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Original Article

Beyond erectile dysfunction: sexual changes, intimacy, and coping among men with type 2 diabetes in Central Maluku, Indonesia: An interpretative phenomenological study

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Abstract

Background: Erectile dysfunction (ED) is a frequently reported sexual-health concern among men living with type 2 diabetes mellitus (T2DM). Beyond erectile functioning, men may experience changes in sexual desire, pleasure, confidence, and intimacy. However, limited phenomenological evidence explains how men interpret these interconnected experiences within their everyday and relational contexts, particularly in eastern Indonesia.
Objective: This study aimed to explore how men with T2DM experiencing erectile difficulties make sense of changes in sexual functioning, self-perception, intimacy, and coping within the primary healthcare context of Central Maluku, Indonesia.
Methods: A qualitative study using interpretative phenomenological analysis (IPA) was conducted in the working area of Negeri Lima Public Health Center, Central Maluku, Indonesia. Twenty married men aged 51–78 years with T2DM and reported erectile difficulties were purposively recruited. Data were collected through individual, face-to-face, semi-structured interviews conducted in Indonesian. Analysis involved detailed examination of individual accounts, development of experiential statements and personal experiential themes, followed by identification of convergent and divergent patterns across cases.
Results: Six interconnected experiential themes were identified: (1) experiencing a sexually unreliable body; (2) losing desire, pleasure, and sexual fulfillment; (3) living with shame and diminished sexual confidence; (4) navigating intimacy and perceived partner expectations; (5) seeking restoration through professional care; and (6) turning to traditional and informally recommended remedies. Participants described erectile difficulties alongside clinically distinct changes in ejaculation, endurance, desire, and sexual satisfaction.
Conclusion: Among men with T2DM experiencing erectile difficulties, sexual changes were understood through interconnected bodily, emotional, and relational experiences. The findings do not establish a causal relationship between diabetes and the sexual difficulties reported by participants. Confidential, culturally responsive, and person-centered sexual-health assessment may help primary healthcare professionals recognize concerns about sexual functioning, confidence, and intimacy and facilitate appropriate referral.

Background

Erectile dysfunction (ED) is an important sexual-health concern among men living with type 2 diabetes mellitus (T2DM), with potential implications for psychological well-being, intimate relationships, and quality of life (Dilixiati et al., 2024; Hostnik, 2025). Previous epidemiological studies have reported a substantial burden of sexual dysfunction among individuals with diabetes; however, estimates of overall sexual dysfunction should be distinguished from estimates specifically addressing erectile dysfunction among men with T2DM (Ramali et al., 2025; Rathod et al., 2024). The development of erectile difficulties is multifactorial and may involve diabetes-associated vascular, neurological, and metabolic disturbances, as well as aging, cardiovascular conditions, medication use, psychological distress, and other comorbidities (Atnafu et al., 2023; Gupta et al., 2022). Accordingly, sexual difficulties experienced by men with T2DM should not automatically be attributed exclusively to diabetes. Recognizing sexual health as an integral component of person-centered diabetes care may facilitate a more comprehensive understanding of patients' physical, emotional, and relational needs.

The experiences of men with T2DM who report erectile difficulties cannot be understood solely through physiological impairment. Erectile function, ejaculation, sexual desire, orgasm, pleasure, and satisfaction represent related but clinically distinct dimensions of sexual functioning (Wabula, L. R., & Fitriasari, 2025; Zhu et al., 2025).

Changes in these dimensions may coexist and influence how men perceive their bodies, sexual identities, and relationships, although they do not necessarily share a single cause (Asal & Akkuş, 2026; Mphasha et al., 2025). In addition to physical difficulties, men may experience embarrassment, diminished confidence, emotional distress, and concerns about their perceived adequacy as intimate partners (Atamenta et al., 2024; Yao et al., 2025). From a phenomenological perspective, these experiences are particularly important because their significance depends not only on what changes occur but also on how individuals interpret those changes within their everyday lives.

Sexual difficulties may acquire additional meaning within intimate relationships, where individuals interpret changes in sexual functioning in relation to personal expectations, communication, emotional closeness, and perceived partner satisfaction (Hadisuyatmana et al., 2025; Huang et al., 2024; Mphasha et al., 2025). Qualitative investigations involving individuals with diabetes and their partners have highlighted the potential relational implications of sexual difficulties, including emotional distress and adjustments in intimacy (Rozveh et al., 2026; Silva et al., 2022). However, men's perceptions of their partners' expectations should be distinguished from the partners' actual experiences. Men may fear disappointing their partners even when such disappointment has not been directly expressed or independently documented (Adumatta et al., 2026; Huang et al., 2024). Understanding these perceptions is particularly relevant to phenomenological inquiry because individuals' interpretations of anticipated relational consequences may shape their experiences independently of whether those expectations are shared by their partners.

Existing research on sexual dysfunction among men with T2DM has generated important epidemiological and clinical evidence regarding prevalence, associated factors, assessment, and treatment (Hadisuyatmana et al., 2023, 2025). These studies provide essential information about the clinical burden of sexual dysfunction but offer limited insight into how men interpret changes in their sexual lives (L et al., 2025; Osom et al., 2026). Qualitative investigations have additionally identified experiences involving embarrassment, diminished confidence, concerns about intimacy, and difficulties seeking professional support (Alswat et al., 2024; L et al., 2025; Osom et al., 2026; Wabula et al., 2023). Nevertheless, identifying these experiences as separate categories does not fully explain how men construct meaning from their changing bodies, how sexual difficulties influence perceptions of personal and relational adequacy, or how different experiences become interconnected within individual accounts.

From an interpretative phenomenological perspective, several dimensions require further exploration. First, little is understood about how men experience the transition from previously familiar sexual functioning to a body perceived as unpredictable. Second, the meanings attached to diminished sexual performance, desire, and satisfaction may differ according to individuals' personal histories and expectations. Third, concerns about masculinity, marital intimacy, and perceived partner disappointment may influence how men understand their changing sexual capabilities. Finally, men may interpret professional consultation, medication, traditional remedies, and informal advice as different means of restoring control, confidence, or sexual well-being. These dimensions require examination not only as shared experiences but also through the differences and possible contradictions between individual accounts.

The sociocultural context in which sexual difficulties are experienced may influence how individuals interpret their symptoms, communicate with intimate partners, and seek professional support (Pinxteren, 2023; Wabula, 2024).. However, such influences should not be assumed to be uniform across Indonesian communities or inferred solely from geographical location (Dilixiati et al., 2024; Hostnik, 2025). The primary healthcare context of Central Maluku provides an opportunity to examine how men describe sexual changes within their personal, marital, and healthcare-related circumstances. Attention to these experiences may contribute contextually situated insights without claiming that the findings represent all men with T2DM in Indonesia.

Interpretative phenomenological analysis provides an appropriate approach for exploring how individuals understand personally significant experiences within their everyday contexts. By attending to both shared meanings and individual differences, this approach allows the investigation of sexual difficulties beyond their biomedical manifestations. Therefore, this study aimed to explore how men with T2DM experiencing erectile difficulties make sense of changes in sexual functioning, self-perception, intimacy, and coping

within the primary healthcare context of Central Maluku, Indonesia.

Methods

Study Design

This study employed a qualitative research design informed by interpretative phenomenological analysis (IPA) to investigate how men with type 2 diabetes mellitus (T2DM) experiencing erectile difficulties made sense of changes in sexual functioning, intimacy, and coping. IPA was selected because of its phenomenological, hermeneutic, and idiographic foundations, which support detailed examination of personal experiences and the meanings individuals attach to them (Brien et al., 2014).

Setting and participants

The study was conducted in the working area of Negeri Lima Public Health Center, located in Leihitu District, Central Maluku Regency, Maluku Province, eastern Indonesia. According to the Indonesian Ministry of Health's primary healthcare facility classification, Negeri Lima Public Health Center is designated as a rural health center with inpatient service capacity. The setting provides primary healthcare services for people living with chronic conditions, including T2DM. This primary healthcare context was relevant for understanding how men experienced sexual difficulties while managing a chronic illness and interacting with healthcare services.

The sociocultural context was considered important in interpreting participants' lived experiences. Sexual functioning and intimate relationships represent sensitive aspects of personal life, and discussions about erectile difficulties may involve concerns regarding privacy, embarrassment, personal dignity, and perceived marital expectations. These considerations may influence how men interpret changes in sexual functioning, communicate with their partners, and decide whether to disclose sexual concerns to healthcare professionals. However, these influences were not assumed to be uniform across participants or attributed to the local community without supporting evidence. Rather, the study focused on how individual men described and interpreted sexual changes within their personal, marital, and sociocultural circumstances.

The healthcare context was also considered relevant because opportunities to discuss sexual difficulties may depend on patients' willingness to disclose sensitive concerns, the availability of confidential consultations, and access to appropriate clinical assessment and referral services. These factors were treated as potential contextual influences rather than barriers presumed to have been experienced by all participants.

Participants were men with T2DM who experienced erectile difficulties and were recruited using purposive sampling to obtain information-rich accounts relevant to the phenomenon under investigation. A total of 20 married men aged 51–78 years participated in the study, with a duration of T2DM ranging from 2 to 8 years. Although participants shared the central phenomenon of interest, they differed in age, educational attainment, occupation, and duration of illness. These variations provided distinct personal circumstances for examining how sexual changes, emotional responses, perceived partner expectations, and coping strategies were experienced and interpreted.

Data collection

Data were collected through face-to-face, semi-structured, in-depth interviews conducted in a private setting that allowed participants to discuss sensitive sexual experiences confidentially. Individual interviews were employed to facilitate an in-depth exploration of how men with type 2 diabetes mellitus (T2DM) experiencing erectile difficulties perceived and interpreted changes in sexual functioning, emotional well-being, intimate relationships, and coping strategies. Consistent with interpretative phenomenological analysis (IPA), this approach provided opportunities for participants to describe their experiences in their own words and elaborate on the personal meanings attached to these changes. The private setting was particularly important because discussions about erectile difficulties and intimate relationships could involve embarrassment, perceived sexual inadequacy, and concerns about confidentiality.

Before each interview, participants received information about the purpose and procedures of the study, the voluntary nature of participation, confidentiality, and their right to withdraw. Written informed consent was obtained before

data collection. Participants were informed that they could decline to answer particular questions, request a break, or discontinue participation without affecting their access to healthcare services. These safeguards were intended to support voluntary disclosure of sensitive information and reduce potential discomfort during the interviews.

The interview guide was developed according to the study aim and focused on participants' experiences of living with T2DM while experiencing erectile difficulties. The guide was structured to explore four interconnected experiential domains: perceived changes in sexual functioning, emotional responses and sexual self-confidence, perceived partner expectations and intimate relationships, and coping strategies and healthcare-seeking experiences. These domains provided a flexible framework for eliciting participants' experiences rather than predetermined categories for interpreting the data.

Open-ended questions explored changes in sexual functioning, feelings associated with erectile difficulties, experiences within intimate relationships, and strategies used to manage or cope with these changes. Example questions included: “Can you tell me about the changes you have experienced in your sexual life since living with diabetes?”; “How have these sexual changes affected the way you feel about yourself and your relationship with your partner?”; and “What have you done to manage or cope with these sexual difficulties?” Follow-up and probing questions were used to clarify participants' accounts and explore the meanings attached to their experiences. Probing questions encouraged participants to elaborate on personally significant events, compare previous and current sexual experiences, describe emotional responses, and explain how they interpreted changes in intimate relationships. The semi-structured interview format allowed flexibility in the sequence and depth of questioning, enabling experiences considered meaningful by individual participants to be explored further. This approach was consistent with the idiographic emphasis of IPA, which prioritizes detailed understanding of individual experiences before identifying shared experiential patterns.

Interviews were conducted in Indonesian and audio-recorded with participants' permission. The interviewer also documented relevant non-verbal expressions and contextual observations to support interpretation of participants' accounts. Audio recordings were transcribed verbatim, and transcripts were checked against the recordings for accuracy. The original Indonesian transcripts formed the primary material for examining participants' expressions and the meanings they attached to their experiences. Particular interpretative attention was directed toward expressions concerning perceived sexual inadequacy, embarrassment, changes in sexual confidence, and perceived partner expectations. Given that selected interview quotations were subsequently presented in English, the translation process and procedures used to preserve participants' intended meanings should be described in the methodological reporting.

Data analysis

Data were analyzed using interpretative phenomenological analysis (IPA), following the phenomenological, hermeneutic, and idiographic principles outlined by Brien et al. (2014). The analysis explored how men with type 2 diabetes mellitus (T2DM) experiencing erectile difficulties interpreted changes in sexual functioning, emotional well-being, intimate relationships, and coping. Each transcript was read repeatedly to develop familiarity with participants' experiences, followed by exploratory noting involving descriptive, linguistic, and conceptual comments. These observations were developed into experiential statements and organized into personal experiential themes (PETs) by identifying meaningful connections within individual accounts. Consistent with IPA's idiographic orientation, each case was analyzed independently before examining patterns of convergence and divergence across participants to develop group experiential themes (GETs). The interpretative process incorporated IPA's double hermeneutic, whereby researchers sought to understand how participants made sense of their experiences while distinguishing participants' explicit accounts from researchers' conceptual interpretations. Emerging themes were repeatedly compared with original transcripts and refined through research team discussions to ensure interpretative coherence, consider alternative explanations, and preserve individual

variations. Particular attention was given to distinguishing perceived partner disappointment from confirmed partner experiences and differentiating erectile difficulties from changes in ejaculation, sexual desire, and endurance. An illustration of the analytical progression from participant quotations to exploratory notes, experiential statements, PETs, and GETs is provided in Supplementary Table S1. The final analysis identified six interconnected GETs: (1) experiencing a sexually unreliable body; (2) losing desire, pleasure, and sexual fulfillment; (3) living with shame and diminished sexual confidence; (4) navigating intimacy and perceived partner expectations; (5) seeking restoration through professional care; and (6) turning to traditional and informally recommended remedies. These themes were interpreted as overlapping experiential dimensions rather than sequential stages or causal relationships, preserving both shared meanings and the distinctiveness of individual experiences.

Table 1. Example of IPA Analytical Progression

IPA analytical stage	Example
Original interview quotation	"My penis becomes erect, but it does not last very long. I try to make it last longer, but I cannot." (RK1402)
Descriptive exploratory note	The participant describes difficulty sustaining an erection despite attempting to prolong it.
Linguistic exploratory note	The contrast between "I try" and "I cannot" emphasizes the perceived limitation despite personal effort.
Conceptual exploratory note	The experience may signify diminished perceived control over sexual functioning.
Experiential statement	Experiencing a loss of control over previously familiar erectile functioning.
Proposed PET	Struggling with unpredictable erectile performance.
GET	Experiencing a sexually unreliable body.

Rigor and trustworthiness

Rigor and trustworthiness were established through credibility, dependability, confirmability, and transferability, consistent with the interpretative and idiographic principles of interpretative phenomenological analysis (IPA) (Creswell, 2022). Credibility was enhanced through probing questions during interviews, verbatim transcription, verification against audio recordings, repeated transcript reading, and continuous comparison of interpretations with participants' original accounts. Dependability was supported by documenting analytical procedures, including exploratory notes, experiential statements, personal experiential themes, group experiential themes, and key interpretative decisions. Confirmability was strengthened through reflexive consideration of researchers' assumptions, research-team discussions, examination of alternative interpretations, and repeated verification of emerging themes against the transcripts. Particular attention was given to distinguishing participants' perceived partner disappointment from actual partner experiences and differentiating erectile difficulties from changes in ejaculation, sexual desire, and endurance. Transferability was facilitated by detailed descriptions of the study setting, purposive sampling, participant characteristics, and research context, involving 20 married men aged 51–78 years with type 2 diabetes mellitus experiencing erectile difficulties in the working area of Negeri Lima Public Health Center, Central Maluku, Indonesia. Throughout the analysis, individual experiential meanings and variations across participants were preserved to ensure consistency with IPA's idiographic orientation. However, participant feedback, formal reflexive journals, and independent coding procedures were not claimed because their implementation could not be established from the available methodological documentation.

Ethical Consideration

This study obtained ethical approval from the Health Research Ethics Committee of STIKes Maluku Husada (Approval No. PM.670.2/STIK-MH/V/2026). All participants received written and verbal information about the study purpose, procedures, potential risks and benefits, voluntary participation, confidentiality, and the absence of financial compensation. Written informed consent was obtained before data collection. Participants were informed that they could decline participation, skip questions, pause the interview, or withdraw at any time without consequences for themselves or their access to healthcare services.

Given the sensitive nature of the research topic, particular attention was directed toward respecting participants' autonomy, dignity, privacy, and personal boundaries throughout the research process.

Results

A total of 20 men with type 2 diabetes mellitus (T2DM) who reported erectile difficulties participated in the study. All participants were married and ranged in age from 51 to 78 years (mean = 63.40 years, SD = 7.34). Their occupational backgrounds included farming, fishing, and entrepreneurship, while educational attainment ranged from elementary school to a bachelor's degree. The duration of living with T2DM ranged from 2 to 8 years (mean = 4.75 years, SD = 1.65).

Although participants shared the experience of living with T2DM and erectile difficulties within marital relationships, variations in age, educational attainment, occupation, and duration of illness provided different personal circumstances for understanding their experiences. These characteristics were considered relevant contextual features rather than explanatory factors establishing the causes of sexual difficulties. The findings therefore represent participants' subjective experiences and interpretations without assuming that all reported sexual changes were directly attributable to T2DM.

Table 1. Sociodemographic and Clinical Characteristics of Participants (N = 20)

Participant ID	Age (years)	Marital status	Occupation	Educational attainment	T2DM duration (years)
P1	76	Married	Farmer	Elementary school	6
P2	56	Married	Fisherman	Elementary school	7
P3	63	Married	Farmer	Elementary school	5
P4	61	Married	Entrepreneur	Junior high school	3
P5	78	Married	Farmer	Junior high school	4
P6	61	Married	Farmer	Bachelor's degree	7
P7	60	Married	Farmer	Elementary school	3
P8	76	Married	Farmer	Elementary school	5
P9	63	Married	Farmer	Elementary school	4
P10	73	Married	Farmer	Elementary school	4
P11	63	Married	Farmer	Senior high school	3
P12	51	Married	Entrepreneur	Junior high school	2
P13	61	Married	Farmer	Elementary school	4
P14	63	Married	Farmer	Elementary school	3
P15	60	Married	Fisherman	Junior high school	5
P16	58	Married	Farmer	Senior high school	6
P17	67	Married	Fisherman	Elementary school	8
P18	54	Married	Entrepreneur	Senior high school	4
P19	65	Married	Farmer	Junior high school	7
P20	59	Married	Fisherman	Senior high school	5

Interpretative phenomenological analysis identified six interrelated group experiential themes (GETs) reflecting how participants experienced and interpreted sexual changes while living with T2DM: (1) experiencing a sexually unreliable body; (2) losing desire, pleasure, and sexual fulfillment; (3) living with shame and diminished sexual confidence; (4) navigating intimacy and perceived partner expectations; (5) seeking restoration through professional care; and (6) turning to traditional and informally recommended remedies.

These themes reflected interconnected but clinically and experientially distinct aspects of sexual functioning, self-perception, intimate relationships, and coping. Although some experiences overlapped, participants differed in the meanings they attached to bodily changes and in their responses to sexual difficulties. Accordingly, the themes were interpreted as related experiential dimensions rather than as a uniform, sequential, or causal progression.

Theme 1: Experiencing a Sexually Unreliable Body

Participants described erectile difficulties as part of a broader experience of reduced predictability in sexual functioning. Erections became less firm, took longer to develop, or could not be sustained. Changes in ejaculation and declining physical endurance were also reported. Although erectile impairment, ejaculatory changes, and reduced endurance are clinically distinct experiences, participants sometimes connected them when describing how their current sexual capabilities differed from their previous experiences. The central experiential meaning of this theme was therefore not limited to erectile impairment but involved a perceived loss of bodily reliability during sexual activity.

Subtheme 1.1: Unpredictable Erectile Functioning

Difficulty achieving and maintaining an erection was prominent across participants' accounts. Some men were able to achieve an erection but could not sustain it, whereas others experienced delayed or incomplete erections. These difficulties were frequently interpreted through comparisons with previous sexual functioning, suggesting that bodily unpredictability became meaningful because participants could no longer anticipate their sexual responses with the same confidence as before.

One participant contrasted his sexual functioning before and after developing diabetes:

"Before I had this illness, I could have intercourse for a long time, but after becoming ill, I can only last about ten minutes. I cannot last long anymore." (JK2215)

Another participant specifically described difficulty maintaining an erection:

"My penis becomes erect, but it does not last very long. I try to make it last longer, but I cannot." (RK1402)

A further participant described delayed erectile response:

"Sometimes I can get an erection, but it takes a long time to start. It is not like before I had this illness." (UT1403)

These accounts illustrate differences in how participants experienced altered sexual functioning. JK2215 emphasized reduced intercourse duration, RK1402 described an inability to sustain an erection despite continued effort, and UT1403 focused on delayed erectile response. The repeated contrast between past and present sexual functioning suggests that participants evaluated bodily changes against previously familiar expectations. Thus, the experience of erectile unpredictability involved not only changes in physical functioning but also uncertainty about the body's ability to respond as anticipated.

Subtheme 1.2: Altered Ejaculation

Changes in ejaculation occurred alongside erectile difficulties. Participants reported premature ejaculation, reduced ejaculate, and, in some cases, an inability to ejaculate. These experiences were interpreted as a separate dimension of sexual functioning rather than as diagnostic indicators of erectile dysfunction. Nevertheless, participants' narratives suggested that ejaculatory changes could contribute to their broader perception of sexual difficulties.

One participant described premature ejaculation accompanied by erectile instability:

"My penis does not stay erect for long. I become tired quickly and ejaculate prematurely; it is not like before, when ejaculation took much longer." (RK1402)

Another participant described reduced and occasionally absent ejaculation:

"My penis cannot stay erect for long. Sometimes I cannot ejaculate, and when I do, only a little comes out. It is not like before, and I become tired quickly." (MM1608)

The two accounts demonstrate divergent ejaculatory experiences. RK1402 emphasized ejaculation occurring earlier than expected, whereas MM1608 described difficulty ejaculating and reduced ejaculate volume. Despite these differences, both participants compared their current experiences with previous sexual functioning. This comparison suggests that altered ejaculation was meaningful partly because it disrupted participants' expectations of how sexual activity would occur. These descriptions represent participants' subjective experiences and do not establish the underlying clinical mechanisms.

Subtheme 1.3: Declining Sexual Endurance

Participants also described becoming physically tired more quickly during sexual activity. Reduced endurance limited the duration of intercourse and occurred alongside changes in erection and ejaculation. For some participants, declining endurance represented a particularly important dimension of sexual difficulties because physical fatigue constrained their perceived ability to continue intercourse.

One participant explained:

"Before I had this illness, I could last half an hour, even two or three hours, but now I can only manage a few minutes because my strength is not like it was before." (UT1403)

Another participant described fatigue as limiting his sexual activity despite attempts to manage the problem:

"I use medication, but when I become tired, that is as far as I can go. I ejaculate quickly and become tired easily because of this illness." (AH1504)

UT1403 emphasized the perceived loss of previous physical endurance, whereas AH1504 described fatigue that persisted despite medication use. These accounts suggest that reduced endurance was experienced in relation to participants' expectations of sexual duration and physical capacity. Although participants sometimes attributed declining strength to their illness, the study did not independently determine whether fatigue resulted from diabetes, aging, medication use, or other clinical conditions. Taken together, the accounts within Theme 1 demonstrate that sexual difficulties were experienced through different but sometimes overlapping bodily changes. Erectile instability, ejaculatory difficulties, and declining endurance contributed to perceptions of reduced bodily predictability, although the specific meaning and prominence of each experience varied across participants.

Theme 2: Experiencing Diminished Sexual Pleasure and Satisfaction

Participants' experiences extended beyond erectile performance to include diminished sexual pleasure and satisfaction, which represented distinct but interconnected dimensions of sexual well-being. Although erectile difficulties were often described alongside reduced enjoyment and fulfillment, participants' accounts indicated that the significance of these changes was shaped by comparisons between their current sexual functioning and previous experiences. Rather than interpreting sexual difficulties solely in terms of the ability to achieve or maintain an erection, participants emphasized how these changes affected their perceived enjoyment and satisfaction during sexual activity.

Subtheme 2.1: Diminished Sexual Pleasure

Participants described sexual intercourse as less pleasurable than before. Reduced pleasure was sometimes reported alongside difficulties with erectile functioning and declining physical endurance. The experience of diminished pleasure was particularly meaningful because participants evaluated their current sexual experiences against previously familiar bodily responses and expectations of enjoyment. Although erectile difficulties and physical fatigue were reported in relation to reduced pleasure, these experiences were not assumed to represent a single clinical condition or to share a common causal mechanism.

One participant explained:

"I have had this illness for about seven years. After some time, I began to notice changes. My penis no longer becomes erect, so I no longer feel the same pleasure." (RK1402)

Another participant linked diminished pleasure with fatigue:

"Since having this illness, I have had difficulty during intercourse, and it does not feel as pleasurable as before, especially because I become tired quickly." (UT1403)

These accounts illustrate different experiential meanings associated with diminished sexual pleasure. RK1402 explicitly connected reduced enjoyment with the perceived loss of erectile response, suggesting that the inability to achieve an erection was experienced as a limitation on sexual pleasure. In contrast, UT1403 emphasized the influence of physical fatigue and difficulties during intercourse, indicating that reduced endurance could also shape the subjective experience of sexual enjoyment.

Despite these differences, both participants interpreted diminished pleasure through comparisons with their previous sexual experiences. Expressions such as “no longer feel the same pleasure” and “not as pleasurable as before” highlight the significance of remembered sexual functioning in shaping participants' evaluations of their present experiences. From an interpretative phenomenological perspective, diminished pleasure therefore represented more than a description of impaired sexual performance; it reflected an awareness that sexual activity no longer provided the enjoyment participants had previously experienced.

Subtheme 2.2: Loss of Sexual Satisfaction

Participants also described diminished sexual satisfaction when intercourse could no longer occur as it had before. Their narratives frequently contrasted current experiences with previous sexual functioning. Sexual satisfaction was therefore understood not only in relation to physical sexual capability but also through participants' personal expectations of fulfillment and their perceived ability to reproduce earlier sexual experiences.

One participant stated:

“I no longer feel satisfied. I feel that I cannot do what I used to do, and I wish I could be like before.” (SA2214)

Another participant connected diminished satisfaction with erectile difficulties:

“My penis is no longer strong, so I feel that I am no longer satisfied.” (RK1402)

A further participant described difficulties achieving satisfaction:

“I am limited now and cannot have intercourse as I did before, so achieving satisfaction has become very difficult.” (UT1403)

Theme 3: Living With Shame and Diminished Sexual Confidence

Changes in sexual functioning also influenced how participants perceived themselves. Feelings of shame, inferiority, and diminished sexual confidence emerged when participants interpreted their sexual difficulties as limiting their ability to satisfy their partners. These feelings were understood as participants' subjective evaluations of sexual adequacy rather than objective evidence of unsuccessful intimate relationships. The theme therefore reflects how sexual changes acquired emotional significance through personal expectations and perceived relational responsibilities.

Subtheme 3.1: Shame and Perceived Inadequacy

Participants described feeling ashamed and inferior because of their altered sexual functioning. These feelings were particularly evident when they perceived themselves as unable to provide the sexual satisfaction expected by their partners.

One participant explained:

“With my partner, I feel ashamed and inferior because I feel that I cannot satisfy her anymore. That feeling of inferiority is always there.” (AK1606)

Another participant expressed concern about anticipated disappointment:

“With my partner, I feel that she must be disappointed with me because I cannot give her what she wants.” (HM1607)

These accounts demonstrate different but interconnected emotional interpretations. AK1606 explicitly described persistent shame and inferiority, whereas HM1607 emphasized an expectation that his partner might feel disappointed. The first account focused on the participant's evaluation of himself, while the second foregrounded his interpretation of the partner's possible response. Importantly, neither statement confirms the partner's actual feelings; both reflect the participant's perceived relational adequacy.

Subtheme 3.2: Diminished Sexual Confidence

Repeated difficulties with erection and the inability to sustain sexual activity were interpreted in relation to participants' perceived sexual capabilities. These experiences could challenge confidence by creating uncertainty about whether previous sexual performance could be reproduced.

One participant stated:

“My penis becomes erect, but it does not last very long. I try to make it last longer, but I cannot.” (RK1402)

Another participant described his wish to regain previous sexual capacity:

"Before, when I was well, I could last for a long time, even up to an hour. After becoming ill, I cannot do that anymore. I wish I could be like before." (IM1401)

RK1402's description emphasized the discrepancy between intentional effort and bodily response, whereas IM1401 expressed longing for previous sexual functioning. These accounts may be interpreted as reflecting uncertainty about sexual capability, but they do not explicitly identify diminished confidence as an emotional experience. The interpretation therefore depends on the wider context of the participants' narratives and should not be presented as a direct quotation-based statement of reduced confidence. Together, these subthemes illustrate how participants interpreted sexual difficulties in relation to personal adequacy, perceived performance, and anticipated relational consequences. The emotional meanings were interconnected but not necessarily identical across participants.

Theme 4: Perceived Partner Disappointment and Relational Inadequacy

Participants experienced sexual difficulties within the context of their marital relationships. Their concerns extended beyond their own sexual functioning to the perceived effects of these changes on their partners. The relational meaning of erectile difficulties was particularly evident in participants' concerns about their ability to satisfy their partners and their anticipation of possible disappointment. Rather than describing confirmed dissatisfaction expressed by their partners, participants interpreted their changing sexual capabilities through perceived marital expectations and personal responsibilities within intimate relationships. These experiences suggested that sexual difficulties were not understood solely as bodily limitations but also as concerns about relational adequacy and perceived sexual responsibilities.

Subtheme 4.1: Fear of Disappointing the Partner and Perceived Sexual Inadequacy

Concern about disappointing the partner was prominent in participants' accounts. Participants described feelings of inadequacy and anticipated disappointment when they perceived themselves as unable to provide the sexual satisfaction they believed their partners expected. These concerns reflected the meanings participants attached to their changing sexual functioning rather than independently established expectations or responses from their partners.

One participant stated:

"With my partner, I feel that she must be disappointed with me because I cannot give her what she wants." (HM1607)

Another participant linked feelings of inadequacy with his perceived inability to satisfy his partner:

"With my partner, I feel ashamed and inferior because I feel that I cannot satisfy her anymore." (AK1606)

Theme 5: Seeking Restoration Through Professional Care

Participants actively sought ways to manage persistent sexual difficulties. Formal healthcare represented one pathway through which they attempted to respond to changes in sexual functioning. Their accounts, however, reflected different forms of healthcare engagement, including consultations addressing sexual problems, routine diabetes follow-up, and medication use. These experiences should be distinguished because general diabetes management does not necessarily involve assessment or treatment of erectile difficulties.

Subtheme 5.1: Seeking Professional Consultation

Some participants described seeking professional advice regarding sexual difficulties, whereas others emphasized the importance of continued healthcare follow-up.

One participant described obtaining medication after consulting a physician:

"To deal with this problem, I take medicine that I obtained after consulting the doctor. I use it so that I can be stronger and so that my wife and I can be satisfied during intercourse." (UT1403)

Another participant emphasized maintaining diabetes care:

"The important thing is to take care of the diet and regularly attend follow-up at the health center or with the doctor." (RA2926)

These accounts illustrate different purposes of professional healthcare engagement. UT1403 explicitly described medication obtained through consultation in an effort to improve sexual functioning, whereas RA2926 emphasized dietary management and regular follow-up without specifying whether sexual difficulties were discussed. The second account therefore supports general healthcare engagement rather than consultation specifically addressing erectile dysfunction.

Subtheme 5.2: Using Medication to Restore Sexual Functioning

Medication was described as an approach used by some participants in attempts to improve sexual performance and satisfaction. The personal significance of medication was not limited to its intended physical effects but also involved participants' expectations of regaining previous sexual capabilities.

One participant stated:

"To be able to feel satisfied, I take what is commonly called a sexual-enhancement medicine. But it feels different from before because now I need the medicine to help me." (UT1403)

Another participant described trying medication encountered through social media:

"I take medicine like the ones younger people advertise on social media. If there is something that might help, I feel I should try it to overcome this problem." (AK1606)

The first account suggests that dependence on medication for sexual functioning was experienced as different from previous spontaneous sexual activity. In contrast, the second illustrates willingness to experiment with informally promoted products. This distinction is important because the latter does not establish professional prescribing or clinical oversight and is also relevant to Theme 6. Overall, Theme 5 demonstrates that formal healthcare and medication were considered among the approaches to managing sexual difficulties. The findings should not be interpreted as evidence that all participants received treatment specifically for erectile dysfunction or that the medications described were effective.

Theme 6: Turning to Traditional and Informally Recommended Remedies

Participants' attempts to manage sexual difficulties extended beyond professional healthcare. Some described using traditional treatments or products recommended through social networks and media. These practices reflected attempts to identify possible ways of improving sexual functioning, although participants' motivations and expectations were not necessarily identical. The findings provide insight into treatment-seeking experiences rather than evidence concerning the clinical effectiveness or safety of specific remedies.

Subtheme 6.1: Using Traditional Remedies

Some participants reported using traditional treatments as an approach to managing sexual difficulties.

One participant explained:

"I only use traditional treatments from the village, such as plants and leaves, to help me last longer." (BE1810)

Another participant described trying different remedies in response to persistent sexual difficulties:

"We are already old and now have this illness, so I just try whatever might help me last longer. Sometimes I take medicine or things that people say can help." (MT1809)

BE1810 specifically described plant-based remedies obtained within the local environment, whereas MT1809 expressed a broader willingness to try different products and linked his circumstances to aging and illness. These contrasting emphases indicate that traditional remedy use could be situated within different interpretations of sexual difficulties and potential solutions. The accounts do not establish whether participants experienced measurable improvement or whether the remedies were clinically appropriate.

Subtheme 6.2: Trying Informally Recommended Treatments

Participants also described using or considering treatments suggested through informal sources, including other people and social media.

One participant stated:

"I take medicine like the ones younger people advertise on social media. If there is something that might help, I feel I should try it to overcome this problem." (AK1606)

Another participant explained:

"Sometimes I take medicine or things that people say can help so that I can last longer during intercourse." (MT1809)

Discussion

This study provides an interpretative understanding of how men with type 2 diabetes mellitus (T2DM) experiencing erectile difficulties made sense of changes in sexual functioning, self-perception, intimate relationships, and coping. Six interconnected group experiential themes emerged: experiencing a sexually unreliable body; diminished sexual pleasure and satisfaction; shame and reduced sexual confidence; perceived partner disappointment and relational inadequacy; seeking restoration through professional care; and using traditional and informally recommended remedies. Previous qualitative studies have reported embarrassment, diminished sexual confidence, relational concerns, and barriers to sexual healthcare among men with diabetes (Hadisuyatmana et al., 2023; Huang et al., 2024; L et al., 2025; Osom et al., 2026). The present study extends this evidence by demonstrating how participants interpreted sexual changes through comparisons with previous bodily capabilities, expectations of sexual fulfillment, and perceived relational responsibilities. Consistent with the phenomenological, hermeneutic, and idiographic foundations of interpretative phenomenological analysis (IPA), these themes represent overlapping experiential dimensions rather than sequential stages or causal relationships (Salonia et al., 2026).

A central finding concerned the experience of a sexually unreliable body, characterized by difficulties maintaining erections, delayed erectile responses, altered ejaculation, and reduced physical endurance. Participants interpreted these changes through comparisons between their current sexual functioning and previously familiar bodily capabilities. From a phenomenological perspective, such experiences reflect disruptions in embodiment, whereby the body is understood not merely as a physiological entity but as an integral component of personal experience (Salonia et al., 2026). RK1402 described attempting to maintain an erection despite unsuccessful efforts, suggesting tension between intentional action and perceived bodily limitations. This interpretation illustrates the double hermeneutic of IPA, in which researchers interpret participants' attempts to understand their experiences (Gupta et al., 2022; Pinxteren, 2023). Meanwhile, UT1403 emphasized delayed erectile responses and diminished endurance, demonstrating variation in individual experiences. Importantly, erectile difficulties may involve multiple contributing factors, including aging, cardiovascular conditions, neuropathy, hormonal abnormalities, medications, and psychological factors (American Diabetes Association, 2026; Salonia et al., 2026). Consequently, these experiences cannot be attributed exclusively to T2DM, particularly because participants were aged 51–78 years and potential contributing factors were not systematically assessed.

Diminished sexual pleasure and satisfaction represented another significant experiential dimension. Participants described reduced enjoyment associated with erectile difficulties, fatigue, and limitations in sustaining sexual activity. However, diminished pleasure and reduced satisfaction were analytically distinct: pleasure referred primarily to enjoyment during sexual activity, whereas satisfaction reflected broader evaluations of whether sexual experiences continued to meet personal expectations. Participants' repeated desires to regain previous sexual capabilities suggested that remembered experiences influenced their assessments of current sexual fulfillment. Previous qualitative research similarly identified associations between erectile difficulties, reduced confidence, psychological distress, and intimate relationship concerns among men with diabetes (Gupta et al., 2022; Osom et al., 2026; Wabula, 2024). The present findings contribute a more nuanced understanding by suggesting that sexual well-being cannot be adequately interpreted through erectile performance alone. Instead, participants' experiences involved the subjective meanings attached to bodily changes, remembered sexual fulfillment, and expectations regarding intimacy.

Sexual difficulties also influenced participants' self-perceptions and anticipated relational expectations. Some participants expressed shame, inferiority, and diminished confidence associated with perceived inability to satisfy their partners. Similar experiences involving threatened sexual identity, embarrassment, and marital concerns have been reported in qualitative studies from Iran (Hadisuyatmana et al., 2025; Huang et al., 2024; Rozveh et al., 2026) and Ghana (Adumatta et al., 2026; Salonia et al., 2026). Nevertheless, the present findings distinguish personal inadequacy from anticipated partner disappointment. AK1606 primarily expressed shame and inferiority, whereas HM1607 emphasized concerns that his partner might feel disappointed. These accounts should not be interpreted as evidence of confirmed partner dissatisfaction because intimate partners were not interviewed. Previous research has similarly identified concerns about relationship stability and partner rejection (Cayetano-Alcaraz;, Axel Alberto & Tharu, 2022; Rozveh et al., 2026; Salonia et al., 2026). Although these experiences may intersect with expectations surrounding masculine sexual performance, participants did not consistently describe erectile difficulties as a loss of masculinity. Therefore, interpretations should remain grounded in their expressed experiences rather than assuming uniform cultural meanings or masculine identities.

Professional help-seeking emerged as an important response to changing sexual functioning, although participants differed in their approaches and expectations. UT1403 described obtaining medication following medical consultation to improve sexual functioning, whereas RA2926 emphasized dietary management and routine medical follow-up without explicitly reporting consultation for erectile difficulties. This distinction indicates that general diabetes management should not automatically be interpreted as professional sexual-health treatment. Previous evidence has identified embarrassment, limited sexual-health knowledge, communication difficulties, and barriers to accessing appropriate care among men with T2DM (Hadisuyatmana et al., 2025). Qualitative studies in Iran and Ghana likewise highlighted concerns regarding disclosure, privacy, and healthcare communication (Rozveh et al., 2026; Salonia et al., 2026). However, these barriers cannot automatically be assumed to characterize participants' experiences in Central Maluku. Importantly, UT1403 perceived medication-assisted sexual functioning as different from previous experiences because medication was necessary to support sexual activity. This suggests that treatment-related expectations may extend beyond achieving an erection to include spontaneity, subjective satisfaction, and the perceived restoration of previous sexual capabilities.

Participants also explored traditional remedies and informally recommended sexual-enhancement products. BE1810 described using locally available plants and leaves to improve sexual endurance, whereas AK1606 reported encountering sexual-enhancement products through social media. Similar nonbiomedical treatment practices have been documented among men with diabetes in Ghana (Adumatta et al., 2026). These findings suggest that participants engaged in pluralistic help-seeking, potentially reflecting attempts to regain control over their sexual functioning. Nevertheless, the accounts do not establish that traditional remedies were selected because of cultural obligations, inadequate healthcare access, or distrust of professional treatment. Furthermore, their effectiveness and safety were not evaluated. Current clinical guidance emphasizes comprehensive assessment, consideration of comorbidities, patient preferences, and individualized erectile dysfunction management (American Diabetes Association, 2026; Salonia et al., 2026). Accordingly, nursing practice should incorporate respectful, nonjudgmental discussions about prescribed medications, traditional remedies, and informally recommended products to identify potential safety concerns while acknowledging patients' experiences and treatment expectations.

An important contribution of this study lies in its recognition of idiographic variation and sociocultural context. Although participants shared common experiential themes, they interpreted similar sexual difficulties differently according to their personal histories, bodily experiences, and relational expectations. Some emphasized unsuccessful efforts to sustain erections, whereas others focused on diminished endurance, reduced pleasure, shame, or anticipated partner disappointment. Such variation reinforces the importance of understanding individual meanings rather than

imposing a uniform explanatory framework (Alswat et al., 2024; Osom et al., 2026; Wabula, 2021). Alternative interpretations must also be considered, including the possibility that reduced endurance reflected general fatigue, perceived inadequacy arose from personal rather than partner expectations, and traditional remedy use represented experimentation rather than rejection of biomedical care. Although the study was situated in Central Maluku, the findings do not establish that these experiences were caused by specific local cultural norms or were representative of Indonesian men more broadly. Qualitative evidence from Ghana and Iran demonstrates comparable concerns regarding stigma, relationships, disclosure, and informal treatment practices across different sociocultural settings (Adumatta et al., 2026; Rozveh et al., 2026). These findings underscore the importance of culturally sensitive, person-centered nursing care that addresses physical symptoms alongside emotional concerns, sexual satisfaction, perceived relational expectations, and individual help-seeking experiences.

Implications for Nursing Practice

The findings highlight the importance of integrating comprehensive, person-centered sexual-health assessment into routine diabetes care. Beyond identifying erectile difficulties, nurses should explore changes in ejaculation, sexual endurance, pleasure, satisfaction, self-confidence, and perceived partner expectations. Current clinical guidelines recommend sexual-health assessment among men with diabetes, including consideration of physiological, psychological, and relational factors (American Diabetes Association, 2026; Salonia et al., 2026). In primary healthcare settings, nurses should initiate confidential, permission-based, and nonjudgmental discussions to facilitate disclosure of sensitive concerns while recognizing individual experiences and avoiding assumptions about partner dissatisfaction. Assessment should also address prescribed medications, traditional remedies, and informally recommended sexual-enhancement products to identify potential safety concerns and the need for clinical evaluation. Appropriate interprofessional referrals to physicians, urologists, or mental-health professionals may support individualized management. Importantly, the distinctive contribution of this study is its emphasis on the meanings men attach to changing sexual capabilities, particularly comparisons with previous functioning, perceived inadequacy, and anticipated relational consequences. Although these findings provide a foundation for culturally sensitive and holistic nursing care, the effectiveness of the proposed approaches requires further intervention research.

Strengths and Limitations

This study has several strengths, including the use of interpretative phenomenological analysis (IPA) to explore the bodily, emotional, relational, and coping experiences of men with type 2 diabetes mellitus (T2DM), consistent with its phenomenological, hermeneutic, and idiographic foundations (Atamenta et al., 2024; Hadisuyatmana et al., 2025; Hostnik, 2025). The inclusion of 20 married men with diverse demographic and clinical backgrounds enabled exploration of shared experiences and individual variations, while the primary healthcare setting in Central Maluku provided geographically situated insights into a sensitive aspect of diabetes care. Nevertheless, several limitations warrant consideration. Purposive recruitment from a single public health center limits the transferability of findings to other populations and settings. Sexual difficulties were primarily self-reported without documented standardized erectile-function assessment or independent clinical confirmation, while potential contributing factors, including aging, cardiovascular conditions, neuropathy, hormonal abnormalities, psychological distress, and medication effects, were not systematically evaluated. The sensitive nature of sexuality may have contributed to selective disclosure or social desirability bias. Furthermore, the absence of partner interviews prevented verification of perceived partner dissatisfaction, and the relatively large sample for IPA may have constrained the depth of idiographic interpretation (Atamenta et al., 2024; Gupta et al., 2022; Mphasha et al., 2025; Wabula, L. R., & Fitriasari, 2025). Finally, the cross-sectional nature of the qualitative accounts prevented examination of experiential changes over time. Despite these limitations, the findings provide meaningful insights into the interconnected physical, emotional, and relational dimensions of sexual difficulties among men with T2DM.

Conclusion and Recommendation

This study provides an interpretative understanding of how men with T2DM experiencing erectile difficulties made sense of changes in sexual functioning, emotional well-being, intimate relationships, and coping. Six interconnected group experiential themes emerged: experiencing a sexually unreliable body; diminished sexual pleasure and satisfaction; shame and reduced sexual confidence; perceived partner disappointment and relational inadequacy; seeking restoration through professional care; and using traditional and informally recommended remedies. A central finding was that participants interpreted current sexual difficulties through comparisons with previous sexual capabilities, shaping their perceptions of bodily reliability, sexual fulfillment, personal adequacy, and anticipated partner expectations. However, individual experiences varied, emphasizing that these themes represent overlapping experiential dimensions rather than a uniform or sequential process. These findings extend nursing knowledge by highlighting the importance of understanding sexual difficulties beyond physiological symptoms and recognizing the subjective bodily, emotional, and relational meanings that inform person-centered sexual-health care.

Nurses working in primary healthcare and diabetes services should incorporate individualized sexual-health assessment into comprehensive T2DM management, addressing erectile functioning, ejaculation, sexual endurance, pleasure, satisfaction, emotional well-being, and perceived partner expectations. Confidential, permission-based, and nonjudgmental communication should be prioritized to facilitate disclosure and reduce barriers to discussing sexual concerns. Healthcare professionals should also assess the use of prescribed medications, traditional remedies, and informally recommended sexual-enhancement products, providing appropriate education, medication review, and interprofessional referral when necessary. At the organizational level, strengthening nurses' competencies in sexual-health communication and establishing structured assessment and referral pathways may enhance comprehensive diabetes care. Future research should investigate sexual-health experiences across diverse geographical, sociocultural, and clinical contexts, while longitudinal and dyadic qualitative studies could clarify changes in individual experiences and partner-related expectations. Intervention studies are also recommended to evaluate the feasibility, acceptability, and effectiveness of nurse-led sexual-health assessment, counseling, and referral strategies. These recommendations should be interpreted as implications derived from qualitative findings rather than interventions whose effectiveness has been established by the present study.

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