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Protective factors for violence: Results from the Pittsburgh Youth Study

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ABSTRACT

Purpose: The main aim of this research is to investigate risk-based protective and interactive protective factors for violence.
Methods: The youngest sample of the Pittsburgh Youth Study, a prospective longitudinal survey of 503 boys followed-up from age 7 onwards, was analyzed. Variables measured at age 10–12 were investigated as predictors of an all-source measure of violence between ages 13 and 19.
Results: A number of individual (e.g., low hyperactivity, low psychopathic features) family (good supervision, low parental stress), school (high academic achievement, positive attitude to school) and demographic characteristics (older mother, good quality housing) were found to be risk-based protective factors for the various risk groups identified. High academic achievement was consistently found to be an interactive protective factor and was consistently independently related to low levels of violence.
Conclusions: Much more research on risk-based protective factors and interactive protective factors is needed so that these can be integrated into developmental and life-course explanations of offending. Also, interventions should be tailored to include knowledge about these protective factors in light of the specific risks that individuals possess.

1. Introduction

In its short history, developmental and life-course criminology has been predominantly devoted to identifying the most important risk factors for various criminal career parameters (e.g., prevalence, frequency). A risk factor is commonly defined as a variable that predicts a high probability of an offending, and the individual, family, neighborhood, and socio-demographic risk factors for youth violence have been extensively studied (e.g. Derzon, 2010; Farrington, 2015; Loeber & Farrington, 1998).

Amongst the most important individual risk factors for youth violence are hyperactivity-impulsiveness, deceitful interpersonal style, and low intelligence/low school attainment (e.g., Denno, 1990; Jolliffe & Farrington, 2009). A number of child rearing and parental characteristics have also been associated with the later violence, as are coming from a disrupted home and living in a single-parent female headed household (Farrington, 2015). In general coming from a low socioeconomic status (SES) family, family dependence on welfare benefits, low family income and poor housing predict later violence (Derzon, 2010).

However, the emphasis on risk factors has attracted criticism for focussing specifically on deficits or problems. In response, some researchers have suggested re-aligning the risk factor approach to include both risk and protective factors (e.g. Pollard, Hawkins, & Arthur, 1999). Unfortunately, protective factors lack a clear nomenclature, resulting in considerable confusion. Some have conceptualized the term 'protective factor' as the polar opposite of a risk factor (e.g., White, Moffitt, & Silva, 1989), while others have considered a protective factor as one which interacts with a risk factor to negate its impact (Rutter, 1985). Alternatively, protective factors have been considered variables that predict a low likelihood of offending in a group at risk, such as children living in deprived conditions (Werner & Smith, 1992).

Loeber, Farrington, Stouthamer-Loeber, and White (2008) attempted to resolve this definitional issue by adopting the approach of Sameroff, Bartko, Baldwin, Baldwin, and Seifer (1998) in proposing that a variable that predicted a low probability of offending should be termed a promotive factor. In a recent Centers for Disease Control special issue exploring protective factors for violence (Hall et al., 2012) the same factors (i.e., promotive factors, or those which had desirable main effects) were referred to as *direct* protective factors while *buffering* protective factors were those that mitigated the impact of a risk factor. The fact that a variable can be a risk factor, a promotive factor, both a risk and promotive factor (what Loeber et al., 2008, referred to as a mixed factor), a buffering protective factor for a specific risk factor (e.g., low impulsivity buffering the impact of peer delinquency) or a buffering protective factor for a risk category (e.g., academic

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achievement buffering the impact amongst those from disadvantaged neighborhoods), and that these categorizations could change with age, shows why confusion about what is meant by 'protective factors' persists. For the purposes of the current study, the terminology of Loeber et al. (2008) will be adopted with regards to risk, promotive and mixed factors.

In order to determine whether a variable is a risk, promotive, or mixed factor, it must be empirically tested. One approach to this is to trichotomize the variable into the 'worst' quarter (e.g., high impulsivity) the middle half, and the 'best' quarter (e.g., low impulsivity) and compare both the risk end and the promotive end of the same variable to offending. If a variable is linearly related to offending so that the percent delinquent is low in the best quarter and high in the worst quarter, then that variable could be regarded as both a risk and promotive factor, or what Loeber et al. (2008) referred to as a mixed factor. However, if the percent delinquent is high in the worst quarter, but not low in the best quarter, that variable would be regarded as a risk factor. Alternatively, if the percent delinquent is low in the best quarter but not high in the worst quarter, that variable could be regarded as a promotive factor (see Farrington & Ttofi, 2011).

One of the most comprehensive investigations exploring risk, promotive and mixed factors for serious theft and violence, was conducted by Loeber et al. (2008, Chapter 7, Table 7.1). The results suggest that many variables, including hyperactivity-impulsivity, and parental supervision were best conceptualized as promotive factors, while others, such as depressed mood, and parental reinforcement, were in fact mixed factors. Many of these factors had previously been considered only as risk factors, but including them as promotive factors improved the prediction of serious theft and violence.

The term buffering protective factor, as used by Hall et al. (2012) in introducing the CDC special issue on promotive factors for violence, could include both a variable that interacts with a risk factor to nullify its effect and also a variable that predicts a low probability of offending amongst a high-risk group; however, these two concepts should be considered separately. For the purposes of this research, the term 'risk-based protective factor' will be used to refer to a variable that predicts a low probability of offending amongst a defined group 'at risk', and the term 'interactive protective factor' will be used to refer to a variable that interact to nullify the impact of a specific risk factor.

Much less is known about protective factors than about risk factors, but a number of individual, family, school, socioeconomic, peer, and neighborhood factors have been identified as potential protective factors (for a more complete review see Lösel & Farrington, 2012). Many of these factors have been identified in the process of studying resilience, or the factors that associated with desirable outcomes amongst children variously defined as 'at risk'. For example, the Kauai Longitudinal Study followed all children born in 1955 on a Hawaiian island from the perinatal period to age 30 years (Werner & Smith, 1992). Those children who faced challenging individual, family, and environmental conditions (e.g., poverty, low maternal education, disrupted family, perinatal stress), but did not develop serious learning or behavioral problems were more likely to be first born, active and affectionate infants from smaller cohesive families. These children also tended to have high verbal skills, high self-esteem, and to have received a relatively high level of attention in infancy.

Perhaps the most replicable protective factors are found in the broad domain of intelligence and academic achievement. In their study of high-risk 14–17 year old adolescents from residential homes, Lösel and Bliesener (1994) found that those who had not developed behavioral or emotional problems tended to be more intelligent and to have a better self-concept than those who did develop such issues. Other studies have identified high intelligence or academic achievement as potentially important protective factors amongst children possessing particular risks (e.g., Kolvin, Miller, Scott, Gatzanis, & Fleeting, 1990).

Good parental supervision and a warm emotional attachment to parents appear to be protective factors for children's later delinquency and violence. For example, in the Newcastle Thousand Family Study, Kolvin et al. (1990) found that children who faced multiple impediments, such as coming from a family dependent on welfare, living in an overcrowded house, receiving poor physical care, poor mothering, parental illness, and disrupted family, were less likely to have official offenses at age 32 if they had received good parental supervision.

There have been relatively few studies of the potential protective influence of socioeconomic factors for later offending and violence. However, in the aforementioned Newcastle Thousand Family study, high socioeconomic status was a protective factor against delinquency amongst deprived children (Kolvin et al., 1990).

Neighborhood protective factors have been more thoroughly investigated. For example, in the study of Kupersmidt, Griesler, DeRosier, Patterson, and Davis (1995), the effect on aggression of living a middle-class neighborhood was studied amongst 1271 second through fifth grade children (40% African American). The results suggested a protective effect of middle-class neighborhoods on the aggressive behavior of African American children from low-income, single-parent homes. It was suggested that middle-class neighborhoods might provide more prosocial role models and opportunities and fewer stressors, such as threats to personal safety, as well as fewer opportunities for aggression.

A number of studies have focussed specifically on the potentially protective relationship that might exist between neighborhoods and high impulsiveness (e.g. Lynam et al., 2000; Zimmerman, 2010). Using 1191 subjects aged 12–15 from the Project on Human Development in Chicago Neighborhoods, Zimmerman (2010) discovered that the risk of self-reported offending and violence was greater for impulsive individuals living in non-deprived neighborhoods, while impulsivity had no effect on offending in deprived neighborhoods.

There is some limited evidence to suggest that the peer factors, specifically having non-deviant friends or not having delinquent friends, could be protective. In the Christchurch Health and Development Study, Fergusson and Horwood (2003) examined resilience to a number of different forms of adversity. These included socioeconomic adversity, (low SES, low parental education, low standard of living), parental change and conflict (single parent family, changes of parents, interparental violence), child abuse exposure (physical punishment, experience of sexual abuse) and poor parental adjustment (parent alcohol problems, parental criminality). The results suggested that lower levels of externalizing behavior in both adolescence and adulthood were associated with limited deviant peer affiliations.

1.1. The current study

The present analyses extend the work of Pardini, Loeber, Farrington, and Stouthamer-Loeber (2012) and Loeber et al. (2008) both of which focussed on identifying promotive factors (direct protective factors) for violence using the Pittsburgh Youth Study. In the current study the purpose was to first identify promotive factors, and then risk-based protective factors and potentially interactive protective factors. Specifically, risk-based and interactive protective factors were explored for those from deprived neighborhoods, those living in deprived families, and those who have repeated a grade. In the past, all of these have been considered risk factors for violence (e.g., Farrington, 2015) and previous research on protective factors has generally explored resilience to an amalgamation of these background factors (e.g. Werner & Smith, 1992). However, this research is one of a small number of studies where the risk-based and interactive protective factors for specific risk groups were explored.

In addition, this research explores the risk-based and protective factors for African American boys. Previous research has established that African American boys appear more likely to commit serious violence than Caucasian boys, with evidence that this race difference can be accounted for by an over-exposure to various risk factors. For example, previous results from the youngest and oldest cohorts of the Pittsburgh