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Original Research Article

Socioeconomic factors influencing the quality of gynecological care in Al-Madinah, Saudi Arabia

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ABSTRACT

Background: Gynecological care quality is shaped by complex socioeconomic, cultural, and psychosocial determinants. Evidence on these factors remains limited in the Arabian Gulf context. Objective was to evaluate socioeconomic, cultural, and psychosocial determinants of women's satisfaction with gynecological care services in Al-Madinah, Saudi Arabia.
Methods: A cross-sectional descriptive study was conducted among 486 women attending gynecological services in the western region of Saudi Arabia. Data were collected through structured face-to-face interviews and analyzed using IBM SPSS Statistics version 25.0. Chi-square tests, Spearman correlation, and multiple linear regression identified predictors of satisfaction.
Results: Most participants were Saudi (77%) and resided in urban areas (97.9%), with the majority seeking care only when necessary (71.6%) and low insurance coverage (18.1%). Overall satisfaction was high (very satisfied: 35.6%; satisfied: 39.7%), particularly regarding privacy (82.1%) and trust in gynecologists (70.6%). Satisfaction correlated positively with awareness of preventive care ($rs=0.352$, $p<0.001$), cultural sensitivity ($rs=0.270$, $p<0.001$), and comfort discussing concerns ($rs=0.528$, $p<0.001$), and negatively with waiting time ($rs=-0.185$, $p<0.001$). Saudi nationality was a significant predictor of higher satisfaction ($B=0.84$, $p=0.004$).
Conclusions: Gynecological care in Al-Madinah is generally satisfactory but is influenced by socioeconomic and cultural factors. Improvements in preventive-care awareness, cultural competence, gender-concordant care, and insurance coverage may enhance quality and equity in women's health services across Saudi Arabia.

Keywords: Cultural sensitivity, Gynecological care, Patient satisfaction, Preventive health, Saudi Arabia, Socioeconomic determinants

INTRODUCTION

Gynecological health is a fundamental component of women's overall well-being, encompassing preventive, diagnostic, and therapeutic services ranging from routine screenings and reproductive care to the management of benign and malignant conditions. Benign gynecological conditions affect approximately half of all women during their reproductive years, with nearly 80% requiring medical consultation and one-third experiencing productivity loss annually.[1,2] The economic burden of these conditions is comparable to that of major chronic diseases such as diabetes and rheumatoid arthritis, underscoring their significance as a public health priority.[3]

Access to and utilization of gynecological services remain inequitable across populations. Socioeconomic factors- including income level, employment status, and insurance coverage- are consistently identified as determinants of healthcare-seeking behavior among women.[4,5] Low-income women face compounding barriers: inability to afford care, lack of insurance, limited transportation, and prior negative healthcare experiences.[5,6] Geographic distance further compounds these disparities, as women residing far from gynecological facilities are disproportionately affected by reduced access to subspecialty care.[7]

Beyond socioeconomic determinants, cultural and psychosocial factors critically shape women's experiences with gynecological services, particularly in conservative societies. Cultural norms, religious values, family influence on healthcare decision-making, and preferences for gender-concordant providers are well-documented barriers to gynecological service utilization in the Middle East.[8,9] Cultural sensitivity from providers has been linked to patient comfort, trust, and overall satisfaction.[10] Furthermore, awareness of preventive gynecological care- including cervical cancer screening and routine pelvic examinations- remains suboptimal in many settings, contributing to delayed diagnoses and poorer health outcomes.[11,12]

In Saudi Arabia, the healthcare landscape for women has undergone significant transformation, driven by Vision 2030 reforms aimed at improving quality and accessibility. However, disparities in gynecological care utilization persist; high rates of female unemployment, low insurance coverage, and cultural preferences continue to influence care-seeking patterns.[13] Al-Madinah, as a major urban center in the western region, provides a representative setting to examine these determinants given its demographically diverse population spanning varying socioeconomic strata.

To date, limited research has comprehensively examined the interplay of socioeconomic, cultural, and psychosocial factors influencing satisfaction with gynecological care in Al-Madinah. This study therefore aimed to evaluate these determinants among women attending gynecological services in the region, with the goal of identifying modifiable barriers and informing evidence-based recommendations for improving equity and quality in women's health services.

METHODS

Study design and setting

A cross-sectional descriptive study was conducted through structured face-to-face interviews in Al-Madinah, western region of Saudi Arabia, targeting women who had previously utilized or were currently receiving gynecological care services, regardless of the specific facility attended. Data were collected over a period of one year following the acquisition of ethical approval.

Study population and eligibility

Participants were eligible for inclusion if they were women aged ≥18 years, of any nationality, residing in Al-Madinah, Saudi Arabia, who had previously utilized or were currently receiving any type of gynecological care service- including preventive, diagnostic, or therapeutic care- and who provided informed verbal consent. Participants were excluded if they were under 18 years, had never sought gynecological care, were unable to communicate effectively due to language barriers or cognitive impairment, declined consent, or returned incomplete interviews.

Sample size and sampling

A minimum sample size of 385 participants was calculated using OpenEpi software version 3.0 (www.openepi.com), assuming a 50% prevalence, 95% confidence level, and 5% margin of error. Convenience sampling was employed given its suitability for data collection within a defined time frame. A final sample of 486 participants was enrolled, exceeding the calculated minimum.

Data collection and instrument

Data were gathered using a structured face-to-face interview questionnaire covering sociodemographic characteristics, healthcare utilization patterns, cultural and psychosocial factors, awareness of preventive care, perceptions of equity, and overall satisfaction with gynecological services. Satisfaction was assessed using a five-point Likert scale. Prior to the main data collection, a pilot study was conducted on 20 women meeting the inclusion criteria but not included in the final sample. The pilot evaluated question clarity, cultural appropriateness, completion time, and internal consistency using Cronbach's alpha. The satisfaction scale demonstrated acceptable internal consistency (Cronbach's α=0.78). Necessary modifications were made before the main data collection phase.

Ethical approval

Ethical approval was obtained from the institutional review board (IRB) of the Ministry of Health, Saudi Arabia (Approval No. HA-03-M-122-151), in accordance with the Declaration of Helsinki. All participants provided informed verbal consent, and confidentiality was maintained throughout all phases of data collection and analysis.

Statistical analysis

Data were managed and analyzed using IBM SPSS Statistics version 25.0 (IBM Corp., Armonk, NY, USA). Categorical variables were summarized as frequencies and

percentages; continuous variables as means±standard deviations. Spearman rank correlation (rs) was used to examine bivariate associations between demographic, psychosocial factors, and satisfaction. Multiple linear regression was performed to identify independent sociodemographic predictors of satisfaction, with unstandardized B coefficients and 95% confidence intervals (CI) reported. Chi-square tests assessed associations between categorical variables. A two-sided p value <0.05 was considered statistically significant.

RESULTS

Sociodemographic characteristics

A total of 486 women participated in this study. Table 1 presents their sociodemographic profile. The majority were Saudi nationals (77.0%) residing in urban areas (97.9%). The largest age group was 21-30 years (48.1%), followed by 31-40 years (32.3%). Most participants were married (85.8%) and held a bachelor's degree (65.4%).

Table 1: Sociodemographic characteristics of study participants (n=486).

Variables	Category	N	%
Age group (years)	≤20	16	3.3
	21-30	234	48.1
	31-40	157	32.3
	41-50	66	13.6
	>50	13	2.7
Nationality	Saudi	374	77.0
	Non-Saudi	112	23.0
Residence	Urban	476	97.9
	Rural	10	2.1
Marital status	Married	417	85.8
	Single	56	11.5
	Divorced	11	2.3
	Widowed	2	0.4
Education level	Bachelor's degree	318	65.4
	Secondary	138	28.4
	Postgraduate	25	5.1
	Primary	5	1.0
Occupation	Unemployed	374	76.9
	Skilled manual worker	56	11.5
	Professional	36	7.4
	Semi-professional	15	3.1
	Unskilled manual worker	5	1.0
Monthly household income	<3,000 SAR	129	26.5
	3,000-6,000 SAR	135	27.8
	6,000-10,000 SAR	120	24.7
	10,000-15,000 SAR	61	12.6
	>15,000 SAR	41	8.4
Health insurance	No	398	81.9
	Yes	88	18.1

SAR = Saudi Arabian Riyal.

The unemployment rate was strikingly high (76.9%), despite the high educational attainment. Monthly household income was distributed across lower brackets, with 26.5% earning <3,000 SAR and 27.8% earning 3,000-6,000 SAR. Health insurance coverage was notably low (18.1%).

Healthcare utilization patterns

Table 2 summarizes healthcare utilization patterns. A majority of participants (71.6%) sought gynecological care only when symptomatic, indicating predominantly reactive rather than preventive healthcare behavior. Personal vehicles were the primary mode of transport (89.3%). Most participants (43.6%) resided 5-15 km from the nearest gynecological clinic, and 20.6% were unaware of the distance. The most common waiting time was 30 minutes to 1 hour (44.9%). Private clinics were the predominant care setting (83.7%). Of those with referral experience, 47.9% reported the process as easy, while 37.0% had never been referred.

Table 2: Healthcare utilization patterns among study participants (n=486).

Variables	Category	N	%
Frequency of visits	Only when necessary	348	71.6
	Every 3-6 months	57	11.7
	Monthly	48	9.9
	Never	17	3.5
	Yearly	16	3.3
Transport method	Personal car	434	89.3
	Ride-hailing application	31	6.4
	Do not visit	11	2.3
	Walk	7	1.4
	Public transport	3	0.6
Distance to nearest clinic	5-15 km	212	43.6
	Unknown	100	20.6
	<5 km	87	17.9
	>15 km	87	17.9
Average waiting time	30 minutes-1 hour	218	44.9
	1-2 hour	114	23.5
	<30 minutes	84	17.3
	>2 hours	54	11.1
	Never visited	16	3.3
Usual provider	Private clinic	407	83.7
	Public hospital	79	16.3
Specialist referral	Easy	233	47.9
	Never referred	180	37.0
	Difficult	57	11.7
	Not applicable	16	3.3

Cultural and psychosocial factors

Cultural and psychosocial findings are presented in Table 3. More than half of participants (53.9%) reported

significant family influence in healthcare decision-making. The overwhelming majority (94.0%) considered access to a female provider very important, reflecting deep-seated cultural and religious values. Discrimination based on social or cultural background was rarely reported, with 71.2% stating they had never experienced such treatment. Cultural sensitivity from providers was rated as consistent ("always") by 82.5% of participants. Most participants expressed comfort in discussing sensitive health matters (58.8% very comfortable; 28.4% comfortable).

Table 3: Cultural and psychosocial factors influencing gynecological care (n=486).

Variables	Category	N	%
Family influence on decision	Significant	262	53.9
	Moderate	124	25.5
	Prefer not to answer	51	10.5
	None	49	10.1
Experienced discrimination	Never	346	71.2
	Occasionally	94	19.3
	Often	23	4.7
	Prefer not to answer	23	4.7
Preference for female provider	Very important	457	94.0
	Somewhat important	23	4.7
	Not important	5	1.0
	No preference	1	0.2
Cultural sensitivity from provider	Always	401	82.5
	Sometimes	78	16.0
	Rarely	6	1.2
	Never	1	0.2
Comfort in discussing issues	Very comfortable	286	58.8
	Comfortable	138	28.4
	Neutral	49	10.1
	Uncomfortable	11	2.3
	Very uncomfortable	2	0.4

Preventive care awareness and equity perceptions

Table 4 shows awareness and equity data. Preventive care awareness was high overall (42.8% fully aware; 50.2% somewhat aware); however, only 15.8% participated in screenings regularly, and 18.3% had never participated. More than half of participants (53.1%) believed Saudi and non-Saudi women always receive equal care, although 24.9% reported frequent personal or observed discrimination. Awareness of programs promoting healthcare equity was poor, with 69.8% reporting they were not informed.

Table 4: Awareness of preventive care and perceptions of equity (n=486).

Variables	Category	N	%
Awareness of preventive care	Somewhat aware	244	50.2
	Fully aware	208	42.8
	Not aware	34	7.0
Participation in screenings	Occasionally	249	51.2
	Never	89	18.3
	Regularly	77	15.8
	Unaware of need	71	14.6
Equity of care (Saudi versus non-Saudi)	Always equal	258	53.1
	Most of the time	124	25.5
	Sometimes	69	14.2
	Rarely	16	3.3
	Never	19	3.9
Personal/observed discrimination	Never	193	39.7
	Occasionally	146	30.0
	Frequently	121	24.9
	Prefer not to answer	26	5.3
Awareness of equity programs	Not informed	339	69.8
	Somewhat informed	93	19.1
	Well informed	54	11.1

Table 5: Satisfaction of study participants with gynecological care services (n=486).

Items	Very Satisfied N (%)	Satisfied N (%)	Neutral N (%)	Dissatisfied N (%)	Very dissatisfied N (%)
Overall satisfaction with care	173 (35.6)	193 (39.7)	109 (22.4)	9 (1.9)	2 (0.4)
Clarity of information from physician	293 (60.9)	132 (27.2)	44 (9.1)	13 (2.7)	1 (0.2)
Follow-up scheduling	221 (45.5)	195 (40.1)	57 (11.7)	8 (1.6)	5 (1.0)
Privacy and confidentiality	399 (82.1)	68 (14.0)	13 (2.7)	4 (0.8)	2 (0.4)
Trust in gynecologist	343 (70.6)	110 (22.6)	31 (6.4)	2 (0.4)	0 (0.0)

Response options: 1 = Very dissatisfied; 5 = Very satisfied.

Satisfaction with gynecological care services

Overall satisfaction levels were high (Table 5): 35.6% were very satisfied and 39.7% were satisfied with gynecological care overall. Privacy and confidentiality received the highest rating (82.1% very satisfied), followed by trust in gynecologists (70.6% very satisfied) and clarity of physician communication (60.9% very satisfied). Follow-up scheduling was also rated favorably (45.5% very satisfied; 40.1% satisfied).

Spearman correlation analysis

Table 6 presents Spearman correlation coefficients between demographic and psychosocial factors and overall satisfaction. No significant correlations were observed between satisfaction and age (rs=0.021, p=0.638), educational level (rs=0.007, p=0.885), monthly household income (rs=0.083, p=0.068), or distance to the nearest clinic (rs=0.052, p=0.252). A significant weak negative correlation was found with average waiting time (rs=−0.185, p<0.001). Significant positive correlations were identified with awareness of preventive care (rs=0.352, p<0.001), cultural sensitivity from providers (rs=0.270, p<0.001), and comfort in discussing health issues (rs=0.528, p<0.001).

Multiple linear regression analysis

Table 7 presents the multiple linear regression model for sociodemographic predictors of satisfaction. Nationality emerged as the only statistically significant predictor: Saudi nationality was associated with significantly higher satisfaction scores compared to non-Saudi counterparts (B=0.843, 95% CI: 0.268-1.417, p=0.004). Residence, marital status, and occupation were not independently associated with satisfaction.

Table 6: Spearman correlation between study variables and satisfaction with gynecological care.

Variables	rs	P value
Age	0.021	0.638
Educational level	0.007	0.885
Monthly household income	0.083	0.068
Distance to nearest gynecology clinic	0.052	0.252
Average waiting time for appointments	−0.185	<0.001*
Awareness of preventive care	0.352	<0.001*
Cultural sensitivity from provider	0.270	<0.001*
Comfort in discussing health issues	0.528	<0.001*

*Statistically significant at p≤0.05. rs =Spearman correlation coefficient.

Table 7: Multiple linear regression analysis of sociodemographic predictors of satisfaction.

Variables	Category	B coefficient	95% CI	P value
Constant		21.143	19.479-22.810	<0.001*
Nationality	Non-Saudi (Ref.)	—	—	—
	Saudi	0.843	0.268-1.417	0.004*
Residence	Urban (Ref.)	—	—	—
	Rural	−0.588	−2.265-1.089	0.491
Marital status	Single (Ref.)	—	—	—
	Married	0.683	−0.930-2.296	0.406
	Divorced	0.936	−3.101-0.381	0.649
	Widowed	−1.360	−5.797-3.076	0.125
Occupation	Unemployed (Ref.)	—	—	—
	Unskilled manual	0.940	−1.420-3.301	0.434
	Skilled manual	−0.120	−0.876-0.636	0.756
	Semi-professional	0.149	−1.249-1.548	0.834
	Professional	0.015	−0.910-0.939	0.975

*Statistically significant at p≤0.05. B = unstandardized regression coefficient; CI = confidence interval; Ref. = reference category.

DISCUSSION

This study investigated the socioeconomic, cultural, and psychosocial determinants of satisfaction with gynecological care among women in Al-Madinah, Saudi Arabia. Our findings provide important, context-specific insights into how these determinants collectively shape women's healthcare experiences in this region.

Sociodemographic profile and care utilization

The high unemployment rate (76.9%) observed despite a predominantly educated sample (65.4% with bachelor's degrees) highlights a structural socioeconomic disparity characteristic of female labor market participation in Saudi Arabia. This pattern aligns with prior evidence linking female economic inactivity to delayed care-seeking behavior and reactive rather than preventive utilization.[22] The predominantly reactive utilization pattern observed-with 71.6% seeking care only when symptomatic- is consistent with studies reporting that out-of-pocket costs and inadequate insurance coverage significantly reduce the frequency of preventive visits and specialist consultations.[23] The notably low insurance coverage in our sample (18.1%) further underscores the financial vulnerability of women in this context and reinforces calls for expanded insurance schemes under Saudi Vision 2030 health sector reforms.

Cultural and psychosocial determinants

Cultural sensitivity and gender-concordant care emerged as critical determinants of satisfaction. The near-universal preference for female providers (94.0%) reflects the deep cultural and religious context influencing gynecological care interactions in Saudi Arabia, consistent with evidence that gender concordance enhances patient comfort, trust, and openness in women's health consultations.[24] The significant family influence on healthcare decisions (53.9%)- while potentially enabling in supportive family environments- may also constrain autonomous care-seeking, particularly for unmarried or younger women. The fact that 82.5% of respondents rated providers as consistently culturally sensitive is encouraging, suggesting meaningful progress toward patient-centered care that aligns with cultural norms while maintaining clinical professionalism.

Preventive care awareness versus practice

Despite high overall awareness of preventive gynecological care (93.0% at least somewhat aware), actual participation in screenings was suboptimal, with only 15.8% reporting regular participation and 18.3% never having participated. This significant awareness-practice gap is well-documented in the health utilization literature and likely reflects systemic barriers including appointment availability, financial constraints, social modesty, and competing household responsibilities.[25] Bridging this gap requires moving beyond awareness campaigns toward structural interventions- including accessible clinic hours, community-based outreach, and culturally tailored health education- that address the specific deterrents in this population.

Satisfaction with gynecological services

Overall satisfaction was high, with 75.3% of participants reporting satisfaction or very high satisfaction. Privacy and confidentiality received the highest ratings (82.1% very satisfied), underscoring the centrality of discretion and respect in gynecological practice within conservative cultural contexts. Clarity of physician communication (60.9%) and efficient follow-up scheduling (45.5%) were also strong indicators of perceived quality. Trust in gynecologists was particularly high (70.6%), reflecting growing confidence in the healthcare system and alignment with WHO standards for respectful, patient-centered care.[26] These findings are broadly consistent with literature from comparable Gulf Cooperation Council settings reporting high baseline satisfaction with gynecological services among urban, educated women.[13]

Determinants of satisfaction: correlation and regression findings

A notable finding of this study is that satisfaction was not significantly associated with age, educational level, income, or proximity to facilities. Instead, it was strongly determined by psychosocial and interpersonal dimensions: comfort discussing health issues (rs=0.528), awareness of preventive care (rs=0.352), and provider cultural sensitivity (rs=0.270). These findings emphasize that quality of care in this context is not primarily resource-dependent but rather interaction-dependent- shaped by communication, empathy, and cultural competence. Waiting time, while weakly negatively correlated (rs=−0.185), nonetheless highlights that operational efficiency remains an important lever for satisfaction improvement. Nationality was the sole significant sociodemographic predictor in the regression model, with Saudi women reporting higher satisfaction than non-Saudi counterparts (B=0.843, p=0.004). This disparity may reflect language concordance advantages, greater familiarity with the healthcare system, and possible inequities in care quality perceived by expatriate women- consistent with reported experiences of discrimination by a minority of our sample (24.9% frequently or occasionally observed discrimination).

Implications for policy and practice

These findings carry several actionable policy implications. First, preventive care participation must be improved through targeted, culturally adapted community-based education and structured recall systems. Second, the systematic expansion of female gynecologist and midwife capacity is needed to address the overwhelming preference for gender-concordant care. Third, cultural competence training should be embedded in continuous professional development for all gynecological care providers, with particular attention to equitable treatment of non-Saudi patients. Fourth, universal health insurance coverage expansion and income-based financial support mechanisms are essential to reduce economic barriers for unemployed and low-income women. Finally, efforts to reduce consultation waiting times through improved appointment management could meaningfully enhance patient experience.

Several limitations should be considered when interpreting these findings. The cross-sectional design precludes causal inference. Convenience sampling may limit the generalizability of findings to all women in Al-Madinah. Self-reported satisfaction and cultural sensitivity ratings are subject to social desirability bias, particularly in culturally sensitive reproductive health domains. The Cronbach's alpha of 0.78, while acceptable, indicates moderate instrument reliability, and future studies would benefit from a validated, multi-dimensional gynecological care quality scale. Nonetheless, this study provides valuable baseline evidence in an understudied context and offers a foundation for longitudinal and interventional research.

CONCLUSION

This study demonstrates that gynecological care in Al-Madinah is generally satisfactory but is meaningfully

influenced by socioeconomic and cultural factors. Psychosocial determinants- particularly comfort in provider–patient communication, cultural sensitivity, and preventive care awareness- are stronger predictors of satisfaction than demographic or economic characteristics. Structural barriers including low insurance coverage, high unemployment, reactive care-seeking, and inadequate participation in preventive screenings remain persistent challenges. Addressing these barriers through culturally adapted health education, equitable workforce development, expanded insurance coverage, and patient-centered care models will be essential to enhancing women's health outcomes and achieving equitable, high-quality gynecological care across Saudi Arabia.

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REFERENCES

1. Zimmermann A, Bernuit D, Gerlinger C, Schaefers M, Geppert K. Unmet needs, burden and dissatisfaction with medical treatment among endometriosis patients in Germany. Reprod Biol Endocrinol. 2012;10:39.
2. Nnoaham KE, Hummelshoj L, Webster P, d'Hooghe T, de Cicco Nardone F, de Cicco Nardone C, et al. Impact of endometriosis on quality of life and work productivity: a multicenter study across ten countries. Fertil Steril. 2011;96(2):366-73.e8.
3. Soliman AM, Du EX, Yang H, Wu EQ, Haley JC. Retreatment rates among endometriosis patients undergoing hysterectomy or laparoscopy. J Womens Health. 2017;26(6):644-54.
4. Geltman PL, Meyers AF, Mehta SD, Brugnara C, Villon I, Wu YA, et al. Medicaid and access to gynecological care among low-income women. J Reprod Med. 2008;53(4):249-56.
5. Rust G, Ye J, Baltrus P, Daniels E, Adesunloye B, Fryer GE. Practical barriers to timely primary care access: impact on adult use of emergency department services. Arch Intern Med. 2008;168(15):1705-10.
6. Carrasquillo O, Carrasquillo AI, Shea S. Health insurance coverage of immigrants living in the United States: differences by citizenship status and country of origin. Am J Public Health. 2000;90(6):917-23.
7. Shalowitz DI, Vinograd AM, Giuntoli RL II. Geographic access to gynecologic cancer care in the United States. Gynecol Oncol. 2015;138(1):115-20.
8. Jaber R. Barriers to health care access among Arab American women. J Immigr Health. 2003;5(2):69-73.
9. Al-Dabbagh SA, Al-Taee WY. Risk factors for congenital anomalies in Mosul district, Iraq. East Mediterr Health J. 2005;11(3):485-96.
10. Karliner LS, Jacobs EA, Chen AH, Mutha S. Do professional interpreters improve clinical care for patients with limited English proficiency? A systematic review of the literature. Health Serv Res. 2007;42(2):727-54.
11. Epstein RM, Street RL Jr. The values and value of patient-centered care. Ann Fam Med. 2011;9(2):100-3.
12. Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, et al. Global Cancer Observatory: Cancer Today. Lyon: International Agency for Research on Cancer; 2020.
13. Aldossary A, While A, Barriball L. Health care and nursing in Saudi Arabia. Int Nurs Rev. 2008;55(1):125-8.
14. Al-Ghamdi SA, Al-Harbi AS, Mahfouz AA, Khalil MH, Al-Erian RA, Al-Sulaim AB. Health care services utilization among females in Al-Baha Region, Saudi Arabia. Saudi Med J. 2000;21(8):760-2.
15. Abou-Zeid A, Ansari S, Amine H. The Saudi primary health care experience. J Community Health. 2007;32(5):356-69.
16. Mahfouz AA, El-Gamal MN, Al-Gelban KS, Al-Ghamdi AS, Thamer TA. Awareness and knowledge of Saudi women of cervical cancer and Pap smear testing. J Egypt Public Health Assoc. 2005;80(3-4):329-43.
17. Al-Meer FM, Aseel MT, Al-Khalaf J, Al-Kuwari MG, Ismail MF. Knowledge, attitude and practice of cervical cancer and Pap smear testing among Qatari women at primary health care. East Mediterr Health J. 2011;17(11):855-61.
18. Crow R, Gage H, Hampson S, Hart J, Kimber A, Storey L, et al. The measurement of satisfaction with healthcare: implications for practice from a systematic review of the literature. Health Technol Assess. 2002;6(32):1-244.
19. Ware JE Jr, Snyder MK, Wright WR, Davies AR. Defining and measuring patient satisfaction with medical care. Eval Program Plann. 1983;6(3-4):247-63.
20. Williams B. Patient satisfaction: a valid concept? Soc Sci Med. 1994;38(4):509-16.
21. World Health Organization. Maternal mortality: fact sheet. Geneva: WHO; 2023. Available from: https://www.who.int/news-room/fact-sheets/detail/maternal-mortality. Accessed on 2 March 2026.
22. Almalki MJ, Fitzgerald G, Clark M. Health care system in Saudi Arabia: an overview. East Mediterr Health J. 2011;17(10):784-93.
23. Cylus J, Thomson S, Evetovits T. Catastrophic health spending in Europe: equity and policy implications of different calculation methods. Bull World Health Organ. 2018;96(9):599-609.
24. Roter DL, Hall JA, Aoki Y. Physician gender effects in medical communication: a meta-analytic review. JAMA. 2002;288(6):756-64.
25. Akuamoah-Boateng A, Asante KP, Achana SF, Asante A, Moyer CA. Barriers to cervical cancer screening among women in sub-Saharan Africa: a systematic review. Prev Med. 2022;163:107225.

26. World Health Organization. Standards for improving quality of maternal and newborn care in health facilities. Geneva: WHO; 2016. Available from: https://www.who.int/publications/i/item/9789241511216. Accessed on 2 March 2026.

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