Journal of Affective Disorders 150 (2013) 540–545

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Preliminary communication

Social support as a protective factor in suicide: Findings from two nationally representative samples

Evan M. Kleiman [a,*], Richard T. Liu [b]

[a] Department of Psychology, George Mason University, Mail Stop 3F5, Fairfax, VA 22030, USA
[b] Department of Psychiatry and Human Behavior, Brown University Alpert Medical School, Providence, RI, USA

ARTICLE INFO

Article history:
Received 5 September 2012
Accepted 28 January 2013
Available online 5 March 2013

Keywords:
Suicide
Social support
Resiliency
Epidemiological study
National comorbidity study
Adult psychiatric morbidity study

ABSTRACT

Background: Suicide is a problem of worldwide concern and research on possible protective factors is needed. We explored the role of social support as one such factor. Specifically, we hypothesized that increased social support would be associated with decreased likelihood of a lifetime suicide attempt in two nationally representative samples as well as a high-risk subsample.
Methods: We analyzed the relationship between social support and lifetime history of a suicide attempt, controlling for a variety of related psychopathology and demographic variables, in the National Comorbidity Study Replication (NCS-R), a United States sample and the Adult Psychiatric Morbidity Study (APMS), an English sample.
Results: Results indicate that social support is associated with decreased likelihood of a lifetime suicide attempt controlling for a variety of related predictors in both the full US sample (OR=0.68, $p<.001$) and the full English sample (OR=0.93, $p<.01$).
Limitations: The cross-sectional data do not allow true cause and effect analyses.
Conclusions: Our findings suggest social support is associated with decreased likelihood of a lifetime suicide attempt. Social support is a highly modifiable factor that can be used to improve existing suicide prevention programs worldwide.

1. Social support as a protective factor in suicide: two studies from American and English nationally representative samples

Suicide is a problem of great concern worldwide. For example, among all age groups it is the tenth leading cause of death in the United States (Centers for Disease Control and Prevention, 2012) and the fifth leading cause of death in England and Wales (Office for National Statistics, 2012). Moreover, it is the number one preventable (non-accidental) cause of death in some age groups in these countries. Furthermore, suicide currently represents 1.8% of the total worldwide burden of disease (World Health Organization, 2007). Given these statistics, it is imperative that considerable resources be dedicated to the identification of risk and resiliency/protective factors for suicide. Indeed, there has been a growing body of literature on risk factors for suicide (Nock et al., 2008b). In contrast, there has been far less research on the role of protective factors in suicide and researchers have noted the great need for further research (Prinstein, 2008; Vijayakumar, 2004). Brent (2011) cites that suicide researchers' primary focus on risk, rather than resilience, has led to sub-optimally effective suicide interventions and that one way to increase the efficacy of such interventions is through greater knowledge of resiliency factors.

One potential resiliency factor that warrants consideration is social support. Social support is anything that leads someone to "believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations" (Cobb, 1976, p. 300). Previous studies provide initial evidence that social support may confer resiliency to suicide ideation. Some find that social support is directly associated with lower occurrence of suicide ideation (Chioqueta and Stiles, 2007), while others find that social support is protective against suicide in the presence of risk factors such as negative life events (Meadows et al., 2005; Yang and Clum, 1994). Furthermore, other studies find that social support works indirectly to reduce suicide by increasing other protective factors such as self-esteem (Kleiman and Riskind, in press). In addition to the empirical evidence that social support may be a protective factor in suicide, there is strong theoretical support as well. For example, the presence of social support may increase feelings of belongingness, which is negatively associated with suicide risk within Joiner's Interpersonal Theory of Suicide (Joiner, 2005; Joiner et al., 2009; Van Orden et al., 2010). Social support may also mean the presence of others that can help individuals cope with stressful events and difficulties associated with psychopathology, which may reduce risk for suicide.

* Corresponding author. Tel.: +1 2153596148; fax: +1 703 993 1359.
E-mail address: Ekleiman1@gmail.com (E.M. Kleiman).

0165-0327/$ - see front matter © 2013 Elsevier B.V. All rights reserved.
http://dx.doi.org/10.1016/j.jad.2013.01.033

Regardless of modality or mechanism, there is general agreement among the empirical and theoretical literature that the presence of social support is related to increased resiliency to suicide. Despite the growing literature, there are several gaps that remain unaddressed. First, of the previous studies addressing social support as a protective factor in adult suicide, most studies have not examined suicide attempter status as an outcome variable. Rather, these studies typically examine suicide ideation as an outcome variable. Approximately one third of ideators eventually transition to a suicide attempt (Nock et al., 2008a), meaning most people with thoughts of suicide will likely not attempt suicide in their lifetime. Thus, caution should be exercised in generalizing findings regarding protective factors for suicide ideation to actual attempts. Research is needed that examines actual suicide attempts rather than ideation. Thus, the primary goal of the present studies was to examine social support as a predictor of actual attempts.

A second issue in the current adult literature is that many previous studies typically use undergraduate samples. Although these studies provide some initial evidence for the value of social support as a protective factor in suicide, replication in a representative general community sample is needed to support the generalizability of the findings in college students to larger populations. Given the need for studies in representative samples, we examine social support using nationally representative samples.

Additionally, a third issue is that the extant research on suicide resiliency has been primarily conducted in North American samples. This limits generalizability to other cultures. Although there is some evidence for the universality of risk factors across cultures (Vijayakumar and Rajkumar, 1999), research is needed on the universality of resiliency factors. Furthermore, researchers note the need to examine multiple cultures in the study of suicide reliance and prevention (Goldston et al., 2008). Thus, it is imperative to examine protective factors within the context of multiple cultures. To this end, we tested the role of social support as a protective factor in suicide in two nationally representative datasets drawn from different countries. The first, the National Comorbidity Study, Replication (NCS-R) is a nationally representative sample of adults of age 18–54 in the United States. The second sample, the Adult Psychiatric Morbidity Survey (APMS; McManus, Meltzer et al., 2009) is a nationally representative sample of participants aged 16–95.

Taken together, the goal of the present studies was to examine social support as a protective factor in suicide. We hypothesize that greater social support will be associated with lower likelihood of a lifetime suicide attempt. In study 1 we examined social support as a predictor of lifetime suicide attempts in a US nationally representative sample. Finally, in study 2 we replicate the findings of study 1 in a nationally representative sample from England in an attempt to examine cross-national universality of the protective nature of social support. In both studies we provide a stringent test of our hypothesis by covarying a variety of related covariates, such as psychiatric and developmental history variables. Having a significant finding despite the relevant covarites will help demonstrate that the study findings are not due to spurious factors.

Study 1: Social support as a protective factor in suicide in a US nationally-representative sample.

2. Method

2.1. Participants

Data for the study come from the National Comorbidity Study-Replication (NCS-R; Kessler et al., 2004a, 2004b, 2004c), a United States nationally representative sample conducted between 2001 and 2003 of English speaking residents over the age of 17. Weighting procedures for the study data were used according to the guidelines of Kessler et al., 2004a,2004b, 2004c. Of the participants, 4.1% had attempted suicide at some point in their lifetimes. The ethnic composition of the sample was 73.2% Caucasian, 11.0% African American, 7.2% Mexican/other Hispanic, 2.1% Asian, and the rest were of another ethnicity. Further information about the NCS-R data and weighting procedures can be found elsewhere (e.g., Kessler et al., 2004a, 2004b, 2004c).

2.2. Variables

2.2.1. Psychiatric history

Presence of DSM-IV diagnosis of psychiatric disorders was determined using the third edition of the World Health Organization Composite International Diagnostic Interview (CIDI; Kessler et al., 2004a, 2004b, 2004c). Diagnoses from the CIDI have been found to be consistent with diagnoses in clinical diagnostic interviews such as the Structured Clinical Interview for DSM-IV (Kessler et al., 2004a, 2004b, 2004c).

2.2.2. Family of origin variables

Participants were asked if either of their parents died or if their parents divorced before participants turned 15. Parental divorce (Gould et al., 1998) and death of a parent (Brent et al., 1993) have been linked to increased risk for suicide and were thus included as relevant predictors of risk. Maternal and paternal suicides were also recorded.

2.2.3. Help-seeking behaviors

Participants were asked if they had engaged in help seeking behaviors such as calling a crisis hotline or sought treatment from a mental health provider.

2.2.4. Social support

An overall social support score was created from an average of eight items on 1 (not at all) to 5 (a lot) scale[1] that assessed perceived support from friends and family. Items include "how much can you rely on relatives who do not live with you for help if you have a serious problem?" and "how much can you open up to your friends if you need to talk about your worries". This scale had good acceptable consistency (alpha=.72) and appeared to be relatively normally distributed (M=3.24, SD=0.74, skewness=−0.44).

2.2.5. Suicidal behavior

NCS-R participants were first asked if they had ever attempted suicide in their lifetime. Interviewers asked participants if they had ever had "experience C" and were then given a card that said "you attempted suicide". This was to avoid the decreased rate of responding associated with interviewer over self-report of embarrassing topics such as suicidality (Turner et al., 1998). Participants who reported they had attempted suicide were coded as 1, and participants who did not report attempting suicide were coded as 0.

2.2.6. Data analytic strategy

Given that suicide attempt status is a yes/no binary outcome, we tested our hypothesis using a multivariate binary logistic regression in SPSS version 20.0. We tested the relationship between social support and lifetime suicide attempts with each set of relevant covariates entered in separate blocks. These blocks included demographics (e.g. age and gender), psychiatric history (e.g. alcohol dependence and diagnosis of depression), family of origin variables (e.g. parental suicide attempt or divorce during

[1] In the NCS-R data, the social support questions were originally coded so 1=a lot and 4=not at all. Items were recoded in the present study such that higher scores reflect more social support, which facilitated interpretation of the results.