

Stress induced by children born of rape and the parental alliance in the DR Congo

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Abstract

Objective: The goal was to understand how children born of rape in the Democratic Republic of Congo induce parental stress and how parents work together to care for these children.

Background: Abundant literature is devoted to children born of rape, but nothing is known about the stress undergone by their parents in the care process.

Method: Twenty-four rape survivor couples and 26 control couples with children aged 6–17 were subjected to Parenting Alliance Inventory (PAI) and Parenting Stress Index (PSI) tests in the east part of the Democratic Republic of Congo.

Results: The parental alliance of the rape survivor couples was comparable to that of the controls. However, for survivor couples, mothers received more support from their husbands for girls than for boys. Parental stress was low among fathers. It was high among mothers of boys and low among fathers of girls. Finally, it was high among mothers of boys compared with fathers.

Conclusion: Boys born of rape induce high parental stress compared with girls born of rape, and mothers experience more stress than fathers.

Implications: Support programs for families of rape survivors must be gender specific for both parents and children, and preferably a family-centered approach should be considered.

KEYWORDS

children born of rape, gender, parental alliance, parental stress, rape survivor

INTRODUCTION

In the Democratic Republic of Congo (DRC), the prevalence of sexual violence has been estimated at 12% among women (Peterman et al., 2011). These incidents of sexual violence, specifically rape, are committed by armed groups, members of the armed forces, and members of the community and sometimes lead to unwanted pregnancies that give birth to unwanted children with fathers who are often unknown (Amisi et al., 2019). The prevalence of pregnancies resulting from rape has been estimated at 6%–17% of women who have been raped (Peterman et al., 2011). These rape survivors are often stigmatized and depressed, and they experience posttraumatic symptoms that affect their attachment to their children (Saucier et al., 2015).

Reintegrating these children born of rape poses a problem because they experience stigmatization, marginalization, and rejection among other issues. Some become part of their mother's family, whereas others are placed with other members of their mother's family, with grandparents, aunts and/or uncles, or end up on the streets. Rossiter and Sharpe (2001) have shown that parents who take in a child with traumatic disorders undergo enormous stress in caring for them, and general dysfunction is observed in the foster family. However, we have not found any research so far on the stress that children born of rape cause their parents (the rape survivor and her husband).

As for husband's adoption, the case of children born of rape is special because these children return to a family with a birth mother who did not want the child and a father who sees the child as his wife's attacker. Significantly, the arrival of a child born of rape is at the root of the family's dishonor (Dushimimana, 2017; Foussiakda et al., 2022). This unloved child upsets the hierarchy within the family and disrupts the married life of rape survivors and the life of other children (Foussiakda et al., 2022). Children born of rape also have mental health problems and display symptoms of posttraumatic stress (van Ee & Kleber, 2013).

In such a family environment, parent–child relationships are said to have deteriorated. The survivor couple may have a dysfunctional marital relationship that will reduce their attachment to the child born of rape. The degree of cooperation between the couple depends on the perception of the woman and the man and the support that each receives or gives to the other to meet the needs of the child (Abidin & Brumer, 1995; Gable et al., 1992). Thus, the type of relationship between the parents is likely to affect the level of their attachment to their children (Bonneville-Baruchel, 2018).

According to Rouhani et al. (2015), the stigmatization of a child born of rape, as well as the mother's anxiety and depression, are associated with a lower parental alliance index, whereas acceptance of the mother or child and the presence of a spouse were associated with a higher parental alliance index, which indicates poor cooperation between parents in taking care of their children. In another study, Chamberlain (2002) demonstrated the existence of a significant association between the level of parental stress and the quality of the parental alliance, for both mothers and fathers.

To our knowledge, no published study has analyzed the level of parental stress experienced by a rape survivor and her husband, who becomes the adoptive father of the child born after a rape. However, Foussiakda et al. (2022) demonstrated that children born of rape are a disruptive factor in family relationships. Therefore, analyzing both the mother–child relationship and the adoptive father/caregiver–child relationship is important to better understand the factors favoring the integration of the rape survivor and her child born of rape within the parental couple.

In the context of these children born of rape, Foussiakda et al. (2022) observed a weakness in the parent–child relationship, discrimination, and stigmatization. Indeed, van Ee & Kleber's (2013) review of the literature reveals ambivalent and detached relationships between parents and children born of rape. According to Foussiakda et al. (2022), girls born of rape reported identity problems linked to their relationship with their mother, whereas boys reported an

ambivalent relationship with their stepfather. The presence of children born of rape makes it difficult for their mothers to reintegrate into society. However, girls born of rape seemed to reintegrate better than boys due to participating in household chores and marriage, from which their stepfather would derive a bride price. Boys were used as shepherds, but they were also seen as a potential danger associated with their biological fathers who committed the rape. Thus, the reintegration of women and their children born of rape depended on gender. In addition, polygamy has proven to be a strategy used by men to dominate their wives after rape. Women perceived polygamy as symbolic acceptance. The woman was doubly undermined by the dominant patriarchal system and by the rape. In this case, polygamy is a socially constructed inequality created to regulate the dominating relationships experienced by the victim. Polygamy is used as a strategy by men and family groups to deal with the dishonor born by rape survivors. In their study, Bruyninckx et al. (2017) showed that polygamy is a stress factor for husbands who are bound by the principle of equal treatment and who experience competition between cowives. Polygamy can, thus, have positive or negative effects on the various members of the family. In Senegal, for example, polygamy is a system that ensures men's security in old age by enabling them to benefit from all types of solidarity (daily, monetary, health, and so on; Ba Gning & Antoine, 2015). Polygamy is seen as a system that guarantees women autonomy in household management and sometimes decision-making capacity (Ba Gning & Antoine, 2015). It is justified in a patriarchal society because it would allow social equilibrium by solving the problems of celibacy and sterility among women. However, polygamy can lead to competition among wives of the same husband, damage mental and sexual health, harm children, and create a danger of nonexclusivity (Cook & Kelly, 2006).

This study aimed to analyze the parental alliance within the couple of the rape survivor who has had a child born of rape and the stress experienced by the parents in their relationship with this child. This research will help us to understand factors affecting rape survivor couples to propose an appropriate approach for social reintegration of women survivors of rape and their children born of rape. In our analyses, we included the child's gender and polygamy as explanatory variables for parental stress.

In this study, we have used three hypotheses: (a) Parents who have a child born of rape will experience greater stress and poorer parental alliance than parents who do not have a child born of rape, (b) parents of boys born of rape will experience greater stress than parents of girls born of rape, and (c) parents in polygamy and with a child born of rape will experience greater stress and poorer parental alliance than parents in monogamy with a child born of rape.

METHOD

Participants

A presurvey was carried out to identify participants who met the inclusion criteria. A native social worker facilitated the identification and contact with participants. During this phase, participants were informed of the study's purpose, and their consent was obtained. The questionnaires were administered by two people well-trained and with experiences in psychological tests.

This study used a sample made up of the families of rape victims and control families. The initial population consisted of 30 victim couples who were married before the rape and live together and 30 control couples. Using purposive sampling, the participants were selected among the survivors who consulted our facilitator, the social worker, in the past and who had been followed by her. We eliminated six victim couples and four control couples whose answers were inconsistent or whose family members were not present for the interview. Thus, 24 victim couples with 24 children born of rape (15 girls, nine boys) and 26 control couples (16 girls, 10 boys) whose children were aged between 6 and 17 were interviewed. Children at this age have

a good ability to understand and answer behavior and resilience questionnaires, which were used for another study and applied at the same time. Two couples in the control group and four from the victim couples group were in a polygamous relationship.

Study environment

The research was undertaken in the Kabare territory in South Kivu province, specifically in the villages of Mabingu and Katana. This geographical area was chosen because of its proximity to the Kahuzi Biega National Park, where several armed groups are hiding and continue to raid the surrounding villages from time to time, pillaging material goods and sometimes raping women.

Procedure

Two psychological questionnaires, the Parenting Alliance Inventory and the Parenting Stress Index, initially designed to be completed by the respondents, were administered in the form of an interview due to the large number of illiterate participants. They were used for both mothers and fathers in two different rooms to avoid mutual influences. Additionally, three independent variables were collected on the participants: whether they were a monogamous or polygamous couple, the gender of the child, and the age of the child. Only parents who had a child born of rape and were living in the study environment and aged between 6 and 17 years were retained.

Parenting Alliance Inventory

The Parenting Alliance Inventory (PAI) can be defined as the degree to which parents form a team to fulfill various parental functions (Abidin & Brumer, 1995). This collaboration comprises four components: investment or involvement in the child (e.g., "Other parent appreciates being alone with the child"), valuing and recognizing the other parent's involvement (e.g., "The other parent is very attentive to our child"), respect for the partner's judgment (e.g., "Other parent tells me I am a good father"), and the desire for communication between the parents ("Discussing about our child with the other parent is something I appreciate and look forward to"). A high score on the parental alliance scale indicates that a partner perceives that both parents are invested and involved in the parenting sphere, communicate together, and value and respect each other's decisions and involvement with their child. The score varies from 20 to 100. Both versions (father and mother) of the PAI were used. The reliability of the scale was excellent, with Cronbach's alpha coefficients of .92 for PAI-Global, .94 for PAI-Mother, and .91 for PAI-Father.

Parenting Stress Index

The Parenting Stress Index (PSI; Abidin, 1995) is defined as a state of psychological discomfort related to the specific domain of bringing up a child and measures the stress of the parent at the time of bringing up the child or when in a relationship with the child. We used the brief version, which has 36 questions. The results give a total score for the stress generated by the parent-child relationship and are organized around three subscales: (a) Parental Distress (e.g., "I feel trapped by my responsibilities as a parent," "I feel lonely and without friend"), (b) Parent-Child Dysfunctional Interaction (e.g., "Sometimes I feel my child doesn't like me and doesn't want to

be close to me,” “When I do things for my child I get the feeling that my efforts are not appreciated”), and (c) Difficult Child (e.g., “My child makes more demands on me than most children,” “My child gets upset easily over the smallest thing”; Abidin & Brumer, 1995). The higher the value, the higher the level of stress. The reliability of the test had a Cronbach’s alpha coefficient of .78 and .75 for the PSI applied to mothers and fathers, respectively.

Statistical analysis

Statistical analyses were performed using R software (Version 4.0.5), specifically the stats package (Version 3.6.2). They consisted of using statistical tools to compare the mean scores of the groups of children defined according to family type, gender of the child, and marital type. Analyses comparing the mean scores were used after prior verification of the conditions for their application. The Shapiro test was performed to test the normality of the distribution of scores within each group and the Bartlett test was performed to assess the equality of variances between groups. For factors (source of variation) with two modalities, we performed Student’s two-sample *t* test and the Wilcoxon test. For factors with more than two modalities, we performed a one-way analysis of variance or the Kruskal–Wallis test. We analyzed the relationship between PAI and PSI scores by performing a correlation test and linear regression.

RESULTS

PAI

The results in Table 1 demonstrate that within the rape survivor’s family, the PAI score was statistically higher for parents with a daughter born of rape than for parents with a son born of rape. Mothers felt significantly more supported by fathers in caring for girls than in caring for boys (see Table 1).

Fathers, for their part, did not note any difference in the support they received from their wives for child care, which would depend on their sex. The results presented in Table 1 also demonstrate statistically comparable results for the support of both parents for each other in child care. The PAI-Mother score was no different from the PAI-Father score for either boys or girls.

Stress experienced by mothers of children born of rape

The results in Table 2 demonstrate that mothers of children born of rape experienced parental stress that did not differ overall from that of other mothers in the control group. Nevertheless, a significant difference was observed between the two categories of mothers in terms of mother–child dysfunctional interaction, which was higher in mothers who were rape survivors than in mothers from the control group.

When the gender of the child was considered, boys born of rape were observed to cause their mothers more stress than other boys in the same study setting. The dysfunctional parent–child interaction between boys born of rape and their mothers was also significant. These boys posed more problems for their mothers than girls born of rape. Finally, polygamy did not influence either the PAI or the PSI.

TABLE 1 Average scores (\pm standard error) of the Parenting Alliance Inventory for mothers and fathers of children born from rape compared to control parents.

Variable	PAI-M	PAI-F	Stat	<i>p</i>	PAI-Average
Control	84.6 \pm 9.2	86.5 \pm 8.4	<i>W</i> (50) = 288	.364	85.6 \pm 7.9
Victim	82.2 \pm 12.6	86.0 \pm 9.9	<i>W</i> (46) = 877.5	.118	84.1 \pm 11.4
Statistics	<i>W</i> (48) = 677	<i>W</i> (48) = 600			<i>W</i> (96) = 599.5
<i>p</i>	.356	.903			.899
Victim					
Girls	86.2 \pm 12.4	88.0 \pm 10.4	<i>W</i> (28) = 203.5	.677	87.1 \pm 7.0 _a
Boys	78.8 \pm 12	84.3 \pm 9.3	<i>t</i> (16) = -1.83	.073	82.0 \pm 9.3 _b
Statistics	<i>t</i> (22) = 2.04	<i>W</i> (22) = 333.5			<i>t</i> (44) = 2.074
<i>p</i>	.047*	.198			.044*
Control					
Girls	84.4 \pm 10	86.1 \pm 8.3	<i>W</i> (30) = 107	.436	85.6 \pm 7.9
Boys	85.0 \pm 8.1	87.1 \pm 9.1	<i>W</i> (18) = 42.5	.589	84.3 \pm 8.6
Stat	<i>W</i> (24) = 73.0	<i>W</i> (24) = 77			<i>W</i> (28) = 73
<i>p</i>	.729	.894			.529
Girls					
Control	84.4 \pm 10	86.1 \pm 8.3			85.6 \pm 7.9
Victim	86.2 \pm 12.4	88.0 \pm 10.4			87.1 \pm 7
Statistics	<i>W</i> (29) = 149.5	<i>W</i> (29) = 136			<i>W</i> (58) = 124
<i>p</i>	.579	.332			.181
Boys					
Control	85.0 \pm 8.1	87.1 \pm 9.1			84.3 \pm 8.6
Victim	78.8 \pm 12	84.3 \pm 9.3			82.0 \pm 9.3
Wilcoxon	<i>W</i> (17) = 176	<i>W</i> (17) = 145.5			<i>W</i> (34) = 157
<i>p</i>	.065	.594			.347

Note. F = father; M = mother; PAI = Parenting Alliance Inventory; *t* = Student test; *W* = Wilcoxon test. Two successive numbers in the same column followed by two different letters are statistically different; values in parentheses indicate the degree of freedom.

Statistical values in the column (*W*, *t*, *p*) give the comparison between mother's and father's PAI. However, statistical values (*W*, *p*) in different rows give the comparison between PAI scores of two successive types of participants.

**p* < .05.

Stress experienced by fathers who take in children born of rape

The adoptive fathers of children born of rape were less stressed than the fathers of children in the control group. The PSI and child-related difficulty had statistically low scores when compared with the control group, as presented in Table 3.

Considering the gender of the children, adoptive fathers of girls born of rape were observed to be less stressed than those of other girls in the control group. These adoptive fathers also had significantly lower PSI, parental distress, and difficult child scores than the control fathers.

Finally, in both monogamous and polygamous couples, the difficult child scores of the adoptive fathers were significantly lower than those of the control group. Finally, whether the fathers were monogamous or polygamous did not influence their stress scores.

TABLE 2 Average scores of the Mother Stress Index under control families and families of survivors.

Variable	PSI	PD	P-CDI	DC
Control				
Girls	109.8 ± 16.6	39.6 ± 14.7	33.1 ± 4.5	37.2 ± 5.8
Boys	113.3 ± 15.6	40.0 ± 7.7	33.1 ± 6	40.2 ± 6.4
Stat (<i>df</i> = 24)	<i>W</i> = 64	<i>W</i> = 61	<i>t</i> = -0.018	<i>t</i> = -1.24
<i>p</i>	.412	.328	.986	.228
Victim				
Girls	101.4 ± 14.1 _b	34.5 ± 6.5	32.9 ± 6.7 _b	34 ± 4.3 _b
Boys	115.8 ± 12.3 _a	38.1 ± 6.1	39.2 ± 6.8 _a	38.4 ± 4.6 _a
<i>t</i> -student (<i>df</i> = 22)	-3.687	-1.931	-3.155	-3.37
<i>p</i>	.001**	.060	.003**	.002**
Family				
Control	111.1 ± 16	39.7 ± 12.3	33.1 ± 5 _b	38.3 ± 6.1
Victim	109.2 ± 14.9	36.4 ± 6.5	36.3 ± 7.4 _a	36.4 ± 4.9
Stat (<i>df</i> = 48)	<i>W</i> = 589	<i>W</i> = 694.5	<i>W</i> = 409.5	1.46
<i>p</i>	.921	.260	.027**	.148
Girls				
Control	109.8 ± 16.6	39.6 ± 14.7	33.1 ± 4.5	37.2 ± 5.8 _a
Victim	101.4 ± 14.1	34.5 ± 6.5	32.9 ± 6.7	34 ± 4.3 _b
Stat (<i>df</i> = 29)	<i>W</i> = 208.5	<i>W</i> = 205.5	<i>t</i> = 0.081	1.93
<i>p</i>	.219	.256	.936	.062
Boys				
Control	113.3 ± 15.6	40.0 ± 7.7	33.1 ± 6 _b	40.2 ± 6.4
Victim	115.8 ± 12.3	38.1 ± 6.1	39.2 ± 6.8 _a	38.4 ± 4.6
<i>t</i> -student (<i>df</i> = 17)	-0.494	0.778	-2.483	0.91
<i>p</i>	.625	.442	.018*	.368
Control				
Monogamy	111.7 ± 16.7	40.4 ± 12.8	33.1 ± 5.3	38.2 ± 6.5
Polygamy	107 ± 10	34.7 ± 6.5	33 ± 2	39.7 ± 1.5
Stat (<i>df</i> = 22)	<i>W</i> = 33	<i>W</i> = 45	<i>W</i> = 31.5	-0.39
<i>p</i>	.936	.421	.840	.699
Victims				
Monogamy	109.7 ± 15.6	36.6 ± 6.5	36.1 ± 7.7	37 ± 5.1
Polygamy	107.5 ± 13	35.9 ± 6.7	37.1 ± 6.9	34.5 ± 4.3
<i>t</i> -student (<i>df</i> = 24)	0.417	0.305	-0.38	1.46
<i>p</i>	.678	.762	.708	.152
Monogamy				
Control	111.7 ± 16.7	40.4 ± 12.8	33.1 ± 5.3	38.2 ± 6.5
Victim	109.7 ± 15.6	36.6 ± 6.5	36.1 ± 7.7	37 ± 5.1
Stat (<i>df</i> = 42)	<i>W</i> = 401	<i>W</i> = 472	<i>W</i> = 284	<i>t</i> = -0.77
<i>p</i>	.987	.272	.06	.442

(Continues)

TABLE 2 (Continued)

Variable	PSI	PD	P-CDI	DC
Polygamy				
Control	107 ± 10	34.7 ± 6.5	33 ± 2	39.7 ± 1.5
Victim	107.5 ± 13	35.9 ± 6.7	37.1 ± 6.9	34.5 ± 4.3
<i>t</i> -student (<i>df</i> = 4)	−0.067	−0.287	−0.99	2
<i>p</i>	.948	.779	.34	.069

Note. DC = Difficult Child; P-CDI = Parent–Child Dysfunctional Interaction; PD = Parent Distress; PSI = Parenting Stress Index; *t* = Student test; *W* = Wilcoxon test. Two successive numbers in the same column followed by two different letters are statistically different.

p* < .05. *p* < .01.

Comparison of stress experienced by mothers and fathers

Overall, the stress experienced by mothers of children born of rape was statistically the same as that experienced by mothers of other children in the study group. Nevertheless, the dysfunctional parent–child interaction was significantly higher in mothers than in adoptive fathers of children born of rape, as presented in Table 4. However, considering the gender of the child, mothers of boys born of rape were more stressed than their adoptive fathers. This seems to be associated with a higher dysfunctional parent–child interaction in the mothers than in the fathers.

Relationship between PAI and PSI

The analysis of the relationship between parental stress and parental alliance showed that mothers' parental stress decreased significantly in 10.7% of cases when they received support from their husbands ($\alpha = -.35$, $R^2 = .10$). The fathers' parental stress also decreased significantly in 7.9% of cases when they supported their wives in caring for the child born of the rape or when they received support from their wives; in such conditions, there was mutual support within the parental couple in caring for the children.

DISCUSSION

Overall, the results demonstrated good collaboration between both parents in the care of children born of rape. The average PAI scores for parents of children born of rape was above 80 for a score that should vary from 20 to 100. Nevertheless, collaboration was better between the two parents when the child born of rape was a girl than when it was a boy. The PAI-Mother scores revealed that mothers receive more support from their husbands in caring for girls than for boys. In previous research, Foussiakda et al. (2022) showed that girls born of rape were more accepted than boys by their adoptive fathers, partly because they participated in housework and the dowry expected by this father. This is gender in action in the marked material and symbolic hierarchy between the sexes, as Fine (2003) mentioned. As for boys, not only did they remind the mother of the violence she has experienced, but they may also symbolize the rapist. According to a previous study, the mother will tend to associate the child's behavior with that of his birth father (van Ee et al., 2016). Contrarily, our results showed that the PAI-Father scores revealed that the support that the adoptive father receives from his wife remains high regardless of the child's gender.

TABLE 3 Average scores of the Father Stress Index under control families and families of survivors.

Variable	PSI	PD	P-CDI	DC
Control				
Girls	117.3 ± 18.7	38.8 ± 7.8	38.1 ± 10	40.4 ± 4.6
Boys	116.6 ± 22.9	39.7 ± 9.5	37.1 ± 11.3	39.8 ± 6.2
Stat (<i>df</i> = 24)	<i>W</i> = 89	<i>t</i> = -0.259	<i>W</i> = 95	<i>t</i> = 0.272
<i>p</i>	.649	.798	.439	.788
Victim				
Girls	101.2 ± 17.4	34 ± 6.1 _b	32 ± 8.6	35.3 ± 6
Boys	108.5 ± 12.5	37.2 ± 5.3 _a	34.3 ± 7.3	37 ± 4.7
Stat (<i>df</i> = 22)	<i>W</i> = 189	<i>W</i> = 164.5	<i>t</i> = -1.002	<i>t</i> = -1.117
<i>p</i>	.074	.020*	.322	.270
Family				
Control	117 ± 19.9 _a	39.2 ± 8.3	37.7 ± 10.3	40.2 ± 5.2 _a
Victim	105.3 ± 15.2 _b	35.8 ± 5.8	33.2 ± 7.9	36.3 ± 5.4 _b
Stat (<i>df</i> = 48)	<i>W</i> = 790.5	<i>W</i> = 751	<i>W</i> = 722	<i>t</i> = -3.016
<i>p</i>	.039*	.106	.201	.004**
Girls				
Control	117.3 ± 18.7 _a	38.8 ± 7.8 _a	38.1 ± 10	40.4 ± 4.6 _a
Victim	101.2 ± 17.4 _b	34 ± 6.1 _b	32 ± 8.6	35.3 ± 6 _b
Stat (<i>df</i> = 29)	<i>W</i> = 246.5	<i>t</i> = 2.112	<i>W</i> = 232	<i>t</i> = -2.805
<i>p</i>	.017*	.042*	.05	.008**
Boys				
Control	116.6 ± 22.9	39.7 ± 9.5	37.1 ± 11.3	39.8 ± 6.2
Victim	108.5 ± 12.5	37.2 ± 5.3	34.3 ± 7.3	37 ± 4.7
Stat (<i>df</i> = 17)	<i>W</i> = 143.5	<i>W</i> = 156	<i>W</i> = 123	<i>t</i> = 1.44
<i>p</i>	.646	.362	.817	.594
Control				
Monogamy	116.3 ± 20.3	39.1 ± 8.6	37.5 ± 10.7	39.8 ± 5.2
Polygamy	122 ± 20	39.7 ± 7.5	39.7 ± 8.5	43 ± 4
Stat (<i>df</i> = 22)	<i>W</i> = 27	<i>t</i> = -0.111	<i>W</i> = 25.5	<i>t</i> = -1.018
<i>p</i>	.568	.913	.489	.318
Victim				
Monogamy	105.5 ± 14.5	35.5 ± 5.5	39.7 ± 8.5	36.9 ± 5.4
Polygamy	104.6 ± 17.7	36.7 ± 6.7	33.5 ± 9.1	34.4 ± 5.1
Stat (<i>df</i> = 24)	<i>t</i> = 0.181	<i>W</i> = 187.5	<i>t</i> = -0.134	<i>W</i> = 262
<i>p</i>	.857	.589	.857	.207
Monogamy				
Control	116.3 ± 20.3	39.1 ± 8.6	37.5 ± 10.7	39.8 ± 5.2 _a
Victim	105.5 ± 14.5	35.5 ± 5.5	39.7 ± 8.5	36.9 ± 5.4 _b
Wilcoxon (<i>df</i> = 42)	499	497.5	453.5	545.5
<i>p</i>	.126	.131	.419	.023*

(Continues)

TABLE 3 (Continued)

Variable	PSI	PD	P-CDI	DC
Polygamy				
Control	122 ± 20	39.7 ± 7.5	39.7 ± 8.5	43 ± 4 _a
Victim	104.6 ± 17.7	36.7 ± 6.7	33.5 ± 9.1	34.4 ± 5.1 _b
<i>t</i> -student (<i>df</i> = 4)	1.494	0.681	1.059	2.693
<i>p</i>	.159	.508	.309	.018*

Note. DC = Difficult Child; P-CDI = Parent–Child Dysfunctional Interaction; PD = Parent Distress; PSI = Parenting Stress Index; *t* = Student test; *W* = Wilcoxon test. Two successive numbers in the same column followed by two different letters are statistically different.

p* < .05. *p* < .01.

TABLE 4 Average scores (±standard error) of the Mother Stress Index and Father Stress Index.

Variables	Control			Victim		
	Girls	Boys	Total	Girls	Boys	Total
<i>df</i>	30	18	48	28	16	44
PSI						
Mother	109.8 ± 16.6	113.3 ± 15.6	111.1 ± 16	101.4 ± 14	115.8 ± 12.3 _a	109.2 ± 14.9
Father	117.3 ± 18.7	116.6 ± 22.9	117 ± 19.9	101.2 ± 17.4	108.5 ± 12.5 _b	105.3 ± 15.2
Stat	<i>W</i> = 98.5	<i>t</i> = -0.377	<i>W</i> = 288	<i>t</i> = 0.029	<i>W</i> = 439	<i>W</i> = 1253
<i>p</i>	.272	.711	.363	.977	.032*	.187
PD						
Mother	39.6 ± 14.7	40 ± 7.7	39.7 ± 12.3	34.5 ± 6.5	38.1 ± 6.1	36.4 ± 6.5
Father	38.8 ± 7.8	39.7 ± 9.5	39.2 ± 8.3	34 ± 6.1	37.2 ± 5.3	35.8 ± 5.8
Stat	<i>W</i> = 120	<i>t</i> = 0.077	<i>W</i> = 336.5	<i>t</i> = 0.246	<i>W</i> = 349	<i>W</i> = 1151
<i>p</i>	.777	.939	.985	.807	.656	.592
P-CDI						
Mother	33.1 ± 4.5	33.1 ± 6	33.1 ± 5	32.9 ± 6.7	39.2 ± 6.8 _a	36.3 ± 7.4
Father	38.1 ± 10	37.1 ± 11.3	37.7 ± 10.3	32 ± 8.6	34.3 ± 7.3 _b	33.2 ± 7.9
Stat	<i>W</i> = 94	<i>W</i> = 40.5	<i>W</i> = 260.5	<i>t</i> = 0.399	<i>t</i> = 2.25	<i>t</i> = 1.96
<i>p</i>	.202	.492	.156	.692	.015*	.053
DC						
Mother	37.2 ± 5.8	40.2 ± 6.4	38.3 ± 6.1	34 ± 4.3	38.4 ± 4.6	36.4 ± 4.9
Father	40.4 ± 4.6	39.8 ± 6.2	40.2 ± 5.2	35.3 ± 6	37 ± 4.7	36.3 ± 5.4
Stat	<i>t</i> = -1.724	<i>t</i> = 0.142	<i>t</i> = -1.55	<i>t</i> = -0.796	<i>t</i> = -1.073	<i>t</i> = 0.147
<i>p</i>	.095	.889	.254	.431	.073	.883

Note. DC = Difficult Child; P-CDI = Parent–Child Dysfunctional Interaction; PD = Parent Distress; PSI = Parenting Stress Index; *t* = Student test; *W* = Wilcoxon test. Two successive numbers in the same column followed by two different letters are statistically different.

**p* < .05.

Mothers with a child born of rape reported high dysfunctional parent–child interaction compared to mothers in the control group. Reid-Cunningham's (2009) results showed that the symptoms of posttraumatic stress and depression experienced by rape survivors can affect mother–child interaction. Traumatized mothers may be less available and less involved in their interactions with their children. These mothers may experience an ambivalent relationship. On

the one hand, they may develop feelings of rejection and hatred because the child is a constant reminder of the sexual violence; on the other hand, they may have a feeling of maternal love for their innocent child (van Ee et al., 2016). The mother may find no pleasure in having the child born of rape. She could probably have had an abortion if she were in a country where abortion was permitted. The mother may also remain attached to the child because she is the birth mother. Therefore, she may be dominated by a feeling of ambivalence and accepts the child but not in the same way as she would accept a child born of a wanted pregnancy. This child may represent pain, which is personified in the eyes of the mother, and symbolizes the aggressor (van Ee & Kleber, 2013).

The difference in the dysfunctional interaction between the parent and a child born of rape and a parent and a biological child was only observed in the case of a boy child. In general, and independently to rape, our results are in line with those of Vierhaus et al. (2013) who reported higher levels of stress in mothers of boys than in mothers of girls.

Finally, our results showed that in 10% of the cases, mothers' parental stress decreased as their husbands' level of support increased. Despite a small sample size, these results corroborate those of Chamberlain (2002), who observed a relationship between parental stress and parental alliance. Rouhani et al. (2015) observed that maternal anxiety and depression were associated with a lower parenting alliance index and that the presence of a spouse was associated with a higher parenting alliance index. Louie et al. (2017) showed that parental stress is positively correlated with the child's behavioral and developmental maladjustment. High levels of parental stress during the child's early years can affect the quality of care, which can adversely affect parent-child attachment. According to the results of Nikuze (2013), who analyzed the relationship between a rape survivor and her child, the higher the parental stress, the more problems the child encounters.

In our study, adoptive fathers of children born of rape experienced less stress than fathers in the control group. Significantly, biological fathers have a greater moral obligation to ensure the social and economic well-being of their children than adoptive fathers who accept children born of rape almost by force. Biological fathers, therefore, must deal with several stressful factors, such as paying for their children's schooling, providing medical care, and participating in the child's education. As Dervishalijaj (2013) pointed out, parenting is a wonderful and rewarding experience that is often accompanied by high levels of stress due to the difficulties, frustrations, and challenges parents face in everyday life. Our results suggest that adoptive fathers show a low level of cooperation with their wife in taking care of the child born of rape, who they have difficulty accepting into their family. It is important to remember that this is not a situation of adoption as the fathers did not choose to live with these children beforehand. These fathers find themselves in a situation of force majeure. After the rape, some husbands continue to live with their wives because men are unable to look after the children. They find a certain resilience in the community, which advises them not to abandon the child born of rape, even if the child is perceived as a disruptive element in the family system. Under pressure from the culture, these fathers accept (in spite of themselves) the integration of the child into their parental couple (Foussiakda et al., 2022). Shapiro (2014) revealed several family and individual factors that can contribute to stepparent stress, including a lack of boundaries and role clarity, both familial and societal, and strained relationships with other family members. Even in normal adoption situations, adoptive parents have been shown to experience more stress than biological parents.

Our results showed that the level of parental stress was lower in families whose child was born of rape than in the control group. Adoptive fathers reported fewer difficulties related to daughters born of rape than biological fathers of daughters. However, this difference was not observed in the case of fathers of sons. Taken together, the results suggest that adoptive fathers feel less attachment toward children born of rape, interact less with these children, and thus experience less parental stress than biological fathers. In fact, the PAI was weaker for boys born of rape than girls.

Comparing the mothers' results with those of the fathers, for boys born of rape, the scores on the PSI and the Parent–Child Dysfunctional Interaction subscale were lower for fathers than for mothers. Fathers, unlike mothers, did not experience parental distress related to these children. Their parental stress scores seemed to hide the boys' poor behavior. However, our results also showed that the parental distress of mothers of boys born of rape was higher than that of fathers. These are fathers who do not feel responsible for the children born of rape.

Our results showed that within the rape survivor's family, boys born of rape cause more stress than girls in the same category. This stress is associated with the nature of the child, the nonfunctional interaction between the child and the parents, and above all, beliefs and the prevailing culture. According to Baker et al. (2003), the relationship between parental stress and children's behavior is bidirectional, with the two influencing each other. On the one hand, children's behavioral problems can predict parental stress, and, on the other hand, parental stress can predict children's behavioral problems. Thus, in the case of our study, children born of rape induced parental stress in both the mother and the adoptive father, and the level of this stress depended on the child's gender. These results obtained in the east part of the DRC may be influenced by cultural factors that may not be encountered elsewhere.

Limitations

Our research has certain limitations, particularly due to its small sample size. The gender representation of the children in the sample, which included more boys than girls, was also not equitable, thereby possibly limiting the conclusions drawn about gender. Nevertheless, the strength of this research lies primarily in that it presents results that are consistent with those documented in the literature about the association between adoptive fathers and biological fathers and between fathers of daughters and fathers of sons.

Implications

Our research differs from prior research in that it highlights paternal parental stress and differentiates parental stress depending on the gender of the child and the parents. Mothers feel more supported by their husbands in looking after their daughters than their sons. When this support from adoptive fathers increases, the mothers' parental stress decreases. Hence, clinicians must focus on adopting an inclusive, family-based approach when caring for rape survivors and consider children's sex. In this caregiving approach, families and professionals work together in the best interests of child and their parents. Practices should include parental involvement in decision-making, collaboration and partnership, mutual respect, and individualized and flexible service delivery. Furthermore, our study seems to be one of the first, if not the only one to our knowledge, to relate parental stress and the parental alliance of parents of children born of rape in the DRC.

Conclusion

In eastern DRC, rape survivors receive more support from their husbands in caring for girls born of rape than in caring for boys born of rape. These children born of rape cause parental stress for the parents, which depends on the child's gender. This stress is higher when the child born of rape is a boy than a girl, according to the mothers' perception, and it is higher for mothers than for fathers. However, parental distress associated with boys was also noted for adoptive fathers. Furthermore, fathers of girls born of rape showed lower parental stress

than fathers of girls in the control group. Finally, parental stress was not influenced by marital status and did not differ between monogamous and polygamous couples. Therefore, the parental stress of the parents of children born of rape is gender specific and requires the gender of both the child and the parents to be considered when caring for the rape survivor in an approach centered on all the members of the rape survivor's family. Furthermore, our study suggests that the cultural, material, and symbolic context in a changing environment should also be considered.

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