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Research report

When aspiration fails: A study of its effect on mental disorder and suicide risk

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ABSTRACT

Background: The Strain Theory of Suicide postulates that psychological strains usually precede suicide mental disorders including suicidal behavior. The four sources of strain are basically (1) differential value conflicts, (2) discrepancies between aspiration and reality, (3) relative deprivation, and (4) lack of coping skills. This paper focuses on the effect of perceived failed life aspiration on the individual's mental disorder and suicide risk.

Method: Data for this study were from a large psychological autopsy study conducted in rural China, where 392 suicides and 416 community living controls were consecutively recruited. Two informants (a family member and a close friend) were interviewed for each suicide and each control. Major depression was assessed with HAM-D and the diagnosis of mental disorder was made with SCID.

Results: It was found that individuals having experienced failed aspiration were significantly more likely than those having not experienced a failed aspiration to be diagnosed with at least one disorder measured by the SCID and major depression measured by HAM-D, and to be a suicide victim, which is true of both suicides and controls.

Conclusion: This study supports the hypothesis that the discrepancies between an individual's aspiration and the reality is likely to lead to mental disorder including major depression and suicidal behavior. Lowering a patient's unrealistic aspiration can be part of the of psychological strains reduction strategies in cognitive therapies by clinicians' and mental health professionals.

1. Introduction

In etiological studies of suicide, theories of causes and strategies for the prevention range from social structure to individual characteristics. It has been argued that suicide prevention is more effective through such treatment as psychotherapy than by dealing with social structure and culture issues (Tidemalm et al., 2005). Therefore, the individual intervention for those at high risk of suicide has been mostly on psychiatric treatment (American Psychiatric Association, 2003). As the Strain Theory of Suicide has emerged with empirical evidence and psychological strain as a strong correlate that usually precedes suicidal behaviors (Zhang, 2005; Zhang et al., 2009, 2011), it is imperative to test effects of psychological strains on suicidal behaviors, so as to develop some psychological treatment measures to reduce the risk of suicide.

The Strain Theory of Suicide postulates that psychological strains usually precede suicide and mental disorders including suicidal behavior. The four sources of strain are basically (1) differential value conflicts, (2) discrepancies between aspiration and reality, (3) relative deprivation, and (4) lack of coping skills (Zhang and Lester, 2008). Strain is not simply a stress. A strain is a consequence of two conflicting stresses that are working at the same time on an individual and can lead to frustration, which may not be the result of a simple and mono-directional stress (Zhang et al., 2009).

There is a lack of studies so far that address the relationship between psychological strains and mental disorders. It is hypothesized that, as a co-morbidity of suicidal symptomatology, mental disorders, especially the major depression, can be preceded by psychological strains. O'Connor et al., 2012 studied 237 patients hospitalized following a suicide attempt who completed a range of clinical (depression, anxiety, hopelessness, and suicidal ideation) and goal regulation measures (goal reengagement and disengagement) while in hospital, and found that suicidal behavior is usefully conceptualized in terms of goal self-regulation following

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the experience of unattainable goals. They suggested that treatment interventions should target the self-regulation of goals among suicide attempters and clinicians should recognize that different regulation processes need to be addressed at different points across the lifespan (O'Connor et al., 2012). This current study focuses on the effect of the failed aspiration (the increased discrepancy between aspiration and reality) on mental disorders among a group of suicides and their community living counterparts from a large psychological autopsy study in rural China.

2. Methods

2.1. Samples

The samples included men and women aged 15–34 years in rural China. We used established psychological autopsy methods and a case-control design to investigate the risk factors, mental disorders, and psychological strains of rural young suicides. Samples were from three provinces in China. Liaoning is basically an industrial province located in Northeast China, Hunan an agricultural province in the Central South China, and Shandong a province with economic prosperity in both industry and agriculture and located on the east coast of China in the middle way of Liaoning and Hunan. The three provinces have been selected for the study because of their geographical locations and comparative representation of the Chinese populations. Sixteen rural counties were randomly selected from the three provinces (six from Liaoning, five from Hunan, and five from Shandong). In each of the 16 counties, suicides aged 15–34 were consecutively recruited from October 2005 through June 2008. Similar numbers of community living controls were recruited in the same counties about the same time periods. After successful interviews with the informants of the suicides, a total number of 392 suicide cases were entered for the study. Among the 392 suicides 178 were female and 214 male.

In each of the 16 counties, a project coordinator from the county level Center for Disease Control and Prevention (CDC) monitored suicide occurrences. In each of the three provinces, a project director from the provincial CDC or the university the study was affiliated with requested reports on suicide cases about each month.

The community living control group was a random sample stratified by age range and county. In each province, we used the 2005 census database of the counties in our research. For each suicide, we utilized the database of the county where the deceased lived to randomly select a living control in the same age range (i.e. 15–34). As to gender, the random selection of controls aged 15–34 from each county database yielded approximately 50% of males and 50% of females, which also approximated the gender distribution of suicide cases in the study. The control sample did not exclude individuals who had been diagnosed with mental disorders or previous suicide attempts. Following are specific sampling methods for suicide cases and living controls.

2.2. Psychological autopsy

Established by Robins and colleagues in 1959, The method of psychological autopsy (PA) is a data collection approach in suicide research as the means for obtaining comprehensive retrospective information about victims of completed suicide (Beskow et al., 1990; Robin et al., 1959). A variety of sources of information are used in PA studies, including evidence presented at inquest, medical records, and information from general practitioners, and hospital clinicians. The most important source, however, is interview of relatives and other key informants. A major concern of the method is the validity of the proxy responses that are supposed to accurately represent what the dead would have responded. However, the best indicator of the reliability and validity of the method is provided by the consistency of findings across PA studies (Brent et al., 1988). Kraemer et al., 2003 developed a model of informant selection that chooses the right informants based on conceptualizing the most relevant contexts and perspectives.

Regardless of the challenges, PA may be the only cost-effective way to study suicide victims. PA is particularly critical in studying Chinese completed suicide because of two other culture-specific reasons: (1) there is not yet in today's China a sophisticated medical examination system that could help find the causes of a non-criminal death, and (2) there is no established mental health or hospital system, especially in the rural areas, that could let us know the victims' health problems recorded prior to the completed suicide.

This research team first piloted the PA method to collect suicide data in rural China in 2001–2002. Both the culture feasibility of the protocol and the validity of the instruments were proved appropriate in Chinese societies (Zhang et al., 2003, 2002). This current study is based on the data collected in a large scale PA study conducted from October 2005 to June 2008.

2.3. Information sources

For each suicide and each control, we interviewed at least two informants, a family member and a close friend. Informants 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 2 and 6 months after the suicide. Interviews with informants regarding living controls were scheduled as soon as the control targets and their informants were identified. Each informant was interviewed separately by one trained interviewer, in a private place of the hospital or the informant's home. We used tape-recording whenever accepted by the interviewee. The average time for each interview was 2.5 h.

Inter-rater reliability was established and maintained by limiting the principle data gathering role to the 24 trained clinical interviewers and by comparison of duplicate ratings of the interviewers on a regular basis. The same interviewers participated in data collection for both case and control samples, promoting inter-rater reliability across that study boundary.

2.4. Measurements

For this study, one dependent variable of the analyses is dichotomous for the case-control status: suicide and living control. Other two dependent variables are major depression measured by HAM-D and mental disorder measured by the SCID. The risk factors under this study included age, gender, marital status, education, family annual income, negative life events, and the strain resulted from the discrepancy between perceived reality and aspiration.

Both age and education were measured by the number of years. Marital status was recoded into never married and ever married. The category of ever married included the currently married and living together, currently married but separated because of work, remarried, divorced, widowed and those non-married couples who lived together. We did not further identify subgroups for the ever married people because of the lack of observations in the divorced and the widowed. The family annual income was measured by Chinese Renminbi (RMB), and the exchange rate of RMB to the US dollars was about 7.5 RMB to 1 US dollars at the time of our study in China. The life event measures were based on the Paykel's Interview for Recent Life Events (Paykel et al., 1971)