**Supplemental Materials 1: Measures Included in Validity Analyses**

*Friendship Quality*. A revised version of the Network of Relationships Inventory (NRI) was used to assess both target and peer reported friendship quality (Furman & Buhrmester, 1985). Adolescents rated friendship qualities for each of their three close friends on a five-point response scale. Peers were asked to rate the same friendship qualities for the target adolescent using the same response scale. The revised version of the NRI includes five items assessing how much time an adolescent spends with their friend (1=none to 5=almost all), how much they share secrets and private feelings with their friend (1=never to 5=very often), how much their friend really cares about them (1=not at all to 5=very much), how much their friend likes or approves of the things they do (1=not at all to 5=very much), and their confidence that their relationship with their friend will last (1=not at all to 5=extremely sure). Ratings for an adolescent’s three close friends were averaged to form a composite of friendship quality. The NRI demonstrated strong internal consistency across for target reported friendship quality (α=.92) and adequate internal consistency for peer reported friendship quality (α=.68)

*Peer Group Identification*. Peer Group Identification was assessed using the group identification measure developed by Kiesner et al. (2002). Adolescents were asked to think of a group of friends they spend the most time with and were asked to respond to eight questions regarding their level of identification with that group. The measure contains five items assessing positive reinforcement from group identification (e.g., “Is it important for you to belong to this group?” “Do you feel connected to the other members of this group?”) and three items assessing negative reinforcement from group identification (e.g., “If you were not part of this group would you feel lonely?” “Would you feel insecure if you were not a member of this group?”). Adolescents rated these items on a six-point response scale (1=no, not at all to 5=yes, very much). A group was operationalized as three or more people an adolescent spends time with (Kiesner et al., 2002). Consistent with prior work (Kiesner et al., 2002), the positive and negative reinforcement (reversed coded) items were all averaged to create a composite score of peer group identification. The internal consistency of the group identification measure was .82 at W3.

*School Connectedness*. School connectedness was assessed using five items taken from the School Connectedness Scale developed by Resnick et al. (1997): “You feel close to people at your school,” “You feel like you are part of your school,” “You are happy to be at your school,” “The teachers at your school treat students fairly,” and “You feel safe in your school.” Four additional items were taken from a Commitment to School Measure developed for the Rochester Youth Development Study (Thornberry, Lizotte, Krohn, Farnworth & Jang, 1991), including “Homework is a waste of time,” “You try hard in school,” “Education is so important that it’s worth putting up with the things about school you don’t like,” and “In general, you like school.” Responses were on a 4-point scale ranging from 1 (Strongly Agree) to 4 (Strong Disagree). Items were coded so higher scores reflected higher levels of school connectedness. The nine items were averaged to form a scale score at each wave (α=.81).

*Resistance to Peer Influence*. The Resistance to Peer Influence measure (Steinberg & Monahan, 2007) was used to measure susceptibility to peer influence. The RPI includes a series of 10 statements where adolescents were asked to select the best descriptive statement for each series (e.g., “Some people think it’s more important to be an individual than fit in with the crowd” BUT “Other people think it’s more important to fit in with the crowd.” After selecting the best descriptor, adolescents rated the statement as either “Really True” or “Sort of True.” Responses were then coded on a 4-point scale ranging from “really true” for one descriptor to “really true” for the other descriptor, and then averaged. The internal consistency for this measure was adequate (α=.70).

*Peer Victimization*. Our measure of peer victimization included four items taken from the Perceptions of Peer Support Scale (Kochenderfer & Ladd, 1996; e.g., “Other kids pick on you at school” and “Other kids say mean things to you”) and one item taken from the Multidimensional-Peer Victimization Scale (Mynard & Joseph, 2000), “other kids make fun of you because of your appearance.” Target adolescents chose the response that best described how often they had these experiences when with other kids (1=never to 3=a lot). Peers chose the response that best described how often the target adolescent had these experiences when with other kids (1=never to 3=a lot). The internal consistency of this measure was α=.83 and α=.74 for target and peer reports, respectively.

*Peer Exclusion*. Target adolescent, peer, and parent reports of peer exclusion were assessed using the revised version of the Child Social Preference Scale (CSPS; Bowker & Raja, 2011). This self-report measure includes four items (“I’d like to hang out with other kids, but I’m often excluded,” “I want to play with others but often they don’t want to play with me,” “sometimes kids don’t want me to hang out with them,” and “I wish I could spend more time with other kids, but they don’t let me.”) and adolescents rated how much they are like each statement using a 5-point response scale (1= not at all, 5=a lot). Peers and parents reported how much the target adolescent is like each statement using the same response scale. The internal consistency for the revised CSPS was good for target (α=.82), peer (α=.86), and parent reports (α=.86).

*Unsociability*. Target adolescent, peer, and parent reports of unsociability were also assessed CSPS (Bowker & Raja, 2011). The unsociability factor includes four items (“I like spending time alone more than with others,” “I don’t like being with others and prefer being alone,” “I don’t mind spending time alone,” and “I don’t have a strong need to be with other kids.”) and adolescents rated how much they are like each statement using a 5-point response scale (1=not at all, 5=a lot). Peers and parents reported how much the target adolescent is like each statement using the same response scale. The internal consistency for the revised CSPS was adequate for target (α=.61), peer (α=.61), and parent reports (α=.68).

*Internalizing Symptoms***.** Adolescent and parent report of internalizing symptoms were measured using the Youth Self-Report (YSR) and Child Behavior Checklist (CBCL). The Anxious-Depressed, Withdrawn-Depressed, and Somatic Complaints subscales were averaged to form the internalizing symptoms variable for both adolescent and parent reports. The YSR and CBCL have demonstrated strong reliability and validity (Achenbach & Rescorla, 2001). Internal consistency for internalizing symptoms α=.73 and α=.75 for target and parent reports, respectively.

*Social Anxiety Symptoms*. The Social Anxiety Scales for Children and Adolescents (SAS-A) was used to assess adolescent and parent reports of adolescent social anxiety symptoms (LaGreca, 1999). Adolescent and their parents answered 18 items assessing social anxiety symptoms (e.g., “I worry about being teased,” “I worry about doing something new in front of other kids,” and “I am quiet when I’m with a group of kids.”) on a 5-point scale (1=not at all, 5=all the time). The internal consistency of the SAS-A was excellent for adolescent (α=.93) and parent reports (α=.94).

*Externalizing Symptoms***.** Adolescent and parent report of externalizing symptoms were measured using the Youth Self-Report (YSR) and Child Behavior Checklist (CBCL). The Rule Breaking Behavior and Aggressive Behavior subscales were averaged to form the externalizing symptoms variable. Substance use items excluded from the externalizing subscales to eliminate item overlap with our substance use validity outcome. The YSR and CBCL have demonstrated strong reliability and validity (Achenbach & Rescorla, 2001). Internal consistency for externalizing symptoms was α=.84 and α=.76 for adolescent and parent reports, respectively.

*Substance Use*. Items from the National Youth Survey (NYS; Elliot & Huizinga, 1983) were used to assess adolescent and peer reported past year alcohol, cannabis, and cigarette use. Adolescents reported the number of times in the past year they used alcohol as well as the typical quantity of alcohol consumed on drinking days. Adolescents also reported the number of times in the past year they smoked cigarettes as well as the typical quantity of cigarettes they smoked on smoking days. These items were combined to create a quantity x frequency score representing past year alcohol use and cigarette. Adolescents reported the number of times they smoked cannabis in the past year. Considering low rates of substance use at W3, alcohol, cannabis, and cigarette use was dichotomized at W3 and averaged to form composite adolescent and peer report substance use variables. The internal consistency for substance use at W3 was α=.71 and α=.74 for adolescent and peer reports, respectively.

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