

Summary

The Mediating Role of Early Maladaptive Schemas in the Relationship between Childhood Abuse Experiences and Psychological Wellbeing

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The parents or individuals who are responsible for child's primary care may exhibit behaviors that are detrimental to child's psychological and physical development or health. While these behaviors are emotional, physical and sexual abuse such as assaults or punishments damaging child's self-esteem and development, they are neglect such as the lack of physical (e.g. nurturance, safety/protection, education and health) and emotional (e.g., love, affection, support) needs (Glaser, 2002; Krug, Mercy, Dahlberg, & Zwi, 2002; Polat, 2007). There is evidence that childhood abuse experiences have been associated with depression (Chapman et al., 2004; Mullen, Martin, Anderson, Romans, & Herbison, 1996; Rich, Gingerich, & Rosen, 1997), anxiety disorders (Mancini, Van Ameringen, & MacMillan, 1995; Safren, Gershuny, Marzol, Otto, & Pollack, 2002), dissociative disorders (Chu, Frey, Ganzel, & Matthews, 1999; Chu & Dill, 1990; Çelikel & Beşiroğlu, 2008), personality disorders (Herman, Perry, & van der Kolk, 1989; Lohr, Westen, & Hill, 1990), alexithymia (Kooiman et al., 2004) and somatization (Kinzl, Traweger, & Biebl, 1995; Spitzer, Barnow, Gau, Freyberger, & Joergen Grabe, 2008) in the adulthood.

While childhood abuse is a crucial risk factor for later psychological problems, not everyone who experiences it may develop psychological disorder. In this regard, cognitive structures or mechanisms that are thought to play a role in the relation between childhood abuses and adult psychopathologies have received a great deal of theoretical attention (Lumley & Harkness, 2007). There are several theories such as Attachment theory (Bowlby, 1982), cognitive theory (Beck, 1976) and schema theory (Young, Klosko, & Weishaar, 2003) trying to explain these cognitive mechanisms.

Amongst these theories, a more recent schema theory that put emphasis on early childhood experiences has proposed five basic psychological needs (secure at-

tachment, autonomy, realistic limits, self-directedness, and playfulness). It hypothesizes that the frustration of the needs and negative childhood experiences facilitate the formation of the core beliefs that Young and colleagues (2003) termed "early maladaptive schema (EMS)". EMS is defined as enduring, dysfunctional and broad patterns comprising of memories, emotions, cognitions, and bodily sensations, developed during childhood and elaborated throughout one's lifetime (Young & Klosko, 1993; Young et al., 2003; Young, 1999). According to the theory, 18 identified EMS grouped into five categories known as schema domains, which correspond to the frustration of five basic psychological needs in childhood. In the theory, childhood negative experiences are proposed to underlie EMSs and then to lead to the development of psychopathologies (Young et al., 2003).

Several studies have confirmed the mediation role of EMSs in the relationship between childhood abuse experiences and psychological problems in the adulthood. For example, McGinn and colleagues (2005) found that the domains of disconnection/rejection, impaired autonomy and impaired limits mediated the relationship between abusive or neglectful parenting and depression severity. Similarly, Cukor and McGinn (2006) found that the relationship between childhood abuse experiences and depression was mediated by the domain of disconnection/rejection. Shah and Waller (2000) investigated the role of early maladaptive schemas in the relationship between parenting styles in childhood and major depression. The results showed that the dependence, emotional deprivation, defectiveness/shame, failure, unrelenting standards, and vulnerability to harm and illness schemas acted as mediators between parental care and depression. A set of EMSs, including vulnerability to harm and illness, defectiveness/shame and self-sacrifice was found to mediate the relationship between childhood emotional abuse/neglect and depres-

sion and anxiety (Wright, Crawford, & Castillo, 2009). In the other study, the relationship between retrospective reports about parental perceptions and depressive symptoms was mediated by EMSs of defectiveness/shame, insufficient self-control, vulnerability to harm and illness and dependence/incompetence (Harris & Curtin, 2002). The purpose of the present study is to determine whether the domains of disconnection/rejection and impaired autonomy mediate the relationship between childhood abuse experiences (childhood physical, emotional and sexual abuse) and psychological wellbeing in adulthood.

Method

Participants

The sample of the study consisted of 430 university students ($M = 21.35$, $SD = 1.74$) between the ages of 19 and 26. Participants were recruited from the universities in the city of Ankara. 239 (55.6%) of the participants were women and 191 (44.4%) were men. According to grade level, 146 of the participants (34.0%) were freshmen, 117 (27.2%) second grade, 86 (20.0%) third grade and 81 (18.8%) fourth grade.

Measures

Demographic Questionnaire. The 12-item form was comprised by the researcher to obtain the participants' socio-demographic information including their age, gender, university and class, parents' educational status, family type etc.

Child Trauma Questionnaire (CTQ). The CTQ is self-administered inventory developed by Bernstein and colleagues (1994) to provide retrospective assessment of child abuse and neglect. It consisted of 28 items rated on a 5-point Likert-type scale (1 = never true, 5 = very often true) and has five subscales as sexual, physical, emotional abuse and emotional and physical neglect. The validity and reliability of Turkish version of the scale was conducted by Şar, Öztürk, and İkikardeş (2012).

Young Schema Questionnaire - Short Form 3 (YSQ-SF3). The YSQ-SF3 (Young et al., 2003) consists of 90 items measuring 18 schemas. Items are rated on 6-point Likert-type scale (1 = completely untrue of me, 6 = describes me perfectly). Soygüt and colleagues (2009) conducted the validity and reliability study of the scale in university sample. The authors found that the Turkish version of the scale had five domains (disconnection/rejection, impaired autonomy, impaired limits, others directedness and unrelenting standards) and 14-factor structure (schema dimensions).

Brief Symptom Inventory (BSI). The BSI is a 53-item self-report inventory developed by Derogatis (1993) as brief form of Symptom Checklist (SCL-90), which is

used in a great variety of settings to assess psychological symptoms. The items are rated on 5-point Likert-type scale, ranging from 1 (not at all) to 5 (extremely). The Turkish version of the scale has five symptom dimensions of anxiety, depression, negative self, somatization and hostility (Batıgün, Şahin, & Uğurtaş, 2002; Şahin & Durak, 1994). In the present study, the total score of the scale was used to describe "psychological wellbeing."

Procedure

Before the data collection, ethical approval was taken from Ankara University Ethics Committee for Research. All participants were informed about the study with both in words and written (informed consent).

Results

In the study, physical, sexual and emotional abuse were defined as predictor variables; total score from BSI as predicted variable and disconnection/rejection and impaired autonomy of schema domains as mediation variables. The mediating role of the schema domains was examined with Preacher and Hayes' (2008) bootstrapping method using a 95% confidence interval (CI) and 1,000 bootstrap samples. In order to estimate the significance of the mediators, Preacher and Hayes' (2008) SPSS macro was used. According to these authors, if the 95% CI does not include 0, then the effect is said to be significant with $p < .05$. Baron and Kenny (1986) outline steps for testing a mediation model: (a) the independent variable must be significantly related to the dependent variable; (b) the independent variable must be significantly related to the mediator; (c) the mediator must be significantly related to the dependent variable; (d) when all variables are entered in the analysis, the previously significant relation between the independent variable and the dependent variable (relation a) is no longer significant.

First, Pearson correlation analysis was performed and significant relations were entered in the bootstrap models. The correlations between all variables were significant. Thereupon, three models were conducted to examine the mediation role of disconnection/rejection and impaired autonomy domains in the relation of physical, emotional and sexual abuse to psychological wellbeing. The first model examining the mediation role of disconnection/rejection and impaired autonomy domains in the relation of physical abuse to psychological wellbeing was found to be significant ($R^2 = 38$, $F_{3,426} = 86.40$, $p < .001$). Physical abuse significantly predicted psychological wellbeing ($\beta = 3.42$, $t = 2.85$, $p < .01$) (Step 1) and disconnection/rejection ($\beta = 2.69$, $t = 4.57$, $p < .001$) and impaired autonomy ($\beta = 2.17$, $t = 4.21$, $p < .001$) (Step 2). Disconnection/rejection and impaired autonomy sig-

nificantly predicted psychological wellbeing ($\beta = .91$, $t = 7.51$, $p < .001$; $\beta = .45$, $t = 3.28$, $p < .01$, respectively) (Step 3). When all variables were entered in the model (Step 4), the previously significant relation between physical abuse and psychological wellbeing was no longer significant ($\beta = -.00$, $t = -.00$, $p > .05$). The total indirect effect of the mediators was significant (point estimate (PE) = 3.42 and 95% BCa CI [2.075, 5.199]). Moreover, disconnection/rejection and impaired autonomy emerged as significant mediators in the bootstrap analysis (PE = 2.44 and 95% BCa CI [1.386, 4.012]; PE = .98 and 95% BCa CI [.3167, 2.043]).

The second model examining the mediation role of disconnection/rejection and impaired autonomy domains in the relation of emotional abuse to psychological wellbeing was found to be significant ($R^2 = 38$, $F_{3,426} = 87.82$, $p < .001$). Emotional abuse significantly predicted psychological wellbeing ($\beta = 4.24$, $t = 6.26$, $p < .001$) (Step 1) and disconnection/rejection ($\beta = 2.88$, $t = 8.93$, $p < .001$) and impaired autonomy ($\beta = 1.75$, $t = 5.94$, $p < .001$) (Step 2). Disconnection/rejection and impaired autonomy significantly predicted psychological wellbeing ($\beta = .84$, $t = 6.73$, $p < .001$; $\beta = .46$, $t = 3.37$, $p < .001$, respectively) (Step 3). When all variables were entered in the model (Step 4), the previously significant relation between emotional abuse and psychological wellbeing was no longer significant ($\beta = .99$, $t = 1.63$, $p > .05$). The total indirect effect of the mediators was significant (PE = 3.25 and 95% BCa CI [2.443, 4.371]). Moreover, disconnection/rejection and impaired autonomy emerged as significant mediators in the bootstrap analysis (PE = 2.44 and 95% BCa CI [1.615, 3.547]; PE = .81 and 95% BCa CI [.3045, 1.438]).

The third model examining the mediation role of disconnection/rejection and impaired autonomy domains in the relation of sexual abuse to psychological wellbeing was found to be significant ($R^2 = 38$, $F_{3,426} = 86.80$, $p < .001$). Sexual abuse significantly predicted psychological wellbeing ($\beta = 3.48$, $t = 3.47$, $p < .001$) (Step 1) and disconnection/rejection ($\beta = 2.18$, $t = 4.41$, $p < .001$) and impaired autonomy ($\beta = 1.82$, $t = 4.21$, $p < .001$) (Step 2). Disconnection/rejection and impaired autonomy significantly predicted psychological wellbeing ($\beta = .90$, $t = 7.44$, $p < .001$; $\beta = .44$, $t = 3.23$, $p < .01$, respectively) (Step 3). When all variables were entered in the model (Step 4), the previously significant relation between sexual abuse and psychological wellbeing was no longer significant ($\beta = .71$, $t = .86$, $p > .05$). The total indirect effect of the mediators was significant (PE = 2.77 and 95% BCa CI [1.605, 4.249]). Moreover, disconnection/rejection and impaired autonomy emerged as significant mediators in the bootstrap analysis (PE = 1.96 and 95% BCa CI [1.082, 3.290]; PE = .81 and 95% BCa CI [.2604, 1.779]).

Discussion

The results of the study showed that each of childhood abuse experiences predicted psychological wellbeing through the mediations of disconnection/rejection and impaired autonomy domains. These findings are consistent with Schema Theory (Young et al., 2003) proposing that early maladaptive schemas develop through negative childhood experiences and these schemas may lead to the development of psychological disorders or problems.

First, it was found that disconnection/rejection and impaired autonomy domains mediated the relationship between physical abuse and psychological wellbeing. Young and colleagues (2003) asserted that physical abuse would lead to the development of danger themed schemas. Accordingly, individuals who impaired their perceptions such as control, safety and security may develop schemas in the impaired autonomy domain through physical abuse experience (Young & Klosko, 1993; Young et al., 2003). Similarly, physical abuse experience may lead to schemas in the disconnection/rejection domain, which occurs because of the frustration of needs for secure attachment, acceptance, security, respect and stability. In this context, experiences of physical abuse such as hurt, fear, assault/maltreatment, excessive punishment and deliberate exclusion may lead to the development of schemas, especially mistrust schema, in the disconnection/rejection domain. These schemas could make individuals vulnerable to acquire psychological symptoms such as depression, anxiety, negative self, hostility toward the others and anger.

Another finding was that disconnection/rejection and impaired autonomy domains mediated the relationship between emotional abuse and psychological wellbeing. The schemas in the domain of disconnection/rejection are prevalent in families that are emotionally cold, loveless, withholding, lonely rejecting, non-empathic, unpredictable and abusive (Young et al., 2003). In this respect, emotional abuse victims may believe that they are defective, emotionally deprived, emotionally inhibited, abandoned, isolated, must be feeling ashamed of themselves and that the others are insecure. Similarly, the individuals exposed to emotional abuse may develop the schemas of abandonment (The belief that significant others providing support are unstable, unreliable or unpredictable) and the vulnerability to harm and illness (The belief that one is dependent of others to handle everyday life) in the impaired autonomy domain. The schemas in both disconnection/rejection and impaired autonomy domains (particularly, defectiveness, mistrust, negativity, vulnerability to harm and illness), derived from the emotional abuse were suggested to be more related to the cognitive triad and the studies showed that

these schemas were more effective in the development of the depression (Calvete, Estévez, López de Arroyabe, & Ruiz, 2005; Camara & Calvete, 2012). In addition, when it is taken into account that the depression-related cognitive attributions are associated with loss, deprivation and negative self-assessment (Beck, Brown, Steer, Eidelson, & Riskind, 1987), emotional abuse may underlie these attributions and then depression or impairment of psychological wellbeing.

The final finding of the study was that the domains of disconnection/rejection and impaired autonomy mediated the relationship between childhood sexual abuse and psychological wellbeing. Sexually maltreated children's self-confidence may be damaged; their autonomy may be frustrated or suppressed. It is asserted that the individuals having schemas in the impaired autonomy domain may experience insufficiencies in survival, autonomy, living separately from their parents, and performing successfully. Moreover, it is stated that these schemas are derived from family attitudes that are detrimental to emotions such as safety and security (Young et al., 2003). In this regard, the individuals exposed to childhood sexual abuse may be considered having trouble in creating their own identity and maintaining their life healthy. The sexually abused individuals may have a belief that the others and the world are insecure and dangerous (vulnerability to harm and illness schema). Such beliefs or expectations may form the basis of anxiety and hopelessness about the future. (Gibb, 2002; Hankin, 2005). Similarly, the childhood sexual abuse may prevent the child from acquiring autonomy, support and safety. This experience may contribute to the development of dependence (The belief that one

is dependent of others to handle everyday life) and failure (The belief that one is fundamentally inadequate when it comes to performance and achievement) schemas. These schemas may lead to the negative inferences about the self.

Individuals exposed to sexual abuse, as in emotional abuse, may develop schemas in the disconnection/rejection domain due to the frustration of need for secure attachment. Especially, these individuals having impaired perception of safety and self-confidence because of sexual abuse are likely to develop defectiveness and mistrust schemas. As previously stated, these schemas may make the individuals' interpersonal functioning and psychological wellbeing worse.

In this study, it was observed that childhood emotional, physical and sexual abuse had effect on the domains of disconnection/rejection and impaired autonomy. The families of abused children, due to the fact that they may prevent their children from any activity helping their children's autonomy, are inadequate to create an environment that can encourage autonomy. This situation plays an important role in the development of the impaired autonomy domain. Similarly, childhood abuse experiences may cause the development of disconnection/rejection domain, preventing the child from meeting the emotional needs such as love, safety, acceptance, stability, respect, sharing of feelings (Young et al., 2003). In conclusion, this study, consistent with the literature, revealed that early maladaptive domains play an important role in the development of the psychopathologies. In other words, this study revealed the mechanisms through which childhood abuse lead to future psychological problems.