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Lived Experiences of Individuals After Orchiectomy: A Content Analysis

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Abstract

Background: Understanding the experiences of individuals who have undergone orchiectomy is crucial for healthcare providers to support them during treatment and recovery.

Objectives: This study used content analysis to explore the experiences of individuals who had undergone orchiectomy.

Methods: This qualitative study used conventional content analysis. Purposive sampling was used to recruit 11 individuals who had undergone orchiectomy. Data were collected through semistructured interviews, and the analysis followed the method described by Graneheim and Lundman. Rigor, trustworthiness, and ethical considerations were addressed, including procedures for identifying and referring participants who disclosed severe distress during interviews.

Results: Two main categories and eight subcategories were identified: experiencing crises (shock and event impact, physical challenges, sexual and reproductive system concerns, emotional and masculine identity loss, and social stigma) and coping and adaptation (perceived life limitations, behavioral adaptations, and support systems). Seven participants had undergone bilateral orchiectomy, and four had undergone unilateral orchiectomy. Clinical details, such as the indication for surgery, testosterone replacement, prosthesis use, and fertility counseling, were not systematically collected.

Conclusions: Individuals who had undergone orchiectomy experienced shock and physical and functional changes in the sexual and reproductive system, particularly among those who had undergone bilateral surgery. These changes were interrelated with emotional and masculine identity loss, as well as social stigma. Single participants described marriage as unattainable. Spousal and social support were described as central to coping; therefore, further evaluation of spouse and family education programs may be beneficial. The well-being of individuals after orchiectomy should be enhanced by addressing their physical, psychological, and emotional needs.

Keywords: Content Analysis, Health Behavior, Lived Experience, Orchiectomy, Sexual Health

1. Background

Orchiectomy is a surgical procedure to remove the testes. It has historical roots in ancient Rome and China, where it was performed to manage aggression or punish men (1). Today, orchiectomy is considered standard care for a range of benign and malignant testicular conditions and provides symptomatic relief for patients with prostate cancer (2). Additionally, orchiectomy is part of gender-affirming surgery, also known as gender reassignment or

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gender confirmation surgery (3). Although rare, cases of self-inflicted orchiectomy are observed and are usually associated with psychological disorders (4).

Following orchiectomy, 90% of the body's androgens, primarily testosterone, are reduced (5). This reduction can lead to various symptoms, including decreased muscle mass and strength, diminished sexual desire and function, erectile dysfunction, increased body fat, insomnia, irritability, depression, osteoporosis, high blood pressure, elevated cholesterol levels, reduced physical function, and kidney disease (6). Testosterone is essential for men at all stages of life, especially during puberty and adulthood; thus, changes in its levels are concerning given its critical role in neuromuscular adaptation and individual strength (7). Furthermore, after unilateral orchiectomy, patients remain at risk of developing contralateral metachronous testicular cancer, necessitating long-term oncological surveillance and patient education (8). In addition to the physical and oncological consequences, male infertility, a common outcome of orchiectomy, has been linked to metabolic disturbances such as obesity, diabetes, and dyslipidemia, suggesting that infertility may serve as an early marker of systemic metabolic disease (9). Sperm cryopreservation may be relevant to fertility concerns before some treatments; however, the present study did not assess fertility preservation counseling. An experimental study evaluated cysteamine during sperm cryopreservation (10), but did not examine clinical fertility counseling recommendations.

In addition to the physical consequences of testosterone reduction, psychological effects, including negative body image, diminished psychosocial well-being, and lower quality of life, have also been identified (2). Alterations or damage to the reproductive system can profoundly affect a man's sense of masculinity, as testes have long been symbols of power, courage, and masculinity throughout history (11). Consequently, patients experience discomfort, shame, or humiliation because of the loss of masculinity after orchiectomy (2). However, the impact of this loss on masculinity varies across cultures (12), and a decline in masculinity is more pronounced among those who strongly adhere to masculine stereotypes, often correlating with poorer mental health (13). Thus, individuals have varying perceptions of orchiectomy (11).

Understanding these emotions and experiences is crucial for nurses who provide supportive care to patients throughout treatment and recovery, as successful patient management requires a comprehensive understanding of their experiences (14). Given the limitations of quantitative research methods in addressing these issues, further study using a qualitative approach, which allows patients to describe their experiences and feelings about orchiectomy, seems essential. By providing a clear picture of human experiences, qualitative studies can guide health care providers in implementing effective care strategies.

2. Objectives

Therefore, this study aimed to explore the experiences of individuals who had undergone orchiectomy using conventional content analysis.

3. Methods

3.1. Design, Setting, and Participants

In this qualitative study, the experiences of 11 individuals who had undergone orchiectomy were examined using conventional content analysis. Participants were selected through purposive sampling. Medical records of individuals who had undergone orchiectomy were used only for recruitment at a hospital in Khash, Iran, from December 2021 to July 2022. Inclusion criteria were a history of orchiectomy and at least six months of postoperative experience. After initial contact and verbal consent were obtained by telephone, the study purpose was explained, and interviews were scheduled with those who agreed to participate. Before each interview, participants received a written information sheet and provided written informed consent. The interviewer (A.R.) had no prior relationship with the participants and no clinical role in their care. Of the 14 individuals who had undergone orchiectomy who were contacted, three refused to participate because of emigration or ongoing treatment. Sampling continued until data saturation was reached—that is, no new concepts or codes emerged in subsequent interviews. Saturation was achieved after the eighth interview; three additional interviews were conducted for confirmation. Interviews were the primary source of qualitative data.

3.2. Clinical and Fertility-Related Data

Medical records were used only for recruitment; therefore, clinical variables were not systematically abstracted. Clinical context was captured in two ways: (i) laterality of orchiectomy (unilateral vs bilateral), which was recorded for all participants, and (ii) any clinical details volunteered by participants during the interviews, such as the indication for surgery or treatment history. Participants were not asked a structured set of questions about the indication for surgery, testosterone replacement, prosthesis use, fertility counseling, or fertility preservation, and no hormone assays or other clinical measurements were obtained for the study. Consequently,

these variables are available only when a participant mentioned them spontaneously, and the absence of a report of hormone therapy or a prosthesis reflects participants' own accounts rather than verified prescription or surgical records.

3.3. Data Collection

The semi-structured, in-depth interviews included open-ended questions, such as: "Can you describe your experiences after having your testes removed?" "How has your life changed after the loss of your testes?" "How did you feel after losing your testes?" and "What concerns did you have after this loss?" During the interviews, the researcher encouraged participants to express their experiences without leading them and used probing questions as needed. Interviews took place in a quiet, private setting (the hospital supervisor's room), lasted 45 - 60 minutes per session, and involved one or two sessions, depending on participants' circumstances and endurance. All interviews were recorded by the interviewer (A. R.), transcribed verbatim by two researchers (H. N. and E. Sh.) without automated speech-recognition tools, and reviewed, coded, and analyzed by two PhD-prepared researchers (E. A. and H. Sh.).

3.4. Data Analysis

Data analysis followed the conventional content analysis approach described by Graneheim and Lundman (15) and was conducted concurrently with data collection. The analysis proceeded in five steps.

1) Familiarization. Each transcript was read and reread in full by the first analyst to gain an overall sense of the interview before coding began. 2) Meaning units and initial codes. Text segments relevant to the research aim (words, sentences, or paragraphs conveying a single meaning) were identified and marked as meaning units. Each meaning unit was condensed and labeled with an initial code. Coding used both in vivo codes, drawn from participants' own wording, and interpretive codes, formulated by the analyst from the condensed meaning. Coding was inductive; no pre-existing framework was applied. 3) Abstraction into subcategories and categories. Initial codes were compared for similarities and differences, sorted into clusters sharing a common meaning, and each cluster was labeled as a subcategory. Subcategories were then compared and grouped under main categories expressing the latent content that linked them. Codes that did not fit an emerging category were retained in a separate list and re-examined rather than discarded. The final structure comprised two categories and eight subcategories (Table 1). 4) Coding personnel and independence. Transcripts were divided between the two analysts (E. A. and H. Sh.), who coded their assigned transcripts independently; two transcripts were coded by both analysts to allow comparison of coding decisions. In addition, colleagues on the research team coded portions of transcripts to check the developing codebook. 5) Resolution of disagreements. Coding disagreements were discussed in team meetings and resolved by consensus. When consensus could not be reached, the point was referred to two professors of nursing (M. R. and A. A.) and resolved through discussion with them. The agreed-upon resolution was recorded in the codebook.

Table 1. Categories and Subcategories of the Experiences of Individuals After Orchiectomy

Category and Subcategory	Illustrative statement (participant)
Experiencing crises	
Shock and event impact	"When doctors said they had to remove my testes, I was shocked and constantly overwhelmed by hopeless thoughts." (P6)
Physical challenges	"After the doctors removed my testes, I was in unbearable pain. No matter how much I screamed and they injected painkillers, I couldn't calm down." (P3)
Sexual and reproductive system concerns	"Since my testes were removed, my sexual desire has significantly decreased." (P11)
Emotional and masculine identity loss	"Since losing my testes, I don't have that sense of confidence anymore and feel that I've lost strength." (P7)
Social stigma	"Some people who heard that I lost a testis started calling me 'one testis'. I was very hurt by their words." (P5)
Coping and adaptation	
Perceived life limitations	"I think without this part of body (testis) marriage is impossible for people like me." (P1)
Behavioral adaptations	"After they (doctors) removed my testis, I felt like something was missing and turned to recite the Quran." (P4)
Support systems	"My wife is a very strong person, and the love and affection between us have been the biggest help to us." (P9)

Status of subgroup comparisons. The analysis was designed to describe the range of experiences reported by participants; comparison of demographic subgroups (for example, married vs unmarried, or younger vs older) was not a prespecified aim, and the sampling approach did not target variation in these characteristics.

3.5. Researcher Reflexivity and Influence

The research team comprised nurses and nurse-academics with clinical experience in oncology and surgical nursing and prior exposure to the sexual and psychological concerns of men undergoing genital surgery. Before sampling began, the interviewer (A.R.), an MSc-prepared nurse with no prior relationship with participants and no clinical role in their care, wrote a reflexive memo documenting his prior assumptions about the post-orchiectomy experience, specifically that

participants would report impotence and marital disruption related to sexual health. This memo was discussed with the supervising professor (M.R.) and retained with the study files. It was used to make the interviewer aware of the risk of leading participants toward sexual topics and to shape the neutral phrasing of the opening questions and prompts. No field notes or reflexive diary were maintained during data collection.

Two strategies were used to limit researcher influence on interpretation: (i) the bracketing memo and use of participants' own wording in in vivo codes and (ii) peer discussion of the codebook with team members and colleagues who had not conducted the interviews. A reflexive diary maintained throughout the study and independent coding of the full dataset by a researcher outside the team were not used.

3.6. Rigor and Trustworthiness

Trustworthiness was addressed using Guba and Lincoln's criteria, as operationalized and critically appraised by Morse (16). Credibility was supported in three ways: prolonged engagement with the data through repeated reading of transcripts; member checking, in which coded transcripts and the accompanying interpretation were returned to participants so they could confirm alignment with their experience, with adjustments made when participants disagreed; and peer debriefing, in which codes, subcategories, and categories were reviewed in team meetings and with colleagues who had not conducted the interviews. Dependability was supported by the iterative development of a written codebook, comparison of coding decisions between the two analysts and those made by colleagues who coded portions of transcripts, and consensus resolution of disagreements with two professors of nursing, as described above. A formal audit trail of analytic decisions was not maintained; the codebook versions and meeting records described above are the only documentation of decision-making, and this limitation is acknowledged. Transferability was supported by rich descriptions of the participants, setting, interview context, and cultural context, and by reporting negative and divergent cases (for example, P10) alongside dominant patterns. Confirmability was supported by the bracketing memo, use of participants' own wording in in vivo codes, and documentation of analytic decisions described above.

3.7. Ethical Considerations and Participant Safety

The study was conducted in accordance with the Declaration of Helsinki and applicable institutional and national ethical requirements. The study protocol was approved by the ethics committee of Zabol University of Medical Sciences, Iran (approval code IR.ZBMU.REC.1400.079). All participants received verbal and written information about the study's purpose, procedures, confidentiality protections, and their right to withdraw at any time without affecting their care. All participants provided written informed consent before the interview. Consent covered participation, audio recording, publication of de-identified quotations, and use of the data for the present analyses. No financial or other inducement was offered.

Because the interviews addressed sensitive topics (genital loss, sexual function, fertility, stigma, and substance use), the interviewer (A.R., MSc in nursing, supervised by M.R., professor of nursing) remained alert to signs of distress. Concerns were identified through participants' disclosures during the interview and the interviewer's observation of visible emotional distress, such as agitation, or statements of hopelessness. No formal risk-assessment instrument or written crisis-management protocol was used in this study; identification therefore relied on the interviewer's clinical judgment and participants' spontaneous disclosures. The interviewer had no specific training in suicide-risk assessment beyond his nursing education.

When a participant disclosed severe distress, suicidal thoughts, or problematic substance use, the interviewer paused the interview and provided empathic support. No immediate emergency procedures, such as psychiatric admission or police involvement, were required during the study.

3.8. Confidentiality and Protection Against Deductive Identification

Each participant was assigned a study code (P1–P11); names and other direct identifiers were not recorded in transcripts or analysis files. Audio recordings and the code–identity linkage key were stored separately on password-protected, encrypted devices accessible only to the research team. The linkage key was destroyed after data analysis. In reporting, we took additional steps to reduce the risk of deductive identification, a particular concern in small or close-knit communities. First, quotations are attributed by participant code only; when a descriptor such as “single” or “married” is analytically necessary, it is supplied in the accompanying analytic text rather than repeated in each attribution, and exact age, number of children, and exact time since surgery are not reported alongside quotations. Second, demographic characteristics are reported in aggregate and in broad categories (Table 2) rather than in a participant-level table, so that no published row combines several characteristics that could single out an individual. Third, details within quotations

that could identify a participant, such as specific places, occupations, or events, were removed or generalized, with ellipses marking omissions; these edits did not alter the meaning of the quotations. The consent obtained from participants covered publication of de-identified quotations.

Table 2. Demographic and Clinical Characteristics of Participants (N = 11) [a]

Characteristic	Value
Age group (y)	
20 - 29	3 (27.3)
30 - 39	5 (45.5)
40 - 51	3 (27.3)
Marital status	
Single	3 (27.3)
Married	8 (72.7)
Number of children	
0	3 (27.3)
1 - 3	6 (54.5)
4 or more	2 (18.2)
Laterality of orchiectomy	
Unilateral	4 (36.4)
Bilateral	7 (63.6)
Indication for orchiectomy (as reported by participants)	
Cancer	1 (9.1)
Trauma	1 (9.1)
Not documented in study data	9 (81.8)
Time since orchiectomy (y)	
1 - 2	7 (63.6)
3 - 5	3 (27.3)
6 or more	1 (9.1)
Education	
Diploma or lower	8 (72.7)
Bachelor's degree	3 (27.3)
Testosterone replacement therapy	
Reported	0 (0)
Not reported / not systematically ascertained	11 (100)
Testicular prosthesis	
Reported	0 (0)
Not reported / not systematically ascertained	11 (100)
Fertility counselling or fertility preservation	
Not assessed in this study	11 (100)

[a] Values are expressed as No. (%).

4. Results

The characteristics of all 11 participants are presented in Table 2. Participants were 22 to 51 years old, and the time since orchiectomy ranged from 1 to 6 years. Three participants were single, and eight were married. Educational attainment ranged from primary school to a bachelor's degree. Seven participants had undergone bilateral orchiectomy, and four had undergone unilateral orchiectomy. The indication for surgery was documented for two participants: cancer (P10) and trauma (P1); for the remaining nine participants, the indication was not recorded in the study data. No participant reported testosterone replacement therapy or use of a testicular prosthesis, although these were not systematically ascertained. Fertility counseling and fertility preservation were not assessed in this study. Analysis of the collected data yielded two main categories and eight subcategories (Table 1).

4.1. Experiencing Crises

Individuals who had undergone orchiectomy experienced several crises, including shock and the impact of the event, physical challenges, concerns about the sexual and reproductive systems, emotional and masculine identity loss, and social stigma. All participants reported profound disruption after orchiectomy, but the nature and intensity of the crises varied by life stage.

4.1.1. Shock and Event Impact

Losing the testes was shocking and frightening and was accompanied by denial and hopelessness. One participant described the event as follows:

"When doctors said they had to remove my testes, I was shocked and constantly overwhelmed by hopeless thoughts." (P6)

A younger, single participant stated: "I was shocked when the bullets hit my testes…" (P1)

Another younger, single participant stated: "When the doctors said they had to remove my left testis, I was very scared of the surgery. I kept asking myself why this cursed mass appeared in me and wrestled with my thoughts." (P2)

All participants described shock and a profound sense of disruption after orchiectomy. Among participants who discussed the future, two younger, single participants (P1, P2) described acute hopelessness about future relationships, and one older, married participant (P11) focused on the loss of sexual function. These accounts illustrate the range of concerns in this sample rather than differences between groups; the analysis was not designed to compare subgroups.

4.1.2. Physical Challenges

Individuals who had undergone orchiectomy experienced a physical crisis after losing their testes, accompanied by severe pain and intense weakness. One participant stated: "After the doctors removed my testes, I

was in unbearable pain. No matter how much I screamed and they injected painkillers, I couldn't calm down." (P3)

Participants described severe pain and weakness after orchiectomy. Because these were qualitative interview accounts, they do not establish the prevalence, duration, or persistence of physical symptoms across participants. Therefore, we do not conclude that these effects affected most participants or diminished over time.

4.1.3. Sexual and Reproductive System Concerns

In addition to the initial shock and physical challenges after orchiectomy, concerns about the sexual and reproductive systems emerged and were interrelated with masculine identity and social stigma. Some participants experienced a sexual crisis because of the loss of their testes and their inability to engage in sexual relations. One married participant described: "Since my testes were removed, my sexual desire has significantly decreased." (P11)

Another married participant stated: "I keep thinking that I can no longer have children. My wife as my life partner has needs [sexual], but with this surgery, I can't meet her needs, and it's made me irritable." (P7)

A further married participant stated: "After the surgery, I felt weak even though I used to be a strong person." (P8)

Sexual and reproductive system concerns emerged as a distinct subcategory but were closely intertwined with masculine identity loss and social stigma. Some married participants with children (P7, P8) described concerns about being unable to meet their wives' needs and about being unable to have more children, whereas some single participants described fears about being unable to marry. Sexual-function concerns were described primarily by participants who had undergone bilateral orchiectomy (P7, P8, P10, P11), whereas concerns about marriage prospects and social stigma were described by participants who had undergone unilateral orchiectomy (P1, P2, P5). Because laterality was confounded with marital status and age in this small sample, this pattern should be interpreted descriptively rather than as explanatory.

4.1.4. Emotional and Masculine Identity Loss

After orchiectomy, individuals experienced a significant sense of loss, describing profound emptiness within their souls, accompanied by despair, loss of self-confidence, and embarrassment. One married participant expressed:

"Since losing my testes, I don't have that sense of confidence anymore and feel that I've lost strength." (P7)

Another married participant stated: "When they removed my testis, I felt like something was missing and felt weak (lack of self-confidence) in front of others." (P4)

A single participant said: "When I remember that I don't have a testis, it pains my soul and restrains my life so that I have no specific plans for the future; I just want time to pass." (P1)

Another participant stated: "Since they (doctors) removed my testes, I feel hopeless because I've lost an important part of my body. I feel ashamed in front of my wife because I have encountered sexual difficulties and lack the same (sexual) strength as before." (P10)

4.1.5. Social Stigma

After losing their testes, some individuals experienced social stigma that deeply hurt them and affected their masculine identity. One married participant stated:

"Some people who heard that I had lost a testis started calling me 'one testis'. I was very hurt by their words." (P5)

A single participant stated: "The whole village knows I don't have a testis. No one is willing to approach me, and everyone looks at me as if I'm neither male nor female, just a man's body, which has led me to withdraw and avoid social gatherings." (P2)

Another participant said: "Some of those around me have made a joke out of my situation, constantly prying into my life and hurting me with their words." (P7)

Three participants (P2, P5, and P7) described social stigma. One was single and lived in a close-knit community (P2); the other two were married. The study was not designed to determine whether stigma is more common among particular groups, and the interviews did not systematically probe this.

4.2. Coping and Adaptation

Individuals who had undergone orchiectomy felt that the loss of their testes had trapped them in a therapeutic dead end, unable to return to a normal state. They faced limitations that compelled them to rely on certain supports to continue their lives. They experienced changes after orchiectomy that required self-improvement and a support system to overcome perceived limitations.

4.2.1. Perceived Life Limitations

After losing their testes, individuals perceived certain life goals, such as marriage and having children, to be impossible. One single participant expressed:

"When I was 20, I got engaged, but when her parents found out I had only one testis, they said they wouldn't let their daughter marry me to avoid ruining her life. I think without this part of the body (testis), marriage is impossible for people like me." (P1)

A married participant stated: "After this issue (orchiectomy), my life with my wife changed a lot. At the beginning of our marriage, we decided to have three or four children, but because of this issue, I can no longer have more children, which has only caused us more distress." (P8)

Perceived life limitations were described by one single participant (P1) and one married participant who wished to have more children (P8). Other participants, including older participants with adult children, did not describe this barrier during their interviews; the absence of such descriptions should not be read as evidence that the experience was absent because the interviews did not systematically probe it. This observation is descriptive and does not establish that life limitations are tied to reproductive goals or marital status across a broader population.

4.2.2. Behavioral Adaptations

Individuals exhibited various positive and negative reactions as they adapted to orchiectomy. One married participant explained a positive behavior:

"After they (doctors) removed my testis, I felt like something was missing and turned to reciting the Quran." (P4)

A single participant described his negative action after orchiectomy: "I still have connections with some friends, and to forget this pain (losing testes), I use drugs with them. I use opium from night until morning and sleep during the day when I don't have work." (P3)

Behavioral adaptations varied. One married participant (P4) described turning to religious recitation, and one younger, single participant (P3) described drug use and also reported severe pain. Because each pattern was described by a single participant, we do not draw conclusions about how coping relates to marital status, age, or support; the interviews did not systematically assess these associations.

4.2.3. Support Systems

Support from spouses and some family members served as a source of comfort, helping individuals who had undergone orchiectomy cope with the situation. One participant expressed:

"My wife is a very strong person, and the love and affection between us have been the biggest help to us." (P9)

Another participant said: "When my wife found out that my testes had been removed, she was very upset but tried not to show it, acting as if nothing had happened to keep things from worsening. She even endures my occasional financial and emotional issues." (P7)

A participant who had lost his testes because of cancer described his wife's reaction to orchiectomy: "When my wife found out I needed my testes removed, she said to do it quickly to avoid cancer. She accepted me without testes, and her expectations of me have decreased significantly." (P10)

Another participant explained the financial support he received from others: "My close relatives knew about my problem. I was between life and death, my life was more important to all of them, and they provided significant financial support for my treatment. My financial situation isn't good enough to repay them, and they said their help was a gift, not a loan." (P11)

Support systems, primarily spouses and close relatives, were described by married participants. One participant (P11) described financial support from relatives as a "gift," indicating that material help also played a role. One married participant with children (P10) reported that his wife encouraged the surgery and accepted him without testes, in contrast to other participants who described spousal distress or social rejection. This divergent case illustrates that spousal support may buffer stigma; the analysis cannot establish how often or under what conditions this occurs.

5. Discussion

This study described the experiences of individuals who had undergone orchiectomy. The findings show that these individuals experience multiple crises related to the loss of their testes, affecting their physical, psychological, emotional, social, and spiritual well-being. Participants described severe pain and weakness after orchiectomy.

Individuals who have undergone orchiectomy experience a painful, shocking, and frightening event when they lose, or are at risk of losing, their genital organs. In their relationships with their partners, they also face a sexual crisis, perceiving themselves as inadequate in terms of sexual function and fertility. Reduced libido and erectile difficulties are expected consequences of bilateral orchiectomy, particularly in the absence of testosterone replacement, and were described by participants in this study who had undergone bilateral surgery. After unilateral orchiectomy, androgen production is usually maintained by the remaining testis; therefore, hormonal and sexual consequences may differ substantially. Our data do not allow this comparison to be quantified because testosterone levels were not measured and hormone therapy was not systematically ascertained. The consequences of testosterone loss may nevertheless be wider and more complex, depending on the spouse's needs and cultural conditions. The inability to satisfy a spouse's sexual needs can mark the onset of sexual impotence,

manifested by behavioral reactions such as discomfort and anger in partners.

Sexual and reproductive system concerns emerged as a distinct subcategory, related not only to general emotional loss but also to specific functional worries. Married participants with children feared being unable to meet their wives' needs or have more children, whereas single participants feared being unable to marry. Notably, the single participants who described marriage as unattainable had undergone unilateral orchiectomy, suggesting that perceived barriers to marriage were shaped more by anticipated stigma and fertility concerns than by the extent of surgery. This interpretation is tentative given the small sample and the absence of clinical detail on fertility status. One participant (P8) stated, "I used to be a strong person," illustrating how sexual weakness was interpreted as a global loss of strength. Studies have identified changes in the physical appearance and functions of individuals who have undergone orchiectomy and have emphasized their concerns and efforts to maintain couples' relationships (13, 17).

These interpretations are constrained by the limited clinical detail available. Because medical records were used only for recruitment, the indication for orchiectomy was documented for only two participants, and testosterone replacement, prosthesis use, and fertility counseling or preservation were not systematically assessed. The sample therefore includes participants whose surgery differed in laterality and indication and likely had different hormonal consequences. We cannot determine how much of the variation in sexual, reproductive, and emotional experiences is attributable to these clinical differences rather than to age, marital status, or social context. In particular, we cannot distinguish the experiences of participants who underwent cancer-related surgery and also faced oncological surveillance and possible adjuvant treatment from those whose surgery followed trauma. Readers should interpret the categories as describing the range of experiences in this sample, rather than as consequences that apply uniformly to all men after orchiectomy. Transferability to populations with different clinical profiles should be considered in light of this limitation.

In masculine societies where gender roles are clearly distinguished, men play a significant role in the family and society. The loss of testes can be considered the beginning of a decline in traditional male roles. In particular, if the loss of testes is perceived as a social stigma, it can affect both personal and social identity, reducing self-confidence in family and societal interactions. All participants described emotional loss and a loss of masculine identity, but the nature of these losses differed. Some married participants explicitly linked shame to their wives' expectations, and one younger, single participant described a sense of hopelessness and futility. Three participants described social stigma; two were married, and one was single and lived in a close-knit community. Because the analysis was not designed to compare subgroups and the sample was small, we do not interpret these patterns as differences between married and unmarried or younger and older men; they are descriptive observations about individual participants. Previous studies have highlighted the relationship between orchiectomy and masculinity (11, 13). Schepisi et al. (17) noted that the testis is closely tied to perceptions of masculinity, attractiveness, and body image, which can lead patients undergoing orchiectomy to perceive the procedure as "dehumanizing," particularly during a period when they are striving for physical fitness (17). Additionally, individuals who have undergone orchiectomy describe themselves as "abnormal" and "less manly," with prolonged feelings of loss, discomfort, or shame (18). Moreover, single and childless men are more vulnerable to perceived changes in masculinity (11). The single participants in this study described marriage and fatherhood as unattainable. These accounts are consistent with previous reports that feelings of inadequacy and hopelessness may be more common among younger, single men (17), although our data cannot test this comparison. However, a married participant who already had children and wished to have more expressed distress at being unable to do so. The emphasis on having more children may indicate the cultural value of masculinity in the study's societal context. Notably, one divergent case was a married participant with children (P10) whose wife encouraged the surgery and accepted him without testes, suggesting that spouse support may buffer stigma.

Participants' responses to orchiectomy varied: some adopted positive behaviors, such as seeking spirituality, whereas others engaged in negative behaviors, such as concealing their issues. Social and familial support or rejection appeared to play a significant role in shaping these responses. Participants described different forms of coping and support, but the study was not designed to assess associations between them. Among behavioral adaptations, religious coping (recitation, reported by P4) and drug use (reported by P3, who also described severe pain) represented two opposing patterns. Because each was described by a single participant, we do not interpret them as characteristic of married or single men, respectively, nor do we draw conclusions about the prevalence of negative coping or its association with social support. No

participant reported formal counseling; however, the interviews did not systematically assess counseling use.

Previous studies report that individuals who have undergone orchiectomy engage in positive behaviors in an effort to regain control over their lives and restore a sense of masculinity through self-reliance (12, 13). However, some individuals exhibited negative behaviors, such as avoiding social settings and concealing their issues because of shame and a lack of familial support. Dax et al. (11) observed that men conceal their discomfort from family and friends and refrain from seeking support as a coping strategy (11). Furthermore, embarrassment among patients delays care-seeking (17), and repeated genital examinations and medical procedures diminish confidence and heighten shame (11). In the current study, substance use reported by one younger participant may indicate a need for support and specialized counseling, as he described struggling to cope alone. Wortel et al. (19) emphasized the importance of treatment and sexual counseling for concerns about fertility, body image, reduced function and erectile firmness, and decreased sexual interest and pleasure (19). The profound physical and psychological adjustments required after orchiectomy are consistent with broader qualitative findings on chronic illness management. For instance, research using qualitative content analysis of self-care behaviors in hypertensive patients demonstrates that individuals often struggle to integrate new health realities into their daily lives and identities (20). This parallels the post-orchiectomy challenge of adapting to a permanently altered body and its functional consequences. Similarly, studies of individual health responsibility during the COVID-19 pandemic highlight how personal agency and social context shape health behaviors (21). These insights are relevant to understanding how men assume responsibility for their post-surgical health, including surveillance and coping, particularly when faced with stigma or diminished social support.

Participants reported that spousal support was comforting during periods of despair and sexual dysfunction, although they expressed feelings of shame toward their spouses. Support systems, primarily spouses and close relatives, were emphasized by married participants. For example, P11 described financial support from relatives as a "gift," indicating that material help also played a role. In the study by Dax et al. (11), men felt guilty toward potential sexual partners, viewing themselves as "damaged goods" (11).

Researchers argue that sexual counseling is essential for these patients and their partners and that fertility preservation should be discussed before surgery when time allows. Our data cannot show whether any participant received such counseling or was offered sperm banking before orchiectomy because these issues were not assessed; this is a substantive gap that limits our ability to comment on the adequacy of pre-treatment fertility care in this setting. Dax et al. (12) supported this need by recommending supportive counseling and alternative methods to address sexual dysfunction (12). Bowie et al. (13) also noted the theme of "restoring sexual function" through assistive devices (13). Raphael et al. (22) advised that healthcare providers be aware of the vulnerable position of single patients with testicular cancer who are at risk of orchiectomy, as they are at greater risk of declining mental health (22).

5.1. Limitations

Several limitations should be considered. Cultural and individual constraints limited the recruitment of a diverse sample. Clinical heterogeneity among participants may also have shaped their experiences and limited comparability. Because the accounts were retrospective, recall bias may have influenced responses. Feelings of shame and discomfort when discussing sexual issues may have led to incomplete disclosure or socially desirable responses.

The study also had important clinical limitations. Medical records were used only for recruitment; therefore, clinical variables were not systematically abstracted. The indication for orchiectomy was documented for only two participants, and testosterone replacement therapy and prosthesis use were recorded only when participants volunteered this information, without verification against prescription or surgical records. Fertility counseling and fertility preservation were not included in the interview guide and were not assessed; no hormone measurements were obtained. The absence of reported hormone therapy or prosthesis use should therefore be interpreted as based on participants' self-reports rather than as confirmed nonuse, and the study could not capture perspectives on these aspects of post-orchiectomy care.

5.2. Conclusions

Following the shock of testis loss, individuals experienced physical and functional changes that affected their masculine identity and led to feelings of inadequacy, permanent loss, and therapeutic deadlock, with perceived barriers to fatherhood. For single participants, marriage seemed unattainable. Participants who sought spirituality reported positive coping, whereas those who concealed issues or used substances reported negative outcomes. This pattern suggests that further evaluation of specialized psychosocial and spiritual counseling interventions is warranted. In addition, participants identified spousal and

social support as important for coping, suggesting that spouse and family education programs warrant further evaluation. Because the findings are context-specific and the sample was small, they may not be generalizable beyond similar cultural and clinical settings.

Footnotes

Artificial Intelligence (AI) Use Disclosure: Deepseek was used for translation in the abstract section at a minor level.

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