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The Suicide Narrative Interview: Adolescents' attachment expectancies and symptom severity in a clinical sample

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Abstract

Insecure attachment styles have consistently been identified as risk factors for adolescent psychopathology and, more specifically, suicidal ideation. However, much less is known about the mechanisms that account for the relationship between attachment styles and severity of suicidal ideation within clinical samples. In the current study, adolescents' expectancies for caregiver availability and responsiveness were coded from transcripts of the Suicide Narrative Interview in a clinical sample of one hundred and twenty-nine depressed and suicidal adolescents. Results indicated that negative expectancies for caregiver availability in the Suicide Narrative Interview were associated both with attachment insecurity and with the intensity of adolescents' suicidal ideation. The implications of adolescents' expectancies for caregiver availability as targets for clinical intervention are discussed.

Keywords

adolescent attachment; attachment expectancies; suicide; symptom severity; suicide narrative

Introduction

Attachment theory posits that children form internal working models (IWMs), derived from early interactions with caregivers, that inform the child's expectations about the self and others in relationships. Secure IWMs emerge when children develop confident expectancies

about the caregiver's availability and responsiveness, while insecure IWMs emerge when children predict the caregiver to be unreliable or unavailable (Bowlby, 1969/1982; Bowlby, 1973). These expectancies, or forecasts about the parent, guide how the child will respond or cope during moments of danger or challenge that activate the attachment system. Although assessments of insecure IWMs have been extensively implicated in adolescent psychopathology, specific attachment-related mechanisms that influence the development or maintenance of symptoms have rarely been examined. The current study developed the Suicide Narrative Interview to assess adolescents' expectancies for caregiver availability during a suicidal episode within a clinical sample. We anticipated negative expectancies for caregiver availability to be associated with insecure attachment styles and increased severity of adolescents' suicide symptoms.

Attachment and suicidality in adolescence

Insecure attachment has consistently been identified as a risk factor for adolescent psychopathology and has been implicated in both internalizing and externalizing behaviors in adolescents (Allen, Moore, Kuperminc, & Bell, 1998; Allen, Porter, McFarland, McElhaney, & Marsh, 2007; Muris, Meesters, & van den Berg, 2003). In a variety of community samples, insecure attachment has been linked to adolescent depressive symptoms (Allen et al., 2007), anxiety (Warren, Huston, Egeland, & Sroufe, 1997), and aggression (Kobak, Zajac, & Smith, 2009). Within clinical samples, insecure attachment has often been connected to adolescent suicidal ideation and behavior (Adam, Sheldon-Keller, & West, 1996; Lessard & Moretti, 1998; Sheftall, Mathias, Furr, & Dougherty, 2013; Sheftall, Schoppe-Sullivan, & Bridge, 2014; Violato & Arato, 2004; Wright, Briggs, & Behringer, 2005), though there have also been some inconsistent as well as null findings (Venta & Sharp, 2014). Overall, links between attachment insecurity and suicidality have been reported using both the Adult Attachment Interview (AAI; Main & Goldwyn, 1998) and self-reported attachment styles. Roisman et al. (2007) have argued that although there is relatively little covariation between AAI attachment and self-reported attachment styles, in part because the AAI emphasizes general discourse coherence while self-report measures examine dynamics of current relationships, these two approaches often yield complementary findings.

Fortunately, the majority of adolescents with suicidal ideation receive treatment before the initial onset of suicidal behavior (Nock et al., 2013), and increased severity of suicidal ideation and behavior increases the probability that treatment will be sought (Pirkis et al., 2003). Yet in spite of a substantial literature linking attachment insecurity and adolescent suicidality, very little is known about the processes that account for this association. Identifying these processes holds important implications for planning treatment and for estimating the likelihood that an adolescent will benefit from treatment (Beidas et al., 2014; Lindhiem, Kolko, & Cheng, 2012; Ng & Weisz, 2016).

Assessing suicidal adolescents' expectancies for caregiver availability

Adolescents' expectancies for caregiver availability are a potential mechanism linking attachment security to how adolescents manage and cope with suicidal thoughts and feelings. Presumably, these expectancies guide the individual's emotional response and

reliance on others during moments of danger or distress (Ainsworth, Blehar, Waters, & Wall, 1978). Secure or confident expectancies for the caregiver's availability and responsiveness promote effective emotional signaling and contact seeking and a view of the self as capable or self-reliant (Bowlby, 1973; Main, 1990) as well as provide the individual with a feeling of comfort, or "felt security" (Sroufe & Waters, 1977). Alternatively, insecure or negative expectancies typically result in distorted signaling and ineffective contact seeking organized by defensive avoidant or ruminative strategies and a view of the self as unworthy of care (Bowlby, 1973; Main, 1990). In addition, although expectancies for the caregiver initially form in caregiver-infant relationships, they develop and change as the individual encounters new experiences interacting with caregivers for attachment needs (Bowlby, 1973). As a result, attachment during adolescence reflects the adolescent's current degree of confidence or security with the caregiver, incorporating current experiences as well as representations formed from a history of caregiver interactions (Sroufe, Carlson, Egeland, & Collins, 2005).

Beginning with efforts to assess attachment security in children, adolescents, and adults, researchers have used participants' narratives of attachment episodes to infer expectancies for caregiver availability. The AAI elicits narratives of childhood attachment episodes that have been coded using Main and Goldwyn's (1998) inferred experience scales for mothers and fathers. Although the ratings of the inferred experience scales typically get subsumed under the overall state of mind classification, the extent to which these scales measure expectancies and contribute to current functioning has begun to be considered a topic for further research (Haydon, Roisman, Marks, & Fraley, 2011; Kobak & Zajac, 2011). H. Waters and E. Waters (2006) have developed a similar approach to coding attachment narratives by assessing the degree to which narratives conform to a secure base script. Procedural knowledge of this secure base script is thought to be reflected in an individual's narration of attachment episodes in the AAI (T. Waters, in press; T. Waters, Brockmeyer, & Crowell, 2013) and in stories elicited using word prompts (H. Waters & Rodrigues-Doolabh, 2001; Dykas, Woodhouse, Cassidy, & Waters, 2006). Narratives that conform more closely to the secure base script are associated with attachment security, as measured both in the AAI and with self-reported attachment styles (Dykas et al., 2006; Mikulincer, Shaver, Sapir-Lavid, & Avihou-Kanza, 2009), and with the quality of the early caregiver-child relationship (Steele et al., 2014) as well as with continued parental support throughout childhood and adolescence (Vaughn et al., 2016).

While the AAI generates autobiographical narratives of attachment episodes from childhood and the secure base script word-prompt approach relies on hypothetical attachment episodes, there is a continuing need to identify episodes during adolescence that would normally activate the attachment system. Because the attachment system is activated less frequently during adolescence than during earlier developmental periods (Ainsworth, 1990), adolescents' experiences of attachment episodes are most likely to occur in emergency situations that elicit high levels of distress or the need for guidance and support (Kobak & Zajac, 2011; Rosenthal & Kobak, 2010). Accordingly, adolescents' reports of a suicidal episode present an opportunity to examine narratives of a life-threatening event that activates the adolescent's attachment system and need for protection and support. Narratives of these episodes should provide an opportunity to assess adolescents' expectancies for a caregiver's availability and responsiveness. Clinically, suicide narratives have been used extensively as

tools through which the individual can effectively process painful affect and ultimately derive meaning from the suicidal event within the context of the therapeutic relationship (Allen, 2013; Holmes, 2010; Michel & Valach, 2011). The current study uses the suicide narrative as a research tool through which adolescents' expectancies for their caregivers during suicidal events can be accessed and measured. The clinical implications of the suicide narrative within a research context will be discussed, as adolescents whose narratives of suicidal episodes reflect more secure or positive expectancies should more effectively manage suicidal thoughts and feelings than their counterparts with negative expectancies.

The current study

The primary aim of the current study was to test how observer ratings of adolescents' expectancies for caregiver availability in the Suicide Narrative Interview are associated with adolescents' attachment security with mothers and fathers and with the intensity of their suicidal ideation. Based on the extant literature, we hypothesized that insecure attachment styles would be associated with increased intensity of suicidal ideation. We also hypothesized that insecure attachment styles would be associated with more negative expectancies for the caregiver during the suicidal episode. Finally, we tested the incremental validity of adolescents' expectancies in accounting for the intensity of their suicidal ideation, after controlling for the contribution of insecure attachment styles.

Method

Data for this study was gathered at the baseline assessment of a randomized controlled trial comparing the efficacy of Attachment Based Family Therapy (ABFT) to Family Enhanced-Non-Directive Supportive Therapy (FE-NST) for suicidal adolescents (NCT01537419: Attachment Based Family Therapy for Suicidal Adolescents, PI: Diamond & Kobak). All baseline data was collected prior to random assignment to a treatment condition.

Participants

A total of 129 adolescents between the ages of 12 and 18 ($M = 14.96$, $SD = 1.66$) were assessed during a baseline intake session. 82.9% ($n = 107$) of the adolescents were female. 55.8% ($n = 72$) of the adolescents were Black/African American, 31% ($n = 40$) were White/Caucasian, 6.2% ($n = 8$) were American Indian or Alaskan Native, 2.3% ($n = 3$) were Asian, 0.8% ($n = 1$) were Native Hawaiian or Other Pacific Islander, and 12.4% ($n = 16$) identified as "other." In addition, 15.5% ($n = 20$) of the adolescents identified as Hispanic/Latino. Adolescents living in two-parent households comprised 42.6% ($n = 55$) of the sample, while 45% ($n = 58$) lived in single-parent households, 7% ($n = 9$) lived with a parent and the parent's partner, and 5.4% ($n = 7$) lived with relatives other than parents (e.g., grandparents). The average income-to-needs ratio for this sample was 2.07 ($SD = 1.45$), with 31% ($n = 40$) living below the poverty line, as indicated by an income-to-needs ratio of 1.0.

Adolescents were referred from local inpatient hospitals, emergency rooms, primary care physicians, psychiatrists, and schools. Criteria for inclusion in treatment were severe suicidal ideation, as indicated by a score of 31 or above on the Suicidal Ideation Questionnaire-JR (SIQ-JR; Reynolds, 1988), and moderate depression, as indicated by a score of 20 or higher

on the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). In addition, an adult caregiver (biological parent, step-parent, foster parent, grandparent, or other relative with whom the adolescent had regular and frequent contact) was required to participate in treatment with the adolescent. Families were excluded if adolescents a) posed an imminent threat of harm to themselves or others and therefore required crisis services, b) endorsed psychotic symptoms, c) demonstrated severely impaired cognitive functioning, or d) had started taking anti-depressant medication within the three weeks prior to the initial assessment.

Procedure

This study was approved by the Institutional Review Board of the university at which treatment was provided. Adolescents who met inclusion criteria were assented or consented with an adult guardian to participate in the study. Baseline assessments were then conducted. For the current study, adolescent attachment styles were assessed using a self-report measure, the Experiences in Close Relationships-Relationship Structures Questionnaire. Intensity of suicidal ideation was assessed using an interview measure, the Columbia-Suicide Severity Rating Scale. Expectancies for the caregiver's availability and responsiveness were coded from transcripts of the Suicide Narrative Interview, which was designed to elicit a narrative about the adolescent's most suicidal moment. It included interview questions about the circumstances preceding the suicidal episode (e.g., "What happened?"), the adolescent's attempt to cope with the suicidal thoughts and feelings (e.g., "What did you do?"), and whether the adolescent sought support from an adult caregiver during the suicidal episode (e.g., "Did you share your thoughts with your parents?"). If the adolescent did not tell a caregiver, follow-up probes asked for the adolescent's reasons for not sharing. A coding system was then developed to measure the adolescent's expectancies for the caregiver during the suicidal episode (see description of the Suicide Narrative Coding System below).

Adolescent attachment styles—Adolescent attachment styles were measured using the Experiences in Close Relationships-Relationship Structures Questionnaire (ECR-RS; Fraley, Heffernan, Vicary, & Brumbaugh, 2011). The ECR-RS is a self-report measure that assesses attachment organization in specific relationship domains that include mother, father, romantic partner, and peer. In the present study, the ECR-RS was used to assess adolescent attachment styles with mothers and fathers. The ECR-RS consists of ten items for each relationship that are rated on a 7-point Likert scale (i.e., 20 items were used to assess adolescents' relationships with mothers and fathers). The items yield two scales for each relationship: attachment avoidance and attachment anxiety. Six items assess attachment avoidance, or discomfort communicating with or depending on the other person (e.g., "I don't feel comfortable opening up to this person"). Four items assess attachment anxiety, or the degree to which the adolescent worries about or is fearful of abandonment or rejection by the other person (e.g., "I often worry that this person doesn't really care for me"). Low scores on both the anxiety and avoidance scales indicate attachment security within that relationship domain.

The ECR-RS has been validated using samples of adults (Fraley et al., 2011) and adolescents (Donbaek & Elklit, 2014). In the present study, attachment avoidance within the mother relationship domain demonstrated good internal consistency, with a Cronbach's alpha of 0.87. Within the father relationship domain, attachment avoidance had a Cronbach's alpha of 0.91. An analysis of the items for attachment anxiety revealed that item 10 ("I don't fully trust this person") reduced the scale's internal consistency within both the mother and the father domains. This finding aligns with past research on the psychometric properties of this measure (Fraley et al., 2011), and this item was therefore dropped from subsequent analyses. The remaining three items had good internal consistencies for both attachment anxiety with mother ($\alpha = 0.83$) and attachment anxiety with father ($\alpha = 0.90$). Using the three attachment anxiety items and six attachment avoidance items, mean scores for attachment anxiety and avoidance within each relationship domain were then calculated for each adolescent.

The Suicide Narrative Coding System—A coding manual, the Suicide Narrative Coding System (Zisk & Kobak, 2016), was designed to rate individual differences in adolescents' narrations of suicidal episodes from transcripts of the Suicide Narrative Interview. The coding system was developed to code the following components of the adolescent's narrative: the adolescent's expectancies for caregiver response during the suicidal episode, the precipitant (i.e., the event that caused or directly preceded the suicidal event), the adolescent's coping response (i.e., strategies employed by the adolescent in an attempt to reduce the suicidal thoughts or feelings), the adolescent's anticipated coping response in the event of a future suicidal episode, and the overall coherence of the narrative. For the purposes of the current study, adolescent expectancies for caregiver availability and responsiveness were examined as the variable of interest.

Adolescent expectancies for the caregiver: Expectancies for the availability and responsiveness of the caregiver during the suicidal episode were measured on two scales for each adolescent. Negative expectancies were assessed on a 4-point scale that indicated the degree to which the adolescent depicted the caregiver as unavailable, unsupportive, or rejecting (1 = no anticipation of caregiver rejection or unavailability; 2 = uncertainty about the caregiver's availability or responsiveness; 3 = anticipation of an unhelpful caregiver response; 4 = anticipation of overt caregiver rejection or unavailability). Positive expectancies were assessed on a 4-point scale that assessed the degree to which the adolescent depicted the caregiver as available, responsive, and supportive (1 = anticipation of a negative caregiver response or no support-seeking behavior toward the caregiver; 2 = neutral consideration of seeking support from the caregiver (i.e., no positive or negative indicators related to caregiver response); 3 = openness to the caregiver's response but no explicit anticipation of a supportive or helpful response; 4 = confidence in the availability and responsiveness of the caregiver).

Not surprisingly, there was a substantial negative correlation between the positive and negative expectancy scores ($r = -.65, p < .001$). As a result, we derived an overall expectancy score for each adolescent by subtracting the negative expectancy score from the positive expectancy score. High scores on this resulting variable indicate more positive

expectancies for the caregiver, while low scores denote more negative expectancies for the caregiver. This variable will therefore be referred to as adolescents' positive expectancies for caregiver response in subsequent analyses and discussion of results. Transcripts were coded by this study's first author and by two independent raters who were blind to all other information about the study participants. Agreement on the positive expectancy score was indicated by an intraclass correlation coefficient of 0.87, and agreement on the negative expectancy score was indicated by an intraclass correlation coefficient of 0.76.

Intensity of suicidal ideation—The primary outcome variable used in this study was intensity of suicidal ideation, which was measured using the Intensity of Ideation subscale of the Columbia-Suicide Severity Rating Scale (C-SSRS; Posner et al., 2011). The C-SSRS is a semi-structured interview designed to assess severity of suicidal ideation and behavior. It has been validated in clinical samples of adults and adolescents and has demonstrated strong psychometric properties (Posner et al., 2011; Kerr, Gibson, Leve, & DeGarmo, 2014). The Intensity of Ideation subscale, which has been shown to predict future suicide attempts in adolescents and young adults presenting for emergency psychiatric services (Gipson, Agarwala, Opperman, Horwitz, & King, 2015; Horwitz, Czyz, & King, 2015), rates the individual's most severe period of suicidal ideation (i.e., when the adolescent "was feeling the most suicidal"). This subscale is comprised of five items: frequency (i.e., how many times per week do the thoughts occur), duration (i.e., how long do the thoughts last), controllability (i.e., how difficult is it to stop thinking about suicide or wanting to die), deterrents (i.e., are there things or people that prevent an active attempt), and reasons for ideation (i.e., is the wish to die related to wanting attention or to stopping the pain). Each item is rated on a 5-point scale, with 1 denoting the least severe and 5 indicating the most severe value for each question.

In previous studies, these items have demonstrated moderate internal consistency (Posner et al., 2011). In the present study, we found that the fifth item, reasons for ideation, significantly lowered the scale's internal consistency, and this item was therefore dropped from the analyses. With the remaining four items (frequency, duration, controllability, and deterrents), we then derived a latent variable for intensity of suicidal ideation using the four items as observed indicators.

Covariates—Four variables were analyzed in the current study as potential covariates. These variables were adolescent age, adolescent gender (coded 0 = female, 1 = male), family income-to-needs ratio (calculated by dividing the family income by the year-appropriate poverty threshold corresponding to the size of the family), and adolescent depression (the sum score on the BDI-II). Zero-order correlations between the study variables and other potential confounds, including family structure, race, and ethnicity, revealed no significant relationships, and these variables were therefore not included in the analyses presented below.

Data analytic plan

Twenty-eight participants did not complete the Suicide Narrative Interview, partly because the measure was not integrated into the study protocol until the seventeenth subject's

baseline assessment. Little's (1988) Missing Completely At Random (MCAR) test was used to compare adolescents with complete and incomplete data on study variables and other covariates, including demographic variables, symptoms of suicide and depression, and indicators of family functioning. This test indicated a non-significant chi-square ($\chi^2(251) = 239.23, p = .69$), suggesting that the data can be treated as MCAR.

Analyses were conducted using Mplus Version 7.0 (Muthén & Muthén, 1998–2015) in order to best account for missing data. Missing data was accounted for using maximum likelihood estimation, which estimates missing parameters based on all available information for that parameter, and by specifying the variances of the missing covariates in the model (Muthén, Muthén, & Asparouhov, 2016). Preliminary analyses tested a measurement model of intensity of suicidal ideation. To determine goodness of fit of this model, a chi-square test, the Root Mean Square Error of Approximation (RMSEA), and the Comparative Fit Index (CFI) were assessed. The model can be considered to demonstrate an adequate fit to the data if the chi-square test is not significant, the RMSEA is below 0.05, and the CFI is greater than 0.9 (Kaplan, 2000). Bivariate analyses were then conducted to examine zero-order correlations among the study variables. These results then informed the use of regression analyses to test the hypotheses regarding the associations among insecure attachment styles, adolescent expectancies for the caregiver, and intensity of suicidal ideation.

Results

Measurement model of intensity of suicidal ideation

A measurement model tested the construct validity of intensity of suicidal ideation, using the four C-SSRS items, frequency ($M = 2.87, SD = 1.25$), duration ($M = 2.57, SD = 1.30$), controllability ($M = 2.94, SD = 1.58$), and deterrents ($M = 1.92, SD = 1.26$), as indicators. Standardized results are shown in Figure 1. Chi-square tests and other goodness-of-fit statistics, including RMSEA and CFI, revealed an adequate fit of the model to the data ($\chi^2(2) = 0.58, p = .75$; RMSEA = 0.00, 90% CI (0.00, 0.12); CFI = 1.0). This latent variable was therefore used in all subsequent analyses presented below.

Preliminary analyses

Descriptive statistics and zero-order correlations for the covariate, attachment style, adolescent positive expectancy, and intensity of suicidal ideation variables are presented in Table 1. Insecure attachment styles with fathers were not significantly related to adolescents' positive expectancies or to intensity of suicidal ideation. Therefore, father attachment variables are not displayed in Table 1 and were dropped from subsequent analyses.

These bivariate analyses indicated that attachment avoidance with mothers was significantly related to adolescents' positive expectancies for the caregiver ($r = -.32, p = .001$), with increased maternal attachment avoidance associated with more negative expectancies for the caregiver. Positive expectancies for caregiver response were also significantly related to intensity of suicidal ideation ($r = -.23, p = .02$), with more negative expectancies for the caregiver associated with increased intensity of suicidal ideation. There were no significant

relationships between attachment styles with mothers and intensity of suicidal ideation or between attachment anxiety with mothers and positive expectancies for caregivers.

Correlations between the covariates and the main study variables indicated that attachment anxiety with mothers was significantly related to the income-to-needs ratio ($r = -.27, p = .002$) and to adolescent depression ($r = .17, p = .049$). In addition, the income-to-needs ratio was significantly related to intensity of suicidal ideation ($r = .18, p = .04$) and had a trending relationship with attachment avoidance with mothers ($r = -.15, p = .096$).

Regression analyses

Regression analyses were used to test the study's three main hypotheses. First, although there were no significant zero-order correlations between insecure attachment styles and intensity of suicidal ideation, intensity of suicidal ideation was regressed on attachment anxiety and attachment avoidance with mothers in order to further examine the relationships among these variables, given that previous research has implicated attachment insecurity in adolescent suicidality. Results of this regression model indicated that neither attachment avoidance nor attachment anxiety with mothers significantly predicted intensity of suicidal ideation (for attachment avoidance, $\beta = .00, t = .001, p = .99$; for attachment anxiety, $\beta = .21, t = 1.39, p = .17; R^2 = .04, p = .48$).

To test the study's hypothesis that insecure attachment styles would be associated with more negative expectancies for the caregiver during the suicidal episode, adolescent positive expectancies were regressed on attachment avoidance and attachment anxiety with mothers. Results of this regression analysis revealed that attachment avoidance with mothers was a significant predictor of positive expectancies for the caregiver ($\beta = -.30, t = -3.50, p = .000$), while attachment anxiety with mothers was not ($\beta = -.07, t = -.81, p = .42$). The R^2 for this model indicated that, overall, insecure attachment styles accounted for 11% of the variance in adolescent positive expectancies ($p = .03$).

Finally, a regression analysis tested whether positive expectancies for caregiver response accounted for a significant portion of the variance in intensity of suicidal ideation, controlling for attachment avoidance and anxiety with mothers and the covariates of depression and the income-to-needs ratio. Results are presented in Table 2. Overall, this model accounted for 23% of the variance in intensity of suicidal ideation ($p = .03$). Among the covariates, only the income-to-needs ratio was a significant predictor ($\beta = .27, t = 2.28, p = .02$). Neither attachment anxiety nor attachment avoidance with mothers was significant. Adolescent positive expectancies, however, did significantly predict intensity of suicidal ideation ($\beta = -.29, t = -2.03, p = .04$). Therefore, even after accounting for insecure attachment styles, depression, and the income-to-needs ratio, positive expectancies for the caregiver explained a unique portion of the variability in suicide ideation intensity, with more negative expectancies for the caregiver predicting increased intensity of suicidal ideation.

Discussion

The current findings contribute to the extant literature by providing support for the validity of coding adolescent expectancies for caregiver response as a factor that accounts for symptom severity within a clinical sample of adolescents. We have argued that the Suicide Narrative Interview provided a window into expectancies at a moment of acute distress, which would normally activate attachment needs. As expected, regression analyses revealed that adolescents' positive expectancies for the caregiver accounted for a significant portion of the variance in intensity of suicidal ideation, above and beyond that explained by attachment anxiety and avoidance with mothers and when controlling for depression and the income-to-needs ratio. As confidence in caregiver availability decreased, the adolescents reported increased intensity of their suicidal ideation.

This supports the idea that the adolescents' relationships with their caregivers remain a critical factor in their ability to manage stressful life challenges. Further, effective assessment and treatment of adolescents' suicidality might be enhanced by evaluating adolescents' expectancies for caregiver availability during suicidal episodes. Assessing the caregiver's availability in managing adolescents' suicide ideation and behavior is also critical to the development of the adolescent's safety plan, a standard protocol used by practitioners to provide individuals with coping resources to be used in the event of future suicidal events. The formation of a safety plan involves a discussion of triggers or warning signs that typically precipitate suicidal thoughts or feelings, recognition of internal coping strategies that can be used to reduce these thoughts, and the identification of people from whom support can be sought during the suicidal episode. The final steps of the safety plan pertain to the management of impulses to act on suicidal thoughts in more extreme situations (e.g., emergency contact numbers and the removal of lethal methods from the individual's home). The creation of a safety plan has recently been implemented as a central component of an intervention designed to reduce suicide risk both within community populations (Stanley & Brown, 2012) and for veterans seeking emergency services through the Department of Veteran Affairs (Knox et al., 2012). When considering adolescent populations, the current study demonstrates that, in order for the adolescent to view the caregiver as a viable coping resource and therefore as an effective part of the safety plan, the adolescent should expect that the caregiver will be available and responsive in the time of need.

The study's findings also contribute to a more differentiated understanding of how insecure attachment styles are associated with adolescents' experiences of suicidal episodes. More specifically, caregiver expectancies were associated with attachment avoidance but not with attachment anxiety with mothers. These results align with differences associated with avoidant and anxious attachment styles. Individuals who report avoidant attachment styles are less likely to express need, demonstrate vulnerability, or seek support from others during moments of distress, while individuals who report anxious attachment styles are more likely to express needs and demonstrate feelings of vulnerability (Mikulincer & Shaver, 2007). This suggests that, during suicidal moments, adolescents with high scores on attachment avoidance would be less likely to rely on their caregiver as a source of support. These beliefs about the caregiver would be less apparent in anxiously attached adolescents. Accordingly,

the findings provide more support for the association between caregiver expectancies and attachment avoidance than for attachment anxiety.

In addition to facilitating assessments of adolescents' suicide risk, the Suicide Narrative Interview holds promise for extending a narrative-based approach to improving treatments for suicidal adolescents. The process of developing a suicide narrative can provide the adolescent with an opportunity to revisit a painful suicidal moment in the context of a supportive relationship. Narrating these episodes has the potential to allow the adolescent to overcome a sense of isolation, to more effectively verbalize painful affect, and to ultimately derive meaning and understanding of suicidal experience (Holmes, 2010). The failure to thoughtfully reflect upon painful emotions (i.e., mentalize) has been posited as a risk for acting on suicidal thoughts and feelings and transitioning from ideation to suicide attempts (Allen, 2013). Although the suicide narrative was administered as a research assessment in the current study, the link between the adolescent's expectancies in the suicide narrative and the severity of the adolescent's suicide symptoms provides evidence that the Suicide Narrative Interview could be productively extended to treatment with increased focus on helping the adolescent explore and mentalize painful affect.

Strengths and limitations

The study used a multi-method approach to assess an adolescent's attachment system. Initial support for the convergent validity of the suicide narrative coding was provided with adolescents' self-reports of attachment styles. In addition, results of the regression analyses lent support for the incremental validity of adolescent positive expectancies for the caregiver in accounting for suicide symptom severity. However, there are several limitations of the current study. The findings are limited to cross-sectional baseline data in a clinical trial and, as a result, this design lacks the temporal framework required to make causal claims (Preacher & Hayes, 2008). Although from a theoretical perspective attachment expectancies are thought to precede the adolescent's current suicidality (Bowlby, 1973), these temporal relationships will need to be investigated further in the future.

The lack of a direct association between attachment styles and intensity of suicidal ideation in the current study was surprising insofar as these findings contradict past research linking attachment insecurity and adolescent suicidality. However, the current findings are consistent with a recent study that reported no significant relationships between adolescent attachment organization and suicidal thoughts or behaviors (Venta & Sharp, 2014). The lack of such an association was attributed to the severity of the sample being studied and limited variability within a clinical sample. A similar argument could also be made for the current study, as the inclusion criteria for treatment required severe suicidal ideation.

Conclusion and future directions

Assessing expectancies for caregiver availability and responsiveness in the Suicide Narrative Interview adds to the attempt to measure adolescents' IWMs and informs a better understanding of the contribution of attachment processes to adolescent suicidality. The findings provide initial support for the validity of the expectancies coding system as a mechanism linking insecure attachment styles to symptom severity. This assessment of

adolescents' positive expectancies also demonstrated incremental validity over insecure attachment by accounting for a unique portion of the variance in intensity of suicidal ideation, after controlling for attachment anxiety and avoidance with mothers. Future research may address one of the major limitations of the current study. Additional measures of adolescents' IWMs are needed to better understand how attachment-related mechanisms are implicated in the development and maintenance of adolescent depression and suicidality. Researchers have begun to measure other aspects of adolescents' IWMs with cognitive schemas such as disconnection and rejection (Bosmans, Braet, & Van Vlierberghe, 2010; Roelofs, Lee, Ruijten, & Lobbestael, 2011). These newer approaches remain to be evaluated with clinical samples of suicidal adolescents and tested as mediators linking insecure attachment and adolescent suicidality.

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References

- Adam KS, Sheldon-Keller AE, West M. Attachment organization and history of suicidal behavior in clinical adolescents. *Journal of Consulting and Clinical Psychology*. 1996; 64(2):264–272. DOI: 10.1037/0022-006X.64.2.264 [PubMed: 8871410]
- Ainsworth MDS. Some considerations regarding theory and assessment relevant to attachments beyond infancy. In: Greenberg MT, Cicchetti D, Cummings EM, editors *Attachment in the pre-school years*. Chicago: University of Chicago Press; 1990. 463–488.
- Ainsworth MD, Blehar M, Waters E, Wall S. *Patterns of attachment: A psychological study of the Strange Situation*. Hillsdale, NJ: Erlbaum; 1978.
- Allen JG. *Restoring mentalizing in attachment relationships: Treating trauma with plain old therapy*. Washington, DC: American Psychiatric Publishing; 2013.
- Allen JP, Moore C, Kuperminc G, Bell K. Attachment and adolescent psychosocial functioning. *Child Development*. 1998; 69(5):1406–1419. DOI: 10.2307/1132274 [PubMed: 9839424]
- Allen JP, Porter M, McFarland C, McElhaney K, Marsh P. The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. *Child Development*. 2007; 78(4):1222–1239. DOI: 10.1111/j.1467-8624.2007.01062.x [PubMed: 17650135]
- Attachment Based Family Therapy for Suicidal Adolescents. 2016. Retrieved from <http://clinicaltrials.gov/ct2> (Identification No. NCT01537419)
- Beck AT, Steer RA, Brown GK. *BDI-II. Beck Depression Inventory Second Edition. Manual*. San Antonio: Psychological Corporation; 1996.
- Beidas RS, Lindhiem O, Brodman DM, Swan A, Carper M, Cummings C, Sherrill J. A probabilistic and individualized approach for predicting treatment gains: An extension and application to anxiety disordered youth. *Behavior Therapy*. 2014; 45(1):126–136. DOI: 10.1016/j.beth.2013.05.001 [PubMed: 24411120]
- Bosmans G, Braet C, Van Vlierberghe L. Attachment and symptoms of psychopathology: Early maladaptive schemas as a cognitive link? *Clinical Psychology & Psychotherapy*. 2010; 17(5):374–385. DOI: 10.1002/cpp.667 [PubMed: 20013761]
- Bowlby J. *Attachment and loss: Vol. 1 Attachment*. 2. New York: Basic Books; 1969/1982.
- Bowlby J. *Attachment and loss: Vol. 2 Separation: Anxiety and anger*. New York: Basic Books; 1973.
- Donbaek DF, Elklit A. A validation of the Experiences in Close Relationships-Relationship Structures scale (ECR-RS) in adolescents. *Attachment & Human Development*. 2014; 16(1):58–76. DOI: 10.1080/14616734.2013.850103 [PubMed: 24215182]

- Dykas MJ, Woodhouse SS, Cassidy J, Waters HS. Narrative assessment of attachment representations: Links between secure base scripts and adolescent attachment. *Attachment & Human Development*. 2006; 8(3):221–240. DOI: 10.1080/14616730600856099 [PubMed: 16938705]
- Fraley RC, Heffernan ME, Vicary AM, Brumbaugh CC. The Experiences in Close Relationships-Relationship Structures Questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*. 2011; 23(3):615–625. DOI: 10.1037/a0022898 [PubMed: 21443364]
- Gipson PY, Agarwala P, Opperman KJ, Horwitz A, King CA. Columbia-Suicide Severity Rating Scale: Predictive validity with adolescent psychiatric emergency patients. *Pediatric Emergency Care*. 2015; 31(2):88–94. DOI: 10.1097/PEC.0000000000000225 [PubMed: 25285389]
- Haydon KC, Roisman GI, Marks MJ, Fraley RC. An empirically derived approach to the latent structure of the Adult Attachment Interview: Additional convergent and discriminant validity evidence. *Attachment & Human Development*. 2011; 13(5):503–524. DOI: 10.1080/14616734.2011.602253 [PubMed: 21838649]
- Holmes J. *Exploring in security: Towards an attachment-informed psychoanalytic psychotherapy*. London: Routledge; 2010.
- Horwitz AG, Czyz EK, King CA. Predicting future suicide attempts among adolescent and emerging adult psychiatric emergency patients. *Journal of Clinical Child & Adolescent Psychology*. 2015; 44(5):751–761. DOI: 10.1080/15374416.2014.910789 [PubMed: 24871489]
- Kaplan D. *Structural equation modeling: Foundations and extensions*. Thousand Oaks: Sage; 2000.
- Kerr DCR, Gibson B, Leve LD, DeGarmo DS. Young adult follow-up of adolescent girls in juvenile justice using the Columbia Suicide Severity Rating Scale. *Suicide and Life-Threatening Behavior*. 2014; 44(2):113–129. DOI: 10.1111/sltb.12072 [PubMed: 24446880]
- Knox KL, Stanley B, Currier GW, Brenner L, Ghahramanlou-Holloway, Brown G. An emergency department-based brief intervention for veterans at risk for suicide (SAFE VET). *American Journal of Public Health*. 2012; 102(S1):S33–S37. DOI: 10.2105/AJPH.2011.300501 [PubMed: 22390597]
- Kobak R, Zajac K. Rethinking adolescent states of mind: A relationship/lifespan view of attachment and psychopathology. In: Cicchetti D, Roisman GI, editors *Minnesota Symposia on Child Psychology: The Origins and Organization of Adaptation and Maladaptation*. Vol. 4. John Wiley & Sons; 2011. 185
- Kobak R, Zajac K, Smith C. Adolescent attachment and trajectories of hostile-impulsive behavior: Implications for the development of personality disorders. *Development and Psychopathology*. 2009; 21(3):839–851. DOI: 10.1017/S0954579409000455 [PubMed: 19583886]
- Lessard JC, Moretti MM. Suicidal ideation in an adolescent clinical sample: Attachment patterns and clinical implications. *Journal of Adolescence*. 1998; 21(4):383–395. DOI: 10.1006/jado.1998.0169 [PubMed: 9757403]
- Lindhiem O, Kolko DJ, Cheng Y. Predicting psychotherapy benefit: A probabilistic and individualized approach. *Behavior Therapy*. 2012; 43(2):381–392. DOI: 10.1016/j.beth.2011.08.004 [PubMed: 22440073]
- Little RJA. A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*. 1988; 83(404):1198–1202.
- Main M. Cross-cultural studies of attachment organization: Recent studies, changing methodologies, and the concept of conditional strategies. *Human Development*. 1990; 33(1):48–61. DOI: 10.1159/000276502
- Main M, Goldwyn R. *Adult attachment scoring and classification system*. University of California; Berkeley: 1998. Unpublished manuscript
- Michel K, Valach L. The narrative interview with the suicidal patient. In: Michel K, Jobes DA, editors *Building a therapeutic alliance with the suicidal patient*. Washington, DC: American Psychological Association; 2011. 63–80.
- Mikulincer M, Shaver PR. *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford Press; 2007.
- Mikulincer M, Shaver PR, Sapir-Lavid Y, Avihou-Kanza N. What's inside the minds of securely and insecurely attached people? The secure-base script and its associations with attachment-style

- dimensions. *Journal of Personality and Social Psychology*. 2009; 97(4):615–633. DOI: 10.1037/a0015649 [PubMed: 19785482]
- Muris P, Meesters C, van den Berg S. Internalizing and externalizing problems as correlates of self-reported attachment style and perceived parental rearing in normal adolescents. *Journal of Child and Family Studies*. 2003; 12(2):171–183. DOI: 10.1023/A:1022858715598
- Muthén BO, Muthén LK, Asparouhov T. Regression and mediation analysis using Mplus. Los Angeles: Muthén & Muthén; 2016.
- Muthén LK, Muthén BO. Mplus user's guide. Seventh. Los Angeles, CA: Muthén & Muthén; 1998–2015.
- Ng MY, Weisz JR. Annual Research Review: Building a science of personalized intervention for youth mental health. *Journal of Child Psychology and Psychiatry*. 2016; 57(3):216–236. DOI: 10.1111/jcpp.12470 [PubMed: 26467325]
- Nock MK, Green JG, Hwang I, McLaughlin KA, Sampson NA, Zaslavsky AM, Kessler RC. Prevalence, correlates, and treatment of lifetime suicidal behavior among adolescents: Results from the National Comorbidity Survey Replication Adolescent Supplement. *JAMA Psychiatry*. 2013; 70(3):300–311. DOI: 10.1001/2013.jamapsychiatry.55 [PubMed: 23303463]
- Pirkis JE, Irwin CE, Brindis CD, Sawyer MG, Friestad C, Biehl M, Patton GC. Receipt of psychological or emotional counseling by suicidal adolescents. *Pediatrics*. 2003; 111(4):388–393.
- Posner K, Brown GK, Stanley B, Brent DA, Yershova KV, Oquendo MA, Mann JJ. The Columbia-Suicide Severity Rating Scale: Initial validity and internal consistency findings from three multisite studies with adolescents and adults. *American Journal of Psychiatry*. 2011; 168(12):1266–1277. DOI: 10.1176/appi.ajp.2011.10111704 [PubMed: 22193671]
- Preacher KJ, Hayes AF. Contemporary approaches to assessing mediation in communication research. In: Hayes AF, Slater MD, Snyder LB, editors *The Sage sourcebook of advanced data analysis methods for communication research*. Thousand Oaks: Sage; 2008. 13–54.
- Reynolds W. SIQ professional manual. Odessa, FL: Psychological Assessment Resources; 1988.
- Roelofs J, Lee C, Ruijten T, Lobbestael J. The mediating role of early maladaptive schemas in the relation between quality of attachment relationships and symptoms of depression in adolescents. *Behavioural and Cognitive Psychotherapy*. 2011; 39(4):471–479. DOI: 10.1017/S1352465811000117 [PubMed: 21418710]
- Roisman GI, Holland A, Fortuna K, Fraley RC, Clausell E, Clarke A. The Adult Attachment Interview and self-reports of attachment style: An empirical rapprochement. *Journal of Personality and Social Psychology*. 2007; 92(4):678–697. DOI: 10.1037/0022-3514.92.4.678 [PubMed: 17469952]
- Rosenthal NL, Kobak R. Assessing adolescents' attachment hierarchies: Differences across developmental periods and associations with individual adaptation. *Journal of Research on Adolescence*. 2010; 20(3):678–706. DOI: 10.1111/j.1532-7795.2010.00655.x [PubMed: 22545000]
- Sheftall AH, Mathias CW, Furr RM, Dougherty DM. Adolescent attachment security, family functioning, and suicide attempts. *Attachment and Human Development*. 2013; 15(4):368–383. DOI: 10.1080/14616734.2013.782649 [PubMed: 23560608]
- Sheftall AH, Schoppe-Sullivan SJ, Bridge JA. Insecure attachment and suicidal behavior in adolescents. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*. 2014; 35(6):426–430. DOI: 10.1027/0227-5910/a000273
- Sroufe LA, Carlson E, Egeland B, Collins A. *The development of the person: The Minnesota study of risk and adaptation from birth to adulthood*. New York, NY: Guilford Press; 2005.
- Sroufe LA, Waters E. Attachment as an organizational construct. *Child Development*. 1977; 48(4):1184–1199. DOI: 10.2307/1128475
- Stanley B, Brown GK. Safety planning intervention: A brief intervention to mitigate suicide risk. *Cognitive and Behavioral Practice*. 2012; 19(2):256–264. DOI: 10.1016/j.cbpra.2011.01.001
- Steele RD, Waters TEA, Bost KK, Vaughn BE, Truitt W, Waters HS, Roisman GI. Caregiving antecedents of secure base script knowledge: A comparative analysis of young adult attachment representations. *Developmental Psychology*. 2014; 50(11):2526–2538. DOI: 10.1037/a0037992 [PubMed: 25264703]

- Vaughn BE, Waters TEA, Steele RD, Roisman GI, Bost KK, Truitt W, Booth-Laforce C. Multiple domains of parental secure base support during childhood and adolescence contribute to adolescents' representations of attachment as a secure base script. *Attachment & Human Development*. 2016; 18(4):317–336. DOI: 10.1080/14616734.2016.1162180 [PubMed: 27032953]
- Venta A, Sharp C. Attachment organization in suicide prevention research: Preliminary findings and future directions in a sample of inpatient adolescents. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*. 2014; 35(1):60–66. DOI: 10.1027/0227-5910/a000231
- Violato C, Arato J. Childhood attachment and adolescent suicide: A stepwise discriminant analysis in a case-comparison study. *Individual Differences Research*. 2004; 2(3):162–168.
- Warren SL, Huston L, Egeland B, Sroufe LA. Child and adolescent anxiety disorders and early attachment. *Journal of the American Academy of Child & Adolescent Psychiatry*. 1997; 36(5): 637–644. DOI: 10.1097/00004583-199705000-00014 [PubMed: 9136498]
- Waters HS, Rodrigues-Doolabh L. Are attachment scripts the building blocks of attachment representations? Narrative assessment of representations and the AAI. In: Waters & H, Waters E, editors *Narrative measures of attachment for adults*; Poster symposium presented at the Biennial Meetings of the Society for Research in Child Development; Minneapolis, MN. 2001. (Chairs)
- Waters HS, Waters E. The attachment working models concept: Among other things, we build script-like representations of secure base experiences. *Attachment & Human Development*. 2006; 8(3): 185–197. DOI: 10.1080/14616730600856016 [PubMed: 16938702]
- Waters TEA. Secure base content in the Adult Attachment Interview. In: Waters E, Vaughn B, Waters H, editors *Measuring Attachment*. New York: Guilford Press; (in press)
- Waters TEA, Brockmeyer SL, Crowell JA. AAI coherence predicts caregiving and care seeking behavior: Secure base script knowledge helps explain why. *Attachment & Human Development*. 2013; 15(3):316–331. DOI: 10.1080/14616734.2013.782657 [PubMed: 23566049]
- Wright J, Briggs S, Behringer J. Attachment and the body in suicidal adolescents: A pilot study. *Clinical Child Psychology and Psychiatry*. 2005; 10(4):477–491. DOI: 10.1177/1359104505056310
- Zisk A, Kobak R. The suicide narrative coding system. University of Delaware; 2016. Unpublished manuscript

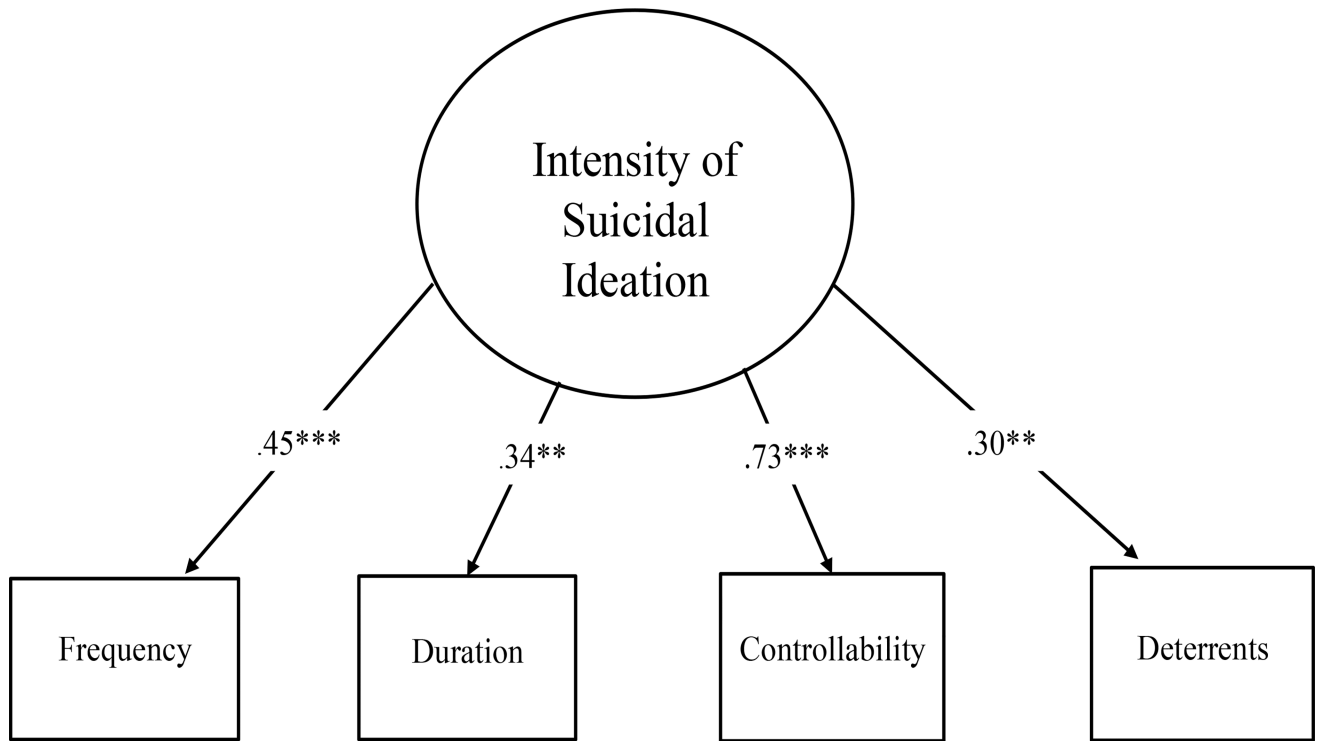


Figure 1. Measurement model of intensity of suicidal ideation, with standardized beta weights reported ($\chi^2 (2) = 0.58, p = .75$; RMSEA = 0.00, 90% CI (0.00, 0.12); CFI = 1.0). Note: ** $p < .01$; *** $p < .001$.

Means, Standard Deviations, and Zero-Order Correlations of Covariate, Attachment Style, Suicide Narrative, and Ideation Intensity Variables

Table 1

	Mean	SD	1	2	3	4	5	6	7	8
1. Age	14.96	1.66	----	-.04	-.004	.18*	.02	-.09	-.05	.13
2. Gender	0.17	0.38		----	-.01	-.18*	.11	.003	-.05	-.04
3. Income-to-Needs Ratio	2.07	1.45			----	-.10	-.15 ⁺	-.27**	-.05	.18*
4. Depression	30.54	7.97				----	.01	.17*	.14	.07
5. Attachment Avoidance with Mother	3.64	1.51					----	.30**	-.32**	.04
6. Attachment Anxiety with Mother	2.58	1.63						----	-.16	.14
7. Adolescent Positive Expectancies	2.51	1.63							----	-.23*
8. Intensity of Suicidal Ideation	----	----								----

Note:

⁺ $p < .10$;

* $p < .05$;

** $p < .01$;

$p < .001$. Intensity of Suicidal Ideation is a latent variable derived from the four C-SSRS items of frequency ($M = 2.87$, $SD = 1.25$), duration ($M = 2.57$, $SD = 1.30$), controllability ($M = 2.94$, $SD = 1.58$), and deterrents ($M = 1.92$, $SD = 1.26$).

Table 2

Covariates, Attachment Styles, and Adolescent Positive Expectancies Predicting Intensity of Suicidal Ideation

Predicted Variable	Predictor Variables	β	Est./SE	R^2
Intensity of Suicidal Ideation	Depression	.12	.91	.23*
	Income-to-Needs Ratio	.27*	2.28	
	Attachment Avoidance with Mother	-.05	-.39	
	Attachment Anxiety with Mother	.20	1.46	
	Adolescent Positive Expectancies	-.29*	-2.03	

Note:

+ $p < .10$;* $p < .05$;** $p < .01$;*** $p < .001$. Standardized beta weights are reported.