disorder	2.38 (1.19, 4.77) *	7.88 (3.54, 17.55) ***	1.98 (1.29, 3.02) **
Prior suicide act	-	-	0.97 (0.57, 1.65)
Suicide intent (SIS)	-	-	0.98 (0.95, 1.02)
Pesticide method	-	-	2.47 (1.62, 3.75) ***
Constant	129.47 ***	7.29 ***	0.14 **
R^2	0.49	0.39	0.21

Note:

*** p<0.001;

** p<0.01;

* p<0.05.

MCA=Male Cases, MCO= Male Controls, FCA=Female Cases, FCO=Females Controls, OR=Odd Ratio, CI=Confidential Interval.