**Methods**

**Participants**

Participants were undergraduate students enrolled at Temple University (*N* = 553). A majority (76.85%) were female and White (57.69%), although 19.71% were Black. Ages ranged from 18 to 61 years (*M* = 21.10; *SD* = 4.13). There was significant attrition across the two follow-up time points: Time 2 (*n* = 269; 48.64%) and Time 3 (*n* = 136; 24.59%). Participants who completed the baseline at Time 1, but did not complete the rest of the study, reported less depression (*t*(551) = -2.55, *p* =.011) and less social anxiety (*t*(550) = -3.35, *p* =.001) at baseline as compared to those who completed the entire study. This suggests that participants who completed the entire study may be significantly different than those who were lost to attrition.

**Measures**

**Beck Depression Inventory (BDI-II**). The BDI-II (Beck et al., 1996) assesses the severity of symptoms of depression during the previous two weeks. The BDI-II has been widely used to measure depressive symptoms and has been psychometrically tested (Dozois, Dobson, & Ahnberg, 1998). A total score is used to represent the number of depressive symptoms endorsed. The internal consistency in this sample was excellent (Time 1 α = 0.94 Time 2 α = 0.95; Time 3 α = 0.93).

**Social Interaction Anxiety Scale (SIAS).** The SIAS (Mattick & Clarke, 1998) is a 20-item self-report measure designed to assess anxiety within social settings. Psychometric testing revealed that the reverse-scored items exhibit decreased validity, thus the 17 straightforward items were used for this study (Rodebaugh, Woods, & Heimberg, 2007). A total score was calculated and the internal consistency in this sample was excellent (Time 1 α = 0.95; Time 2 α = 0.95; Time 3 α = 0.95).

**Interpersonal Needs Questionnaire (INQ).** The INQ (Van Orden, Witte, Gordon, Bender, & Joiner, 2008) is a 15-item self-report measure that assesses interpersonal constructs associated with the interpersonal theory of suicide (Joiner, 2005). These constructs include perceived burdensomeness and thwarted belongingness. The INQ has been psychometrically tested (Van Orden, Cukrowicz, Witte, & Joiner, 2012) and both constructs exhibited adequate internal consistency (Thwarted belongingness: Time 1 α = 0.89; Time 2 α = 0.88; Time 3 α = 0.89; Perceived burdensomeness: Time 1 α = 0.96; Time 2 α = 0.95; Time 3 α = 0.97).

**Acquired Capability for Suicide Scale (ACSS).** The ACSS (Van Orden et al., 2008) is a 5-item self-report measure that assesses attitudes towards death and suicide. The ACSS correlates with other measures of suicide, but is distinct from measures of depression (Van Orden et al., 2008). A total score of the five items was calculated and used as the outcome measure in this study. Internal consistency was adequate (Time 1 α = 0.68; Time 2 α = 0.68; Time 3 α = 0.69).

**Procedure**

Participants were recruited for this study through online postings to SONA systems – an internet participant subject pool management system. Participants were also recruited via flyers that were posted in the Psychology building. Participants signed up online and were directed to the consent form. After participants provided consent they completed the first battery of online survey measures. After completing the survey, they were told that they would receive emails to complete two additional follow-up surveys each three weeks apart. Thus, they would complete the second survey three weeks after completing the first survey and the third survey approximately three weeks after completing the second survey (i.e., six weeks after completing the first survey). All surveys were completed online and participants were provided with a debriefing document that described the purpose of the study after completing the third survey.

Participants who indicated suicidality by providing a positive answer to select questions in the BDI-II and BSS received a phone call to complete a risk assessment. Study investigators attempted to call the participant three times and then sent a follow-up emails with psychological referrals to participants they were not able to reach. During the risk assessment, study investigators asked a series of questions to determine whether the participant was at imminent risk for self-harm. Participants who were considered at imminent risk of self-harm were transported to the hospital. No participants indicated imminent risk during this study. Psychological referrals were provided in the debriefing and all participants received course credit for completing the study.

**Data analytic procedure**

Structural equation modeling (SEM) was used to model longitudinal relationships between depression and social anxiety, interpersonal needs constructs, and acquired capability for suicide. A longitudinal mediation model tested perceived burdensomeness and thwarted belongingness at Time 2 mediating depression at Time 1 and acquired capability for suicide at Time 3. A second longitudinal mediation model tested perceived burdensomeness and thwarted belongingness at Time 2 mediating social anxiety at Time 1 and acquired capability for suicide at Time 3. All analyses were completed in R (version 3.4.1) using the tidyverse package (version 1.2.1, Wickham, 2017) for data manipulation and the lavaan package (version 0.5-23.1097, Rosseel et al., 2017) for conducting SEM analyses.

**Results**

The first model exhibited issues with convergence and thus, parameter estimates may be unreliable. Higher levels of depression at Time 1 predicted higher levels of thwarted belongingness at Time 2 (*b* = 0.32, *p* =) and higher levels of perceived burdensomeness at Time 2 (*b* = 0.38, *p* = ). Higher levels of thwarted belongingness at Time 2 predicted lower levels of acquired capability for suicide at Time 3 (*b* = 0.32, *p* =) and [blank] levels of perceived burdensomeness at Time 2 predicted [blank] levels of acquired capability for suicide at Time 3 (*b* = , *p* =). Higher levels of depression at Time 1 predicted higher levels of acquired capability for suicide at Time 3 (*b* = 0.02, *p* =). The indirect pathway between depression at Time 1, interpersonal needs at Time 2, and acquired capability for suicide at Time 3 was not significant (*b* = -0.01, *p* =).

The second model also exhibited issues with convergence and thus, parameter estimates may be unreliable. Higher levels of social anxiety at Time 1 predicted higher levels of thwarted belongingness at Time 2 (*b* = 0.16, *p* =) and higher levels of perceived burdensomeness at Time 2 (*b* = 0.19, *p* = ). Higher levels of thwarted belongingness at Time 2 predicted lower levels of acquired capability for suicide at Time 3 (*b* = -0.02, *p* =) and [blank] levels of perceived burdensomeness at Time 2 predicted [blank] levels of acquired capability for suicide at Time 3 (*b* = , *p* =). Higher levels of social anxiety at Time 1 predicted lower levels of acquired capability for suicide at Time 3 (*b* = -0.02, *p* =). The indirect pathway between social anxiety at Time 1, interpersonal needs at Time 2, and acquired capability for suicide at Time 3 was not significant (*b* = -0.10, *p* =).