Person-Environment Interactions Predict Delinquency in Adolescence: Sensation Seeking, Peer Deviance & Parental Monitoring

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Introduction

Sensation seeking – a disposition to prefer and select novel, rewarding and exciting experiences – predicts myriad risk-taking behaviors in adolescence (Popham, Kennison & Bradley, 2011; Sargent, Tanski, Stoolmiller, Hanewinkel, 2009). Peer and family level processes also contribute to individual differences in risk-taking behavior. Deviant peer groups are a salient proximal influence for increased delinquency in adolescence (Gardner & Steinberg, 2005). Conversely, parental monitoring is a family level process that serves as a protective factor against delinquent behavior (Lahey et al., 2008; Dick et al., 2011).

Hypotheses

1) High levels of sensation seeking, peer group deviance and low levels of parental monitoring will predict increased rates of adolescent delinquency.

2) The effects of sensation seeking and parental monitoring on delinquency will be mediated by affiliation with deviant peers.

3) Interactions between risk & protective factors will predict adolescent delinquency, such that high levels of parental monitoring will moderate the high levels of risk that result from the concurrence of sensation seeking and peer deviance.

Measures

Sensation seeking: Zuckerman’s self-report sensation seeking scale (range = 1.13 - 5.00, \( M = 3.25, SD = .70, \alpha = .72 \)).

Peer deviance: 11-item self-report measure adapted from Thornberry, Lizotte, Krohn, Farnworth, & Jang, 1994 (range = 2.73 - 4.45; \( M = 3.68, SD = .31, \alpha = .90 \)).

Parental monitoring: 15-item self-report measure that assessed parental knowledge about friends, activities, and parental rules (range = 1.07 - 3.0; \( M = 2.56, SD = .35, \alpha = .85 \)).

Delinquency: 36-item self-report measure adapted from Survey, Huizinga, Esbensen & Weiler, 1991 (composite score range = 0.00 – 50.0; \( M = 7.48, SD = 7.77, \alpha = .88 \)).

Correlations & Sample Demographics

Table 2. Total, Direct & Indirect Effects on Adolescent Self-Delinquent Behavior

Analyses

Mean scores were computed for predictors and a sum score was computed for the criterion. Peer deviance and parental monitoring scales were log-transformed to correct for skew and all standard errors and model statistics were adjusted for nonindependence of data from children living in the same household (i.e. sibling clusters). To control for collinearity, all predictors were mean-centered. Using a tobit model to account for left-censored data on self-report delinquent behavior (Wang, Zhang, McArdle & Salthouse, 2008), mediating and moderating pathways were evaluated with structural equation modeling using Mplus–Version 7.1 software (Muthén & Muthén, 1998-2010). The full model, which tests mediation and moderation hypotheses, is displayed below.

Results

Hypothesis 1: sensation seeking & peer group deviance had significant direct effects predicting adolescent delinquency, even after controlling for age and gender; however, the direct effect of parental monitoring was not significant.

Hypothesis 2: the indirect effects of sensation seeking and parental monitoring, mediated through peer group deviance, were significant (see table 2).

Hypothesis 3: sensation seeking X peer deviance X parental monitoring interaction was significant (b = -.33,320, SE = 7.346, p < .001), even after controlling for age, gender and the direct effects of focal predictors (see figure 1).

Discussion

Results highlight the importance of peer and family factors when considering the implications of personality dispositions for problematic youth outcomes.

Risky social contexts, such as deviant peer groups, serve to exacerbate the intrapersonal risk associated with high sensation seeking adolescents.

Protective family environments, such as families with high levels of parental monitoring, are especially effective at buffering the negative effects that result from the concurrence of intrapersonal and contextual risk.

Significant mediating and moderating pathways between sensation seeking and peer deviance is consistent with both selection and socialization processes.

To identify direction of causation, and to disentangle the relative effects of selection and socialization, future research would benefit from evaluating these processes with longitudinal data.

Funding & Acknowledgements

This research was supported by an NIDA early career award (K01 DA035617-01) to EMT-D and an NHTSA grant (2011-DT-FV-K031) to KPH. We thank the families, adolescents, and staff who participated in the ‘Findings Project’, the Population Research Center at the University of Texas at Austin, which is supported by NIH center grant R24-HD042849, provided a seed grant. Dick, D. M., Meyers, J. L., Latendresse, S. J., Creemers, H. E., Lansford, J. E., Pettit, G. S., ... & Huizink, A. C. (2011). CHRM2, Parental Monitoring and Adolescent Delinquency. Psychological Medicine, 43, 476-496.

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