



# Displaying Prosocial Behaviors: Implications for the Associations between Anxious-Withdrawal and Psychological Maladjustment

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## Introduction

- **Anxious-withdrawal** refers to the display of solitary behavior in the company of others, stemming from fear and anxiety (Rubin, Coplan, & Bowker, 2009).
  - Anxious-withdrawal is a known strong risk factor for psychopathology during early adolescence (10-14 years), but not all early adolescents who experience anxious-withdrawal suffer from psychological problems.
  - As anxious-withdrawal has been positively associated with displays of prosocial behavior, and engaging in prosocial behavior has been positively associated with positive psychological outcomes, the current study seeks to determine whether engaging in prosocial behavior protects some anxious-withdrawn early adolescents from psychological distress.
  - Early adolescent boys who experience anxious-withdrawal face greater *peer* difficulties than early adolescent girls who experience anxious-withdrawal, and thus gender will be explored as a moderator.
- **Hypotheses:**
1. Anxious-withdrawal will be associated positively with depression and loneliness concurrently and longitudinally.
  2. Prosocial behavior will moderate the associations between anxious-withdrawal and the psychological outcomes such that the associations will be weaker for early adolescents who demonstrate prosocial behavior than those who do not.
  3. Gender will emerge as another moderator such that anxious-withdrawal will be associated *positively* with psychological outcomes for highly prosocial early adolescent boys and *negatively* associated with psychological outcomes for highly prosocial early adolescent girls.

## Method & Participants

- N = 271 6<sup>th</sup> grade students
- $M_{age} = 11.54$  years
- 58% Caucasian, 21% African American, 12% biracial, 4% Hispanic, 3% Arabic, 1% Native American, and 1% Asian.
- Data was collected at two time-points (T1: February, T2: May).

## Measures

Peer nomination items were used to assess:

- **Anxious-Withdrawal** (Time 1): “*Somebody who is very shy*”, “*A person who doesn’t talk much or who talks quietly*”, “*A person who hardly ever starts up a conversation*”, and “*Someone who gets nervous about participating in group discussions*”.
- **Prosocial Behavior** (Time 1): “*Someone who always plays fair*” and “*Someone who helps other people when they need it*”.
- **Peer Acceptance** (Time 1): “*Someone you like to be with the most*”.

Self-reports were used to assess:

- **Depression** (Times 1 and 2): Children’s Depression Inventory: Short Version (CDI:S); 10 items; e.g., choose among the options: “*I am sad once in a while*”, “*I am sad many times*”, and “*I am sad all the time*”.
- **Loneliness** (Times 1 and 2): Loneliness and Social Dissatisfaction Questionnaire (LSDQ); 16 items; 5-point Likert scale, e.g., “*I feel alone*”.

## Tables

**Table 1: Anxious-Withdrawal Predicting Depression and Loneliness at Time 1, with Prosocial Behavior and Gender as Moderators**

		Model 1: Depression T1		Model 2: Loneliness T1	
		B	$\beta$	B	$\beta$
Step 1	Peer Acceptance T1	-0.02	-0.06	-0.09	-0.13
	Ethnicity	0.02	0.12	0.02	0.06
Step 2	Anx-W T1	0.10	<b>0.24**</b>	0.28	<b>0.37***</b>
Step 3	Prosoc B T1	-0.05	-0.13	-0.07	-0.09
	Gender	-0.04	-0.06	-0.00	-0.00
Step 4	Anx-W T1 × Prosoc B T1	0.07	<b>0.24*</b>	0.10	0.17
	Anx-W T1 × Gender	-0.02	-0.03	0.13	0.16
	Prosoc B T1 × Gender	0.12	0.23	0.21	0.21
Step 5	Anx-W T1 × Prosoc B T1 × Gender	0.13	<b>0.39*</b>	0.08	0.12

**Table 2: Anxious-Withdrawal Predicting Depression and Loneliness at Time 2, with Prosocial Behavior and Gender as Moderators**

		Model 3: Depression T2		Model 4: Loneliness T2	
		B	$\beta$	B	$\beta$
Step 1	Dep T1/Lone T1	0.68	<b>0.73***</b>	0.62	<b>0.67***</b>
	Peer Acceptance T1	-0.02	-0.05	-0.04	-0.06
	Ethnicity	-0.00	-0.03	-0.01	-0.03
Step 2	Anx-W T1	0.03	0.08	0.14	<b>0.20**</b>
Step 3	Prosoc B T1	-0.02	-0.07	-0.08	-0.11
	Gender	-0.04	-0.06	-0.13	-0.10
Step 4	Anx-W T1 × Prosoc B T1	0.00	0.02	0.00	0.00
	Anx-W T1 × Gender	0.13	0.31	0.08	0.10
	Prosoc B T1 × Gender	0.04	0.08	0.04	0.04
Step 5	Anx-W T1 × Prosoc B T1 × Gender	-0.04	-0.14	0.02	0.04

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Results

### Concurrent Predictions (Table 1)

- **Main effects:** T1 anxious-withdrawal was a positive predictor of T1 depression and T1 loneliness.
- **Interaction effect:** A significant interaction involving T1 anxious-withdrawal, T1 prosocial behavior, and gender was found. Simple slope analyses revealed that that T1 anxious-withdrawal was a positive predictor of T1 depression for **girls** who were rated by peers as highly prosocial at T1 ( $\beta = 0.12, p = .003$ ), but not for girls low in prosocial behavior ( $\beta = -0.08, p = .29$ ), or boys high ( $\beta = 0.13, p = .18$ ) and low ( $\beta = 0.16, p = .24$ ) in prosocial behavior.

### Longitudinal Predictions (Table 2)

- **Main effects:** T1 depression was a positive predictor of T2 depression, and T1 loneliness was a positive predictor of T2 loneliness. T1 anxious-withdrawal was a positive predictor of T2 loneliness, after controlling for T1 loneliness.

## Conclusions

- Consistent with previous research, significant *concurrent* and *longitudinal* associations were found between anxious-withdrawal and loneliness. However, only significant *concurrent* associations were found between anxious-withdrawal and depression, suggesting that some anxious-withdrawn early adolescents might successfully cope with their depressive symptoms over time.
- Unexpectedly, findings suggest that prosocial behavior is a psychological *risk* rather than a protective factor for anxious-withdrawn *girls*, but not for anxious-withdrawn boys.
- Additional research is needed but it may be that anxious-withdrawn girls engage in prosocial behavior in an attempt to feel better about themselves, but that such behavior is not well-received by peers, and thus leads to depression.
- These findings could potentially serve as a resource for clinicians by suggesting that fostering prosocial behavior may not be an effective clinical tool, especially for early adolescent girls.
- Future studies should investigate other factors that might explain which anxious-withdrawn youth are most at risk for psychological difficulties, such as the personality traits of perfectionism and excessive self-criticism.

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