MODERATOR EFFECTS OF GENDER AND AGE ON THE RELATIONSHIP BETWEEN EXPOSURE TO DOMESTIC VIOLENCE AND IDENTITY DEVELOPMENT

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ABSTRACT

This study examined the association between exposure to domestic violence and identity development in adolescents, and the moderator effects of gender and age. Measures of exposure to domestic violence and identity development were administered to 109 high school students and undergraduate university students from South Africa. Data were analysed using the moderated hierarchical regression analyses. There were no gender and age effects on the relationship between exposure to domestic violence and identity development. Implications are proffered.

Keywords: Domestic violence, identity development, adolescents, gender, age

Introduction

In sum, most studies to date have established that children and adolescents exposed to domestic violence experience a diversity of deleterious outcomes and dysfunctional life trajectories (Fantuzzo, DePaola, Lambert, Martino, Anderson & Sutton, 1991; Holden & Ritchie, 1991; Jaffe, Wolfe, Wilson, & Zak, 1986; Rossman, 1998; Sternberg et al., 1993). Specifically, these literature tend to conclude that exposure to domestic violence is correlated to increased developmental problems, internalizing and externalizing behaviours, psychosocial problems, as well as identity problems (Carlson, 2000; Edleson, 1999; Makhubela, 2012; Margolin, 1998).

Moreover, this research further suggest that exposure to domestic violence may affect boys and girls differently. In general, research suggests that boys demonstrate more externalizing behaviours while girls tend to present with more internalizing behaviours (e.g., Carlson, 1991; Stagg, Wills, & Howell, 1989; Yates, Dodds, Sroufe, & Egeland, 2003). Some studies suggest, however, that this tendency may vary with age (Cummings, 1998; Evans, Davies & DiLillo, 2008; Kitzmann, Gaylord, Holt, & Kenny, 2003; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003). In adolescence, for instance, boys are inclined to present with more feelings of sadness while girls show more feelings of anger (Cummings, Ballard, & El-Sheikh, 1991; Spaccarelli et al., 1994).

To date, three published meta-analytic studies have reviewed the literature on the effects of exposure to domestic violence and associations between exposure to domestic violence and childhood outcomes (see Evans et al., 2008; Kitzmann et al., 2003; Wolfe et al., 2003). The meta-analyses have also examined the moderating roles of gender and age, with different conclusions. While Wolfe et al. (2003) and Evans et al. (2008) reported gender effects in children exposed to domestic violence; Kitzmann et al. (2003) found no such effects. Moreover, where Evans et al. (2008) and Wolfe et al. (2003) found significant effects for age, Kitzmann did not report any.

Of some of this correlates of childhood exposure to domestic violence is identity development (see Makhubela, 2012). Broad operationalizations of identity, which derive from Erikson’s works, are regarded to be most suitable for young adolescents (Schwartz et al., 2005, 2008). This operationalizations of Erikson’s theory typically comprise of the syntonic (i.e., identity coherence) and dystonic (i.e., identity confusion) poles of Erikson’s identity stages (e.g., Ochse & Plug, 1986). This is significant given Erikson’s emphasis of coherence and confusion as key consequences of identity development in adolescence (Schwartz, Mason, Pantin, Wang, Brown & Szapocznik, 2009).
Contexts broadly, and their effects on identity development have been a recent focus in the identity literature (e.g., Adams & Marshall, 1996; Akers, Jones, & Coyl, 1998; Cote, 1996; Yoder, 2000). Adams and Marshall (1996) have asserted that identity develops as a result of both individual and social processes. They indicate how processes of differentiation and integration underlie the association between the individual and context, and how identity both determines and is determined by the surrounding milieu (Kroger, 1997; Schwartz, Mason & Szapocznik, 2008).

Among the contexts that have been examined is the family (Mullis, Brailsford, & Mullis, 2003; Schwartz, Pantin, Prado, Sullivan & Szapocznik, 2005). Family is largely considered to be the most significant domain of influence during adolescence (Steinberg, 2001). Family processes (e.g., family stability, hostile and violent environment) are consistently related to adolescent psychosocial, behavioural and developmental outcomes, and these relations have been found to generalize across cultures too (Dmitrieva, Chen, Greenberger, & Gil-Rivas, 2004; Schwartz et al., 2008; Vazsonyi, 2003; Vazsonyi, Hibbert & Snider, 2003). Since family functioning and other contextual processes (e.g., domestic violence) may function as antecedents and concomitants to identity development (Kampfner, 1988; Reis & Yousniss, 2004), it is imperative to understand the manner in which family functioning relates to identity formation wholly.

In lieu of the inconsistencies in the literature and because few studies have examined the moderating effects of gender and age on exposure to domestic violence, further investigations are warranted to offer more clarity on the potential moderating impact of gender and age during early and middle adolescence, when the identity development process is initiated (Archer, 1982). The present study explored whether there were gender or age differences that moderated the relationship between exposure to domestic violence and identity development among South African participants.

Methods

Participants

A contemporaneous survey was conducted among a heterogeneous convenient sample of 109 adolescents. Participants were high school students and undergraduate students of the University of Limpopo, aged 15 to 20 years (64 female & 45 male), with the mean age 18.7 yr. (SD = 0.9). In the participants, 104 (96.3%) were Black and 5 (3.7%) were Coloured.

Measures

Two measures: the Ochse and Plug Erikson Scale (Ochse, 1983; Ochse & Plug, 1986), and the Child Exposure to Domestic Violence Scale (Edleson, Shin, & Armendariz, 2008) were used in this present study.

Ochse and Plug Erikson Scale (Ochse & Plug, 1986)

Ego Identity (i.e., a combination of the residues of the first five stages) was measured using The Ochse and Plug Erikson Scale (Ochse & Plug, 1986), a self-report measure that examines identity development according to Eriksonian conceptions (Ochse, 1983; Ochse & Plug, 1986). The scale consist of 59 items and comprises of five subscales that measure Trust vs Mistrust (e.g., “I feel people distrust me”), Autonomy vs Shame and Doubt (e.g., “I am unnecessarily apologetic”), Initiative vs Guilt (e.g., “I feel guilty when I am enjoying myself”), Industry vs Inferiority (e.g., “I make the best of my abilities”), and Identity vs Identity diffusion (e.g., “I wonder what sort of person I really am”). This subscales are rated on a 4-point likert scale (i.e., 1: Never to 4: Very often). The total score (i.e., probable score ranging from 58 to 236) shows the extent to which participants have attained a coherent sense of trust, autonomy, initiative, and industry in their childhood and the degree of identity formation during adolescence (Ochse & Plug, 1986; Peacock & Theron, 2007). This instrument evaluates the syntonic (identity coherence) and dystonic (identity confusion) poles of Erikson’s identity stages.

The measure was developed with a sample of White English-speaking, White Afrikaans-speaking and Black African-language speaking (i.e., from more than 10 different language/ethnic groups) participants (ages 15–20 years), and indicated both discriminant and convergent validity when correlated to Well-Being and Social Desirability scales (Ochse & Plug, 1986). The internal consistency of the scale for each of these groups was acceptable, with Cronbach alphas of .92 for White English- and Afrikaans speaking participants and .86 for Black participants (Ochse & Plug, 1986; Thom & Coetzee, 2004). The internal consistency of the Erikson’ scale in the current study was also comparable to those reported by Edleson, et al. (2008), Ochse and Plug (1986). The reliability coefficient of the total Erikson scale at α = .84 were adequate.

Child Exposure to Domestic Violence scale (CEDV)
This self-report consists of 42 items in three sections, which measures the types of exposure to domestic violence a child may have experienced (i.e., both as a witness and direct victim) and demographic variables (e.g., "How often has your mom’s partner done something to hurt her body"). Responses of the instrument were scored on a 4-point likert scale, ranging from 0: Never to 3: Almost always. Scores could vary from 0 to 99. The CEDV subscales displayed variable Cronbach alphas ranging from α = .50 to .76 and overall α = .84 in past studies. Test-retest reliability for each subscale ranged from .57 to .70 over two weeks (Richters & Martinez, 1990; Bailey, Hannigan, Delaney-Black, Covington & Sokol, 2006; Edleson, et al., 2008).

The internal consistency of the scales for the adolescents exposed to domestic violence and identity development in the present study were comparable to those reported by Edleson, et al. (2008) and Ochse and Plug (1986). The reliability coefficient of the CEDV scale at α = .85 and of the Erikson scale at α = .84 were adequate.

**Procedure**

Participants were approached on their campus and school. Those who indicated interest to participate in the research were handed over the questionnaires. School going respondents filled out the questionnaire with the assistance of the researcher. The front page of the scale described the purpose of the research. For further data collection with university students, the scale was self-administered. Participation in the study was voluntary, while confidentiality and anonymity were guaranteed. Data were analyzed using SPSS 21.0 software. Four-hundred questionnaires were distributed but only 25 % of the questionnaires were returned.

After data collection, participants were assigned into one of the two groups (i.e., High and Low) according to the level of exposure to domestic violence on the basis of a score they obtained. This was done using a median split procedure, with a median value of 50 on the CEDV scale.

**Results**

The present study examines whether the relationship between identity development and adolescents’ exposure to domestic violence will be moderated by gender and adolescents’ age in the context of South Africa. First, we examine the association between identity development and adolescents’ exposure of domestic violence and then we test for the moderating effects of gender and adolescents’ age on the relationship between identity development and adolescents’ exposure to domestic violence. The following hypotheses are tested:

**Hypothesis 1:** Identity development will be negatively related to adolescents’ exposure to domestic violence.

**Hypothesis 2:** The relationships between identity development and adolescents’ exposure to domestic violence will be moderated by gender, and

**Hypothesis 3:** The relationships between identity development and adolescents’ exposure to domestic violence will be moderated by adolescence age group.

Hypothesis 2 and 3 are derived without giving the direction of the moderating effects.

1. Identity development and exposure to domestic violence

Regression analysis was used to test the first hypothesis, i.e., the dependent variable identity development was regressed onto the independent variable adolescents’ exposure to domestic violence. Hierarchical moderated regression models were used to test the moderation hypotheses (Cohen & Cohen, 1983). Interaction terms often create multi-collinearity problems because of their correlations with main effects, however, in this study as the variance inflation factors (VIFs) for both hierarchical models are less than 10 (related to **Hypothesis 1**: in step 2 or model 2, VIF = 1.009; in step 3, i.e. model 3, VIF = 3.475 for total CEDV, VIF = 2.141 for gender, and Gender by Total CEDV interaction VIF = 4.954; related to **Hypothesis 2**: in step 2 or model 2, VIF = 1.001; in step 3, i.e. model 3, VIF = 3.123 for total CEDV, VIF = 2.181 for Adolescence age group, and Adolescence age group by Total CEDV interaction VIF = 4.384) we used the values of the variables as they are without any transformation. In the moderated hierarchical regression analyses, the Total CEDV was entered first, followed by gender (adolescence age group in the second model), and finally their interaction term. In this study, we have two adolescence age groups or categories, middle adolescence (age less than or equal 18 years) and late adolescence (age greater than or equal to 19 years).

Results from the linear regression analysis of total identity development score on total CEDV score are presented in Table 1. This analysis shows that the Total identity development score is inversely related to Total CEDV score significantly (
\( \hat{\beta}_1 = -0.271; p - \text{value} = 0.011 \) and hence Hypothesis 1 was supported by sample data.

Table 1: Linear regression results to test the direct relation

<table>
<thead>
<tr>
<th>Coefficients (( \hat{\beta} ))</th>
<th>Estimates (SE)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>121.464 (2.589)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Total IS</td>
<td>-0.271 (0.105)</td>
<td>0.011</td>
</tr>
<tr>
<td>( F )</td>
<td>6.708</td>
<td>0.011</td>
</tr>
<tr>
<td>( R^2 (R^2_{adg}) )</td>
<td>0.059 (0.050)</td>
<td></td>
</tr>
</tbody>
</table>

2. Moderator effects

**Gender**

The results from moderated hierarchical regression analyses where gender was introduced as moderator are displayed in Table 2. Similar to Table 1 results, the test on the relationship between Total IS and Total CEDV scores is that they are inversely related and the relationship is statistically significant at 5% level of significance (Model 1, \( F = 6.708, p - \text{value} = 0.011 \)). Results for Model 2 show that Total CEDV ( \( \hat{\beta}_1 = -0.266; p - \text{value} = 0.013 \)) and gender ( \( \hat{\beta}_2 = -2.036; p - \text{value} = 0.579 \)) are both inversely related to Total IS score where the relation with Total CEDV is significantly at 5% level of significance but with gender is not significant. The introduction of gender in the regression model is increased \( R^2 \) by 0.003 (\( p - \text{value} = 0.579 \)). Model 3 of the hierarchical regressions in Table 2 is used to test the moderation hypothesis. The results show that gender does not moderate the relationships between Total CEDV score ( \( \hat{\beta}_3 = 0.329; p - \text{value} = 0.158 \)) and Total IS significantly, however it increased \( R^2 \) by 0.018 (\( p - \text{value} = 0.158 \)), providing no support for Hypothesis 2.

Table 2: Hierarchical linear regression analyses results for testing direct and moderation of gender

<table>
<thead>
<tr>
<th>Variables in the model</th>
<th>Model 1, ( \hat{\beta} \ (SE) )</th>
<th>Model 2, ( \hat{\beta} \ (SE) )</th>
<th>Model 3, ( \hat{\beta} \ (SE) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total CEDV</td>
<td>-0.271 (0.105)</td>
<td>-0.266 (0.106)</td>
<td>-0.499 (0.195)</td>
</tr>
<tr>
<td>Gender</td>
<td>-2.036 (3.660)</td>
<td>-7.595 (5.341)</td>
<td>0.329 (0.231)</td>
</tr>
<tr>
<td>Gender ( \times ) Total CEDV</td>
<td>0.059 (0.050)</td>
<td>0.062 (0.044)</td>
<td>0.079 (0.053)</td>
</tr>
<tr>
<td>( R^2 (R^2_{adg}) )</td>
<td>6.708*</td>
<td>3.487*</td>
<td>3.022*</td>
</tr>
<tr>
<td>( \Delta R^2 )</td>
<td>0.003</td>
<td>0.018</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 5% level of significant

**Age**

The results in Table 3 are from moderated hierarchical regression analyses, where adolescence age group used as a moderator. Similar to Tables 1 and 2 results, the test on the relationship between Total Identity development and Total CEDV scores shows that they are inversely related and the relationship is statistically significant (Model 1, \( F = 6.708, p - \text{value} = 0.011 \)). Results for Model 2 show that Total CEDV ( \( \hat{\beta}_1 = -269; p - \text{value} = 0.012 \)) and adolescence age ( \( \hat{\beta}_2 = -3.071; p - \text{value} = 0.402 \)) are both inversely related to Total IS score where the relation with Total CEDV is significantly at 5% level of significance but with adolescence age is not significant. The introduction of adolescence age in the regression model is increased \( R^2 \) by 0.006. Model 3 of the hierarchical regressions in Table 3
is used to test the moderation hypothesis, i.e. Hypothesis 3. The results show that gender does not moderate the relationships between Total CEDV score (\( \hat{\beta}_3 = -0.160; p-value = 0.479 \)) and Total CEDV exposure to domestic violence.

Identity development significantly, however it increased \( R^2 \) by 0.004, providing no support for Hypothesis 3.

Table 3: Hierarchical linear regression analyses results for testing direct and moderation of gender

<table>
<thead>
<tr>
<th>Variables in the model</th>
<th>Model 1, ( \hat{\beta} (SE) )</th>
<th>Model 2, ( \hat{\beta} (SE) )</th>
<th>Model 3, ( \hat{\beta} (SE) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total CEDV</td>
<td>-0.271 (0.105)</td>
<td>-0.269 (0.105)</td>
<td>-0.160 (0.186)</td>
</tr>
<tr>
<td>Adolescence age group Age x Total CEDV</td>
<td>3.071 (3.650)</td>
<td>3.071 (3.650)</td>
<td>3.071 (5.400)</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.059 (0.050)</td>
<td>0.065 (0.048)</td>
<td>0.070 (0.043)</td>
</tr>
<tr>
<td>F</td>
<td>6.708*</td>
<td>3.699*</td>
<td>2.623</td>
</tr>
<tr>
<td>( \Delta R^2 )</td>
<td>0.006</td>
<td>0.006</td>
<td>0.004</td>
</tr>
</tbody>
</table>

* Significant at 5% level of significant

Discussion

This study investigated the relationship between exposure to domestic violence and identity development, and the moderator roles of gender and age in the relationship. Results of this study show that exposure to domestic violence is inversely related to identity development. The significant association between exposure to domestic violence and identity development found here suggests that adolescents’ exposure to domestic violence is associated with lower identity development (i.e., identity confusion). This finding is consistent with that of other studies that report significant relations between exposure to domestic violence and identity development, in that, domestic violence has a latent effect on adolescents’ ability to form trusting relationships (Levendorsky, et al., 2002; Makhubela, 2012). Adolescents in these hostile and unstable environments experience the crisis of resolving issues of trust, autonomy and initiative, and this inevitably arrests their potential to form functional interpersonal relationships and thus establish attachments compared to their peers without exposure to violence. Furthermore, the adolescent’s experience of having violent parents affects the process of developing their self-concept and self-control, and how to learn to relate to others (Kitzmann, et al., 2003; Swenson & Prelow, 2005).

Although there was a significant association between exposure to domestic violence and identity development, gender and age did not moderate the relationship. This result is similar to that of previous studies that found no such gender effects (Evans et al., 2008 & Kitzmann et al., 2003). These studies suggest that exposure to domestic violence affects boys and girls similarly, and moreover that this trend does not differ with age.

References

developmental contextualism (pg. 130-180).
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