

Patient Perceptions of Safe Living, Healthcare Access, and Priorities: A Cross-Sectional Survey from Family Medicine Clinics at Sultan Qaboos University Hospital, Oman

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ABSTRACT

Background: Family medicine is essential for improving population health and reducing barriers to healthcare access. In Oman, rapid socioeconomic changes and evolving healthcare needs highlight the importance of understanding patients' perspectives to improve healthcare utilization.

Objective: This study evaluated patients' perceptions of access to safe living conditions, healthcare services, and healthcare priorities at Sultan Qaboos University Hospital.

Methods: A cross-sectional online survey was conducted among adult patients attending the Family Medicine and Public Health clinic at SQUH between September and December 2024. The study questionnaire was modeled on the 2023 Maricopa County CHNA (Community Health Needs Assessment), which assessed demographic characteristics, satisfaction with healthcare services, health-related behaviors, and access to care. Descriptive statistics were used for data analysis.

Results: A total of 402 participants completed the survey (80% response rate); 65.4% were under 35 years old, and 72.1% were female. While most reported good overall health, gaps remained in access to mental health services, affordable housing, internet connectivity, and community services. Participants highlighted the importance of respectful, accessible, and integrated care. Stronger social connections were associated with younger age, marriage, employment, and more adults in the household ($p=0.018$, $p=0.004$, $p=0.039$, and $p=0.037$), while better mental health was associated with marriage and younger Should be 0.001 followed by 0.002. Physical health was significantly associated with the number of children at home ($p=0.013$).

Conclusion: Despite positive self-reported health, significant gaps in access to services were identified, particularly in mental health care. The study highlights the importance of understanding patients' perspectives to support patient-centered care and improve mental health integration and care coordination in primary healthcare settings in Oman.

Keywords: Family medicine, patient's perception, community health needs assessment, Sultan Qaboos University Hospital, Oman.

INTRODUCTION

The quest for high-quality healthcare has increased worldwide in recent years, and patients' perceptions are a significant indicator for evaluating healthcare performance [1]. This metric provides not only clinical output but also the state of human contact - empathy and communication between the patient and the healthcare professional.

Despite the wide variation in healthcare spending across the globe, Oman is receiving international attention for its focus on patient input in healthcare design [2, 3]. The World Health Organization has highlighted Oman's efforts to involve patients in shaping services, resulting in a more responsive and attuned system to patient needs [4]. Similar developments in several high-income countries have elevated patient satisfaction as a key indicator of healthcare quality and effectiveness.

Family medicine, as the underpinning of primary care systems worldwide, is regarded as an accessible, non-distracting, and integrated service [5].

Oman has developed this industry on an increasingly wide scale, and its importance has continued to improve the modernization of healthcare infrastructure [6-8]. As a result, family medicine plays a significant role in maintaining population health and reducing barriers to care for diverse population members [9]. However, with the transformation of the health care environment, new problems also arise. This includes an aging population, an increase in non-communicable diseases, changes in disease patterns, cost escalation, and disparity in access to specialized care [10, 11]. These dynamics emphasize the importance of constantly and systematically evaluating the community's health status so that health care systems can develop the right response, and, in their natural state, health facilities are fit for purpose.

Oman has long recognized the value of community involvement in healthcare. From the 1990s onward, the Ministry of Health began issuing community support

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Received: December 04, 2025; Revised: April 25, 2026; Accepted: June 30, 2026

DOI: <https://doi.org/10.37184/lnjpc.2707-3521.8.67>

groups (CSGs) to raise public awareness and make it easier for communities and health professionals to work well together. This foundation was later strengthened by the Wilayat Health Team program, which encouraged communities to actively contribute to the planning and implementation of health initiatives in a joint direction with CSGs [6]. By involving communities directly in health needs assessments and planning processes, these initiatives helped ensure that services reflected local priorities. These efforts served as the groundwork for a model of care in which health service providers and communities were brought into closer cooperation and have been especially effective in addressing the burden of non-communicable diseases by tailoring responses to the realities of specific populations [12].

Oman's rapid socioeconomic transformation poses new public health challenges: they are hitting particularly hard among the next generation, especially younger people [13]. While the effect of social determinants on health is well-documented, many health systems continue, in part, to struggle with these broader yet highly localized factors [14, 15]. In the future, a more effective system will require a better understanding of how different segments of people on the ground interpret and access medical treatment.

Through outreach to patients, healthcare providers, and other partners, community health needs assessment (CHNA) supports evidence-based and culturally informed planning processes in the communities it serves [15, 16]. Contrary to models that emphasize the individual patient, CHNAs focus on population-level social and environmental factors that shape public health approaches. There is global evidence that CHNAs are an effective method for health system development, especially in family medicine [14]. Furthermore, its flexibility enables providers to reflect better demographic change, demographic variability, and changes in healthcare systems.

The objective of this study was to investigate patients' perceptions regarding access to safe life, healthcare services, and healthcare priorities at Sultan Qaboos University Hospital (SQUH), with potential significance and use in family medicine to bring about better, more responsive, sustainable, and people-centered care delivery. It helps to provide and understand existing data on the population's health status, assess the social, economic, and environmental factors influencing health outcomes in the community, and prioritize local health needs.

METHODS

This was a cross-sectional study targeting adult patients aged 18 and above who visited the Family Medicine and Public Health (FMPH) Clinic of SQUH from September 2024 to December 2024. Ethical approval was obtained from the Sultan Qaboos University Ethics Committee (SQU-EC/063/2024-MREC #3270). Eligible patients

were adults (≥ 18 years) who accessed services at the FMPH Clinic during the study period and were able to independently complete the online survey. All patients under 18 years of age or without internet access were excluded.

The patients in this study were recruited *via* convenience sampling from the clinic waiting area and were willing to participate in the study. We estimated the target sample size using an online calculator (Raosoft, Inc., Seattle, Washington, USA). The estimated sample size was 381, based on 20,000 clinic visits over 6 months (a 5% margin of error and a 95% confidence level). Recruitment was conducted passively *via* posters displayed in the clinic's waiting and triage rooms, with QR codes linked directly to the online survey.

Data were obtained using an online self-administered questionnaire modeled on the 2023 Maricopa County CHNA [17]. The questionnaire was administered *via* Google Forms and developed using a standardized Community Health Needs Assessment (CHNA) framework aligned with local health priorities. Section A provided study information and obtained participant consent. Section B collected demographic characteristics and social determinants of health, including age, sex, education level, place of residence, and perceived access to community services. Section C explored participants' health status and healthcare experiences by assessing self-rated physical health, mental health, and social connectedness (one question each, rated as good, average, fair, poor, and prefer not to answer), as well as access to medical and mental healthcare services during the preceding 12 months. Participants were also asked about their most trusted source of health information and the main health challenges affecting themselves or their families.

Additionally, they evaluated 14 potential factors that could improve healthcare access, including service availability, affordability, accessibility, communication, and care coordination, using response options of yes, no, or not applicable. Some questions were omitted from the original questionnaire because they were not suitable for our culture and healthcare system in Oman. The questionnaire was translated into Arabic using World Health Organization (WHO) criteria for translation [18]. To ensure its validity, reliability, and clarity, the questionnaire underwent pilot testing. Feedback from the pilot study was carefully considered in refining the final version of the questionnaire.

The questionnaire was implemented for patients attending the FMPH clinic. Participants complete the survey independently online after scanning the QR code. Participation was voluntary and anonymous.

The ethical principles of participant confidentiality, voluntary participation, and secure handling of the data that were collected were respected in the study. We informed all respondents of the study's purposes and

obtained their implicit consent by having them complete the anonymous questionnaire.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS), Version 23 (IBM Corp., Armonk, New York, USA). Descriptive statistics were used to summarize sociodemographic characteristics, including frequencies and percentages for categorical variables and means for continuous variables. Associations between independent variables and outcomes were assessed using Pearson's Chi-squared (χ^2). Statistical significance was set at $P \leq 0.050$.

RESULTS

Study Population Features

Of 500 approached participants, 402 aged 18 years or older participated in the study, yielding an 80 percent response rate. Most participants were younger than 35 years (65.4%), and 2.7% were aged 60 years or older. Over two thirds of the respondents (72.1%) were women, and slightly more than half (51%) were single, followed by 47% who were married. Educational attainment was reported by participants, with 83.3% completing school or university education and only 1% illiterate. The participants reported student status at 36.1%, as well as jobs in government, the private sector, or self-employment at 38.3%. Household income was modest. 60% of participants reported monthly earnings of no more than 1,000 OMR. Most people lived in family- or self-owned homes (92.5%), and 91% had fewer than 6 children, compared with 81.8% who had fewer than 6 adults. Also, in almost all cases, 88.6% of households had at most one senior citizen living in the household (Table 1).

Table 1: Demographic data of study participants (N = 402).

Variables	Frequency (%)
Age in years	
18-34	263 (65.4)
35-59	128 (31.8)
≥60	11 (2.7)
Gender	
Male	112 (27.9)
Female	290 (72.1)
Marital status	
Married	189 (47)
Widowed	4 (1)
Divorced	4 (1)
Single	205 (51)
Household income in OMR	
<500	71 (17.7)
500-1000	170 (42.3)
1001-2000	112 (27.9)
2001-3000	32 (8)
>3000	17 (4.2)
Educational level	
Illiterate (Attendee filled the form)	4 (1)

Variables	Frequency (%)
Some high school (no degree)	24 (6)
School graduate	169 (42)
College graduate	166 (41.3)
Postgraduate	39 (9.7)
Current occupational status	
Student	145 (36.1)
Unemployed	34 (8.5)
Housewife	51 (12.7)
Government employee	113 (28.1)
Private sector employee	39 (9.7)
Self-employed	2 (0.5)
Retired	18 (4.5)
Housing status	
Owned by you or someone in this household	173 (43)
Rented house	30 (7.5)
Live in a family house	199 (49.5)
Number of children	
<6	366 (91)
6-10	19 (4.7)
≥11	17 (4.2)
Number of adults	
<6	329 (81.8)
6-10	54 (13.4)
≥11	19 (4.7)
Number of seniors ≥60 years	
<1	356 (88.6)
1-2	42 (10.4)
≥3	4 (1)

OMR = Omani rials.

General Patient Attitudes toward Access, Safety, and Services

In summary, patients felt very safe on the road, at home, and in public spaces. They also felt that access to places such as hospitals, schools or universities, housing, parks, transport, food, medical care, and education, as well as religious and cultural events, was fair. Still, access to high-speed internet and programs for seniors was poor (38.6% and 26.4%, respectively). Satisfaction with medical care, mental health care services, and services for residents in need or in crisis was fair. Still, they were not aware of or were poorly satisfied with substance use treatment services (52.5% rated not available).

Table 2: Patients' perceptions of access, safety, and services (N = 402).

Variables	n (%)			
	Very good	Fair	Poor	N/A
Ability to communicate with local leadership and feel my voice is heard	106 (26.4)	162 (40.3)	102 (25.4)	32 (8.0)
Access to safe spaces to exercise and be physically active	138 (34.3)	155 (38.6)	86 (21.4)	23 (5.7)
Access to parks and green space	146 (36.3)	176 (43.8)	68 (16.9)	12 (3.0)
Access to safe walking or biking paths	113 (28.1)	156 (38.8)	91 (22.6)	42 (10.4)

Variables	n (%)			
	Very good	Fair	Poor	N/A
Access to affordable healthy foods	105 (26.1)	155 (38.6)	113 (28.1)	29 (7.2)
Access to places to stay cool during hot months	136 (33.8)	127 (31.6)	98 (24.4)	41 (10.2)
Access to quality and affordable childcare	87 (21.6)	169 (42.0)	96 (23.9)	50 (12.4)
Access to quality and affordable schools for children	100 (24.9)	141 (35.1)	111 (27.6)	50 (12.4)
Access to affordable education after high school	87 (21.6)	139 (34.6)	118 (29.4)	58 (14.4)
Access to quality public transportation	71 (17.7)	162 (40.3)	119 (29.6)	50 (12.4)
Access to high-speed internet	79 (19.7)	142 (35.3)	155 (38.6)	26 (6.5)
Access to affordable housing	97 (24.1)	161 (40.0)	89 (22.1)	55 (13.7)
Access to quality medical care	145 (36.1)	171 (42.5)	70 (17.4)	16 (4.0)
Access to quality mental health care	85 (21.1)	141 (35.1)	94 (23.4)	82 (20.4)
Access to substance use treatment services	72 (17.9)	63 (15.7)	56 (13.9)	211 (52.5)
Access to programs and activities for seniors 60+ (senior community centers, etc.)	57 (14.2)	85 (21.1)	106 (26.4)	154 (38.3)
Access to public libraries, community centres, and educational events	113 (28.1)	162 (40.3)	97 (24.1)	30 (7.5)
Acceptance of all people (different cultures, identities, etc.)	173 (43.0)	162 (40.3)	51 (12.7)	16 (4.0)
Feeling safe in public spaces (not worrying about gun violence, terrorism, etc.)	215 (53.5)	159 (39.6)	19 (4.7)	9 (2.2)
Feeling safe in your home (not worrying about burglary, domestic violence, etc.)	235 (58.5)	140 (34.8)	15 (3.7)	12 (3.0)
Feeling safe while driving (few traffic accidents, safe drivers, good roadway design, etc.)	131 (32.6)	208 (51.7)	42 (10.4)	21 (5.2)
Opportunity to participate in religious, spiritual, or cultural events	121 (30.1)	205 (51.0)	55 (13.7)	21 (5.2)
Services for residents in need or crisis (food pantries, shelters, utility assistance, etc.)	94 (23.4)	167 (41.5)	80 (19.9)	61 (15.2)

N/A = not applicable.

The quality of education provision was mixed: about a quarter of respondents rated childcare and school services as very good, while about 30% described access to affordable higher education and other good schools as poor (**Table 2**).

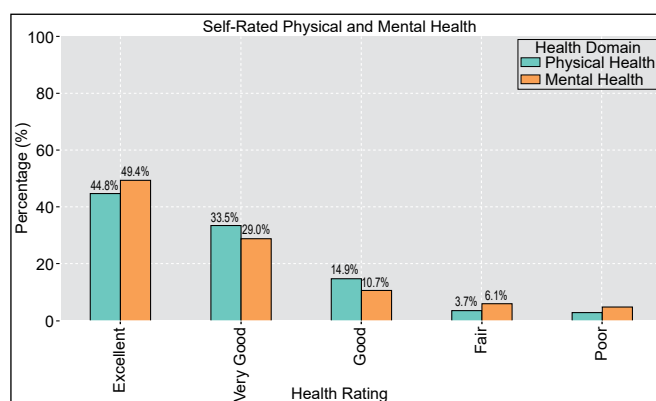


Fig. (1): Self-rated physical and mental health status of study participants (N = 402).

Patient Perceptions of Health Status and Challenges

Mental health was perceived to be better than physical health (49.4% vs 44.8%). However, when excellent and very good are combined, both mental and physical health are equal (78.4% vs 78.3%) (**Fig. 1**).

Back or joint pain was the most often reported condition among patients (n = 119; 29.6%), followed by high blood pressure (n = 94; 23.4%), diabetes (n = 90; 22.4%), mental health disorders (n = 82; 20.4%), and overweight or obesity (n = 72; 17.9%) (**Table 3**).

Table 3: Common reported health conditions (N=402).

Condition	Frequency (%)
Back or joint pain	119 (29.6)
High blood pressure	94 (23.4)
Diabetes	90 (22.4)
Mental health disorders	82 (20.4)
Overweight / Obesity	72 (17.9)

Improve Access to Health Services

Participants highlight several key facilitators that they perceived as important for improving access to healthcare services. Both system-related and interpersonal factors significantly influence individuals' ability to obtain appropriate care. The most frequently reported facilitators included having healthcare providers who ensure patients feel safe and respected (85.6%), access to multiple services within a single location (83.3%), and assistance with care coordination (82.6%). In addition, 81.1% of participants highlighted the importance of access to specialized healthcare providers. These results underscore the value of patient-centered care, integrated service delivery, and effective care navigation in improving access to healthcare.

Service availability and geographic accessibility were also highly emphasized. A large proportion of participants reported the need for more appointment availability (77.4%) and services located closer to their homes (78.1%), as well as the option of evening or weekend appointments (72.9%). This reflects the need for flexible, conveniently located healthcare services, particularly for those balancing work and family responsibilities.

Table 4: What would help you get the care you need? (N=402).

Variables	Categories	Frequency (%)
More appointments available	Yes	311 (77.4)
	No	49 (12.2)
	N/A	42 (10.4)
Services closer to where I live	Yes	314 (78.1)
	No	48 (11.9)
	N/A	40 (10.0)
Lower out-of-pocket cost for services	Yes	286 (71.1)
	No	57 (14.2)
	N/A	58 (14.4)
Evening or weekend appointments	Yes	293 (72.9)
	No	62 (15.4)
	N/A	47 (11.7)
Transportation to appointments	Yes	267 (66.4)
	No	80 (19.9)
	N/A	55 (13.7)
Clear prices for services	Yes	294 (73.1)
	No	54 (13.4)
	N/A	54 (13.4)
Virtual/telehealth appointments	Yes	281 (69.9)
	No	67 (16.7)
	N/A	54 (13.4)
Health care providers or interpreters who speak my native language	Yes	272 (67.7)
	No	65 (16.2)
	N/A	65 (16.2)
A health care provider who specializes in the care I need	Yes	326 (81.1)
	No	48 (11.9)
	N/A	28 (7.0)
Paid time off work (sick time)	Yes	280 (69.7)
	No	45 (11.2)
	N/A	77 (19.2)
Health care providers who make me feel safe and respected	Yes	344 (85.6)
	No	29 (7.2)
	N/A	29 (7.2)
Being able to get multiple services at the same location or practice	Yes	335 (83.3)
	No	40 (10)
	N/A	27 (6.7)
Help with understanding and coordinating my care, such as finding services, filling out paperwork, using insurance, and scheduling appointments	Yes	332 (82.6)
	No	43 (10.7)
	N/A	27 (6.7)

N/A = not applicable.

Moreover, supportive services and alternative care delivery options were recognized as important facilitators. Approximately two-thirds of participants indicated that transportation (66.4%), telehealth services (69.9%), and access to providers or interpreters who speak their native language (67.7%) would enhance their access to care. Similarly, 69.7% reported that having paid time off work would be beneficial, highlighting the role of work-related constraints (**Table 4**).

Health Dimensions in Relation to Demographic Characteristics

Physical health was significantly related only to the number of children in the household ($p=0.013$), indicating better physical health with fewer children.

Table 5: Association between demographic characteristics and health dimensions using Chi-squared test (N=402)

Variables	Health Dimension	p-value
Age group	Physical Health	0.641
	Mental Health	0.002*
	Social Connection	0.018*
Marital status	Physical Health	0.372
	Mental Health	0.000*
	Social Connection	0.004*
Household income	Physical Health	0.100
	Mental Health	0.565
	Social Connection	0.483
Education level	Physical Health	0.166
	Mental Health	0.305
	Social Connection	0.723
Professional status	Physical Health	0.191
	Mental Health	0.668
	Social Connection	0.039*
Housing status	Physical Health	0.761
	Mental Health	0.980
	Social Connection	0.263
Number of children	Physical Health	0.013*
	Mental Health	0.299
	Social Connection	0.074
Number of adults	Physical Health	0.653
	Mental Health	0.511
	Social Connection	0.037*
Number of seniors	Physical Health	0.611
	Mental Health	0.278
	Social Connection	0.211

*Statistically significant at $p<0.05$

There was a significant association between mental health and age ($p=0.002$) and marital status ($p=0.001$). Being married and being aged were associated with comparisons to other subgroups. Social connection had a significant effect on younger group ($p=0.018$), marital status ($p=0.004$), occupational status ($p=0.039$), and the number of adults in the household ($p=0.037$). For young, married, and employed adults living with many adults in a house, social connection was considered an important factor in the health dimension compared to physical and mental health dimensions. On the other hand, income level, educational attainment, and housing status were not correlated with reported physical, mental, or social dimensions (**Table 5**). The detailed table is presented in a supplementary file (**Table S1**).

DISCUSSION

The increasing burden of non-communicable diseases in Oman, consistent with the national NCD profile, highlights a persistent and growing health challenge that requires a more comprehensive preventive approach within family medicine [11, 12]. Given their frequent coexistence and need for long-term coordinated care, these conditions emphasize the importance of multidisciplinary management and stronger preventive strategies focused on early detection and lifestyle

modification to reduce the burden on tertiary care services.

The largest gaps identified were in access to mental health services, transportation, internet, and specialist care, particularly for frail older adults and individuals requiring substance use treatment. These findings highlight the need for tailored, equitable interventions to improve access to essential services. Participants also reported concerns regarding infrastructure deficits in mental health, housing, and recreational spaces, while satisfaction with local leaders' communication was limited to a small proportion of respondents. These results align with regional evidence showing that urban development often outpaces community-based health planning [15, 19].

Patients' perceptions influence both individual health outcomes and broader social determinants, revealing a mismatch between the healthcare system's clinical capacity and its responsiveness to wider patient needs [20, 21]. Similar findings have been reported in Oman and across the Gulf region [2, 10, 14, 22, 23].

Participants emphasized respectful provider behavior, co-located services, and improved appointment access as key factors for a better healthcare experience, underscoring the need for government-led action to improve accessibility. Overall, integrating structural and experiential perspectives provides a more comprehensive understanding of healthcare gaps and aligns with international CHNA best practices that promote coordination between top-down planning and community engagement [24-26].

The participants' self-reported health was also telling, but tentative. Although over 40% of participants reported poor access to mental health services and dissatisfaction with healthcare access and quality, most rated their mental and physical health as excellent or very good, indicating a gap between perceived health status and service accessibility. This reflects unmet mental health needs in the Middle East, where stigma and limited support remain major barriers [27, 28]. Improving equity requires enhanced mental health screening, stigma reduction, and integration of psychological care into family medicine.

Evidence suggests a consistent negative association between non-married life stages (unmarried, divorced, widowed) and both depressive symptoms and self-esteem, with perceived social support helping explain the protective effects of marriage on psychological well-being even after adjusting for coping and demographic factors [29, 30]. On the other hand, perceived social connectivity was markedly elevated among married, working individuals and those residing with more adults, indicating that familial and social support networks exert a greater influence than education or wealth. These findings indicate that mental and social well-being are strongly influenced by family and household structure,

highlighting the need for integrated, culturally appropriate interventions that address physical, mental, and social health together.

This study supports international recommendations for integrating mental health services into primary care to improve access and reduce stigma [31, 32]. In Oman, where mental health care is still largely referral-based, placing mental health practitioners within family medicine clinics may help bridge this gap. The findings also highlight emerging priorities such as reliable internet access and road safety, reflecting the growing importance of digital healthcare services and emergency preparedness.

Participants emphasized the importance of patient-centered, coordinated, and convenient healthcare to improve access and satisfaction. Key priorities included respectful treatment, co-located services, care navigation support, and improved specialist availability, consistent with international CHNA findings highlighting the value of communication, dignity, and continuity of care [16, 33]. Although digital tools and transportation support were considered important, participants placed greater value on face-to-face interactions and accessible healthcare services.

Oman's healthcare system has made substantial progress in infrastructure and health outcomes, but future priorities should focus on improving inclusivity, responsiveness, and integration of mental health services. The CHNA framework offers a strategic opportunity to strengthen family medicine at Sultan Qaboos University Hospital toward more patient-centered and equitable care. Applying these findings to national policy and aligning them with global health goals can further support Oman's progress toward universal health coverage and the Sustainable Development Goals.

Despite its contribution, this study has several limitations. It was conducted among patients attending Sultan Qaboos University Hospital using a CHNA framework, which may limit generalizability to other settings in Oman and may have underrepresented certain groups, particularly men. Reliance on self-reported data introduces potential recall and social desirability bias. At the same time, the online survey design may have excluded individuals with limited internet access or digital literacy, particularly older adults and lower-socioeconomic-status groups. In addition, participants' reports of health status and access were not verified using clinical or administrative data, which may affect the objectivity of the findings.

CONCLUSION

Using the CHNA framework, this study identified four key findings among adult patients attending Sultan Qaboos University Hospital: a continuous disparity in access to mental health services despite generally

favorable self-reported health; a substantial burden of non-communicable diseases and social determinants impacting health equity; the necessity for integrated, patient-centered care to enhance healthcare access and coordination; and notable correlations between demographic factors and physical, mental, and social health outcomes. These findings provide evidence to support responsive and sustainable healthcare planning in Oman, while highlighting the need for larger multicenter studies to enhance generalizability.

ETHICS APPROVAL

Ethical approval was obtained from the Sultan Qaboos University Ethics Committee (SQU-EC/063\2024-MREC #3270). All procedures performed in studies involving human participants followed the ethical standards of the institutional and/or national research committee and the Declaration of Helsinki.

CONSENT FOR PUBLICATION

We informed all respondents of the study's purposes and obtained their implicit consent by having them complete the anonymous questionnaire.

AVAILABILITY OF DATA

Data supporting the results of this study from the editors are provided on request.

FUNDING

None.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ACKNOWLEDGEMENTS

Declared none.

AUTHORS' CONTRIBUTION

R.H. assisted with study design, conceptualization of Intellectual Content, research proposal, statistical appraisal, manuscript preparation, editing, final review, and supervision. She is a guarantor in that it is up to her to ensure the work is complete from start to finish. M.J. contributed to the study design, development of the intellectual content, preparation of the research proposal, and construction of the study questionnaire. R.R. and A.Sh. were engaged in the literature review, proposal writing, data generation, statistical analysis, manuscript preparation, and manuscript editing. Further, manuscript preparation and editing were carried out by A.B., R.K., and A.S., who were responsible for conceptualizing the Intellectual Content, manuscript review and writing, and served as co-supervisors of the research.

GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

AI tools, mainly ChatGPT, were used for English-language editing.

SUPPLEMENTARY MATERIAL

Supplementary material is available on the journal's website.

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