

Maltreatment by Fathers and Externalizing Behavior Problem: The Effect of Child Personality

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This study examined the relation between maltreatment by fathers and externalizing behavior in children. It assessed the moderating role of child personality characteristics in this association. A total of 155 biological father-child dyads participated. Children were 7 to 10 years old ($M = 8.6$, $SD = 1.11$) from Bungoma County in Kenya. The findings indicated that there was no significant difference in physical and psychological maltreatment, and neglect of boys and girls by fathers. There was also no significant difference between the Big Five Personality Factors: Agreeableness, Extraversion, Neuroticism, Conscientiousness and Openness of boys and girls. In addition, no significant difference emerged in externalizing behavior between boys and girls. Maltreatment by fathers was associated with externalizing behavior problems in children. Openness and Extraversion moderated this association. Children who are more open and more extraverted were more susceptible to externalizing behavior when maltreated by fathers than those who were less open and less extraverted. This study adds to existing knowledge on child maltreatment and behavior problems and the role of fathers, an area that has least been explored in Kenyan research on parenting. It provides insight into the development of inclusive parent training programs on positive parenting that include fathers. The training should focus on promoting father-child relationship by equipping fathers with knowledge on how to respond to the needs of children with different personality traits and behavior. This study recommends that prevention and treatment programs should target both boys and girls.

Keywords: behavior, father's parenting, maltreatment, personality, moderating

Research on fathers' involvement in childrearing has increased substantially in Western industrialized countries (Bakermans-Kranenburg et al., 2019). Studies indicate that relationships with fathers affect children from childhood and into adulthood. High quality father involvement during childhood promotes healthier relationships and other favorable life qualities in adulthood (Jessee & Adamson, 2018). Paternal involvement in child-care is beneficial for positive social behavior, emotional regulation, and linguistic development in children (Cabrera et al., 2018). In addition, children who enjoy a secure attachment with their fathers are less likely to exhibit anti-social behavior than those with an insecure relationship with their fathers (Marcus & Betzer, 1996). It is commonly believed that father involvement is associated with positive outcomes for children (Schneider, 2014). This might not be the case at all times – what matters is the quality of the relationship. Children with a strained relationship with their fathers may be better off if their fathers are less or uninvolved with them (Marcus & Betzer, 1996). This is attributed to the fact that stressful father-child associations may be more detrimental than not having a father figure.

It is worth pointing out that a lot has been documented on father's influence on children's development in Westernized, industrialized countries. Studies on the

caregiving role of fathers in the African context remain scarce (Abubakar et al., 2013). This could be a contributing factor to less active involvement of fathers in training programs on positive parenting (Bakermans-Kranenburg et al., 2019). Studying the influence fathers have on children in African families is important because the families are undergoing rapid social changes which include increased numbers of single fatherhood, working mothers, and non-working fathers (Mwenda, 2012). The changes are likely to make fathers in these family settings take up more child caring roles than in the past. In Kenya, there has been an evolving construction of fatherhood due to western influence which has likely changed the role of contemporary Kenyan fathers from being somewhat distant and patriarchal to fathers who are actively involved in child socialization (Wandede et al., 2014). The current study addresses the paucity of research of paternal childcare and maltreatment in an African, non-industrialized country, where male dominance has been highly respected (Mulindi, 2015). This may add to existing and growing literature on fathers from industrialized countries (Bakermans-Kranenburg et al., 2019).

As fathers get involved with their children, there is a likelihood of maltreatment. This is because maltreatment of children has been existing in almost every culture and society (Stoltenberg et al., 2013). Child maltreatment has been described as all forms of physical and emotional ill-treatment, or neglect, resulting in actual or potential harm to a child (Holden, 2010, p. 284). Globally, it has been estimated that over half of all children, equivalent to almost one billion children, aged 2-17 years, have experienced violence (Hillis et al., 2016). In the United States of America, 80% of child maltreatment cases have been caused by parents (World Health Organization [WHO], 2006). In Ireland, 67% of parents perceived smacking of their children aged 0-18 years as not being harmful, 59.6% believed they had a right to smack if they wished and only (28.4%) felt that it was wrong to smack children (Halpenny et al., 2010). In Asia, Africa, and Northern America, it was estimated that at least 50% of children experienced past-year violence (Hillis et al., 2016).

Mothers and fathers have been the most common perpetrators of child maltreatment in Kenya (United Nations Children's Fund [UNICEF], 2010). Between 2014 and 2016, 54% of physical maltreatment, 47% of emotional maltreatment and 75% of child neglect were perpetuated by immediate family members. In Bungoma County, Kenya, 82% of children aged 1-14 years have been subjected to at least one form of psychological aggression or physical punishment by household members and 65% of the parents believe physical punishment is necessary part of child rearing in Bungoma County (Kenya National Bureau of Statistics [KNBS] and United Nation Children Education Fund [UNICEF], 2016). Notably, studies on child maltreatment have focused primarily on American and European societies, and much less on African societies (Stoltenberg et al., 2013). In addition, literature specifically on maltreatment by fathers is scarce worldwide as well as in developing countries. The current study explores maltreatment of children by fathers in an African culture and the findings may add to a scarce literature on this topic.

Middle childhood is a developmental period of particular interest to understanding parenting, child behavior, and psychological adjustment (Lansford et al., 2010). This developmental stage may be a period of both opportunities and challenges to children (Charlesworth et al., 2007). Although a child's social world expands as they enter school, they are likely to be exposed to maltreatment and behavior problems; especially due to decreases in parental monitoring, school inequalities, learning challenges, and common family violence (Cheevers et al., 2010; Yaros et al., 2016).

During middle childhood, there is considerable change in children's physical, cognitive, social, and emotional development (Holden, 2010, p. 184). This change may make them to question adult guidelines and expectations as they strive to achieve autonomy (Charlesworth et al., 2007). The common externalizing behaviors during middle childhood are disobedience, anger, fighting, frustration, and screaming (Holden, 2010, p.193). Although there is likely to be confrontation in meeting the child's needs and parental demands in middle childhood, little is documented on the association between harsh or maltreating parenting of children in middle childhood and their behavior problems in Africa. This made it a developmental period of special interest for this study.

Maltreatment, Externalizing Behavior and Personality Factors of Boys and Girls

Cultural expectations related to gender and developmental stages could influence child maltreatment; at certain ages of growth and development, children are expected to have acquired certain socially acceptable competences and failure of which could lead to child maltreatment, such as ridicule or physical abuse by the parents (Kane, 2005). Unlike other developmental stages, during middle childhood, boys and girls seem to follow different gender role developments where boys' identification with masculine roles attribute increases, while girls' identification with feminine roles attribute decreases (Sravanti & Kommu, 2020). These can likely lead to cross gender behavior in girls and boys, which may be perceived differently in different cultural contexts. Externalizing behavior problems have also been reported to be common in boys and internalizing behaviors in girls (Slobodskaya & Akhmetova, 2010).

Notably in Kenyan communities, social-cultural gender norms socialize girls and boys differently; thus, girls are generally expected to be submissive and more nurturing than boys who are expected to be aggressive, outgoing, and hardy (Namulundah, 2011). In addition, levels of control and demand of parents for girls and boys may differ due to different expectations and attitudes regarding behavior and discipline of boys and girls (Lansford & Deater-Deckard, 2012). This suggests that levels and types of maltreatment of boys and girls may differ too. Nonetheless, a majority of previous researchers have used ex post facto designs in researching childhood maltreatment which may pose a challenge for memory of incidences of abuse by the respondents, hence, reducing reliability of the data.

The Big Five Personality Factors (Barbaranelli et al., 2003) include Extraversion or surgency (talkative, assertive, energetic, sociable, assertive, forceful); Agreeableness or social adaptability (warm, good natured, kind, affectionate, cooperative, trustful, nurturance, and friendliness in order to avoid conflict); Conscientiousness or dependable (orderly, efficient, responsible, thorough); Neuroticism or emotional instability (easily upset, anxiety, depression, irritability, self-conscious and nervous); Openness or intellect was described as curiosity, appreciating other cultures, openness to experience-intellectual independence (Haslam et al., 2017). Studies in the United States of America and European individualistic culture samples suggest that women score higher on Neuroticism and Agreeableness than men and there are no gender differences in Openness and Conscientiousness. The gender differences in Neuroticism and Agreeableness were however not replicated in eastern and collective cultures (Weisberg et al., 2011). Here, we study the Big Five personality dimensions as moderators of the association between child maltreatment by fathers and externalizing behaviors of boys and girls in middle childhood, a topic that has least been studied in Africa.

Relation Between Maltreatment, Child Personality and Externalizing Behavior

There has been increasing number of studies conducted to explain the link between childhood maltreatment and behavior outcomes from childhood through adolescence to adulthood (Rodriguez & Eden, 2007; Smith & Thornberry, 1995). Maltreatment could be linked to psychopathology in youths (McGee et al., 1997). It may also be associated with anti-social, avoidant, and depressive behaviors in early adulthood (Johnson et al., 1999). Maltreatment can also compromise personality development and heighten psychopathology thus influencing adjustment problems in adulthood (Higgins & McCabe, 2000). Nonetheless, most of the studies have assessed mother-child relationships which could be different from the father-child relationship. The current study explored the father-child relationship that has been interpreted as a more complex, dynamic, and more contextually sensitive than the mother-child relationship (Jessee & Adamson, 2018). The findings will add to existing literature on parenting in a non-western culture.

Externalizing are behaviors that are directed outwards to other people while internalizing behaviors are directed inwards to the self (Tandon et al., 2009). It should be noted that fathers might be less important for the development of internalizing behaviors (Connell & Goodman, 2002). In addition, detecting externalizing behaviors in young children is easier compared to internalizing behavior problems, because internalizing behavior are characterized by quiet internal distress, and externalizing is portrayed as socially negative or disruptive behavior (Schneider, 2014). Notably, most studies have examined the link between childhood maltreatment and behavior outcomes in adolescents and adults and not children in middle childhood who are also at risk. The fact that symptoms of externalizing behavior can be easily detected made it possible for fathers to report on the externalizing behavior of their children in the current study.

Studies in Kenya have indicated contradicting findings on the association between childhood maltreatment and behavior outcomes. One of the studies showed that more frequent use of physical discipline was normative and had less impact on children (Lansford et al., 2005). The other study that compared the association among adults in Kenya, Zambia, and the Netherlands, indicated a significant association between child neglect and negative psychological outcomes including externalizing behavior problems in the Kenyan sample (Mbagaya et al., 2013). The inconsistency in the findings and the fact that most parents in Bungoma believe physical punishment is necessary part of child rearing (KNBS & UNICEF, 2016), prompted the current study to interrogate further the association between child maltreatment and child behavior outcomes in Kenya.

Research indicates that child personality characteristics may affect the association between parenting and child behavior (Higgins & McCabe, 2000; McGee et al., 1997). Some children's temperamental or personality features, such as high irritability, might trigger maltreating behavior more easily (Lee et al., 2013; Warriar et al., 2021). Low Conscientiousness, Agreeableness, Neuroticism and high levels of Extraversion have been associated with high levels of externalizing behavior (Slobodskaya & Akmetova, 2010). In addition, maltreatment may be linked to different personality traits and some genetic variations may be associated with different susceptibility to environmental influence (Rogosh & Cicchetti, 2012; Warriar et al., 2021). However, most studies assessing personality attributes in children have over relied on temperament as a

measure of personality in childhood, under the assumption that personality traits were not well developed in children (Oshri et al., 2013).

The current study therefore used the Big Five Personality Factors, (Barbaranelli et al., 2003) and the vulnerable population hypothesis (Zachar, 2009). According to the vulnerable population hypothesis, certain individuals may be particularly vulnerable to psychological problems, perhaps because of environmental and social conditions, perhaps because of their personality or temperamental problems, perhaps because of physiological factors or combination of all these risk factors. Using the two theories we assessed the moderating role of child personality in the association between maltreatment and externalizing behavior in children. We thus investigated whether some personality factors explain why some children were more vulnerable to develop externalizing behavior problems when maltreated by fathers than others. In the current study, fathers reported the day-to-day incidences of maltreatment of children in middle childhood. We assessed whether there were differences in maltreatment of boys and girls. We also examined the moderating role of the five personality traits in the association between maltreatment by fathers and child externalizing behavior to ascertain whether some personality factors made some children more susceptible to externalizing behavior when maltreated by their fathers. We expected that children who scored high on Neuroticism and on Extraversion scales would score high on maltreatment and high on the externalizing behavior scales. We also presumed that those who scored high on Conscientiousness, Agreeableness and Openness would score low on maltreatment and externalizing behavior scales.

Method

Procedure

This study assessed the association between maltreatment by fathers and externalizing behavior problems among children in middle childhood. We also investigated whether there were significant differences in the Big Five Personality Factors, externalizing behavior, and maltreatment of boys and girls in middle childhood by their fathers. We targeted children and their biological fathers out of the total population of 226,165 children aged 5-10 years who were residents of Bungoma County, Kenya in the year 2016 (Kenya National Bureau of Statistics Economic Survey, 2016). Children in middle childhood were targeted because they were found to be most maltreated (Child Line Kenya, 2017). In addition, it has been estimated that 82% of children in Bungoma County are subjected to at least one form of psychological aggression or physical punishment by household members (KNBS & UNICEF, 2016). This gave the impetus to carry out the study on maltreatment of children in middle childhood in Bungoma County, Kenya.

Sample and Sampling

This was part of a larger study on fathers and mothers parenting style, child maltreatment and behavior problems. For this paper, the target sample was $N = 384$ father-child dyads and was deemed appropriate for a study population of 100,000 and above, at 95% confidence level, 5% margin error and 50% population percentage of variability (Tahredoost, 2017). Cluster sampling technique was used to select participants across 7 sub counties in Bungoma County. Given that most children in this age bracket were in primary schools, the schools formed primary cluster units. This method was most appropriate because the children covered a large geographical population. Two schools were randomly selected per sub-county from the 7 sub counties for equal representation in the County. Only children aged between 7-10 years were selected using information found in the class registers. Stratified and random sampling techniques were then used to select the participants. Admission numbers for the

children were written on equal sized cards. The cards were put in containers that were arranged based on gender (male and female) and age (7 years, 8 years, 9 years, and 10 years old), respectively. The cards were shuffled in the containers and picked randomly until the target of 384 children was reached.

Ethics Review Committee of Maseno University in Kenya evaluated and declared that the procedures had no potential risk or negative consequences or discomfort to children. After obtaining approval from the Committee, Maseno University School of Graduate Studies and Bungoma Education County Director permitted the data collection exercise. In this study, schools were the primary cluster, and the selection procedure of the children was done in the schools. There was the requirement for the children's gatekeepers to consent. Visits were made to the sampled schools to meet the respective head teachers and class teachers of grades 1-3. The head teachers were important because they controlled the access to the schools. The class teachers played a key role in the recruitment of participants in this study by providing the information about the age of the children as documented in the class registers. The cooperation of the head teacher and class teachers was, therefore, important for the success of the study.

Children who were above 10 years or not staying with their biological fathers were excluded from the study sample. The selected children were informed about the study and were given the opportunity to give or refuse to give verbal assent to participation. Those who gave verbal assent to participate in the study were asked to avail their parents' telephone numbers to enable the researcher to seek the parents' consent. The parents were given the required information and adequate time to help them understand the study and decide on the consent. Either mothers of the children in consultation with fathers, or fathers alone, gave the consent of participation and the most appropriate day and time for data collection. Decision of parents who were not willing to participate was respected unconditionally. In order to get reports of as many fathers of children in middle childhood, we targeted only one child per household participating as possible. A case where two children from the same family were selected, the father was given an opportunity to choose to report about only one of the children.

Fathers who agreed to participate were assured that their identities, and that of their children, would be concealed and the information they would provide would be kept confidential and solely used for the study. They were also assigned alpha numeric codes as a way of protecting their identities. Participants were asked to provide true information and would not be victimized for the information they would provide. Fathers of the children responded to the questionnaires on agreed dates and time at a place convenient to them and the researcher, mostly at home of the children. The participants agreed on an incentive of 500 Kenya shillings (approximately \$5) for their time upon responding to the questionnaires. Fathers who were not able to read and write were assisted by the researcher and research assistant.

Measures

It has been found that parents' educational level, income and gender of child may affect quality of parenting and externalizing behavior in children. A study on mothers' parenting showed that mothers with less education display more controlling and physical discipline and those with higher education knew about child development and used inductive reasoning with their children (Durgel et al., 2013). Mothers' higher levels of income was associated with lower externalizing behavior in African American youths aged 11-17 years (Anton et al., 2015). In the current study, a background information

form was used to gather information about the age and gender of the children, fathers' education level and monthly earnings from salaries, casual labor or self-employment.

Maltreatment by fathers was assessed by Parent-Child Conflict Tactics Scale (Merbert, & Straus, 2002). The scale was considered suitable because it measures parenting practices associated with physical assault (13 items), child neglect (4 items), and psychological maltreatment (5 items) and has been used in previous studies in a Kenyan sample (Mbagaya et al., 2013). Fathers responded how often they had used a certain disciplinary strategy when their children did something wrong. They indicated their responses on a 5-point scale ranging from 1 = never to 5 = every time. Examples of the items included, "when my child does something wrong, I shake him/her" (physical maltreatment), "when my child does something wrong, I yell, scream or shout at him/her" (psychological maltreatment), and "I fail to ensure my child gets food" (neglect).

The Big Five Personality Traits were measured by the Big Five Personality Questionnaire for Children (Barbaranelli et al., 2003). The scale was appropriate for this study because it can be used as a self-report for children, and for ratings by teachers and parents of the children. In addition, there is satisfactory internal consistency reliability for each factor (Barbaranelli et al., 2003). Fathers evaluated how well the items fitted their children's personality attributes related to the Big Five Personality factors: Openness, Extraversion, Neuroticism, Conscientiousness and Agreeableness on a 5-point scale ranging from 1= never to 5= always. Example of the items were, "make friends easily" (Extraversion), "trust others" (Agreeableness), "respect follow rules" (Conscientiousness), "nervous" (Neuroticism), and "like to learn new things" (Openness).

The Child Behavior Checklist (Achenbach, 1991) was used to assess child externalizing behavior. The instrument was appropriate because it has been found to be reliable and used in previous studies among Kenyans (Skinner et al., 2014). In addition, the questionnaire has also been translated into Kiswahili which is a national language of Kenya and is used by Kenyans across different social-economic and education backgrounds. The questionnaire consisted of 28 items on a 3-point scale. Fathers evaluated how well the descriptions fitted their children's behavior ranging from 0 = not true to 2 = very true. The items consisted of the delinquent (11 items) and aggression (19 items) subscales. The items on the delinquent subscale were: "not guilty when misbehave," "hang with trouble people," "lying, run away from home," "set fires," "steals at home," "steals outside home," "use obscene language," "truancy," "use drugs," and "vandalism." The aggression subscale had the following items: "argues," "brags," "cruel to others," "demand a lot of attention," "destroy own things," "destroy others' things," "disobedient at home," "disobedient at school," "jealous," "get into many fights," "attack people," "screams," "shows off," "stubborn," "mood changes," "talks too much," "teases," "temper tantrums," "threaten people," and "loud."

Apart from the Child Behavior Checklist, which is available in Kiswahili, the Parent-Child Conflict Tactics Scale and the Big Five Personality Questionnaire for children were forward and backward translated into Kiswahili language. Content and face validity of the instruments were determined before the start of the actual research. The systematic examination of contents of the instruments was done by experts and scholars with long term experience in the field of child research. The instruments were found to cover the behavior domains which they were supposed to measure. In addition, a pilot study was carried out to establish clarity and adaptability of instructions of the questionnaires to some of the fathers who were of low educational levels.

A small sample of in total 38 father-child dyads which represented 10% of the final sample participated in the pilot study. The internal consistency Cronbach's alphas of the subscales were computed. The measures were found to have reliable internal consistency. For the Big Five Questionnaire for Children, the internal consistency alpha for the sub scales were: Extraversion ($\alpha = .79$), Agreeableness ($\alpha = .79$), Conscientiousness ($\alpha = .84$), Neuroticism ($\alpha = .63$) and Openness ($\alpha = .74$). The internal consistency alpha levels for the sub scales of the Parent-Child Conflict Tactics Scale were: physical assault/maltreatment ($\alpha = .74$) psychological aggression subscale ($\alpha = .66$) and neglect subscale ($\alpha = .52$). Straus et al. (1998), also found low internal consistency for the neglect scale ($\alpha = .22$) and attributed it to the diverse behavior included in the measure such that parents who engaged in one of the acts did not engage in the others. Low internal consistency for the neglect scale in the current study could have been attributed to the varied behaviors included in the measure. The externalizing behavior had internal consistency of $\alpha = .77$.

Analytic Strategy

Data was coded and organized for analysis using IBM SPSS Version 25. Background information data was analyzed using Descriptive Statistics. A dimensional approach was used to classify subscales of maltreatment, personality factors and externalizing behavior variables in the study. Using this approach, the degree to which a characteristic is present was assessed and lower scores equated to lower levels and higher scores to higher levels (Hagan et al., 2014). In the current study, higher scores on maltreatment scales signified that the frequency of physical, psychological, and neglectful behavior by fathers was more prevalent, thus, higher level of maltreatment. Higher scores on a personality factor scale suggested higher levels of the personality attribute while higher scores on child externalizing behavior problems scale corresponded to greater symptoms of the behavior problems. The approach was suitable for this study because it indicated the degree of maltreatment, personality and behavior along continuous dimensions and enabled comparing the children along the different levels and to use correlational and regression analyses.

Forms of child maltreatment, physical assault, psychological aggression, and neglect, were computed by summing up scores of individual items of the subscales and means derived for each type of maltreatment. Later, a composite score (total maltreatment) was computed by summing up the types of maltreatment. Scores of 30 items assessing externalizing behavior on the Child Behavior Checklist, assessing delinquent behavior (11 items) and aggression (19 items), were also summed to constitute the externalizing behavior scale. For the Big Five Personality Factors, scores of items assessing each personality factor were computed and summed to constitute the variables for the Agreeableness, Openness, Extraversion, Neuroticism and Conscientiousness.

Independent sample t-test was computed to determine mean differences in maltreatment, personality characteristics and externalizing behavior problems of boys and girls by fathers. This test was suitable for comparing means obtained from two groups (boys and girls) to ascertain whether there were significant differences in their levels of Extraversion, Agreeableness, Neuroticism, Openness and Conscientiousness as well as maltreatment and externalizing behavior. Pearson's correlation was used to determine whether there were significant linear bivariate relations between child maltreatment, the Big Five Factors in children, and externalizing behavior problems. This helped in understanding which variables were associated with lower or higher scores on externalizing behavior. The bivariate findings were complemented with a multivariate regression analysis.

Hierarchical regression analysis was computed to predict of child externalizing behavior from maltreatment. The method was used because it allowed for controlling potentially confounding factors such as gender of children, fathers' monthly income, and education level that have been found in previous studies to have an effect on maltreatment and externalizing behavior problems. Controlling these variables was important in understanding the association between maltreatment by fathers and child externalizing behavior. We evaluated the effects of the personality characteristics as moderators using PROCESS tool (Hayes, 2018). To avoid potentially problematic high multicollinearity with the interaction terms and to ease the interpretation of the outcome, variables were centered (standardized) before conducting the regression analyses (Aiken & West, 1991). A moderating effect was detected when the relation between outcome variable and the interaction of predictor and moderator variables was significant (Baron & Kenny, 1986).

In this study, moderation occurred when the interaction between maltreatment and personality characteristics was a significant predictor of externalizing behavior problems. This indicated that the level of the child personality factor influenced the relation between maltreatment by fathers and externalizing behavior problems in children by either strengthening or weakening the relation. The PROCESS tool plotted simple regression equations at 1 standard deviation below the mean to illustrate moderation at a low level of the moderator; at the mean to illustrate moderation at mean level of the moderator; and 1 standard deviation above the mean to illustrate moderation at high level of the moderator (Field, 2018). The level of significance for the statistical tests conducted in this study was set at $\alpha < 0.05$.

Results

Descriptive Statistics of the Participants

A total of 155 biological fathers of 155 children (boys, $n = 85$ and girls, $n = 70$), aged 7-10 years (mean age, 8.5 years) participated in this study. A majority of the fathers had attended primary education, $n = 84$ (54%), a total of $n = 57$ (37%) had secondary and $n = 11$ (7%) had college education. Only $n = 3$ (2%) had never attended school. Eight children (5%) were staying with single fathers. The rest, $n = 147$ (95%) were staying with both their fathers and mothers.

Comparison of Maltreatment, Personality Factors, and Externalizing Behavior of Boys and Girls

We computed an independent sample t-test to ascertain whether there were significant differences in maltreatment by fathers, personality factors, and externalizing behavior of boys and girls aged 7-10 years. Results indicated that there was no significant difference in mean in Extraversion personality factor between boys ($M = 2.89$, $SD = .57$) and girls ($M = 2.72$, $SD = .76$), $t = 1.55$, $p > .05$. There was also no significant difference in Agreeableness between boys ($M = 2.79$, $SD = .56$) and girls ($M = 2.81$, $SD = .73$), $t = -.15$, p

$> .05$ and Conscientiousness between boys ($M = 3.08$, $SD = .60$) and girls ($M = 3.04$, $SD = .79$), $t = .32$, $p > .05$. Likewise, there was no significant differences in Neuroticism between boys ($M = 1.23$, $SD = .77$) and girls ($M = 1.15$, $SD = .80$), $t = .64$, $p > .05$. No significance differences were also found in Openness between boys ($M = 2.91$, $SD = .66$) and girls ($M = 2.82$, $SD = .83$), $t = .79$, $p > .05$. See Table 1.

Table 1
Independent Sample T-test for Maltreatment, Personality Characteristics, and Externalizing Behaviors of Boys and Girls

Questionnaire	Subscales	Mean		SD		<i>t</i>	<i>df</i>	<i>p</i>
		Boys	Girls	Boys	Girls			
Personality Factors	Extroversion	2.89	2.72	.57	.76	1.55	153	.12
	Agreeableness	2.79	2.81	.56	.73	-.15	153	.89
	Conscientiousness	3.08	3.04	.60	.79	.32	153	.75
	Neuroticism	1.23	1.15	.77	.80	.64	153	.52
	Openness	2.91	2.82	.66	.83	.79	153	.43
Problem Behavior	Externalizing	.30	.24	.20	.21	1.71	153	.09
Child Maltreatment	Physical Assault	.57	.50	.39	.40	1.12	153	.27
	Psychological	.92	.77	.80	.70	1.22	153	.23
	Neglect	.34	.47	.33	.58	.16	153	.88

We found that there was no significant difference in physical assault of boys ($M = .57$, $SD = .39$) and girls ($M = .50$, $SD = .40$), $t = 1.12$, $p > .05$, by fathers. There was also no significant difference in psychological maltreatment of boys ($M = .92$, $SD = .80$) and girls ($M = .77$, $SD = .70$), $t = 1.22$, $p > .05$ and neglect of boys ($M = .34$, $SD = .33$) and girls ($M = .47$, $SD = .58$), $t = .16$, $p > .05$ of boys and girls by their fathers. In addition, no significant difference in externalizing behavior problems between boys ($M = .30$, $SD = .20$) and girls ($M = .24$, $SD = .21$) $t = 1.71$, $p > .05$. See Table 1. This suggested that boys and girls did not differ significantly in their levels of externalizing behavior problems, nor personality factors, and were not maltreated differently by their fathers.

Relation between Maltreatment, Child Personality Characteristics, and Behavior Problems

As a preliminary step, bivariate correlations were conducted to examine whether significant linear relations existed between, child maltreatment, personality characteristics, and externalizing behavior. Findings indicated a positive, significant relation between maltreatment by fathers and child externalizing behavior problem ($r = .33$, $p < 0.01$). There was a positive significant association between maltreatment and neuroticism ($r = .25$, $p < 0.01$). We did not find significant association between maltreatment and agreeableness ($r = -.12$, $p = 0.135$), Conscientiousness ($r = -.06$, $p = .426$), Extraversion ($r = .01$, $p = .840$) and Openness ($r = -.14$, $p = .088$). There was significant, negative association between externalizing behavior and Agreeableness ($r = -.18$, $p < 0.05$), Conscientiousness ($r = -.19$, $p < 0.05$) and Openness personality characteristics ($r = -.21$, $p < 0.05$). The relation between externalizing behavior problems

and neuroticism was positive and significant ($r = .36, p < 0.01$). However, the relation between extraversion and externalizing behavior was not significant ($r = .06, p = .432$). See Table 2.

Table 2

Relation Between Maltreatment by Fathers, Child Personality Characteristics, and Behavior

Construct	1	2	3	4	5	6	7
Child malt	-						
Extern behavior	.33**	-					
Extraversion	.02	.06	-				
Agreeableness	-.12	-.18*	.69**	-			
Conscientiousness	-.06	-.19*	.67**	.77**	-		
Neuroticism	.36**	.16*	-.03	-.09	-		
Openness	-.21*	.69**	.70**	.76**	-.02	-	

** $p \leq 0.01$; * $p \leq 0.05$

The findings implied that externalizing behavior problems increased with a decrease in Agreeableness, Conscientiousness and Openness. In contrast, there was a positive significant association between Neuroticism and externalizing behavior problems suggesting that an increase in Neuroticism was associated with an increase in externalizing behavior problems. Given the statistically significant linear relation between the predictor variable (child maltreatment) and outcome variable (child externalizing behavior), we conducted linear regression analysis. As expected, the association between father's reported maltreatment of children, and externalizing behavior problems, was statistically significant, even after controlling for gender of children and monthly income of fathers as possible covariates ($\beta = .33, p < 0.01$). The findings suggested that maltreatment by fathers was a risk factor to child externalizing behavior problems.

Moderating Effects of the Big Five Personality Characteristics on the Relations Between Maltreatment by Fathers and Externalizing Behavior Problems in Children

We assessed whether child personality factors moderated the association between maltreatment by fathers and child externalizing behavior using PROCESS tool. Models for each personality factor were computed separately. The moderating effect was only ascertained when the interaction between maltreatment and level of personality factors (Agreeableness, Conscientiousness, Neuroticism, Openness or Extraversion) was a significant predictor of externalizing behavior. The results showed that interaction between maltreatment by fathers and Extraversion of the child was a positive significant predictor of child externalizing behavior ($\beta = .175, 95\% \text{ CI } [.066, .283], t = 3.176, p < .001$). In addition, interaction of maltreatment by fathers and openness was a positively associated with child externalizing behavior ($\beta = .108, 95\% \text{ CI } [-.006, .210], t = 2.092, p = .038$). The interaction between maltreatment and Neuroticism was not a significant predictor of externalizing behavior problems in children ($\beta = -.066, 95\% \text{ CI } [-.010, -.141], t = 1.711, p = .081$).

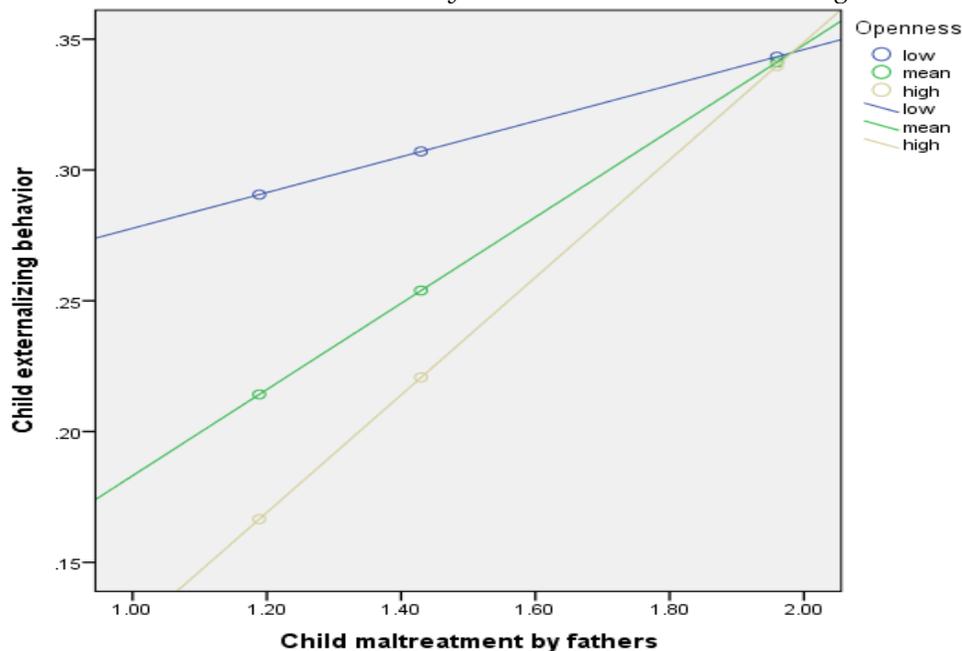
The interaction between maltreatment by fathers and Conscientiousness was also not a significant predictor of child externalizing behavior ($\beta = 0.078, 95\% \text{ CI } [-.044, .199], t = 1.265, p = .208$). Further, the interaction between Agreeableness and child maltreatment was not a significant predictor of externalizing behavior problems ($\beta = 0.064, 95\% \text{ CI } [-.059, .187], t = 1.034, p = .303$). Given that moderation occurs when the interaction between maltreatment and personality characteristics is a significant predictor of

externalizing behavior problems, Openness and Extraversion characteristics in children were the only moderators of the association between maltreatment by fathers and child externalizing behavior.

In light of the foregoing, we plotted regression lines using the PROCESS tool to assess how Openness and Extraversion affected the relation between maltreatment by fathers and child externalizing behavior. The regression lines represented three levels of Openness and Extraversion (high, mean, and low). We conducted slope analyses to examine how maltreatment of children and externalizing behavior changed at the three levels. Findings indicated that when Openness was low, there was a non-significant association between maltreatment by fathers and child externalizing behavior ($\beta = 0.068$, 95% CI [-0.035, 0.171], $t = 1.305$, $p = 0.193$). At the mean value of Openness, there was a significant positive relation between maltreatment by fathers and child externalizing behavior ($\beta = 0.165$, 95% CI [0.091, 0.239], $t = 4.393$, $p < 0.001$). When Openness was high, there was a significant positive relationship between maltreatment by fathers and child externalizing behavior ($\beta = 0.225$, 95% CI [0.122, 0.328], $t = 4.31$, $p < 0.001$). The significant association between externalizing behavior and the interaction between maltreatment by fathers at mean and high level of Openness and not at low level, suggested that the association was stronger in children with average and higher levels of Openness. See Figure 1.

Figure 1

Model Depicting the Moderating Role of the Openness Personality Factor in Children on the Relation between Child Maltreatment by Fathers and Child Externalizing Behavior Problems

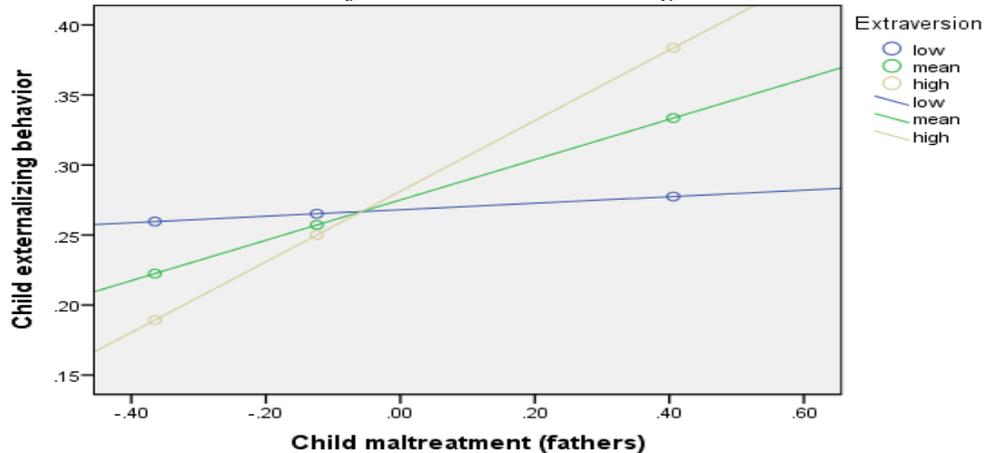


Regarding the moderating effect of Extraversion on the relation between maltreatment by fathers and child externalizing behavior, results indicated that when Extraversion was low, there was a non-significant association between maltreatment by fathers and child externalizing behavior ($\beta = 0.023$, 95% CI [-0.086, 0.133], $t = 0.419$, $p = 0.66$). At the mean value of Extraversion, there was a significant positive relationship between maltreatment by fathers and child externalizing behavior ($\beta = 0.144$, 95% CI [0.072, 0.216], $t = 3.976$, $p < .001$). When Extraversion was high, there was a significant positive

relationship between maltreatment by fathers and child externalizing behavior ($\beta = 0.252$, 95% CI [0.160, 0.344], $t = 5.395$, $p < 0.001$). See Figure 2.

Figure 2

Model Depicting the Moderating Role of Extraversion Personality Factor on the Relation Between Child Maltreatment by Fathers and Externalizing Behavior



Discussion

The current study found no significant difference in maltreatment, externalizing behavior problems, nor personality characteristics of boys and girls aged 7-10 years. The finding that there was no difference in maltreatment of boys and girls is similar to a study among boys and girls in middle childhood in Cambodia, Kenya, Tanzania, and Swaziland. (Ravi & Ahluwalia, 2017). It seems likely that fathers perceived boys and girls in middle childhood as children who are yet to assume gender roles which brings about differences between boys and girls in African societies. This finding suggest that different treatment of boys and girls does not occur between age 7-10 years. In most societies in Kenya, boys are initiated into manhood and assigned to male related roles at 15 years (Mulindi, 2015). It is possible that before circumcision of boys, both boys and girls are regarded as children and therefore treated equally. The finding of no significant difference in externalizing behavior of boys and girls differs with a previous study which indicated that child maltreatment predicted juvenile delinquency in males and not females (Topitzes et al., 2011). The divergent findings could have been attributed to sample characteristics and measurements (Topitzes et al., 2011). Incidences of child maltreatment by fathers in this current study is a key contribution to data on cases of child maltreatment that has been predominantly derived from mother-child association. The study also offers valuable insight about prevention and treatment programs which should target both boys and girls.

In this study, there was a positive association between maltreatment by fathers and externalizing behavior among children. This suggested that children who were maltreated by fathers were likely to exhibit externalizing behavior problems. Previous studies have reported similar associations using maternal data. A study among children in primary school in Tehran found significant association between child maltreatment by mothers and child externalizing behavior (Alizadeh et al., 2011). A different study among 88 emerging adults aged 18-22 years in South Western University in the United States, also found a positive significant relation between childhood maltreatment by mothers and externalizing behavior problems (Hagan et al., 2014). A study of 140 children in elementary school children in Minnesota also showed that physical abuse

predicted early onset of externalizing behavior (Egeland et al., 2002). Based on the previous findings on association between maltreatment by mothers and current study on fathers, it can be concluded that regardless of gender of the parent, maltreatment of children can have an effect on their externalizing behavior. The current study, therefore, supports the available literature on the association between child maltreatment and behavior problems by fathers that has been under-explored. In addition, this study is unlike previous research on maltreatment and behavior problems that have mainly evaluated documented files on incidences of childhood maltreatment, which are prone to under reporting of cases that have potential harm to the child (Johnson et al., 1999). This study provides valuable data on current situation of the association between fathers and children in middle childhood in Kenya.

Concerning the moderating effect of the Big Five Child Personality Factors, this study found that the strength of the relation between maltreatment by fathers and child externalizing behavior weakened as the level of openness and extraversion decreased. The significant association at the mean and higher level on Openness and Extraversion suggested that the association was stronger externalizing behavior emerged in children with average or greater levels of Openness and Extraversion personality characteristics. Thus, children who are more open and are more extraverted are more susceptible to externalizing behavior when maltreated by fathers than those who are less open and less extraverted. The study findings suggest that the association between Big Five Personality Factors and maltreatment by mothers could be different from fathers. Whereas a previous study, see Rogosh & Cicchetti, 2004, indicated that children who are maltreated by mothers exhibited lower Openness to experience, the current study did not find such a significant association between maltreatment by fathers and Openness to experience of children. It rather showed that maltreatment by fathers and average to high Openness to experience put children at higher risk of exhibiting externalizing behavior problems. This is an essential refinement of findings in previous studies that maltreatment would predict externalizing in all children.

Nonetheless, this study confirms the suggestion that child personality factors are likely to influence the parent-child relationship (Meunier et al., 2011). Specifically, the findings offer valuable insights about the underlying processes in father child relationship. The findings support the vulnerability hypothesis that some population can be more vulnerable than others because of factors such as their personality attributes. In the current study, it appears that child behaviors associated with high level of Extraversion (talkative, assertive, energetic, sociable, assertive, forceful) and high level of Openness (curiosity, intellect, and openness to experience) when maltreated by fathers, are likely to exhibit externalizing behavior than those who are less Extraverted and less Open to experience.

This study indicates that maltreatment by fathers is a risk factor to externalizing behavior problems in children. The study provides knowledge on the importance of father-child relationship that is least documented in Kenyan literature on parenting and child behavior. The findings may be an eye opener on the neglected role played by fathers in behavior development of their children in Kenya. The study therefore forms a basis for further research on paternal influences on child development in addition to the almost exclusive focus on mothers in Kenya and Africa. The findings also add to literature on the Big Five Personality Factors. It shows that the Big Five Personality Factors of children may moderate the association between paternal parenting practices and child behavior problems. Specifically, the study highlights that children with high levels of Openness (curiosity, appreciating other cultures, openness to experience-

intellectual independence) and Extraversion (talkative, assertive, energetic, sociable, forceful) are likely to be more vulnerable to externalizing behavior when maltreated by fathers.

Limitations and Future Directions

The present study has several limitations that should be addressed in future research. First, the cross-sectional design used did not explore causal relations between maltreatment by fathers, personality factors and behavior problems. Longitudinal studies should be conducted to explain the links. Second, we assumed that child personality factors would moderate the associations, yet it could be mediating, future studies should explore potential mediating role of the Big Five Personality characteristic in the association between child maltreatment by fathers and behavior problems. In addition, the findings are basically on fathers as they are the neglected parents in research, but future studies may add comparisons with mothers to create a more complete picture of the family. Lastly, given the sensitivity of data of this study, participants may have responded in a socially desirable manner to impress the researcher using the self-reports and the information they provided may not be perfectly reliable. Future studies could utilize multiple informants and add child's or spouse's reports on maltreatment practices.

Implications

This study suggests that father involvement is not always associated with positive outcomes in children and boys and girls are maltreated by fathers equally and are at equal risk of externalizing problem behaviors. The study confirms the vulnerability hypothesis that some people are more vulnerable to psychological problems due to factors such as personality problems. These findings may offer a valuable insight in developing an inclusive parenting program for both fathers and mothers, for boys and girls on sensitive parenting, and child personality factors in case of African parents. The programs need to factor in topics on child personality to enable fathers understand that parental practices, such as maltreatment and certain personality factors, may make children more vulnerable to externalizing behavior problems. Using this knowledge, fathers may be motivated to develop more sensitive parenting strategies to children, especially to those who perceive that their children are high on the Openness and Extraversion personality factors. This may help reduce the incidence of maltreatment by fathers and hence externalizing behavior among the children.

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