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The Longitudinal Effects of Peer Victimization on Physical Health From Adolescence to Young Adulthood

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A B S T R A C T

Purpose: Extensive research with children and adolescents documents the deleterious mental health outcomes associated with peer victimization, and recent research suggests that peer victimization is also associated with physical health problems in these age groups. The present study examines the concurrent and prospective links between physical and relational victimization and physical health problems (physical symptoms and physical self-concept) from adolescence to young adulthood (age 12–29 years).
Methods: Data were collected from the Victoria Healthy Youth Survey, a six-wave multicohort study conducted biennially between 2003 and 2014 (N = 662).
Results: As expected, both relational and physical victimization were associated with greater physical symptoms and poorer physical self-concept concurrently and with physical self-concept over time. Relational victimization, which occurred more frequently, also predicted physical symptoms across young adulthood.
Conclusions: Peer victimization puts adolescents at risk for immediate and long-term physical health difficulties. This study highlights the unique effects of physical and relational victimization and shows that victimized youth continue to experience poorer physical health for years after high school.

IMPLICATIONS AND CONTRIBUTION

Findings highlight the negative health consequences of peer victimization in adolescence both concurrently and across the transition to young adulthood. The stresses resulting from peer victimization can and should be reduced by enhancing coping mechanisms and emotional support. Primary prevention efforts that diminish the acceptability and occurrences of peer victimization are also needed.

Peer victimization among adolescents is a pervasive public health concern [1]. Extensive research documents the deleterious effects of peer victimization on adolescents' mental health (e.g., anxiety, depression, self-harm), both concurrently and over time [2]. Emerging research also suggests that victimization, as a chronic psychosocial stressor, affects adolescents' physical health [3]. Although adolescents are regarded as relatively healthy (e.g., they have low rates of disease), they endorse high rates of physical symptoms [3] and can have poor perceptions of their physical health, appearance, and physical capabilities (a construct termed "physical self-concept") [4].

A meta-analysis of 11 cross-sectional studies showed that victimized children and adolescents are at higher risk of developing physical symptoms (e.g., headaches, nausea, fatigue) compared with their nonvictimized peers [5]. Recent longitudinal research also shows that both physical and relational forms of peer victimization are associated with physical health complaints for adolescents [6,7]. However, findings are not consistent. For instance, Biebl et al. [8] found that youth who are chronically victimized across childhood and adolescence report significantly more physical health complaints compared with nonvictimized or less persistently–victimized peers. Herge et al. [9] found that relational, but not physical, victimization predicts physical symptoms and sleep problems 18 weeks later among

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high school students. In contrast, Espinoza et al. [10] found that daily peer victimization incidents predict school adjustment problems for Mexican-American adolescents but not physical health symptoms.

Cross-sectional studies [11] also indicate that adolescents who are either physically or relationally victimized report poorer physical self-concepts—typically assessed as self-rated health or body satisfaction—compared with their nonvictimized peers. Adults' retrospective accounts of peer victimization in adolescence are also associated with poor self-rated health [12]. Abada et al. [13] showed that peer victimization in 16 and 17 year olds predicts poorer perceptions of health 2 years later, after controlling for previous health conditions, sex, and socioeconomic status (SES). Similarly, in 2 distinct samples of 10 year olds, peer victimization predicts poorer perceptions of body composition 2 years later [14], as well as less favorable self-ratings of physical appearance 5 months later for girls but not boys [15]. In a longitudinal study of the cumulative effects of peer victimization, youth with both current and past histories of peer victimization reported poorer evaluations of their health and health-related functioning compared with peers with current-only, past-only, or no victimization experiences [16]. Although there is growing evidence of the negative effects of peer victimization on physical health, the past research is short-term and has not consistently assessed different types of victimization (i.e., physical, relational). The long-term effects of peer victimization in adolescence on physical health in young adulthood have not been investigated.

The Present Study

We examine the effects of physical and relational victimization on physical symptoms and physical self-concept across 10 years, in a sample spanning ages 12–29 years. Separate latent growth curves were estimated for physical symptoms and physical self-concept, and the concurrent and prospective effects of peer physical and relational victimization on these concerns were examined [17]. Sex differences were tested and baseline age and SES were included as covariates. We hypothesized that both relational and physical peer victimization are associated with elevations in physical health problems (i.e., more physical symptoms and poorer physical self-concept) both concurrently and over time.

Methods

Participants

Data were from the Victoria Healthy Youth Survey (V-HYS), a prospective longitudinal survey following 662 adolescents (342 females). The local university's human research ethics board approved of the research protocol. Youth were interviewed biennially, six times, between 2003 and 2014. See Leadbeater et al. [18] for a detailed description of the sample recruitment and procedures for data collection. Youth's ages ranged from 12 to 19 years at baseline (mean [M] = 15.5; standard deviation [SD] = 1.92): age 12 years, n = 83 (39 females); age 13, n = 90 (54 females); age 14 years, n = 104 (47 females); age 15 years, n = 98 (57 females); age 16 years, n = 104 (42 females); age 17 years, n = 112 (58 females); age 18 years, n = 71 (45 females). Participants were primarily Caucasian (85%) and represented diverse social economic groups [18]. Comparing demographic and key study variables for youth who had T6 data (n = 476) and those who dropped out (n = 186) revealed that nonparticipants had lower SES (M = 4.06, SD = 1.30 vs. M = 3.57, SD = 1.50) but did not differ on other variables.

Procedure

A random sample of 9,500 telephone listings identified 1,036 households with an eligible adolescent (ages 12–19 years). Of these, 185 parents and 187 adolescents declined to participate in the study. Informed consent was obtained from the parents and youth themselves. Response rates were high at all waves of data collection: 87.3% (T2), 81.4% (T3), 69.3% (T4), 69.9% (T5), and 72.1% (T6). A trained interviewer administered the V-HYS in the participant's home or another private location. Items dealing with private topics (e.g., sexual experiences) were strictly self-report. This portion of the interview was self-administered and placed in a sealed envelope not accessible to the interviewer. Gift certificates were awarded for participation at each interview.

Measures

Peer victimization. Physical and relational peer victimization were measured using the Social Experiences Questionnaire [19]. Participants rated how often they experienced physical victimization (five items; e.g., "How often do you get pushed or shoved by your peers?") and relational victimization (five items; e.g., "How often do your peers tell lies about you to make others not like you anymore?") on a three-point scale (0 = never, 1 = sometimes, 2 = almost all the time). Internal consistency for the scale was adequate (α. = .47–.68 for physical victimization; .65–.73 for relational victimization). The lower reliability for physical victimization at T6 reflects the decline in physical aggression with age, as well as a reduction in age-appropriate items. Measurement invariance across time for this scale has previously been reported [20].

Physical symptoms. Adolescents' physical symptoms were assessed using five items from the Health Behaviour in School-aged Children scale [21]. Data were not available at T4. Participants rated the frequency with which they experienced headaches, abdominal pain, backaches, dizziness, and sleeping difficulties in the past 6 months on a six-point scale (0 = never, 1 = rarely, 2 = about every month, 3 = about every week, 4 = more than once a week, 5 = about every day). Chronbach's alphas for the scale ranged from .62 to .66. Confirmatory factor analysis supported the latent structure of a physical symptoms construct at each assessment (Comparitive Fit Index [CFI] $\geq$ .97, Root Mean Square Error of Approximation [RMSEA] $\leq$ .05). Total scores were used in the analyses.

Physical self-concept. After previous research [4], we constructed a multidimensional physical self-concept measure indicated by self-evaluations of: (1) physical health, (2) appearance, and (3) physical development and abilities. Self-evaluated physical health was measured with a single item: "How often do you notice that you are physically healthy?" Satisfaction with appearance was assessed with four items from the Body Areas Satisfaction Scale (i.e., weight, muscles, face, height) [22]. Perceptions of physical development and abilities were assessed using nine items from the Self-image Questionnaire for Young Adolescents (e.g., "I am uncomfortable with my body's development," "I am proud of my body," "I wish I were in better