Social Problem Solving and Suicide Ideation and Attempts: Ethnic Differences in the Moderating Effects of Loneliness and Life Stress

Julia Lehmann¹, E.C. Chang, Ph.D.², E.L. Jeglic, Ph.D.³, & Jameson K. Hirsch¹, Ph.D.
East Tennessee State University, Department of Psychology¹
Department of Psychology, University of Michigan²
Department of Psychology, John Jay College of Criminal Justice, CUNY³

ABSTRACT

• Suicide is associated with decreased social problem solving ability; this relationship may be moderated by life events and social support. In 385 ethnically-diverse college students, loneliness moderated the association between social problem solving and lifetime self-harm and suicide ideation occurring in the last year. Ethnic differences in moderation occurred. Targeting loneliness and increasing social support may enhance problem solving ability, even in the context of stressors. Our findings have implications for the development of ethnicity-specific suicide intervention strategies.

INTRODUCTION

• Young persons comprise 12.6% of all suicide deaths, and suicide is the 2nd leading cause of death among college students (Heron, 2009; US PHS, 1999).
• Suicide rates often differ between ethnic and racial groups, suggesting the existence of ethnicity-specific risk and protective factors for suicide (Oquendo et al., 2001; Vanderwerker et al., 2007).
• Generally, risk for suicidal thoughts and behavior can be partially attributed to the occurrence of stressful or potentially traumatic life events and poor social support (Krai et al., 2005; Heikkinen et al., 2004).
• Loneliness & low social support predict poor psychological health, including depression and suicidal thoughts and attempts (Stice, et al., 2004; Travis, et al., 2004), whereas an adequate social network may mitigate adverse effects of stress (Plant, et al., 2004), promoting mental well-being (Flannery & Wieman, 1989).
• Suicide vulnerability may also result from complex interactions between situational factors, such as stressors and support systems, and ability to successfully resolve problematic life-situations (Yang & Clum, 1994).
• The successful application of problem-solving strategies may depend on stress intensity and degree of loneliness perceived (Nezu et al., 1985).
• Importantly, the cognitive, emotional and interpersonal processes that comprise social problem-solving may differ as a function of culture (Berg & Jaya, 1993).

HYPOTHESES

• We hypothesized that social problem-solving would be associated with suicide ideation and history of suicide attempt, and that loneliness and life stress would moderate this relationship.
• In exploratory analyses, we examined potential ethnic differences in moderation effects.

METHODS

Participants: Urban college students (NYC)
• N=385; 69% female
• Mean age 19.61 (SD=3.12)
• Ethnicity: 41% Hispanic, 25% Black, 18% White, 6% Asian

Measures:
• Social Problem-Solving Inventory – Revised [25-item Short Form] (D’zurilla et al., 2002).
• UCLA Loneliness Scale (Russell, 1996).
• Life Events Checklist for College Students [LECCS] (Tomoda, 1997).
• Suicidal Behaviors Questionnaire [SBQ] (Osman et al., 2001).

ANALYSES

• Bivariate correlations
• Multivariate, hierarchical linear and logistic regressions, covarying age and gender.
• Two-tailed analyses; Alpha set at .05

RESULTS

Frequencies:
• Past suicide ideation or attempts: 118 (31%)
• Suicide ideation in past year: 89 (23%)
• Past suicide attempt: 42 (11%)

Ethnic Differences in Variables:
• Asians report significantly more loneliness than Hispanics (p<.05); trend toward more loneliness (p=.07), ideation & attempts (p=.07) than Whites.
• For Blacks, trend toward greater social problem-solving ability than Asians (p=.08).

Correlations:
• Social problem solving associated with reduced life stress (-.23, p<.01), loneliness (-.45, p<.01), self-harm (-.30, p<.01), & last-year ideation (-.36, p<.01).
• Loneliness was significantly positively associated with suicide ideation and attempts (.41, p<.01) and suicide ideation in last year (.43, p<.01).
• Life stress associated with suicide ideation & attempts (.14, p<.01) and past-year suicide ideation (.10, p<.01).

Regression Analyses:
• Model I [All Participants]: Loneliness moderated association between social problem solving (p<.001) and self-harm severity and past-year ideation (p<.01).
• Model II [Ethnically-Stratified]:
  • Hispanic – Loneliness predicted self-harm and ideation in past year; No moderating effects.
  • Black – Loneliness moderated problem solving and self-harm (p<.001), last-year ideation (p<.05).
  • Asian – Loneliness moderated problem solving and suicide ideation in past year (p<.05).

DISCUSSION

• We examined moderating effect of loneliness and life stress on the association between social problem solving and self-harm in an ethnically diverse sample.
• For all participants, regardless of ethnicity, ability to successfully resolve social and interpersonal dilemmas may be predicated on level of perceived loneliness, rather than on the experience of stressful life events.
• Individuals with poor social problem solving skills, who are also lonely, are at greater risk for self harm than less lonely persons. As problem solving ability increases, severity of self harm decreases for the lonely, but increases slightly for the non-lonely.
• Individuals with low social problem solving ability, who were also lonely, contemplated suicide more in the past year than did non-lonely individuals; however, as social problem solving increased, suicidal ideation decreased for both lonely and non-lonely individuals.
• Our findings suggest that, in the context of social problem solving activity, it is perceived loneliness that affects whether or not a person is suicidal, rather than the experience of stressful life events.
• The importance of stressful life events for self harm, when included in analyses with loneliness, appears to be mitigated; thus, this is the first study to point to the relative greater involvement of loneliness over life stress in the self harm behavior of college students.

LIMITATIONS

• Cross-sectional data precludes causal inference; prospective research is needed.
• Increased sample size may be desirable [Asians].
• Self-report bias may exist; rater-administered interviews may improve reliability and validity.

IMPLICATIONS

• Understanding ethnic differences in problem solving preferences is important for successful treatment.
• Clinicians should consider interventions specifically assessing for and targeting perceptions of loneliness.