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Posttraumatic Stress Disorder, Dyadic Adjustment, Sexual Desire, and Couple Resilience 10 Years After the Experience of Rape by Survivors in the Eastern Democratic Republic of the Congo

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Abstract: The reintegration of survivors and their children born because of war rapes is a major issue in the eastern Democratic Republic of the Congo. This study analyzed survivors' posttraumatic stress disorder (PTSD) and the support received from their spouses, both in terms of their own well-being and that of their children. The PTSD form, DAS-16, Marital Support Survey, Sexual Desire Scale, and Connor–Davidson Resilience Scale tests were administered to 28 survivor couples and 32 control couples selected from the Kabamba cluster in Kabare, South Kivu. Over 70% of the respondents had PTSD scores above 34, required clinical assistance, and were not satisfied with their marital relationships. Based on survivors' perceptions, the balance of marital support and the coherence of couple responses were negative. The survivors typically feel that they provide more support to their husbands than they receive. Unlike husbands, survivors presented low individual sexual desire and high dyadic sexual desire scores, while husbands' dyadic desire decreased, and they no longer wished to have sexual relations with their partners. Rape survivors derive resilience from prayer and internal self-control, as they live in an environment in which war-related stress causes chronic trauma.

Keywords: spousal support; sexual desire; rape; survivor; posttraumatic stress; resilience

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1. Introduction

The Democratic Republic of the Congo (DRC), especially the eastern part, has been experiencing endemic armed conflicts. In this region, more than 280 armed groups have committed sexual violence against girls and women over time. Since 1996, this part of the country has experienced violence leading to the individual or mass rape of girls and women by members of these armed groups, but also—and increasingly—by members of the community (Amisi et al. 2019). As a result, thousands of females and female rape survivors have been stigmatized, labeled, or excluded from the community (Kelly et al. 2011; Peterman et al. 2011). For example, married women are abandoned by their husbands,

who no longer want to live with women tainted by rape (Foussiakda et al. 2022). Others, however, manage to return to their conjugal relationships, alone or with children born because of the rape, after being held captive by armed groups and/or following care and treatment/support through appropriate structures (Foussiakda et al. 2022; Kelly et al. 2011).

Fear dominates the daily lives of all women living in conflict zones. This lifelong fear leaves victims with constant torment and mental anguish, which increases their stress and causes long-term psychological damage. Many physiologists believe that fear alone can cause posttraumatic stress disorder (PTSD) (Clifford 2008). This rape trauma syndrome is characterized by three phases (Clifford 2008): acute, adjustment, and organization. The acute phase comes immediately after the rape occurs, when the survivor is in full crisis and experiences a series of emotional reactions such as screaming, trembling, crying, or reactions of a calm nature. The second phase is the outward adjustment that occurs when the survivor focuses less on the rape, often with a high level of denial, and engages in normal life activities. The third and last phase is that of a long-term organization, in which the rape survivor internalizes the assault and decides to diminish her feelings towards her assailant (Chivers-Wilson 2006). It is also acknowledged that recovery from trauma is characterized by reprogramming, integration, and habituation to traumatic images, leading to a renewed sense of security. Over time, PTSD symptoms decrease. Survivors become less concerned about blaming themselves and others, and regain a sense of control (Brewin et al. 1996). For some rape survivors, PTSD symptoms persist for up to 40 years (Chivers-Wilson 2006).

The social and sexual functions of the victims are substantially disrupted after rape and tend to return to normal after a few months, whereas sexual desire remains low for up to 18 months after the assault (Bornefeld-Ettmann et al. 2018). PTSD can affect the sexual health of victims by impairing their sexual desire, arousal, and performance, as it interferes with the biological circuits and psychological processes necessary for harmonious sexual function (Bornefeld-Ettmann et al. 2018). PTSD severity may also lead to poor intimate relationships (DiMauro and Renshaw 2019).

Most research conducted in the DRC on rape survivors has focused more on survivors, neglecting the fact that their trauma affects the entire community (Trenholm et al. 2011). Specifically, most women raped by armed groups in eastern DRC are rejected by their husbands and are stigmatized and subject to discrimination in their communities, especially when they have children as a result of the rape (Dossa et al. 2014). Male spouses who have experienced the rape of their partners are second-degree victims, but are often neglected during the care process.

Survivor families are composed of a husband, the child born as a result of the rape, and other children who often live in a state of permanent stress (Dossa et al. 2014; Foussiakda et al. 2022). The husbands of sexually assaulted spouses may also develop PTSD. The presence of children born of the rape, symbols of the assault, similarly disrupts relationships within the family and increases the level of parental stress (Foussiakda et al. 2022, 2023). We aimed to analyze the PTSD symptoms of rape survivors 10 years after the assault to understand the extent of support received from their husbands. The particularity of our study lies in considering the marital couple, survivors, and husbands in the analysis of PTSD, as well as marital support, resilience, and sexual desire. In other words, we conducted a dyadic analysis, unlike previous studies that focused on either survivors or their spouses separately (Amisi et al. 2019; Dossa et al. 2014; Kelly et al. 2011; Peterman et al. 2011).

We hypothesized that over a decade after the rape, survivors would have PTSD scores below the clinical level. As mentioned by Chivers-Wilson (2006), PTSD symptoms decrease over time, and the survivor regains a sense of self-control. Our second hypothesis was that

rape survivors were likely to have developed a degree of resilience over time because of the support received from their husbands. As a third hypothesis, we considered that the sexual desire of rape survivors and their husbands would be low compared to that of the control group. We base this conjecture on Foussiakda et al. (2022), who showed that some men are reluctant to have sex with their wives, whom they consider having been defiled by the rape.

2. Materials and Methods

2.1. Participants

Data were collected from a sample of 28 couples (n = 56) in which the woman had been a victim of rape, resulting in a child at least 10 years ago, and from 32 local control couples (n = 64) in which the woman had never experienced wartime rape. In the control group, 4 couples were polygamous and 28 were monogamous, while among the victim couples, 9 were polygamous and 19 were monogamous. Respondents were selected from the Kabare territory in the province of South Kivu from the villages Kabamba and Katana, near Kahuzi Biega National Park, where there are several armed groups who commit rape in the surrounding villages. The couples were composed of men with an average age of 43 $\pm$ 14 and women with an average age of 39 $\pm$ 13.26. The highest level of education was secondary school for women (40%) and higher education for men (6%). Overall, 50% of the men had a secondary level of education, 25% had completed primary school, and 19% had never attended school. This level of education also applied to the women. Most of the participants were farmers (98%). As we dealt with participants whose level of education was very low, which could have led to a poor understanding of French, we translated the questions into Swahili, the language spoken in the area.

2.2. Procedure

Participants were selected with the help of a psychosocial assistant working in collaboration with the Panzi Foundation and local organizations. An initial prospective survey was conducted using the snowball technique to identify rape survivors. The inclusion criteria were being raped at least 10 years ago, having been married at the time of the rape, being in a relationship again with the same spouse, and having had a child born from the rape. Among the surveyed individuals, there were participants from Foussiakda et al. (2022), who used the same inclusion criteria.

Participants were individually informed of the purpose of the study, and oral consent was obtained from both the survivor and her husband. The surveys were administered by the authors and two other trained psychologists. The wife and husband were placed in two separate rooms to avoid interference. Each participant received monetary compensation for their transportation costs and time spent. The tests were administered to the participants, and given their low educational level, they were completed with assistance from the interviewers. Questionnaires were given to both the women and their husbands. For PTSD, participants in the control group were asked to refer to a traumatic event that they could remember. The most cited events were the rape of family members, murder of a relative, and massacres in the community. Most events cited were associated with the presence of armed groups in the community.

2.3. Measures

2.3.1. Posttraumatic Stress Disorder (PTSD) Scale

The PTSD Scale comprises 17 items assessing the intensity of 17 symptoms, as featured in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). Each question was rated on a scale from 1 to 5 based on the intensity and frequency

of symptoms over the past month. These 17 items were grouped into three subscales corresponding to the three main PTSD syndromes.

- Intrusion (items 1 to 5): for example, being disturbed by memories, thoughts, or images related to this stressful episode; being disturbed by recurring dreams related to this event.
- Avoidance (items 6 to 12): for example, avoiding thinking or talking about the stressful episode or avoiding feelings related to it; loss of interest in activities that usually give you pleasure.
- Hyperarousal (items 13 to 17): experiencing difficulties falling asleep or staying asleep and experiencing difficulties concentrating.

Participants with PTSD scores greater than 34 were considered in need of clinical assistance. The internal consistency of the test was good, with a Cronbach α of 0.86–0.92.

2.3.2. Connor–Davidson Resilience Scale

The Connor–Davidson Resilience Scale was used to measure resilience. It comprises five dimensions involving a range of protective factors divided into 25 items. The dimensions are as follows (Singh and Yu 2010): personal competence (and tenacity), tolerance of affect and trust in one's own instincts, tolerance of negative affect and stress affects, acceptance of change (which relates to positive acceptance of change and secure relationships), a sense of internal control, and spirituality. The responses are given on a five-point Likert scale (from 0 (not at all) to 4 (true almost all the time)). Higher scores on this scale indicate greater resilience. The internal consistency of the test was good, with a Cronbach α of 0.71–0.83.

2.3.3. Conjugal Support Scale

The Conjugal Support Scale (CSS) defines marital support as the set of supportive actions or attitudes that a person is likely to provide to their spouse and perceive them to receive them to meet their needs (Brassard et al. 2011). The CSS includes eight items to observe the support each participant gives to his/her spouse in the face of adversity.

The received support score corresponds to the average of the following four items: "My spouse encourages me when I need it"; "My spouse provides me with helpful advice when I need it"; "My spouse supports me in my attempts to achieve my goals"; and "My spouse understands my way of thinking and feelings about things".

The provided support score corresponded to the average of the following four items: "I encourage my spouse when he/she needs it"; "I provide useful advice to my spouse when he/she needs it"; "I support my spouse in his/her attempts to achieve a goal"; and "I understand how my spouse thinks and feels about things".

The balance of support (provided vs. received) is equal to the received support minus provided support. A negative score indicates that they feel that they are giving more than they are receiving. Data from the two spouses were used to calculate the consistency of support. The consistency of support received by women is the difference between the support received by women and that provided by men. The consistency of support received by men is the difference between the support received by men and that provided by women. If the score is negative, a person effectively says that they receive less support than their partner claims. The internal consistency of the test was good, with a Cronbach's α of 0.80–0.89.

2.3.4. Dyadic Adjustment (DAS-16)

The Dyadic Adjustment Scale (DAS) was used to assess marital adjustment. This allowed a comparison of the levels of satisfaction between spouses within the same couple.

The DAS is based on four components: a high degree of agreement between partners (consensus scale), a low frequency of conflicts and negative interactions (satisfaction scale), a high frequency of common activities (cohesion scale), and few emotional or sexual problems (emotional expression scale) (Antoine et al. 2008).

We used the short form of the DAS, featuring 16 items and including two dimensions: degree of agreement within the couple and quality of interactions. Responses were measured based on three six-point Likert-type scales (0 = never agree to 5 = always agree, 0 = never to 5 = always, 0 = extremely unhappy to 5 = extremely happy) (Mayrand et al. 2021). The total score ranges from 0 to 80 and is calculated by adding the scores for all items. The higher the score, the more satisfied the individual is with their spousal relationship. A score of 54 corresponds to the threshold above which a respondent is generally satisfied with their relationship (Antoine et al. 2008). The items included questions about goals, aspirations, what the couple found important in life, friends, expressions of affection, and the degree of happiness in the couple's relationship.

2.3.5. Sexual Desire Scale

This scale evaluates the desire to act sexually with a partner (dyadic sexual desire) and the desire to act sexually from an individual's point of view (individual sexual desire). Dyadic desire is defined as the motivation to engage in sexual activities with a partner (e.g., I have a desire to make advances to my partner or a person I'm attracted to; I want my genitals to be caressed by my partner). Conversely, individual desire refers to the need to engage in solitary sexual activities (e.g., during the night, I have sexual dreams; I sometimes feel like masturbating) (Géonet et al. 2017).

This survey features 20 items that assess the frequency of the desire for certain sexual activities or the frequency of certain signs of sexual desire. The internal consistency of the test was excellent, with a Cronbach's α of 0.88–0.928.

2.4. Data Analysis

Statistical analyses were performed using the R software (version 4.0.5), specifically the stats package (version 3.6.2). We used statistical tools to compare the average scores of the control and victim groups, both women and men, and marital type. Comparative analyses of the mean scores were performed after the verification of the applicability conditions. The Shapiro test was used to assess the normality of the score distribution within each group, whereas Bartlett's test was used to measure the equality of group variances. For factors (sources of variation) with two levels, we used the Student's *t*-test and the Wilcoxon test.

3. Results

3.1. Symptoms of Posttraumatic Stress in Rape Survivors More than 10 Years After the Event

We hypothesized that rape survivors would no longer manifest symptoms of PTSD 10 years after the rape. Within the victims' families, 69% of men and 65% of women had scores above 34, indicating that their condition required immediate psychotherapy—they suffered from intrusion, avoidance, and hyperstimulation disorders. Nevertheless, no statistically significant differences were observed between the control couples and the couples with rape victims. Statistically similar results were obtained in the control group, in which 84% of men and 77% of women had PSTD scores >34.

The results in Table 1 show that overall, rape survivor couples did not differ from the control group couples. Furthermore, rape victims had significantly weaker intrusion scores than couples from the control group.

Table 1. Posttraumatic stress disorder, social support, dyadic adjustment, and sexual desire in control couples and couples where the woman was raped more than 10 years ago.

	Control	Victim	Test	*p*-Value
PTSD	47.3 ± 15.5	45.4 ± 16.6	W = 1896	0.609
Intrusion	16.7 ± 6.3	13.9 ± 6.7	W = 2229	**0.024** *
Avoidance	17.2 ± 6.3	18.1 ± 6.7	t = −0.752	0.453
Hyperstimulation	13.4 ± 5.5	13.4 ± 6.1	W = 1805	0.971
Resilience (CDS)				
Total resilience	51.4 ± 13.6	48.9 ± 13.9	t = 1.011	0.314
Competence	17.4 ± 5	17.3 ± 5.4	t = 0.08	0.936
Tolerance	13.4 ± 5.6	12.5 ± 5.2	t = 0.887	0.377
Acceptance	10.3 ± 3.8	9.2 ± 4	t = 1.497	0.137
Control	5.5 ± 3.5	4.8 ± 3.3	W = 2040	0.203
Spirituality	4.8 ± 2.4	5 ± 2	W = 1786.5	0.953
CSS				
SR	16 ± 4.1	15.7 ± 3.9	W = 1903	0.58
SP	16.5 ± 3.2	16.3 ± 3.4	W = 1852	0.777
Balance	−0.5 ± 2.8	−0.5 ± 2.5	W = 1748	0.788
Coherence	−0.5 ± 4.4	−0.5 ± 4.4	W = 1868.5	0.711
DAS Total	47.5 ± 11.7	46.3 ± 11	W = 1976.5	0.35
SDS				
Dyadic	36.7 ± 14.2	35.6 ± 10.8	W = 1824	0.893
Individual	18.9 ± 8.1	17.8 ± 6.7	W = 1918.5	0.528

Abbreviations: PTSD: posttraumatic stress disorder; CDS: Connor–Davidson Scale; CSS: Conjugal Support Scale; SR: support received; SP: support provided; DAS: Dyadic Adjustment Scale; SDS: Sexual Desire Scale; W: Wilcoxon test; t: two-sample *t*-test; * $p < 0.05$.

The results, when disaggregated by sex (Table 2), showed no differences between the rape victim and control groups. The PTSD scores of women and those of men within each category of respondents were statistically similar. However, in the control group, the intrusion scores of women were significantly higher than those of men (W = 621.5, $p = 0.047$). By contrast, men had significantly higher avoidance scores than women (W = 318, $p = 0.022$).

Table 2. Posttraumatic stress disorder, social support, dyadic adjustment, and sexual desire in women and men living as a couple, 10 years after the female spouse was raped.

	Control			Victim			Woman	Man
	Woman	**Man**	***p***	**Man**	**Woman**	***p***	**p-CV**	**p-CV**
Total PCLS	47.4 ± 18.2	47.1 ± 12.6	0.948	45.9 ± 16	45 ± 17.4	0.839	0.601	0.733
Intrusion	17.9 ± 7.3	15.5 ± 4.8	**0.047** *	12.8 ± 6.1	15 ± 7.2	0.227	0.092	0.089
Avoidance	15.5 ± 6.6	18.8 ± 5.6	**0.022** *	19.1 ± 6.8	17 ± 6.5	0.233	0.313	0.87
Hyperstimulation	14 ± 6.6	12.8 ± 4.3	0.616	13.9 ± 5	13 ± 7.1	0.391	0.453	0.353
Resilience	51.7 ± 15.9	51.1 ± 11.1	0.875	45.1 ± 11	52.6 ± 15	**0.04** *	0.823	**0.044** *
Competence	16.3 ± 5.2	18.5 ± 4.6	**0.031** *	17.3 ± 5.1	17.3 ± 5.8	0.981	0.134	0.325
Tolerance	14.0 ± 6.8	12.8 ± 4	0.403	11.3 ± 4.3	13.7 ± 5.7	0.080	0.865	0.178
Acceptance	10.2 ± 3.6	10.4 ± 4.1	0.793	8.3 ± 3.8	10.2 ± 4	0.068	0.991	0.039
Control	6.4 ± 3.7	4.6 ± 3.2	**0.032** *	3.8 ± 2.6	5.7 ± 3.7	**0.04** *	0.523	0.294
Spirituality	4.9 ± 2.6	4.7 ± 2.3	0.771	4.4 ± 1.7	5.7 ± 2.1	**0.02** *	0.391	0.335

Table 2. *Cont.*

	Control			Victim			Woman	Man
	Woman	**Man**	***p***	**Man**	**Woman**	***p***	**p-CV**	**p-CV**
CSS								
CSR	15.4 ± 4.6	16.6 ± 3.5	0.410	16.4 ± 3	15 ± 4.5	0.363	0.73	0.654
CSP	15.6 ± 4.0	17.3 ± 2.0	0.180	16.6 ± 2.7	15.9 ± 4.2	0.937	0.695	0.382
Balance	−0.3 ± 2.9	−0.6 ± 2.8	0.912	−0.1 ± 2.3	−0.9 ± 2.6	0.302	0.804	0.585
Coherence	−1.9 ± 4.5	1.0 ± 3.7	**0.003** **	0.6 ± 4.2	−1.6 ± 4.4	0.143	0.847	0.309
DAS Total	47.3 ± 14.8	47.8 ± 7.7	0.662	45.6 ± 7.8	47 ± 13.6	0.629	0.801	0.265
Sexual desire								
Dyadic	42.5 ± 15.6	30.8 ± 9.6	**0.002** **	34.5 ± 7.4	36.7 ± 13	0.449	0.129	0.104
Individual	22.7 ± 8.9	15.1 ± 4.8	**0.0002** **	18.3 ± 4.8	17.3 ± 8.2	0.318	**0.015** *	**0.012** *

Abbreviations: PTSD: posttraumatic stress disorder; CDS: Connor–Davidson Scale; CSS: Conjugal Support Scale; CSR: conjugal support received; CSP: conjugal support provided; DAS: Dyadic Adjustment Scale; SDS: Sexual Desire Scale; * $p < 0.05$; ** $p < 0.01$; p-CV: comparison of scores between the control (C) and victim (V) groups.

3.2. Resilience of Rape Survivors and Their Spouses 10 Years After Rape

The Connor–Davidson Scale scores did not show statistically significant differences between control couples and rape victim couples, either in terms of total resilience or its subscales (Table 1).

Within victims' families, the results in Table 2 show that women were statistically more resilient than men (t = 0.158, $p = 0.04$) and derived their resilience from spirituality (Wilcoxon = 567.8, $p = 0.021$) and a sense of internal control (Wilcoxon = 552, $p = 0.041$). Indeed, they knew where to turn for help and where they wanted to go and stated that they were in control of their life situation.

Among the control families, there were no statistically significant differences between men and women (t = 0.158, $p = 0.875$). Nevertheless, a significant difference was observed in the internal control subscale, where men had statistically superior scores to women (W = 632.5, $p = 0.032$). By contrast, in the skill and tenacity subscales, the women in the control group demonstrated greater personal skills and tenacity than men (W = 327.5, $p = 0.031$).

The results further demonstrated that the men in the control group were more resilient than those in the victim group (t = 2.062, $p = 0.044$). They drew on resilience from the acceptance of change. The acceptance scores of the men in the control group (Table 2) were higher than those of the men in the victim group ($p = 0.039$). However, the women in the control group had scores comparable to those in the victim group.

3.3. Spousal Support for Rape Survivors 10 Years After Occurrence

The spousal support survey scores indicated that spousal support received by men (16.4) was statistically equal to that received by women (15), and the support provided by women (15.9) was equal to that received by men (16.6). When analyzing the support balance, this appeared to be negative. Indeed, each partner felt that they were giving more than what they received from their partner. The consistency of responses was negative (−1.6) for women, who appeared to receive less support than what partners said they were providing. However, among men, the consistency of responses was positive (0.5), meaning that they appeared to be receiving the exact level of support that their wives claimed to be providing. This difference in behavior between the men and women in the victim group is likely due to chance, as it was not statistically significant ($p = 0.143$).

Regarding the control group results, the consistency was statistically different between men and women (W = 273, $p = 0.003$). It was negative for men (−1.9) and positive for

women (1.0). In other words, the men in the control group felt that they were receiving less support than their wives claimed to be providing, whereas the answers given by women were congruent with their husbands'.

3.4. Dyadic Adjustment Within Couples

The respondents in the victim group were dissatisfied with their marital relationship. Indeed, 86% of male rape survivors and 65% of female rape survivors had scores below 54, the threshold above which respondents were generally satisfied with their relationships (Antoine et al. 2008).

The results for the control group were statistically like those of the victims, with 84% of men and 77% of women being dissatisfied with their relationships as couples. Therefore, marital dissatisfaction does not seem to be related to the couple's history, but is rather rooted in the cultural context. No differences were observed between the victim and control groups.

3.5. Sexual Desire of Rape Survivors and Their Partners More than 10 Years After the Incident

Within the families of the victims, the results in Table 2 show that there were no differences between spouses. The scores were 36.7/65 for women and 34.5/65 for men regarding dyadic desire and 17.3/35 for women and 18.3/35 for men regarding individual desire. These scores are relatively average.

In the control group, men had significantly higher dyadic desire (42.5/65) than women (30.8/65). They also had significantly higher individual desire (22.7/35) ($p = 0.015$) than their partners (15.1/35). The individual desire of women in the control group was significantly higher (22.7/35) than that of female victims (17.3/35). The individual desire of the male victims was higher (18.3/35) than that of the male victims in the control group (15.1).

3.6. Does Polygamy Influence the Level of Posttraumatic Stress in Rape Survivors 10 Years Later?

Among the victims of sexual violence, the total PTSD scores (male and female combined) in monogamous couples (45.3 ± 16.7) were statistically equal ($p = 0.984$) to those in polygamous couples (45.3 ± 16.4). However, in polygamous couples, women had intrusion (16.8 ± 6.9) and acceptance (10.9 ± 4.5) scores significantly higher ($p < 0.05$) than men's scores (11.5 ± 5.4 and 7.8 ± 2.9 for intrusion symptoms and the self-acceptance subscale, respectively). In terms of support, the consistency of scores was negative among women living in polygamous relationships. They claimed to have received less support than their husbands claimed.

In monogamous couples, women's avoidance scores (19.2 ± 5.7) were significantly higher ($p = 0.007$) than men's (15.8 ± 6.5), who had in turn an internal control scale subscore (6 ± 3.9) that was significantly higher ($p = 0.019$) than that of their wives (4.2 ± 3). The support husbands claimed to provide their spouses seemed inconsistent with the women's perceptions. Indeed, the DAS consistency was negative among women and positive among men. In monogamous couples, men had sexual desire scores, both dyadic (39.8 ± 14.6) and individual (20.8 ± 8.8), significantly higher ($p = 0.012$; $p = 0.007$) than those of women, which were 31.9 ± 8.6 and 15.6 ± 4.7, respectively. Ultimately, in monogamous couples, men's total sexual desire scores (60.6 ± 22.7) were significantly higher ($p = 0.011$) than those of women (47.5 ± 12.1). However, the differences between the sexual desires of female rape survivors and their partners disappeared in polygamous couples. In these cases, the sexual desire scores were 55.1 ± 23.9 for women and 52.1 ± 12.8 for men. Men's sexual desire scores were thus lower in polygamous couples (52.1) than in monogamous couples (60.6), while those of women increased from 47.1 in monogamous versus 55.1 in polygamous couples.

4. Discussion

Over 75% of our respondents (both rape survivors and women in the control group) had PTSD scores above 34, indicating a need for psychological assistance. Brewin et al. (1996) observed that recovery after trauma is characterized by reprogramming, integration, and habituation to traumatic images, leading to the reestablishment of the feeling of being safe. However, this study focused on an environment in which sexual and physical violence is almost permanent, plunging the population into a life of uncertainty that increases their degree of vulnerability and stress (Trenholm et al. 2016). Since 1996, the eastern DRC has experienced a proliferation of armed groups that over time, has transformed rape into a "contagious" phenomenon; however, today's rapists are not necessarily the same as in the past—mass rape is becoming a normal phenomenon in the community (Amisi et al. 2019).

The high intrusion scores observed in the control group are likely linked to the fact that the traumatic events remembered by these participants were recent compared to rape survivors and their spouses who experienced the assault more than 10 years ago. Rape survivors essentially experience the final phase of PTSD, whereby they assimilate the assault into their psyche and decide to minimize their negative feelings toward the perpetrator (Chivers-Wilson 2006).

The analysis of the behaviors of women in the control group revealed that their intrusion scores were higher than those of men in the same group, whereas for the latter, their avoidance scores were higher than those of their wives. Women who are more exposed to sexual violence are more likely to remember these episodes than men, who avoid talking about them, which may lead to difficult recovery from rape-related PTSD for men. Snipes et al. (2017) observed that raped men avoid talking about it to safeguard their honor. However, the men in our study did not directly experience rape, but were exposed to it through their wives' experiences. Some witnessed their wives being assaulted, while others were absent during the rape, but witnessed the injuries their wives suffered. We may note that because of masculine socialization, men are attached to their male honor and thus avoid talking about dishonorable events that have affected their partners and in turn dishonor them (Foussiakda et al. 2022; Snipes et al. 2017).

The high rate of PTSD in the analyzed community is an alarming sign of the need for permanent psychological assistance for rape survivors and other women in the community through support centers. This indicates that trauma was not necessarily related to the rape 10 years after. However, there are other stressful factors in the community, such as poverty, continuing armed conflicts, and rapes, which affect not only survivors but also other women and men in the community. In any case, the assertion of state authority through community policing and the eradication of militias to prevent rape are the most sustainable measures.

Rape survivors had the same resilience scores as the women in the control group. However, they were more resilient than their spouses due to spirituality and internal controls. As Foussiakda et al. (2022) pointed out, prayer and religious activities are refuges in the case of problems. The husbands of rape survivors were less resilient than those of the control group, who had higher scores related to the acceptance of stressful events.

The balance of marital support was negative, that is, each partner perceived that they were giving more than they were receiving from the other. Therefore, there was a sense of dissatisfaction among the respondent couples. However, the consistency of social support survey scores was found to be negative for survivors and positive for their husbands. This behavior was true for monogamous couples, but not for the polygamous ones. Numerous studies cited by Jackson et al. (2014) have shown that women report significantly lower satisfaction than their husbands. Feminists agree that male domination within families is part of a broader system of male power, which is neither natural nor inevitable and operates

to the detriment of women. Given that an unequal power dynamic is associated with lower marital satisfaction, it follows that women are likely to experience less satisfaction than men (Jackson et al. 2014). For example, women are generally unhappy with the division of labor within the household, which leads to dissatisfaction (Stevens et al. 2005). Most extant research was conducted using data concerning either only women or men. Using dyadic data, Stevens et al. (2005) showed that there was no difference in satisfaction between men and women in married couples in general, outside the context of patriarchal dominance. The differences observed in our results, which were nevertheless dyadic, are likely related to the fact that the men in our sample tended to hide their vulnerabilities to preserve their masculine honor. Based on their traditionally assigned positions as protectors, leaders, and social guarantors of women's well-being, men insisted on the support they provided to their wives, whom they were unable to protect from being raped (Foussiakda et al. 2022).

The consistency of scores among the men in the control group was negative. It could be that regardless of the rape, the men in the Kabare territory are dissatisfied with the support they receive from their wives. This feeling of dissatisfaction among men could explain, among other things, the prevalence of polygamy as opposed to divorce, which is difficult to accept in this environment. However, most respondents in both the control and victim groups had dyadic adjustment scores below 54, indicating marital dissatisfaction for both women and men. These reflect the patriarchal conditions in which marriages are either arranged or rushed to satisfy the community. Driven by the pressures of aging and society, many girls marry men they do not love to comply with the expectations of a good woman. In addition, this is a toxic environment dominated by poverty and insecurity, meaning that people do not have time to build a harmonious relationship within the couple, which likely leads to marital dissatisfaction. Generally, in sub-Saharan Africa, whether in the case of arranged or underage marriages or polygamy, dominant females display the appearance of consent while simply giving in to multiple pressures (Abu Amara et al. 2013).

Ten years after being raped, the survivors had lost their individual sexual desire, as their scores were lower than those of the women in the control group, but their dyadic desire was not affected. It appears that these women lost appreciation for their bodies. Survivors' husbands had higher individual sexual desire compared to other men. The rape suffered by their wives pushed men to withdraw and satisfy themselves through self-touching rather than desiring sex with their wives, who were considered tainted by rape (Foussiakda et al. 2022).

The control group results showed that in our study environment, women had higher sexual desire than their husbands, both at the dyadic and individual levels. This behavior was confirmed among survivors living in monogamous but not in polygamous relationships. After experiencing rape and polygamy, women lose their sexual desire and no longer differ from those of their husbands. The decrease in the sexual desire of the spouses of rape survivors among polygamous couples may be explained by the presence of several sexual partners. However, for rape survivors, the sexual desire for their husbands increased in the case of polygamy.

Cultural norms play a significant role in shaping a woman's response to rape. Survivors often experience diminished self-esteem and a lower social standing within their communities. As Maisha et al. (2017) highlight, rape survivors are culturally perceived as "tainted," making them ineligible for marriage due to their extramarital sexual encounter, which is seen as requiring purification. For many survivors, marriage is viewed as an act of forgiveness from their husband (Foussiakda et al. 2022), offering a sense of redemption. They often perceive themselves as defiled and turn to prayer as a means of breaking the perceived curse (Maisha et al. 2024).

In the cultural context of South Kivu, a woman's worth is largely tied to marriage, as her husband is considered a symbol of her honor (Maisha et al. 2017). These cultural beliefs intensify the trauma experienced by rape survivors, underscoring the need for a culturally sensitive approach to their care and rehabilitation.

5. Conclusions

Rape survivors who returned to their marital relationships with their rape-born children developed resilience, which they drew from spirituality and internal self-control. However, survivors live in a toxic social environment, where many respondents had PTSD scores above 34, which is considered clinically alarming. This is a direct consequence of the violence linked to the longstanding armed conflict in this part of the DRC. Regarding marital satisfaction, over 70% of women and men were dissatisfied with their marital relationships: the dyadic adjustment score was on average below 54 on the Connor–Davidson Scale. This dissatisfaction may be associated with the toxic environment in which the population lives, as previously mentioned, and with customary marriage practices that do not facilitate cohesion between spouses.

Foussiakda et al. (2022) analyzed the factors that supported and hindered the reintegration of rape survivors. Among the supportive factors were survivors' relatives, their support, and churches, which supported people via prayer and a social structure. While the results showed that women derive their resilience from spirituality and internal self-control, there is no link between men and prayer. As a result of their education, men have a more concrete and rational nature. However, establishing a link between prayer and well-being in the context of trauma is difficult.

Most churchgoers are female. The religious domain being of a more sensory nature and drawing on emotions, a greater proportion of women attend church, as men tend to turn away from this "feature", which they may consider feminine. This tends to explain the lack of such interest in men unless one is a leader, a religious authority, in a role conferring power not only to women but also to other men. Spiritual power created a bridge between the divine and the word. Therefore, the role of religious authorities is not insignificant in these communities, which remain strongly attached to religion. The unfavorable factors mentioned by Foussiakda et al. (2022) were, among other things, the presence of children born from rape and other children in the family who were the indirect victims of rape. These children are thought to increase their level of parental stress and draw their resilience from the environment by developing coping strategies (Foussiakda et al. 2023). Further research should be carried out on children born of rape who now live on the streets to understand their feelings and the coping strategies they develop to survive.

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