

Changes in Depression and Anxiety Among Youth in the Context of a Healthy Relationships Program



Natalia Lapshina, Ph.D., Claire Crooks, Ph.D., C. Psych., Karen Bax, Ph.D., C. Psych.
Centre for School Mental Health, Faculty of Education, Western University, London, ON Canada

ABSTRACT

Statement of the problem: As part of evaluation of the Healthy Relationships Plus Program (HRPP) in Canada, this study sought to identify individual and group-level predictors of depression and anxiety at pre-test, and rate of change from pre- to post-test.

Method: A total of 700 youth (ages 11-21) participated in a 15-week program in 2014/2015 academic year within various classroom or community settings. Overall, 70 groups were included in analyses from four Canadian provinces. In small groups, youth engaged in interactive, skill-building activities, discussed mental health issues and how to build healthy relationships. Youth completed pre- and post-program questionnaires to assess their demographics, attitudes and behaviors related to violence, bullying, drug use, and mental health. Depression and anxiety were assessed by the Depression and Anxiety subscales of DASS-21 scale. The results were analyzed using multilevel modeling (MLM).

Results. There was a statistically significant decrease in depression from pre- to post-intervention. Gender and bigger group size predicted depression scores at pre-test, but these variables did not predict differences in the rate of change from pre- to post-test. The cross-level interaction was significant for group mean age, wherein participants in groups with mean age above 14.86 reported a significant decline in depression over the course of the program. There was no change in anxiety over the course of the program. Gender, group mean age, proportion of white participants and proportion of victims of bullying in a group predicted time 1 anxiety scores but there was no cross-level interaction. A proportion of binge drinkers in a group did not predict pre-test depression and anxiety.

Conclusion. These results show a statistically significant decrease in depression but no change in anxiety over the course of the program. The decline in depression varied as a function of group mean age. These findings did not depend on a community versus school program setting and risk status of groups as measured by aggregate binge drinking. Therefore, they offer preliminary evidence of the robustness of the program for different groups of youth.

CONTACT

Natalia Lapshina, PhD
Centre for School Mental Health
Faculty of Education
Western University
Email: nlapshin@uwo.ca

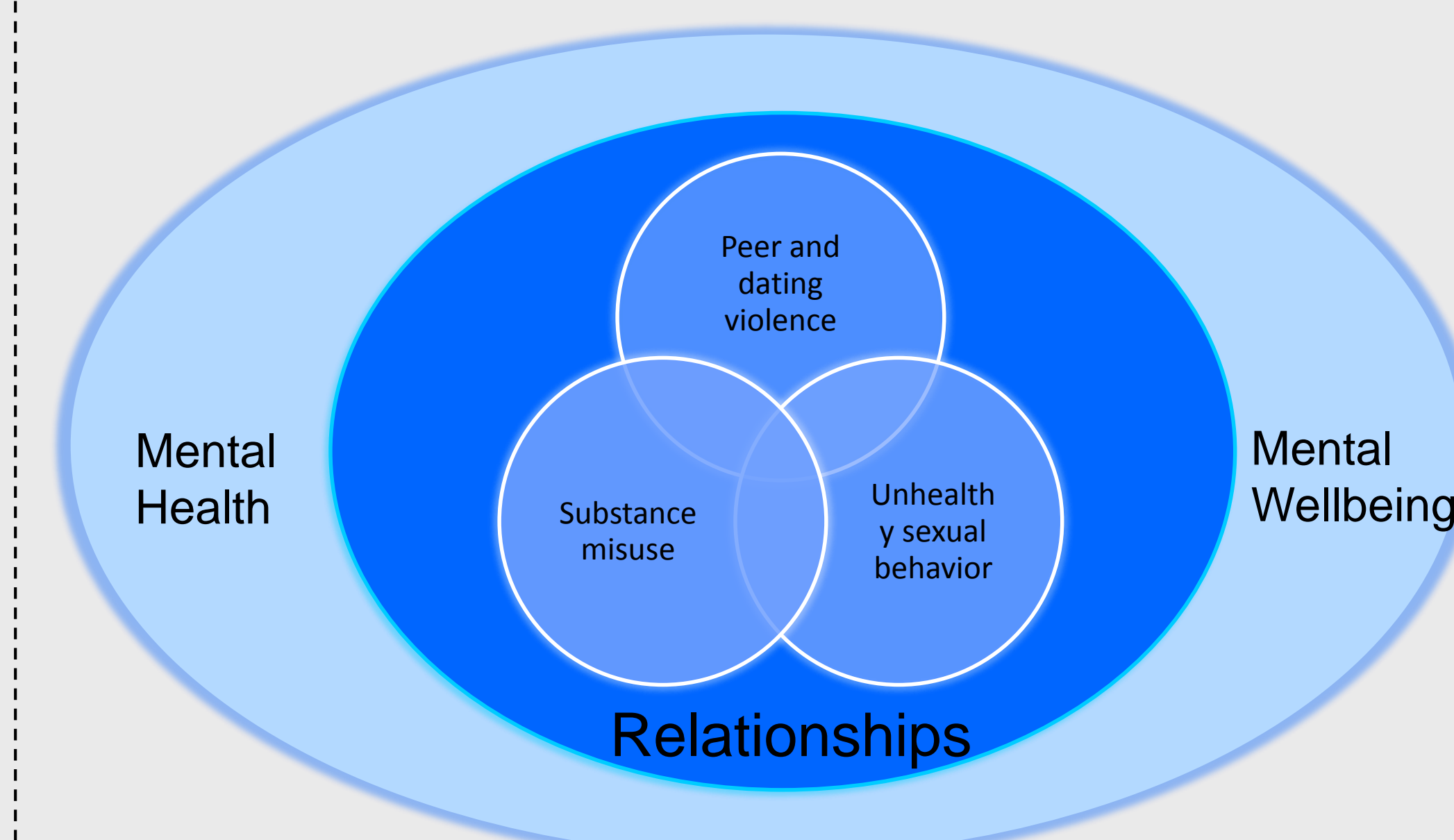
INTRODUCTION

Mental health promotion programs in schools and community settings have the potential to improve positive mental health and also reduce symptoms of mental illness among adolescents.

Healthy Relationships Plus program

- Based on the evidence-based Fourth R programs that are delivered within health curriculums in schools.
- A small groups program designed to promote healthy relationships and positive mental health.
- The program is intended to be delivered in a small group or with the entire class; has a stronger mental health focus and more flexibility in delivery (i.e., length and spacing of sessions).

Adolescent Risk Triad¹



Study Objectives: 1) To determine the rate of change in depression and anxiety from pre- to post-test. 2) To determine individual and group-level risk factors of depression and anxiety at pre-test

METHOD AND MATERIALS

Participants and Design:

- N = 700 youth (52.4% female).
- Age at pre-test : M = 14.87, SD = 1.99.
- Recruited from 70 groups at public schools and community agencies in Canada.
- In groups, youth discussed mental health issues and how to build healthy relationships with their peers and engaged in interactive, skill-building activities.
- Youth completed pre- and post-program questionnaires on demographics, attitudes and behaviors related to violence, bullying, drug use, and mental health.

Predictor variables:

- Gender
- Proportion of White participants (1- White, 0- non-White)
- Proportion of victims of bullying (Bullying and Evaluation Solution Tool (BEST; PREVNet)): physical, verbal, social, and cyberbullying. 0="never", 1="once" to "at least once a week".
- Proportion of Binge Drinkers: "During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row?"
- Group Size
- Group Mean Age

Dependent Measures	Range	Cronbach's α
• Anxiety - Depression, Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995) 7 items	0-21	Pre-test: .84 Post-test: .86
• Depression - (DASS-21) 7 items	0-21	Pre-test: .92 Post-test: .93

ANALYSES

3-level Multilevel Modeling (MLM):

- **Level 1:** change in depression and anxiety over time, from pre- to post- program.
- **Level 2:** participants' gender predict changes in depression and anxiety from pre- to post- program.
- **Level 3:** group-level variables predict changes in depression and anxiety from pre- to post- program.

RESULTS

Table 1. Group-Level Descriptive Statistics of the Sample

Variable	M (SD)	Range
Group Size	18.14 (7.73)	4-36
Group Mean Age	14.87 (1.86)	11.80-18.75
Proportion of Whites	63.08 (31.46)	0-100
Proportion of Victims of Bullying at Pre-Test	62.90 (15.81)	0-100
Proportion of Binge Drinkers at Pre-Test	20.93 (21.05)	0-85.7

Figure 1. Change in Depression by Gender

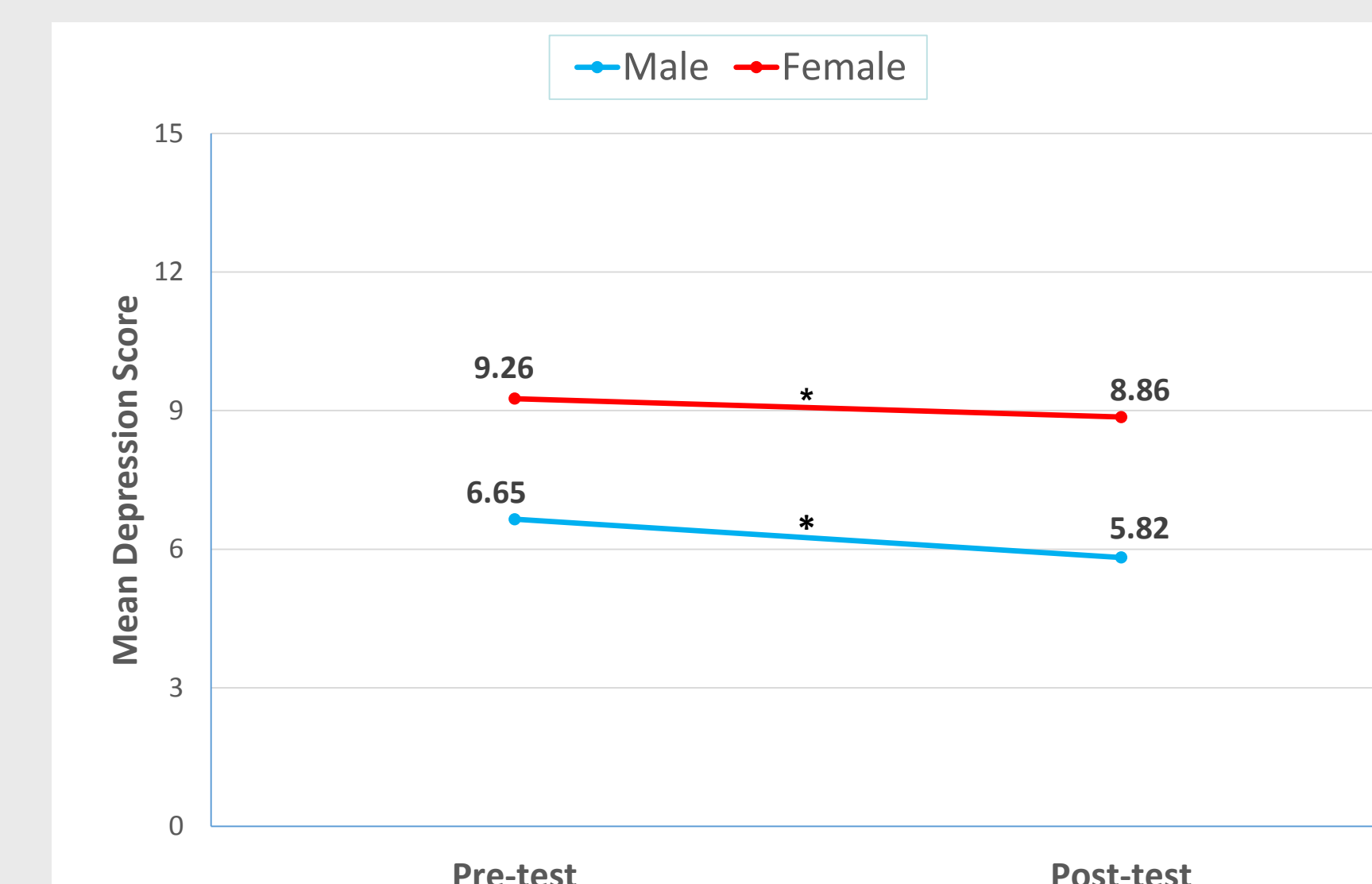
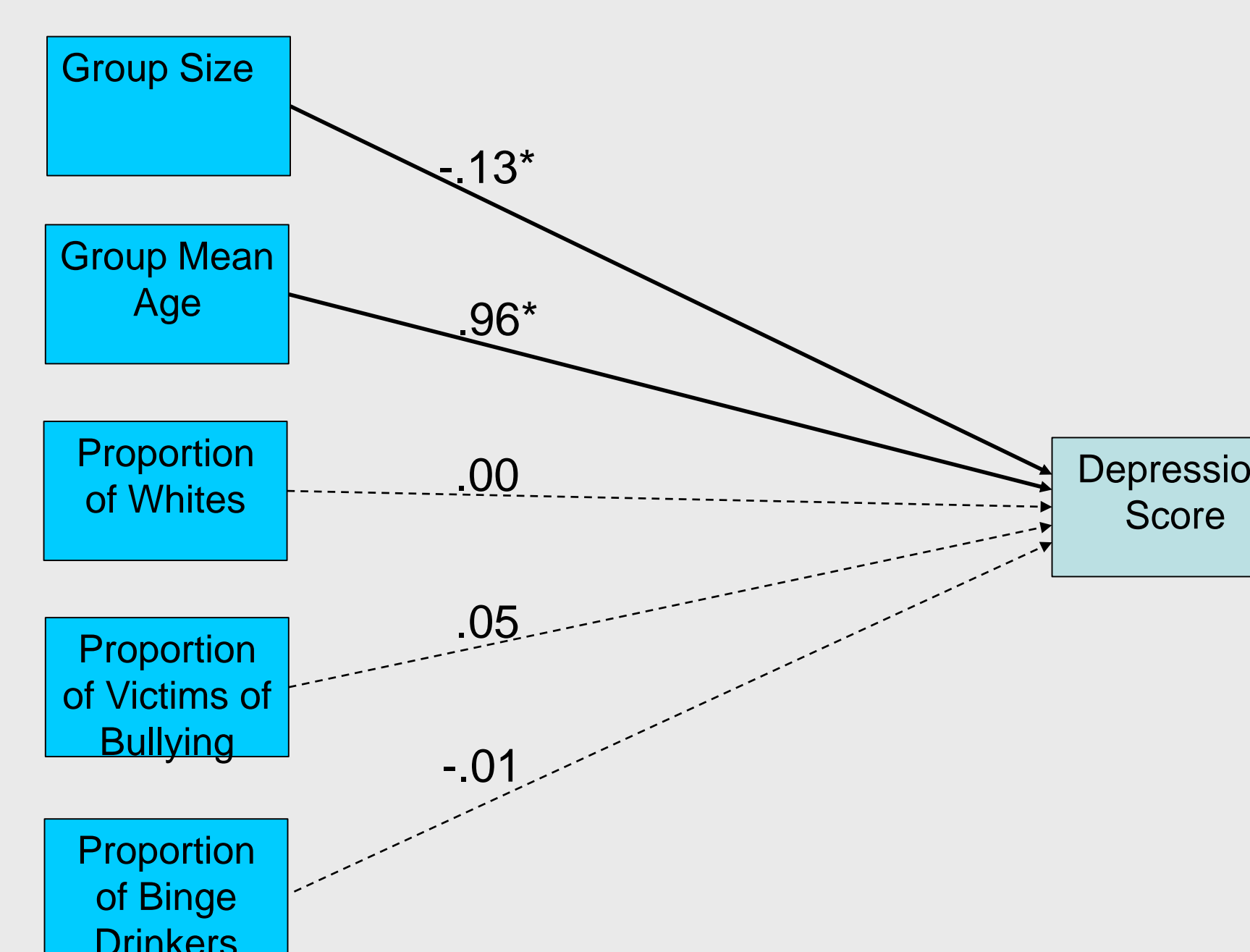


Figure 2. Group-Level Predictors of Depression at Pre-Test



Note. * P < .05

RESULTS

Figure 3. Changes in Depression from Pre- to Post-Test Depending on Group Mean Age

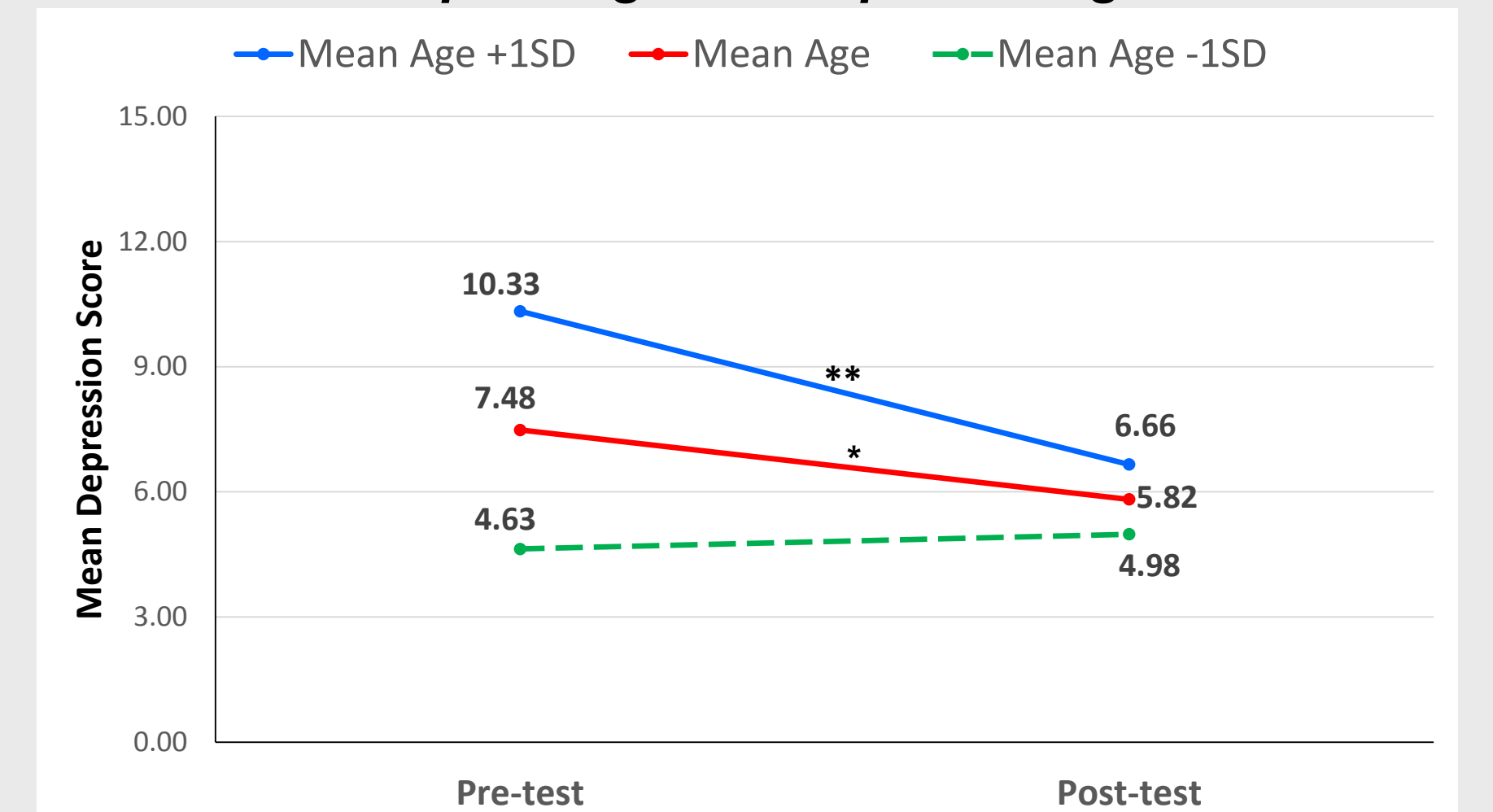
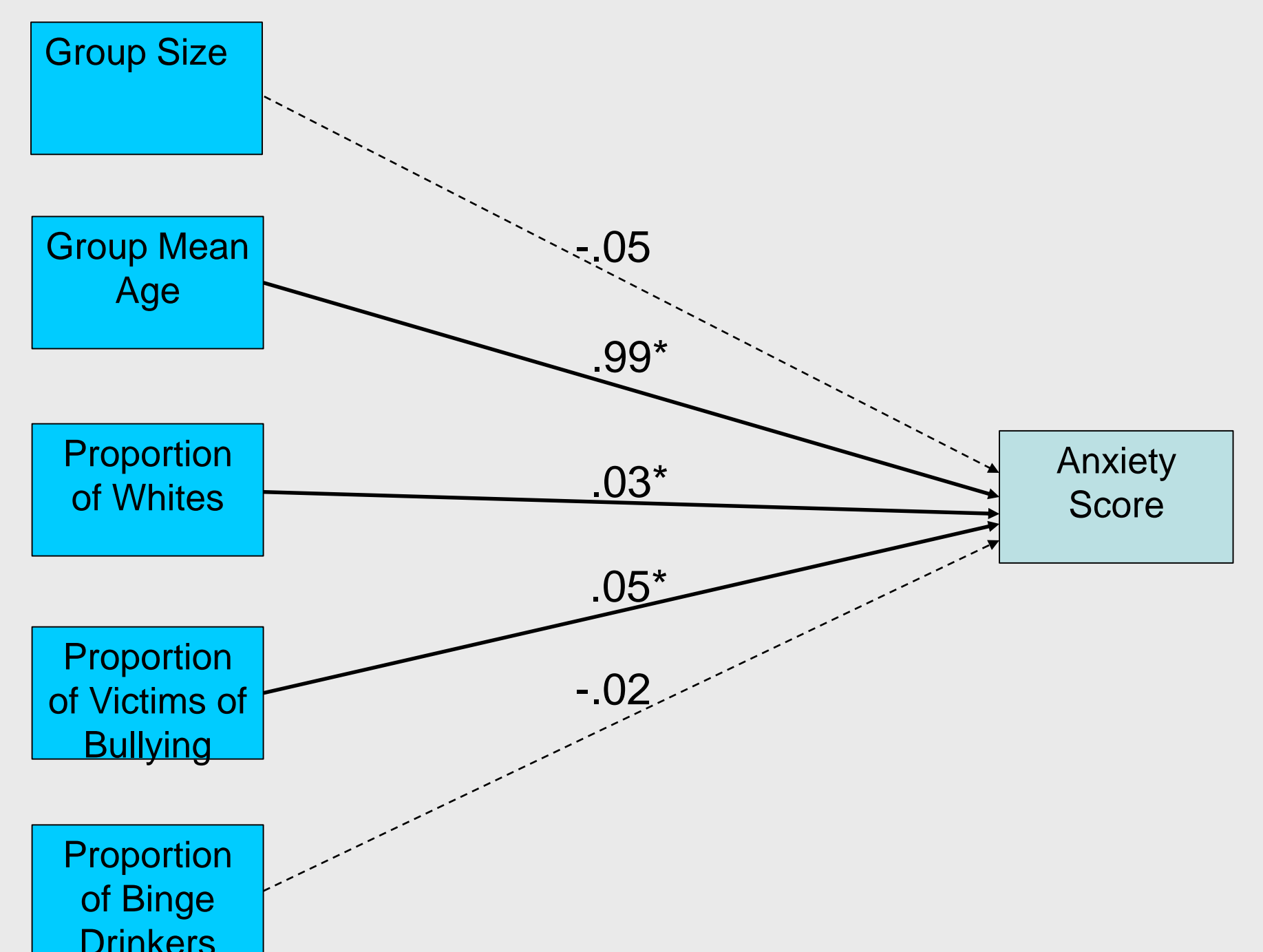


Figure 4. Group-Level Predictors of Anxiety at Pre-Test



Note. * P < .05

SUMMARY and CONCLUSIONS

Depression

- Depression was higher at pre-test and declined over time in groups with group mean age of 14.86 and above (N = 39).
- Females reported higher depression scores at pre-test than males, with a similar decline in depression from pre-to post-test.
- Bigger group size was related to lower depression at pre-test. None of other proposed predictors contributed significantly to pre-test or change from pre- to post-test.

Anxiety

- No change in anxiety from pre- to post-test.
- Females reported higher anxiety at pre-test compared to males.
- Older group mean age, greater proportion of White participants, and greater proportion of victims of bullying predicted higher pre-test scores.
- Group size and proportion of binge drinkers did not contribute to pre-test or change from pre- to post-test.

Implications:

- A healthy relationships / mental health promotion program was shown to decrease depression in a diverse range of groups.
- This program could be an effective Tier 1 (or potentially Tier 2) intervention that can be implemented by teachers, thus freeing up school psychology resources to address Tier 3 mental health needs.
- Decreasing anxiety among youth may require a more focused approach.

The project was funded by Health Canada.

MORE INFO

¹ Adapted from: Wolfe, D. A., Jaffe, P. G., & Crooks, C. V. (2008). *Adolescent risk behaviors: Why teens experiment and strategies to keep them safe*. Yale University Press. <https://youthrelationships.org/hrpp> <http://www.edu.uwo.ca/csmh/research/healthy-relationships.html> <http://www.edu.uwo.ca/csmh/>