

Bullying perpetration and victimization as predictors of delinquency and depression in the Pittsburgh Youth Study

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Abstract

Purpose – School bullying is an important social problem with serious consequences. Many studies suggest that involvement in bullying (as a perpetrator or a victim) is associated with undesirable short-term effects on the physical and psychological health of children and with undesirable long-term effects on their future psychosocial adjustment as adults. The purpose of this paper is to investigate whether bullying perpetration predicts later criminal offending and whether bullying victimization predicts later depression.

Design/methodology/approach – The paper analyses data from the Pittsburgh Youth Study in which 503 boys who were originally assessed at age 6-7 years have been followed up to age 19, with yearly or half-yearly assessments.

Findings – Bullying perpetration in one age range, according to boys and mothers, predicted delinquency (reported by boys) in a later age range, and this relationship held up after controlling for ten major risk factors measured in an earlier age range. Bullying perpetration, according to boys, was the stronger predictor of delinquency. Bullying victimization (being bullied) in one age range predicted depression (reported by boys, mothers and teachers) in a later age range, and this relationship also held up after controlling for ten earlier risk factors. Bullying victimization according to mothers was the stronger predictor of depression.

Originality/value – The paper provides useful evidence which leads to the conclusion that bullying perpetration is followed by an increased risk of delinquency, and that bullying victimization is followed by an increased risk of depression.

Keywords Depression, Bullying, Boys, Youth, United States of America

Paper type Research paper

Introduction

School bullying is an important social problem with serious consequences. Many studies suggest that involvement in bullying (as a perpetrator or a victim) is associated with undesirable short-term effects on the physical and psychological health of children and with undesirable long-term effects on their future psychosocial adjustment as adults (Ttofi and Farrington, 2008, 2010). In particular, it has been argued that bullying perpetration predicts later criminal offending and that bullying victimization predicts later depression (Farrington and Ttofi, 2011; Kaltiala-Heino *et al.*, 1999).

It is less clear, however, whether there is any causal effect of bullying and victimization on later offending and depression. Bullying may predict delinquency because both are behavioural manifestations of the same underlying construct such as an antisocial personality. Similarly, victimization may predict depression because both are symptoms of the same underlying internalizing disorder. To the extent that this is true, the predictive power of the earlier variable should extend over long time intervals.

Alternatively, bullying may be an early stage in a developmental or causal sequence that leads to delinquency, and similarly victimization may be an early stage in a developmental or

causal sequence that leads to depression. Bullying perpetration may increase the probability of later delinquency, and bullying victimization may increase the probability of later depression. To the extent that this is true, the predictive power of the earlier variable may extend only over short-time intervals (i.e. the causal lag may be short). In order to establish whether there is some kind of facilitating effect of the earlier behaviour on the later one, it is important to investigate whether bullying predicts delinquency, and victimization predicts depression, after controlling for earlier risk factors (Murray *et al.*, 2009). Also, the predictive power of bullying and victimization may vary at different ages and according to different reporters (boys, parents or teachers).

The key questions addressed in this paper are therefore as follows:

- To what extent does school bullying predict later delinquency?
- To what extent does school bullying predict later delinquency after controlling for earlier risk factors?
- To what extent does school victimization (being bullied) predict later depression?
- To what extent does school victimization (being bullied) predict later depression after controlling for earlier risk factors?
- How does the strength of relationships vary according to the time interval between the predictor and the outcome?
- How does the strength of relationships vary according to the ages of assessment of predictors and outcomes?
- How does the strength of relationships vary according to whether boys or mothers report bullying and victimization?

Method

This paper analyses data collected in the Pittsburgh Youth Study, which is a prospective longitudinal survey of over 1,500 Pittsburgh boys from age 6 to 35 (Loeber *et al.*, 2008). Initially, three cohorts of boys in the first, fourth and seventh grades of public schools in the city of Pittsburgh were followed up (Loeber *et al.*, 1998). Each cohort consists of about 500 boys. This paper focuses on the youngest cohort of 503 boys who were originally assessed at age 6-7 in 1987-1988. These boys (and their parents and teachers) were assessed every six months up to age 10 and then every year up to age 19. As the parental informant was usually the mother, we will refer to mothers in this paper. Response rates were very high, with 82 per cent of the original sample of boys assessed in the 18th data wave at age 19.

The first data wave was a screening wave, while successive waves were labelled A, B, C, etc. (at six-month intervals). From the screening wave onwards (up to wave R at age 15), the mother and teacher (MT) completed the child behaviour checklist (CBCL), which included an item on "cruelty, bullying and meanness to others". However, this was not considered to be a sufficiently specific question about bullying. Beginning in wave G at age 10, a specific questionnaire on bullying was completed by the boy and his mother. This asked about whether the boy had bullied other children in school and about whether other children had bullied the boy in school (in the previous six months). When the assessments became yearly at wave J, the questions referred to the previous 12 months.

The boy's self-reported delinquency was measured at every wave (Farrington *et al.*, 1996; Loeber *et al.*, 1989). The items included stealing, shoplifting, vandalism, firesetting, burglary, joyriding, carrying a weapon, attacking to hurt, robbery, gang fighting and drug selling. The reference period was initially the previous six months and later the previous 12 months. Depression was measured by boys, mothers and teachers (BMT). The boys completed the Recent Mood and Feelings Questionnaire (Angold *et al.*, 1996). The items covered symptoms necessary for making a diagnosis of major depression according to DSM-III-R criteria, including lonely, cries a lot, feels that no-one loves him, feels worthless, unhappy and worries a lot. The questions referred to the previous two weeks. The MT completed the