Personality and Individual Differences 98 (2016) 355–360

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

The association between intelligence and personal victimization in adolescence and adulthood

Kevin M. Beaver [a,b], Joseph L. Nedelec [c], J.C. Barnes [c], Brian B. Boutwell [d], Cashen Boccio [a,*]

[a] College of Criminology and Criminal Justice, Florida State University, Tallahassee, FL 32306-1127, USA
[b] Center for Social and Humanities Research, King Abdulaziz University, Jeddah, Saudi Arabia
[c] School of Criminal Justice, University of Cincinnati, Cincinnati, OH 45221-0389, USA
[d] School of Social Work, Department of Epidemiology, School of Public Health, Saint Louis University, St. Louis, MO 63103, USA

ARTICLE INFO

Article history:
Received 24 February 2016
Received in revised form 15 April 2016
Accepted 17 April 2016
Available online xxxx

Keywords:
Add Health
Antisocial
Intelligence
Victimization
Violence

ABSTRACT

Intelligence has been linked to antisocial, violent, and criminal behaviors. Surprisingly, however, there is a lack of research examining whether intelligence differentially affects the risk for personal victimization. The current study addresses this gap in the literature by examining whether adolescent levels of verbal intelligence are related to the odds of personal victimization in adolescence and adulthood. This study analyzed data from the National Longitudinal Study of Adolescent to Adult Health (Add Health). The results revealed a statistically significant and consistent association between intelligence and victimization. Persons with lower intelligence were more likely to report being victimized even after controlling for the effects of violent criminal behavior. Future research would benefit by examining more closely the association between IQ score and the risk for victimization over the life course.

1. Introduction

Criminal victimization is not necessarily a rare occurrence in the US with prevalence rates hovering around 9.0% for household property crime and 1.2% for violent crime (Truman & Langton, 2014). Although victimization is relatively common (at least when compared with the rates of most other industrialized nations), the outcomes associated with victimization can be quite dire. Studies have shown, for instance, that personal victimization not only can result in physical injuries and monetary losses, but that it can also lead to long-term psychological and emotional trauma (Graham & Juvonen, 2001; Menard, 2002). Depression, anxiety, and even post-traumatic-stress disorder (PTSD) have all been tied to personal victimization (Johansen, Eilertsen, Nordanger, & Weisaeth, 2013; Ruback, Clark, & Warner, 2014).

Given the serious ramifications of victimization, there has been considerable interest in examining the potential factors that might predispose individuals to personal victimization. Some of the earliest and most influential research on this topic focused on identifying environmental factors, such as lifestyle factors and exposure to criminal peers, that might be involved in the prediction of victimization (e.g., Cohen & Felson, 1979; Schreck, & Fisher, 2004; Schreck, Fisher, & Miller, 2004). Recently there has been a shift in this research, with more and more studies examining the role of individual-level attributes. Out of this body of research a number of salient individual level factors, such as self-control, have been shown to relate to the odds of being victimized (Pratt, Turanovic, Fox, & Wright, 2014). Despite the recent interest on individual-level risk factors for personal victimization, there are some noticeable omissions from this body of literature. Perhaps most notably is the lack of any serious attention given to the possibility that intelligence might be associated with victimization.

Despite this lack of empirical research directly examining the association between intelligence and personal victimization, there are at least three key reasons to suspect that intelligence might be connected to victimization. First, there is a great deal of research examining the overlap between victimization and offending. Findings from this line of research consistently show that criminal and violent offenders are significantly more likely to be victimized when compared to non-offenders (Lauritsen, Sampson, & Laub, 1991; Sampson & Lauritsen, 1990). This is particularly germane to the current study because there is a considerable amount of research showing a robust association between lower levels of intelligence and greater involvement in criminal behaviors (Lynam, Moffitt, & Stouthamer-Loeber, 1993; Moffitt, Gabrielli, Mednick, & Schulsinger, 1981). What this means is that persons with lower intelligence might be more likely to be victimized because they are over-involved in criminal and violent behaviors.

The second reason to suspect that intelligence might be linked to victimization comes from recent research examining trait-based explanations of victimization. This line of research is still emerging, but it has

* Corresponding author at: College of Criminology and Criminal Justice, Florida State University, 145 Convocation Way, Tallahassee, FL 32306-1127, USA.
E-mail address: cb13b@my.fsu.edu (C. Boccio).

http://dx.doi.org/10.1016/j.paid.2016.04.068
0191-8869/

revealed that a number of traits appear to contribute to an increased risk of victimization. Studies have shown, for example, that self-regulation, ADHD, anger, and psychopathic personality traits, increase the odds of being a victim of criminal or aggressive behaviors (Silver, Piquero, Jennings, Piquero, & Leiber, 2011; Wiener & Mak, 2009; Finkelhor, Ormrod, &, Turner, 2007; Henry, Caspi, Moffitt, & Silva, 1996). Taken together, these findings strongly suggest that traits linked to maladjustment, negative outcomes, and problematic behavior are involved, in some way, in the etiology of victimization. Intelligence would be another trait that might also fall into this grouping by having effects that cut across not just behavioral and social outcomes, but also victimization.

The last main reason to suspect an association between intelligence and personal victimization comes from research examining how lifestyle factors influence the risk of victimization. Findings from a large number of studies converge to show that certain lifestyle factors, such as staying out late at night and frequenting bars and nightclubs, increases significantly the risk for personal victimization (Cohen & Felson, 1979; Felson, 2002; Miethe & Meier, 1994; Wright & Decker, 1994). Moreover, persons who are embedded in antisocial lifestyles (e.g., hanging out with criminal friends, joining gangs, residing in high-crime areas and being unemployed) are particularly at risk for being victimized. This has direct application to the potential intelligence–victimization nexus because intelligence has been shown to relate to lifestyle factors. For example, lower intelligence has been shown to predict greater exposure to criminal peer networks (Seals & Stern, 2013; Kimonis, Frick, & Barry, 2004), engaging in riskier lifestyles (Pharo, Sim, Graham, Gross, & Hayne, 2011), residing in crime-ridden neighborhoods (Beaver & Wright, 2011), and being nested within drug cultures (Duncan, Kennedy, & Smith, 2000; Latvala et al., 2009), all of which have been shown to increase the risk for victimization (Averdijk & Bernasco, 2014; Jennings, Piquero, & Reingle, 2012; Hoyt, Ryan, & Cauce, 1999; Miethe & Meier, 1994). Against this backdrop, intelligence might be related to victimization via the effects it has on lifestyle factors.

2. Current study

Although there is good reason to hypothesize that intelligence and victimization should be connected, to date there has not been a systematic examination of this possibility. The current study is designed to address that gap in the literature. To do so, we examine the potential association between adolescent intelligence and victimization that occurs in adolescence as well as adulthood. We address this possibility by analyzing data drawn from a longitudinal and nationally representative sample of young adults.

2.1. Methods

2.1.1. Data

Data for this study come from the National Longitudinal Study of Adolescent to Adult Health (Add Health; Udry, 2003). Previous published reports provide detailed information about these data, including the sampling design and breadth of items covered in the questionnaires (Harris et al., 2003, 2009; Resnick et al., 1997). Briefly, the Add Health is a four-wave prospective study that consists of a nationally representative sample of youth who were attending middle or high schools during the 1994–1995 academic year. The first wave of data includes two components: the wave 1 in-school survey and the wave 1 in-home survey. The wave 1 in-school surveys were completed by more than 90,000 students while they were at school. A subsample of these students was then selected to be re-interviewed in their homes as part of the wave 1 in-home surveys. In total, 20,745 youth and 17,700 of their primary caregivers (usually their mothers) were included in the wave 1 in-home component of the sample. Approximately 1.5 years later, the second wave of data was collected from 14,738 adolescents. The third wave of data was collected between 2001 and 2002 and included a total of 15,197 participants. The last wave of data was collected between 2007 and 2008 from 15,701 respondents. During this wave of data collection, most of the participants were 24–32 years old. Overall, these data cover about 14 years of adolescent and adult human development and thus represent a rich data source (Harris et al., 2003, 2009).

2.2. Measures

2.2.1. Intelligence (IQ)

We used two analysis strategies for the measurement of IQ in the current study. First, at wave 1, respondents were asked to complete the Picture Vocabulary Test (PVT). This test represents an abbreviated version of the widely used Peabody Picture Vocabulary Test Revised (PPVT-R). PVT scores capture variation in verbal skills and receptive vocabulary. It is important to note that PVT scores in the Add Health have been issued previously as measures of verbal intelligence (Rowe, Jacobson, & van den Oord, 1999; Schwartz & Beaver, 2013). Table 1 contains descriptive data for the IQ measure along with the other variables and scales that are analyzed in the current study.

The second analysis strategy consisted of transforming the PVT scores into quartiles. The use of quartiles serves two purposes. First, it groups together individuals with somewhat similar IQ scores which allow for estimates that are less vulnerable to the effects of influential cases. Second, it also allows for a check on whether the results are sensitive to the measurement strategy.

2.2.2. Victimization

At each wave of data collection, respondents were asked a number of questions pertaining to their experiences with personal victimization. These items were used to create ten different victimization measures. The first four victimization scales were created by using responses to questions at each wave of data collection concerning the frequency with which the participant was the victim of violent behaviors. Specifically, at wave 1 and at wave 2 respondents were asked to indicate how often during the past 12 months someone pulled a knife or gun on them, shot them, cut or stabbed them, and they were jumped. At wave 3 participants were asked to indicate how often in the past 12 months someone pulled a gun on them, someone pulled a knife on them, someone shot them, and someone stabbed them. Finally, at wave 4 participants were asked to indicate how many times in the past 12 months someone pulled a knife or gun on them, someone shot or stabbed them, someone slapped, hit, or choked them, and someone beat them up. Responses to the items at waves 1 and 2 were coded 0 = never, 1 = once and 2 = more than once. Responses to the items at waves 3 and 4 were coded dichotomously such that 0 = never and 1 = at least once. To develop the scales, responses to each question were summed to create the wave 1 ($\alpha = .61$), wave 2 ($\alpha = .63$), wave 3 ($\alpha = .62$), and wave 4 ($\alpha = .74$) victimization scales. Importantly, these scales are similar to ones used previously (e.g., Beaver, Boutwell, Barnes, & Cooper, 2009;

Table 1
Descriptive statistics for selected Add Health sample variables.

	Mean	Standard deviation	Min–Max
IQ	98.56	15.55	9–141
Victimization (W1)	0.38	0.92	0–8
Victimization (W2)	0.29	0.82	0–8
Victimization (W3)	0.10	0.42	0–4
Victimization (W4)	0.24	0.70	0–4
Lifetime victimization	0.92	1.83	0–17
Repeat victimization	0.14	0.35	0–1
Violence (W1)	1.24	2.36	0–18
Violence (W2)	0.82	2.00	0–18
Violence (W3)	0.21	0.86	0–14
Violence (W4)	0.23	0.96	0–13
Age (W1)	16.15	1.74	12–21
Gender (1 = male)	0.49	0.50	0–1
Race (1 = African American)	0.27	0.44	0–1