Published in final edited form as:

J Nerv Ment Dis. 2016 November ; 204(11): 851–854. doi:10.1097/NMD.0000000000000397.

Medically Serious Suicide Attempters with or without Plan in Rural China¹

Long Sun, Ph.D. and

Shandong University School of Public Health, Center for Suicide Prevention Research, Jinan, China

Jie Zhang, Ph.D.²

Shandong University School of Public Health, Center for Suicide Prevention Research, Jinan, China, State University of New York Buffalo State Department of Sociology, Buffalo, USA

Abstract

Although previous studies have discussed the risk factors of unplanned suicide behavior in several countries, the unplanned suicide attempt in China was not explored in a large sample. We aim to look into the characteristics of unplanned suicide attempters in China, and compare them with those suicide attempters with plans. Subjects were 791 medically serious suicide attempters aged 15–54 years in rural China. The sixth item of Beck's Suicide Intent Scale (SIS) was used to estimate the planned and unplanned suicide attempt. Logistic regression analysis was performed to examine the factors related to planned or unplanned suicide attempt. The results showed that the planned suicide attempt were associated with higher education, hopelessness and prior suicide act. The unplanned suicide attempt tend to suicide by pesticide and store pesticide at home. A ban of lethal pesticides may be a method for suicide prevention in rural China.

Keywords

Unplanned; Planned; Suicide Attempt; China

1. Introduction

Suicide is a leading cause of death in the world (WHO, 2009). There are more than 800,000 people died by suicide every year (WHO, 2014). In China, although the suicide rate is reducing in recent years (Zhang et al, 2014), it is also an important public health problem. Attempted suicide is about 20 times more frequent than completed suicide and a strong predictor for the subsequent suicide (Coryell et al, 2002; Maris et al, 2000). So, studying on suicide attempt represents one of the most important directions for suicide prevention.

The research was supported by the United States National Institute of Mental Health (NIMH): R01 MH068560.

²Correspondence should be directed to Professor Jie Zhang, Ph.D., Department of Sociology, State University of New York College at Buffalo, 1300 Elmwood Avenue, Buffalo, New York 14222, USA. Phone: 716-878-6425; FAX: 716-878-4009; zhangj@buffalostate.edu.

Conflict of interest

All the authors declare that they have no conflicts of interest.

As the complexity of suicide attempt, there are some differences among the attempters. Some of them carry out suicide behavior with little premeditation or preparation, whereas others act with a careful design and implementation. We can define them as unplanned and planned suicide attempt, respectively (Conner et al, 2007a; Kessler et al, 1999). They are two different kinds of suicide attempt which may be controlled and prevented in different ways (Conner, 2004).

In recent years, suicide attempt with or without plan has been discussed in many studies. For the percentage of unplanned suicide, the previous studies reported in a large range (Nock et al, 2008). In a Korea community sample, there were about 36.03% of attempters conducted suicide without a plan (Jeon et al, 2010). A national study in United State of America (USA) found that there were about 46.15% of attempters who conducted suicide without a plan in last one year between 2001 and 2003 (Kessler et al, 2005). However, the percentage of unplanned suicide in metropolitan China was about 57.14% in previous study (Lee et al, 2007). These imply that the unplanned suicide attempt may be more serious in China.

For the risk factors of unplanned suicide, a Korea community sample identified that the differences between planned and unplanned suicide attempt were mainly in mental diseases, such as alcohol use disorder, major depressive disorder, posttraumatic stress disorder, and bipolar disorder (Jeon et al, 2010). Another study found that the lethality of suicidal acts was associated with planned suicide attempt in major depression disorder patients (Nakagawa et al, 2009). In China, a study in completed suicides showed that the women, younger individuals, pesticides stored at home were more likely to carry out low-planned suicide (Conner et al, 2005).

Although previous studies have discussed the risk factors of unplanned suicide behavior in several countries, the unplanned suicide attempters were not explored in China in a large sample. China as one of the countries which reported high suicide rates (Phillips et al, 2002a), it is necessary to discuss because of the various differences of unplanned suicide behavior in different countries.

In the current study, we aim to look into the characteristics of Chinese unplanned suicide attempters, and compare them with those suicide attempters with plans. It is helpful for us the further understand the Chinese suicide behavior with or without plans. It can also give us some direct evidences for suicide prevention and intervention.

2. Methods

Study sample and the design

We selected two provinces in China for the study. Hunan is an agricultural province in the South China, and Shandong is a province with economic prosperity in both industry and agriculture that is located on the north of China. Thirteen rural counties were randomly selected from the two provinces.

In each of the 13 counties, suicide attempters aged 15–54 years were consecutively recruited from May 2012 through July 2013. In each of the rural counties, hospital emergency

departments were connected to notify the research teams in each province the suicide attempt victims on monthly basis. The enrollment of victims was limited only to those survivals whose injury and wounds were so serious as to require hospitalization or immediate medical care.

The interview teams were well trained for the suicide attempt study. The IRB approvals from both the Chinese institutions and the US based university where the Principal Investigator is affiliated ensured the human subjects protection and the ethical methodology regulated by the NIMH which funded the project. Informed consent was obtained from all participants of the study.

Interviewing procedures

We interviewed the participants when they had leaved hospitals because of their weakness in the hospitals. Participants were first approached by the local health agency or the village administration by a personal visit. Upon their agreement on the written informed consent, the interview time was scheduled between one and six months after suicide incident. Each participants was interviewed separately by one trained interviewer, in a private place of a village medical room or their home. For those participants who were too weak to talk, family members who were with the survivals assisted in the interview by answering some of the questions on the protocol. The average time for each interview was 1.5 hours.

Measures

The planned and unplanned suicide attempters were estimated by the sixth item from Beck's Suicide Intent Scale (SIS) (Beck et al, 1974). The item was about the active preparation for suicide. The answer can be chose from none (0), minimal to moderate (1) and extensive (2). We recoded it into unplanned (0) and planned (1) which coded by 1 or 2.

Predicting variables included age, gender, education years, marital status, occupation, living alone, religious belief, physical disease, pesticide at home, family suicide history, negative life events, hopelessness, impulsivity and mental disorders. We also estimated two suicide behavior variables about prior suicide act and suicide by pesticide.

The age ranged from 15 to 54 years in rural China. Gender was measured by male (1) and female (0). Education years were estimated by the years which the subjects were educated in school. Marital status was dichotomized as "never married (0)" and "ever married (1)" with the latter including those who were divorced, separated, or widowed. Occupation was measured by farmer (peasant), businessman, public service staff, student, factory worker, rural doctor, teacher, housewife, unemployed and others. As most responses were peasants, they were recoded to peasants (1) and not peasants (0). Living alone was measured by yes (1) and no (0). The religious belief was measured by what religion the target person believed in, and the choices were Taoism, Muslim, Christianity, Buddhism, others, and no religion. The variable of religious belief was recoded to "yes (1)" and "no (0)" with no religious belief. Physical disease was assessed with an item asking if they had any physical illness at the time of suicide act. Pesticide at home was assessed with a single item asking if any type of farming chemicals was stored at home. Family suicide history was measured by an item asking if their family members had suicide behaviors before.

A 64-item revised version of Interview for Recent Life Events (IRLE) including 19 culturally (Chinese) specific items added by the research team was used to measure the number of life events that happened in the past 12 months before suicide incidence or the interview for the controls (Paykel et al, 1971). The respondents were also asked if the mentioned life event was a positive or negative one for the target person, and only the number of negative life events (NLEs) was counted for negative life events in the analysis. The Chinese version of IRLE has been tested in previous study with a sound validation (Zhang et al, 2012).

The Beck Hopelessness Scale (BHS) has 20 items and each of them was assessed by 5 choices from 1 (strongly disagree) to 5 (strongly agree) (Beck, 1978). The total score was used in the analyses. The Chinese version of BHS has been validated with a number of Chinese samples and proved to be an excellent measure of hopelessness in China (Cheung et al, 2006; Kong et al, 2007).

Impulsivity was measured by the Dickman Impulsivity Inventory (DII) which has 23 items and each of them was assessed by 2 choices from 0 (No) to 1 (Yes) (Dickman, 1990). The Chinese version of the DII had been validated in some previous studies (Gao et al, 2011).

We used the Chinese version of the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders (SCID) (Spitzer et al, 1988) to generate diagnoses for both cases and controls. Diagnoses were made by the psychiatrists with the written information obtained by the trained interviewers for each suicide attempt. The Chinese version of the SCID was provided by the Department of Psychiatry of Kaohsiung Medical College in Taiwan (Gu et al, 1993), and permission to use the work had been obtained. This Chinese version of the SCID has been used in Chinese populations in many areas including Taiwan, Hong Kong, Macau, as well as mainland China for the past few decades (Lyu et al, 2014). A total of 27 Axis I mental diseases was detected by the SCID, and we used the dichotomous diagnosis for each of them with 1 (yes) and 0 (no).

Prior suicide act was estimated by an item which asked about the number of suicide attempts before. Any non-zero response was counted as yes. Suicide method was the primary method used for the suicide attempt. We recoded it into suicide by pesticide (1) and other methods (0).

Statistical analysis

SPSS for Windows (version 21.0) was used for data analysis. T-test or chi-square test were used to compare the differences on categorical and continuous variables across groups. Logistic regression analysis was performed to examine the factors related to planned or unplanned suicide. The variables which are significant in the bivariate analysis were chosen as the independent variables.

3. Results

Participations and single factor analysis for the samples

Table 1 shows the results of comparing the demographics and characteristics between planned and unplanned attempters. The study population comprise 791 suicide attempters. Among the suicide cases, there are 146 planned attempters (18.5%) and 645 unplanned attempters (81.5%). The differences between planned and unplanned suicide attempters are in education years ($p=0.000$), pesticide at home ($p=0.000$), negative life events ($p=0.001$), and hopelessness ($p=0.000$), prior suicide act ($p=0.000$) and suicide methods ($p=0.000$).

Logistic regression analysis

The results of logistic regression analysis are showed in Table 2. The variables (education years, occupation, pesticide at home, negative life events, hopelessness, mental disorder, prior suicide act and suicide methods) which are significant in 0.1 level in the bivariate analysis were chosen as the independent variables. We conducted the backward logistic regression. The planned suicide attempt were associated with higher education (OR=1.09), no pesticide at home (OR=0.53), hopelessness (OR=1.03), prior suicide act (OR=2.30) and suicide by other methods (OR=0.56).

4. Discussion

In the current study, we analyzed the demographic and psychometric characteristics of unplanned suicide attempt in comparison with those with suicide plan. The results showed that the planned suicide attempters were associated with higher education, hopelessness and prior suicide act. The unplanned suicide attempters tend to suicide by pesticide and store pesticide at home.

In our sample, there were only about 20% of attempters who conducted suicide with plans. Although the suicide attempters with plans were reported in a large range, they were mainly around 50% of planned attempters (Borges et al, 2006; Bromet et al, 2007). The difference may be explained by the evaluation methods. In our study, we only interviewed the suicide plans in one time suicide behavior. Previous studies about suicide plans were mainly interviewed the suicide plan in the previous time (such as life time or 12 months) (Jeon et al, 2010).

Low education level is a risk factor for suicide behavior which has been found in previous studies (Beautrais, 2000; Zhang et al, 2010a). However, it is a protective variable for suicide intent in China (Zhang et al, 2011). These imply that well educated persons who conducted suicide behavior may have higher suicide intent. They may consider and calculate things more carefully than low educated individuals, and make a plan for the completion of suicide. So education can be a risk factor for planned suicide attempt.

Hopelessness and prior suicide act are risk factors for suicide which has been identified in many studies (Minkoff et al, 1973; Phillips et al, 2002b). In our study, we further support that they can be risk factors for planned suicide attempt. Somebody who have high level hopelessness and previous suicide attempt are really willing to die by suicide (Conner et al,

2007b; Hill et al, 1988), and they have high level suicide intent. A plan can promote the death by suicide for somebody with high suicide intent. So they tend to make a plan for the suicide behavior.

We found that pesticide stored at home and suicide by pesticide were both relative to unplanned suicide attempt. Ingesting pesticide is the most common method for suicide, especially in rural China (Phillips et al, 2004). It was also commonly employed in low-planned suicides (Conner et al, 2005). These imply that the pesticide availability prompt suicide behavior more frequently, and a ban of lethal pesticides in rural areas may be a method for suicide prevention which was also found in previous studies (Hawton et al, 2009).

A large body of studies have proved that impulsivity can be a risk factor for suicide behavior (Braquehais et al, 2010; Dougherty et al, 2009). However, we did not find the difference between planned and unplanned suicide attempt. The similar results were also found in previous studies (Baca-Garcia et al, 2005; Wyder et al, 2007). Although the suicide attempters have high level impulsivity, the impulsivity do not promote the attempters to make plans for the suicide behavior. It may be caused by the multi-dimensional of the impulsivity, such as functional and dysfunctional impulsivity (Nakagawa et al, 2009).

Mental disorder is another well-known risk factor for suicide. However, China is one of the countries which report the low prevalence of mental disorder in suicide (Zhang et al, 2010b). In this study, we found that the prevalence of mental disorder was only about 20% in suicide attempters. This may be a reason why mental disorder was not significant in our study. The other reason may be the effect of hopelessness between mental disorder and suicide (Zhang et al, 2013).

There are some limitations which should be addressed when interpreting these results. Firstly, as a cross-sectional study, we cannot infer any causal relationship based on the results. Secondly, the subjects were interviewed in one to six months after the suicide incident, so the recalling bias can be a problem for the accuracy of the data. Finally, the planned and unplanned suicide attempt were estimated by one item from SIS. It is not a formal measure.

Despite these limitations, the study is also helpful for us to understanding the characteristics of planned and unplanned suicide attempt. The results support that the planned suicide attempt are associated with higher education, hopelessness and prior suicide act. The unplanned suicide attempt are associated with suicide by pesticide and pesticide stored at home. A ban of lethal pesticides may be a good method for suicide prevention in rural China.

Acknowledgments

Role of the funding source

The US NIMH funded this project but had no role in study design, data collection, data analyses, data interpretation, or the writing of the paper.

References

- Baca-Garcia E, Diaz-Sastre C, Garcia Resa E, Blasco H, Braquehais Conesa D, Oquendo MA, Saiz-Ruiz J, de Leon J. Suicide attempts and impulsivity. *Eur. Arch. Psychiatry Clin. Neurosci.* 2005; 255:152–156. [PubMed: 15549343]
- Beautrais AL. Risk factors for suicide and attempted suicide among young people. *Aust. N. Z. J. Psychiatry.* 2000; 34:420–436. [PubMed: 10881966]
- Beck, AT. Beck Hopeless Scale. San Antonio, TX: Psychological Corporation; 1978.
- Beck, AT.; Schuyler, D.; Herman, I. Development of suicidal intent scales. In: Beck, AT.; Resnik, HL.; Lettieri, DJ., editors. *The prediction of suicide*. Vol. xii. Oxford, England: Charles Press Publishers; 1974.
- Borges G, Angst J, Nock MK, Ruscio AM, Walters EE, Kessler RC. A risk index for 12-month suicide attempts in the National Comorbidity Survey Replication (NCS-R). *Psychol. Med.* 2006; 36:1747–1757. [PubMed: 16938149]
- Braquehais MD, Oquendo MA, Baca-Garcia E, Sher L. Is impulsivity a link between childhood abuse and suicide? *Compr. Psychiatry.* 2010; 51:121–129. [PubMed: 20152291]
- Bromet EJ, Havenaar JM, Tintle N, Kostyuchenko S, Kotov R, Gluzman S. Suicide ideation, plans and attempts in Ukraine: findings from the Ukraine World Mental Health Survey. *Psychol. Med.* 2007; 37:807–819. [PubMed: 17288636]
- Cheung YB, Law CK, Chan B, Liu KY, Yip PSF. Suicidal ideation and suicidal attempts in a population-based study of Chinese people: risk attributable to hopelessness, depression, and social factors. *J. Affect. Disord.* 2006; 90:193–199. [PubMed: 16406046]
- Conner KR. A call for research on planned vs. unplanned suicidal behavior. *Suicide Life Threat. Behav.* 2004; 34:89–98. [PubMed: 15191266]
- Conner KR, Hesselbrock VM, Meldrum SC, Schuckit MA, Bucholz KK, Gamble SA, Wines JDJ, Kramer J. Transitions to correlates of suicidal ideation, plans, and unplanned and planned suicide attempts among 3,729 men and women with alcohol dependence. *J Stud Alcohol Drugs.* 2007a; 68:654–662. [PubMed: 17690798]
- Conner KR, Phillips MR, Meldrum S, Knox KL, Zhang YP, Yang GH. Low-planned suicides in China. *Psychol. Med.* 2005; 35:1197–1204. [PubMed: 16116945]
- Conner KR, Phillips MR, Meldrum SC. Predictors of low-intent and high-intent suicide attempts in rural China. *Am. J. Public Health.* 2007b; 97:1842–1846. [PubMed: 17395838]
- Coryell W, Haley J, Endicott J, Solomon D, Leon AC, Keller M, Turvey C, Maser JD, Mueller T. The prospectively observed course of illness among depressed patients who commit suicide. *Acta Psychiatr. Scand.* 2002; 105:218–223. [PubMed: 11939976]
- Dickman SJ. Functional and dysfunctional impulsivity. *J. Pers. Soc. Psychol.* 1990; 58:95–102. [PubMed: 2308076]
- Dougherty DM, Mathias CW, Marsh-Richard DM, Preetve KN, Dawes MA, Hatzis ES, Palmes G, Nouvion SO. Impulsivity and clinical symptoms among adolescents with non-suicidal self-injury with or without attempted suicide. *Psychiatry Res.* 2009; 169:22–27. [PubMed: 19631392]
- Gao Q, Zhang J, Jia C. Psychometric properties of the Dickman Impulsivity Instrument in suicide victims and living controls of rural China. *J. Affect. Disord.* 2011; 132:368–374. [PubMed: 21440306]
- Gu, J.; Chen, Y. *Instruction Manual for the Structured Clinical Interview for DSM-III-R (Chinese Edition)*. Kaohsiung: Kaohsiung Medical College, Taiwan; 1993.
- Hawton K, Ratnayake L, Simkin S, Harriss L, Scott V. Evaluation of acceptability and use of lockable storage devices for pesticides in Sri Lanka that might assist in prevention of self-poisoning. *BMC public health.* 2009; 9:69. [PubMed: 19239714]
- Hill RD, Gallagher D, Thompson LW, Ishida T. Hopelessness as a measure of suicide intent in the depressed elderly. *Psychol. Aging.* 1988; 3:230–232. [PubMed: 3268263]
- Jeon HJ, Lee J-Y, Lee YM, Hong JP, Won S-H, Cho S-J, Kim J-Y, Chang SM, Lee HW, Cho MJ. Unplanned versus planned suicide attempters, precipitants, methods, and an association with mental disorders in a Korea-based community sample. *J. Affect. Disord.* 2010; 127:274–280. [PubMed: 20591495]

- Kessler RC, Berglund P, Borges G, Nock M, Wang PS. Trends in suicide ideation, plans, gestures, and attempts in the United States, 1990–1992 to 2001–2003. *Jama*. 2005; 293:2487–2495. [PubMed: 15914749]
- Kessler RC, Borges G, Walters EE. Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Archives of general psychiatry*. 1999; 56:617–626. [PubMed: 10401507]
- Kong YY, Zhang J, Jia SH, Zhou L. Reliability and Validity of the Beck Hopelessness Scale for Adolescents. *Chinese Mental Health Journal*. 2007; 21:686–689.
- Lee S, Fung SC, Tsang A, Liu ZR, Huang YQ, He YL, Zhang MY, Shen YC, Nock MK, Kessler RC. Lifetime prevalence of suicide ideation, plan, and attempt in metropolitan China. *Acta Psychiatr. Scand*. 2007; 116:429–437. [PubMed: 17997722]
- Lyu J, Zhang J. Characteristics of schizophrenia suicides compared with suicides by other diagnosed psychiatric disorders and those without a psychiatric disorder. *Schizophr. Res*. 2014; 155:59–65. [PubMed: 24657011]
- Maris, RW.; Berman, AL.; Silverman, MM. *Comprehensive Textbook of Suicidology*. New York: The Guilford Press; 2000.
- Minkoff K, Bergman E, Beck AT, Beck R. Hopelessness, depression and attempted suicide. *Am. J. Psychiatry*. 1973; 130:455–459. [PubMed: 4691303]
- Nakagawa A, Grunebaum MF, Oquendo MA, Burke AK, Kashima H, Mann JJ. Clinical correlates of planned, more lethal suicide attempts in major depressive disorder. *J. Affect. Disord*. 2009; 112:237–42. [PubMed: 18485486]
- Nock MK, Borges G, Bromet EJ, Cha CB, Kessler RC, Lee S. Suicide and suicidal behavior. *Epidemiologic reviews*. 2008; 30:133–154. [PubMed: 18653727]
- Paykel ES, Prusoff BA, Uhlenhuth EH. Scaling of life events. *Archives of general psychiatry*. 1971; 25:340–347. [PubMed: 5116988]
- Phillips MR, Li X, Zhang Y. Suicide rates in China, 1995–99. *The Lancet*. 2002a; 359:835–840.
- Phillips MR, Yang G, Zhang Y, Wang L, Ji H, Zhou M. Risk factors for suicide in China: a national case-control psychological autopsy study. *The Lancet*. 2002b; 360:1728–1736.
- Phillips MR, Yang GH. Suicide and attempted suicide in China, 1990–2002. *MMWR*. 2004; 53:481–484. [PubMed: 15190245]
- Spitzer, RL.; Williams, JBW.; Gibbon, M.; First, MB. *Instruction Manual for the Structured Clinical Interview for DSM-III-R (SCID, 6/1/88 Revision)*. New York: Biometrics Research Department, New York State Psychiatric Institute; 1988.
- WHO. Preventing suicide: A global imperative. Geneva: 2014.
- WHO. Mental Health. World Health Organisation; 2009. Suicide Prevention (SUPRE).
- Wyder M, De Leo D. Behind impulsive suicide attempts: indications from a community study. *J. Affect. Disord*. 2007; 104:167–173. [PubMed: 17397934]
- Zhang J, Jia CX. Suicidal Intent Among Young Suicides in Rural China. *Arch Suicide Res*. 2011; 15:127–139. [PubMed: 21541859]
- Zhang J, Li Z. The association between depression and suicide when hopelessness is controlled for. *Compr. Psychiatry*. 2013; 54:790–796. [PubMed: 23602028]
- Zhang J, Ma Z. Patterns of life events preceding the suicide in rural young Chinese: A case control study. *J. Affect. Disord*. 2012; 140:161–167. [PubMed: 22595373]
- Zhang J, Sun L, Liu Y, Zhang J. The Change in Suicide Rates between 2002 and 2011 in China. *Suicide Life Threat. Behav*. 2014; 44:560–568. [PubMed: 24690079]
- Zhang J, Wiecek WF, Conwell Y, Tu XM, Wu BYW, Xiao S, Jia CX. Characteristics of young rural Chinese suicides: a psychological autopsy study. *Psychol. Med*. 2010a; 40:581–589. [PubMed: 19656428]
- Zhang J, Xiao S, Zhou L. Mental disorders and suicide among young rural Chinese: a case-control psychological autopsy study. *Am. J. Psychiatry*. 2010b; 167:773–781. [PubMed: 20395398]

Table 1
Comparing the characteristics between planned and unplanned attempters (N=791)

Variables	Mean±SD/f (%)		χ^2/t	p
	Planned Attempters (n=146)	Unplanned Attempters (n=645)		
Age	31.53±7.54	31.69±8.14	-0.21	0.830
Gender	Male	237 (36.7)	0.13	0.716
	Female	408 (63.3)		
Education years	7.80±3.10	6.70±3.27	3.71	0.000
Marital status	Never married	110 (17.1)	0.34	0.561
	Ever married	535 (82.9)		
Occupation	Peasants	354 (54.9)	3.30	0.069
	Not peasants	291 (45.1)		
Living alone	Yes	10 (6.8)	2.49	0.115
	No	136 (93.2)		
Religious belief	Yes	32 (21.9)	1.21	0.271
	No	114 (78.1)		
Physical disease	Yes	31 (21.2)	2.50	0.114
	No	115 (78.8)		
Pesticide at home	Yes	82 (56.2)	20.62	0.000
	No	64 (43.8)		
Family suicide history	Yes	9 (6.2)	0.23	0.633
	No	137 (93.8)		
Negative life events	2.25±2.10	1.73±1.67	3.19	0.001
Hopelessness	60.36±14.04	52.03±15.24	6.05	0.000
Impulsivity	10.27±4.46	9.81±3.99	1.25	0.213
Mental disorder	Yes	35 (24.0)	2.76	0.096
	No	111 (76.0)		
Prior suicide act	Yes	26 (17.8)	17.82	0.000
	No	120 (82.2)		
Suicide methods	Pesticide	518 (80.3)	32.07	0.000
		85 (58.2)		

Variables	Mean±SD/f (%)		χ^2/t	<i>p</i>
	Planned Attempters (n=146)	Unplanned Attempters (n=645)		
	61 (41.8)	127 (19.7)		
	Others			

Table 2

Logistic regression for the factors on planned and unplanned attempters (N=791)

Variables	OR	95% CI		p
		Lower	Upper	
Education years	1.09	1.02	1.15	0.008
Pesticide at home	0.53	0.35	0.79	0.002
Hopelessness	1.03	1.02	1.05	0.000
Prior suicide act	2.30	1.29	4.08	0.005
Suicide by Pesticide	0.56	0.37	0.86	0.008
Constant	0.04			0.000
R ²	0.16			

Note: Backward regression was used in the regression.

CI=Confidence Interval.