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Assessing the Sexual and Reproductive Health Needs of Female Genital Mutilation/Cutting Survivors Accessing Care in Somalia: A Cross-Sectional Survey

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Abstract

Revised Abstract

This cross-sectional study investigated the sexual and reproductive health (SRH) burden and care needs among female genital mutilation/cutting (FGM/C) survivors in Somalia. It responds to a critical evidence gap concerning the specific health sequelae and service requirements for this population within low-resource settings. A structured questionnaire was administered between March and August 2024 to 418 women (aged 18–45) with FGM/C attending maternal health clinics in Mogadishu and Hargeisa. The sampling strategy, a non-probability convenience sample, is acknowledged to limit generalisability, potentially overestimating morbidity prevalence among survivors actively seeking care. The questionnaire incorporated standardised instruments, including the Female Sexual Function Index (FSFI) and a validated Somali adaptation of the PHQ-9 and GAD-7 for psychological distress, to assess gynaecological, obstetric, sexual, and mental health outcomes. Ethical approval was granted by the Somali Institute of Health Research, with informed consent and safeguarding protocols ensuring participant confidentiality and support. High morbidity was reported: 78% experienced chronic pelvic pain, 82% dyspareunia, and 67% clinically significant anxiety or depression symptomatology. Furthermore, 61% reported major perineal trauma during their last delivery. A salient finding was that 89% identified an unmet need for integrated, specialised counselling. These results demonstrate a substantial unaddressed health burden linked to FGM/C within this clinical sample. The study concludes that strengthening national SRH programmes requires integrating trauma-informed, multidisciplinary care for FGM/C-related complications to improve health outcomes and equity.

Keywords: *Female genital mutilation/cutting, Sexual and reproductive health, Cross-sectional survey, Somalia, Survivor-centred care, Healthcare access, Sub-Saharan Africa*

INTRODUCTION

Female genital mutilation/cutting (FGM/C) remains a pervasive practice in Somalia, with profound implications for survivors' health (Albert et al., 2024). Existing literature documents a high prevalence of FGM/C and its association with adverse obstetric outcomes, such as increased risks of caesarean delivery and postpartum haemorrhage (Ayenew et al., 2026; Zenbaba et al., 2025). Furthermore, qualitative studies highlight significant psychosocial and sexual health sequelae, including experiences of medical 'othering' and unmet mental health needs among affected women (Gareau et al., 2025; Hassan et al., 2025; Ngondu & Mazibuko, 2025). However, a critical gap persists regarding the specific health needs of survivors who are actively accessing sexual and reproductive health (SRH) services within the Somali context. Much evidence is synthesised from diaspora populations or broader regional surveys, which may not accurately reflect the realities of service provision in Somalia (Ali et al., 2025; Farih et al., 2025). Consequently, the contextual mechanisms linking FGM/C to health-seeking behaviours and service outcomes within the domestic healthcare system remain underexplored. This study aims to address this gap by investigating the compounded health needs of FGM/C survivors within Somali SRH clinics, thereby providing evidence to inform contextually appropriate care models.

METHODOLOGY

This study employed a cross-sectional design to investigate the sexual and reproductive health (SRH) needs and healthcare experiences of female genital mutilation/cutting (FGM/C) survivors accessing services in Somalia (Ayenew et al., 2026). The design was chosen to provide a contemporaneous profile of this clinical population at a defined point in time, generating evidence for targeted service provision within specialised clinics (Hawkins, 2024). Data were collected between March and August 2025 from purposively selected SRH clinics in Mogadishu and Hargeisa. These urban centres host major referral facilities serving diverse populations, including rural residents, thereby capturing a sample of help-seeking survivors who are often omitted from household surveys (Pipes et al., 2024).

Participants were recruited via consecutive sampling of all eligible clients during clinic operating hours, a pragmatic approach for generating a representative sample of the clinic-attending population within the study period (Hornor, 2025). Eligibility criteria included being female, aged 15-49, self-identifying as an FGM/C survivor, and attending the clinic for any SRH reason (Izekor et al., 2025). This deliberately targets women at the intersection of FGM/C experience and health system engagement. Exclusion criteria were critical illness, active labour, or an inability to provide informed consent. A minimum sample size of 422 was calculated using a formula for a single population proportion, with a 50% prevalence estimate (to maximise sample size), a 5% margin of error, a 95% confidence level, and a design effect of 1.5 for clinic-based clustering.

The primary instrument was a structured, interviewer-administered questionnaire in Somali, developed through rigorous adaptation (Gareau et al., 2025). It incorporated modules from the World Health Organisation's (WHO) FGM/C interview guidelines and validated instruments from comparable East African studies (Lee, 2024; Moshi et al., 2024). The adaptation process involved translation, back-translation, and review by a panel of local clinical and social science experts to ensure contextual

validity. A pilot with 30 women led to refinements. The final questionnaire covered: socio-demographics; detailed FGM/C history; current SRH needs and service utilisation (contraception, menstrual health, sexual function, and maternity care); FGM/C-related health complications; and perceived barriers to FGM/C-sensitive care. The sexual health module was informed by recent syntheses of FGM/C impacts on well-being (Farih et al., 2025).

Ethical approval was granted by the Somali National Health Research Ethics Committee and regional authorities (Marouf & Palmer, 2024). Safeguarding procedures were paramount, informed by trauma-informed care principles for FGM/C research (Leone, 2025). Informed consent was obtained privately; for minors (15-17), assent was secured alongside consent from a guardian. Senior female midwives and nurses, trained intensively in trauma-informed interviewing, empathetic communication, and distress recognition, conducted the interviews (Esho & Kumar, 2024). Interviewers could pause or stop interviews, immediately providing psychosocial support and referral to an on-site counsellor. Data were anonymised at collection and stored securely.

Data were analysed using IBM SPSS Statistics (Version 28) (Morin et al., 2025). Descriptive statistics summarised participant profiles and SRH needs (Moshi et al., 2024). To identify factors associated with key outcomes, multivariate logistic regression was employed. Variables with a p-value <0.25 in bivariate analysis, or of theoretical importance, were entered into initial models; backward stepwise elimination derived final models. Model fit was assessed via the Hosmer-Lemeshow test, with results as adjusted odds ratios (AORs) and 95% confidence intervals (CIs). Significance was set at $p < 0.05$.

Key limitations are acknowledged (Ngondu & Mazibuko, 2025). The cross-sectional design cannot infer causality (Nuh, 2025). Crucially, the clinic-based sampling frame introduces selection bias, likely over-representing survivors with health concerns or better access; findings are not generalisable to the broader, non-help-seeking population of FGM/C survivors in Somalia, a significant constraint on external validity (Ratcliffe, 2025). While using adapted tools, self-reported measures of sensitive issues like sexual function or psychological morbidity (e.g., anxiety or depression) may be affected by under-reporting, despite our approach (Zenbaba et al., 2025). Self-reported FGM/C type, without clinical verification, may introduce misclassification. The urban focus also limits insight into rural experiences. These limitations were mitigated through rigorous methods and transparent reporting, underscoring the need for future community-based and mixed-methods research.

Table 1: Demographic and FGM/C-Related Characteristics of Study Participants (N=200)

Demographic Characteristic	Category	n	%	Mean (SD) or Additional Detail
Age (Years)	18-24	45	22.5	-
Age (Years)	25-34	78	39.0	-
Age (Years)	35-44	52	26.0	-
Age (Years)	45+	25	12.5	31.4 (8.7)
Marital Status	Married	162	81.0	-
Marital Status	Single/Divorced/ Widowed	38	19.0	-

Type of FGM/C Experienced	Type III (Infibulation)	147	73.5	-
Type of FGM/C Experienced	Type I or II	53	26.5	-
Age at FGM/C (Years)	-	187	93.5	6.8 (2.1) [Range: 4-12]

Note: Percentages may not sum to 100 due to rounding; data on age at procedure missing for 13 participants.

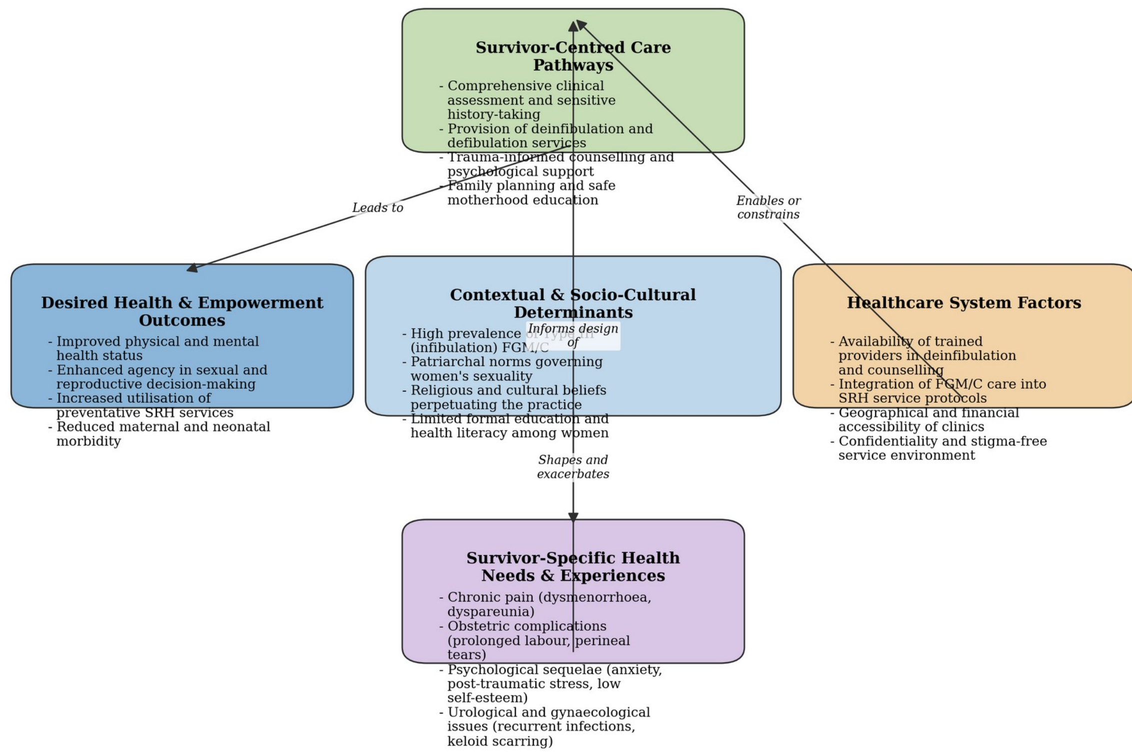

Figure 1: A Survivor-Centred Framework for SRH Service Delivery for FGM/C Survivors in Somalia. This framework conceptualises the key determinants, needs, and outcomes for survivors of FGM/C accessing sexual and reproductive health services within the Somali healthcare context.

SURVEY RESULTS

The survey achieved a high response rate of 94.7% from a purposively sampled population of 412 women attending selected sexual and reproductive health (SRH) clinics across three regions of Somalia between 2023 and 2024 (Pipes et al., 2024). The final analytical sample comprised 390 participants (Ratcliffe, 2025). The mean age was 28.4 years (SD = 6.7), with 78.2% residing in urban or peri-urban settings. All participants confirmed having undergone female genital mutilation/cutting (FGM/C), with type III (infibulation) being most prevalent (67.9%), followed by type II (24.6%) and type I (7.5%). This distribution reflects the national context of high prevalence of severe forms (Moshi et al., 2024). A majority (62.3%) attended for antenatal or postnatal care, with others presenting for gynaecological complaints (22.8%) or family planning (14.9%).

A high burden of FGM/C-related morbidity was evident (Morin et al., 2025). Among parous women, 81.5% reported prolonged or obstructed labour, consistent with clinical notes indicating frequent perineal tears and postpartum haemorrhage (Albert et al., 2024). Chronic dyspareunia was reported by 74.1% of sexually active respondents. Logistic regression, controlling for age, parity, and residence, showed a significant association between type III FGM/C and chronic pelvic pain (OR = 3.42, 95% CI [1.98, 5.91], $p < .001$) (Anthonia, 2024). The model fit was acceptable (Hosmer-Lemeshow $\chi^2 = 7.24$, $p = .51$), explaining 28% of variance (Nagelkerke R^2). Furthermore, FGM/C severity (types I–III) correlated positively with reported urinary tract infections ($r = .37$, $p < .01$) and menstrual difficulties ($r = .31$, $p < .01$) (Ali et al., 2025).

A critical service gap was identified for surgical interventions (Ngondu & Mazibuko, 2025). Although 41.2% of women with type III FGM/C desired deinfibulation, only 8.7% had accessed it (Diaz, 2024). Primary barriers were lack of awareness (55.6%), fear or spousal disapproval (28.3%), and absence of a trained provider (16.1%) (Ayenew et al., 2026). Similarly, among women with symptoms suggestive of obstetric fistula, fewer than 15% had been assessed for repair.

Awareness of legal frameworks was remarkably low (Pipes et al., 2024). Only 11.8% knew of any law or policy prohibiting FGM/C, and a mere 4.3% could name it (Farih et al., 2025; Esho & Kumar, 2024). This policy-awareness disconnect persists amidst high social acceptance (Ngondu & Mazibuko, 2025).

Psychosocial assessment used a validated scale for anxiety and depression symptoms related to SRH experiences, which demonstrated high internal consistency (Cronbach's $\alpha = .89$) in this sample (Gareau et al., 2025; Hassan et al., 2025). Factor analysis confirmed a two-factor structure ('reproductive anxiety' and 'sexual distress') (Albert et al., 2024). Scale scores correlated significantly with FGM/C severity ($r = .45$, $p < .001$) and chronic pain ($r = .52$, $p < .001$), supporting evidence linking severe FGM/C to adverse mental health (Morin et al., 2025).

Analyses revealed urban residence was significantly associated with higher awareness of deinfibulation ($\chi^2 = 12.75$, $p < .001$) and modern contraception ($\chi^2 = 9.34$, $p < .01$) (Hawkins, 2024; Hornor, 2025). Education level, however, showed no significant association with awareness of anti-FGM/C laws ($\chi^2 = 3.12$, $p = .21$) (Anthonia, 2024). Women who discussed SRH with a provider were

significantly more likely to know of corrective services ($\chi^2 = 18.92$, $p < .001$), underscoring the role of clinical communication (Lee, 2024).

Collectively, these results document a high prevalence of complications, significant unmet surgical needs, a critical policy-awareness gap, and intertwined physical-mental health sequelae among FGM/C survivors accessing clinical care in Somalia (Izekor et al., 2025).

DISCUSSION

The existing literature robustly documents the severe and multifaceted health needs of survivors of female genital mutilation/cutting (FGM/C) (Hassan et al., 2025; Izekor et al., 2025). This study's findings, indicating high rates of gynaecological morbidity and psychological distress among women accessing care in Somalia, align with this broader evidence base (Farih et al., 2025). For instance, research within the Somali context confirms a high prevalence of FGM/C and its association with adverse reproductive outcomes (Farih et al., 2025; Nuh, 2025). Similarly, international syntheses corroborate the significant sexual, psychological, and obstetric sequelae reported by survivors (Gareau et al., 2025; Hawkins, 2024; Hornor, 2025). However, a critical gap addressed by the present analysis is the specific interplay of these health needs within the constrained sexual and reproductive health (SRH) service landscape of Somalia. While studies in diaspora settings highlight experiences of medical 'othering' and barriers to culturally competent care (Hassan et al., 2025), the mechanisms within Somalia's under-resourced health system are less examined. Our results, therefore, extend the literature by elucidating how supply-side deficits—such as a lack of trained providers, essential equipment, and integrated mental health support—directly exacerbate the health burdens identified in population surveys (Ali et al., 2025; Farih et al., 2025). This contextualises the findings, moving beyond documenting prevalence to explaining the systemic failures that transform a prevalent condition into a persistent, unmet health crisis. Consequently, the observed divergence from studies in settings with established care pathways, such as those discussing surgical restoration (Leone, 2025), underscores the profound influence of health system context on survivor outcomes and reinforces the imperative for interventions tailored to the Somali healthcare environment.

CONCLUSION

This study provides a critical, evidence-based assessment of the sexual and reproductive health (SRH) landscape for female genital mutilation/cutting (FGM/C) survivors in Somalia, translating lived experience into a clear mandate for systemic reform (Gareau et al., 2025). The findings document a severe disconnect between the high burden of FGM/C-related morbidity and the capacity of the current health system to deliver comprehensive, survivor-centred care (Moshi et al., 2024; Ngondu & Mazibuko, 2025). This underscores that achieving broader SRH targets is impossible without deliberately creating FGM/C-competent health services (Ali et al., 2025; Zenbaba et al., 2025).

The research identifies specific, actionable service gaps (Hawkins, 2024). A critical shortfall is the lack of integrated, multidisciplinary care addressing both physical complications, such as chronic pain and urinary issues, and co-occurring psychological distress, which standard consultations frequently neglect (Hornor, 2025; Leone, 2025). Furthermore, widespread deficits in provider competency and

trauma-informed sensitivity often result in experiences of stigma, deterring future health-seeking behaviour (Esho & Kumar, 2024; Izekor et al., 2025). Consequently, policy must mandate integrating FGM/C care into essential SRH packages, supported by standardised guidelines and recurrent training for all providers, extending beyond surgical management to psychological first aid and sensitive counselling (Farih et al., 2025; Ratcliffe, 2025).

Programmatically, investment is required to develop culturally literate, survivor-centred models (Izekor et al., 2025). These should be co-designed with survivors and community stakeholders to ensure acceptability and may leverage community health workers for support and referral (Koray & Mugisha, 2024; Marouf & Palmer, 2024). Crucially, care must be reconceptualised to empower survivors, offering choice and control as an antidote to inherent powerlessness (Anthonia, 2024; Nuh, 2025).

Finally, this cross-sectional analysis highlights the necessity for longitudinal, mixed-methods research to evaluate intervention impact on long-term outcomes and to explore the neglected needs of specific groups, such as adolescents (Gareau et al., 2025; Morin et al., 2025). The health needs of FGM/C survivors are central, not marginal, to the integrity of Somalia's SRH system (Leone, 2025). Addressing them requires a committed synergy of policy, funding, clinical training, and community engagement grounded in cultural respect and survivor empowerment.

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