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Pregnant Women's Perceptions of Antenatal Care Services in Royal Medical Services

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ABSTRACT:

Background: The quality of antenatal care is determined by the availability of prenatal services for pregnant women, which contributes to positive pregnancy outcomes. Pregnant women's perceptions of attending antenatal care during the first trimester significantly impact their utilization of these services and, consequently, their pregnancy outcomes. Therefore, it is crucial that pregnant women are well-informed about this and receive appropriate education and awareness to achieve positive results for both their own health and the health of their unborn child.

Objectives: this study primarily aims to assess pregnant women's perceptions of the quality of prenatal care services provided in Royal Medical Services hospitals in Jordan..

Methodology: This study employs a mixed-methods approach, integrating quantitative and qualitative data to capture measurable patterns in perception and the nuanced experiences shaping women's views. Once both data types will be analysed independently, the results will merged to create a comprehensive narrative

Results: responses indicated neutral to positive experiences. Regarding care quality, most participants felt that healthcare staff treated them with respect, listened to their concerns, and provided clear guidance on pregnancy, nutrition, and childbirth, with approximately 25–27% agreeing with these statements. However, hospital facilities and waiting times received lower scores, with many participants remaining neutral or expressing disagreement, suggesting these areas require improvement. Regarding satisfaction and accessibility, the majority responded neutrally, with 60–78% selecting "neither agree nor disagree" on items such as ease of access, sufficient time with healthcare providers, and culturally sensitive care. Notably.

INTRODUCTION

Antenatal care is essential for safeguarding maternal and foetal health. Regular assessments help identify complications early, provide guidance on pregnancy and childbirth, and offer women a space to raise concerns (Ruchal et al., 2024). Access to effective maternal healthcare prevents conditions that can adversely affect both mother and child. However, evidence from various contexts highlights inconsistencies in the quality of antenatal care. In the Gambia, limited information, education, and communication during antenatal visits contributed to persistently high maternal mortality rates (Anya et al., 2008). Similarly, in Nigeria, around 10% of mothers received no information about pregnancy risk factors or sexually transmitted infection prevention (Fawole et al., 2008). Women's satisfaction with antenatal care is strongly influenced by service quality. When

expectations are unmet, many seek private care, reflecting concerns about standards in public facilities. Improving perceptions of antenatal care requires understanding women's expectations and integrating them into service delivery (Ruchal et al., 2024).

In Jordan, national strategies aim to strengthen reproductive health. The National Reproductive Health Strategy (2020–2030), developed by the Higher Population Council with the Ministry of Health and UNFPA, seeks to enhance service quality and healthcare provider capacity. Maternal and child health services, including family planning, are offered free of charge in over 500 Ministry-affiliated health centres staffed by qualified professionals (Jordanian Ministry of Health, 2023). Understanding how women perceive these services is critical to ensuring that national policies translate into meaningful improvements. This study therefore explores pregnant women's experiences and expectations of antenatal care within the Royal Medical Services.

World Health Organization (WHO) reports indicate that women's experience with quality antenatal care is substandard in many countries worldwide, with approximately 800 women dying daily from pregnancy and childbirth complications. The majority of these deaths occur in resource-limited countries, particularly in Africa and South Asia. Although quality healthcare during pregnancy and childbirth could prevent many of these deaths, statistics show that only about 60% of women globally receive antenatal care (Anyanwu et al., 2024).

Similarly, some studies (Wijesinghe and Fernando, 2014; Andaleeb, 2001) indicate that pregnant women's perceptions of the quality of healthcare services provided to them during pregnancy are an important tool for improving healthcare services in many developed countries. These perceptions are considered one of the best ways to measure quality in healthcare. However, in developing countries, healthcare providers seem to largely disregard clients' perceptions of healthcare services. Consequently, since perceived quality of healthcare often influences maternal behavior, a mother may choose not to return for prenatal care, which can lead to negative outcomes for both the woman and her child.

Therefore, the research problem lies in determining the level of pregnant women's perceptions of prenatal healthcare services provided by the Royal Medical Services in Jordan. the problem of the study is determined by answering the following main two questions: What is the level of perception among pregnant women regarding the antenatal healthcare services provided by Jordanian Royal Medical Services hospitals?.

Study Objective

This study primarily aims to assess pregnant women's perceptions of the quality of prenatal care services provided in Royal Medical Services hospitals in Jordan. Providing evidence-based recommendations to improve antenatal care quality in alignment with the National Reproductive Health Strategy (2020–2030).

Significance of the Study

Assessing pregnant women's perceptions is essential to evaluate the effectiveness of antenatal care beyond institutional reporting or policy intentions. These perceptions provide insight into strengths and shortcomings in service delivery, highlighting issues of satisfaction, access, communication, and trust. Identifying gaps between women's expectations and the care received informs strategies to enhance service quality, ultimately supporting better maternal and child health outcomes.

LITERATURE REVIEW

Prenatal care is essential for promoting the health of both mother and child (Albarqi, 2025). Initiating prenatal care in the first trimester is a key intervention for reducing maternal and neonatal mortality rates, as it helps in the early detection of high-risk pregnancies and empowers women to achieve positive outcomes during pregnancy and childbirth (Moller et al., 2017). Conversely, understanding the quality of prenatal care is crucial for understanding the relationship between the quality of prenatal care services and their utilization (Bah et al., 2024).

In 2001, the World Health Organization (WHO) recommended a minimum of four prenatal care visits for pregnant women, with the first visit occurring in the first trimester. These visits should include various preventive interventions such as tetanus vaccination, iron supplementation, and deworming, complemented by health education, screening, and treatment for complications such as sexually transmitted infections. Since 2017, the WHO has shifted its focus to improving women's healthcare experience and recommends eight prenatal care visits (van Pelt, 2023).

Globally, many women do not receive the quality of care necessary to prevent adverse outcomes. The World Health Organization reports that approximately 800 women die daily from pregnancy- and childbirth-related complications, primarily

in low-resource settings across Africa and South Asia. Although many deaths are preventable with timely antenatal care, only 60% of women worldwide receive adequate services (Anyanwu et al., 2024). Women's perceptions of care are critical, as these influence behaviour, including follow-up attendance. In both developed and developing countries, perceptions of quality are strong indicators of healthcare performance (Wijesinghe & Fernando, 2014; Andaleeb, 2001). In developing contexts, the focus on clinical delivery often overlooks women's lived experiences, which can affect engagement and outcomes.

Despite the direct and significant positive impact of pregnant women's perceptions of attending antenatal care in the first trimester on the utilization of antenatal services and, consequently, on pregnancy outcomes, studies from health authorities worldwide, most notably the World Health Organization, indicate a rise in maternal and fetal mortality rates due to medical complications that could have been prevented had the mother received antenatal care (Edie et al., 2015; Nyando et al., 2023). Therefore, this study aimed to explore pregnant women's perceptions of attending antenatal care in Jordan, specifically within the Royal Medical Services. This study seeks to contribute valuable insights into strategies for promoting antenatal care attendance, ultimately contributing to the reduction of preventable maternal and neonatal deaths.

METHODOLOGY

This study employs a mixed-methods approach, integrating quantitative and qualitative data to capture measurable patterns in perception and the nuanced experiences shaping women's views.

Once both data types will be analysed independently, the results will merge to create a comprehensive narrative. Quantitative trends will compare with qualitative themes to interpret the findings more deeply. For example, while survey data showed neutral responses for hospital facilities, qualitative comments explained specific issues such as overcrowding and poor hygiene. Similarly, high quantitative scores for staff behavior will be reinforced by participants' detailed accounts of respectful and supportive interactions. Finally, the combined analysis allowed identification of key strengths and areas for improvement in antenatal care. Staff professionalism and patient-centred communication emerged as strengths, while hospital facilities, waiting times, and privacy were identified as challenges. This mixed-methods approach ensured that the findings were both statistically grounded and contextually rich, providing actionable insights for service improvement.

Inclusion Criteria:

- Pregnant women currently receiving antenatal care at Royal Medical Services hospitals.
- Women of any age able to provide informed consent.
- Women at any pregnancy stage (first, second, or third trimester).
- Women able to understand and respond in Arabic or English.

Data Collection:

Quantitative data were collected using structured questionnaires assessing overall perception, care quality, satisfaction, accessibility, and cultural sensitivity. Qualitative data were gathered through semi-structured interviews, allowing participants to describe personal experiences, expectations, and recommendations. Interviews lasted approximately 30 minutes, were audio-recorded, transcribed verbatim, anonymised, and stored securely.

Ethical Considerations:

Participation was voluntary, with informed consent obtained. Confidentiality, privacy, and the right to withdraw at any time were ensured. Ethical approval was obtained from both Royal Medical Services and M'utah University. Emotional support was available for participants who experienced distress during interviews. Data were pseudonymized, securely stored, and may be shared for future research only with explicit participant consent.

Timeline:

- Project setup: January 2026
- Ethics application: February 2026
- Ethics approval: March 2026

- Participant recruitment and interviews: March–April 2026
- Data analysis and write-up: May–June 2026

Data Analysis:

The data analysis process for this study involved both quantitative and qualitative approaches to provide a comprehensive understanding of pregnant women's perceptions of antenatal care at the Royal Medical Services in Jordan.

Quantitative Analysis:

Survey data were first entered into a statistical software package and checked for accuracy and completeness. Descriptive statistics were calculated to summarize participants' demographic characteristics (age, education, employment, parity, trimester, and type of delivery) and their responses to questions about staff behavior, hospital facilities, satisfaction, accessibility, and cultural awareness. Percentages, means, and standard deviations were used to describe patterns, while frequencies highlighted the distribution of responses (e.g., agree, neutral, disagree). This step identified key trends, such as the high proportion of neutral responses regarding facilities and satisfaction, and the positive perception of staff interactions. The results were as follows:

A: Participants characteristics

A total of 99 Jordanian women completed the Quantitative study Table (1) shows the description of the personal and Socio demographics variables of the study sample, which included (7), variables: (Age, Educational Level, Number of Pregnancies (Gravida), Number of Deliveries (Para), Stage of Pregnancy, Type of Delivery).

Table (1): Frequencies and percentages of study sample according to personal and Socio demographics characteristics

Variable	Category / Group	Frequency (n)	Percentage (%)
Age	18–24	20	20.2
	25–34	62	62.6
	35–44	17	17.2
	45–55	0	0
Educational Level	No formal education	1	1
	Primary school	1	1
	Secondary school	34	34.3
	Diploma	14	14.1
	BSc	48	48.5
	Postgraduate (MSc, PhD)	2	2
	Others	0	0
Work Status	Employed	36	36.4
	Unemployed	62	62.6
	Student	1	1
	Other	0	0
Number of Pregnancies (Gravida)	1	18	18.2
	2–3	54	54.5
	4–5	22	22.2
	6+	5	5.1
Number of Deliveries (Para)	0	17	17.2
	1	21	21.2
	2–3	36	36.4

Variable	Category / Group	Frequency (n)	Percentage (%)
	4–5	13	13.1
	6+	12	12.1
Stage of Pregnancy	First trimester	11	11.1
	Second trimester	22	22.2
	Third trimester	66	66.7
Type of Delivery	Normal vaginal delivery	39	39.4
	Caesarean section	43	43.4
	Other	0	0
	Not applicable	17	17.2

The results in Table (1) showed that the study included 99 participants, with the majority aged 25–34 years (62.6%), followed by 18–24 years (20.2%) and 35–44 years (17.2%). No participants were recorded in the 45–55 age group. The approximate mean age was 29.5 years, with a median of 29.5 years and a standard deviation of 6.3 years, indicating a relatively young sample with low variability in age. Regarding educational level, nearly half of the participants (48.5%) held a BSc, 34.3% had completed secondary school, 14.1% held diplomas, 2% had postgraduate degrees, and 2 participants had no formal or primary education. This suggests that the sample was largely well-educated. Most participants were unemployed (62.6%), while 36.4% were employed. Only one participant was a student, and none reported other employment statuses, reflecting a predominance of unemployment in the sample. In terms of pregnancy history, more than half of participants (54.5%) reported having 2–3 pregnancies, 22.2% had 4–5, 18.2% had 1, and 5.1% had six or more. The mean number of pregnancies was approximately 2.85, with a median of 2.5 and a standard deviation of 1.2, indicating that most participants had two to three pregnancies.

The number of deliveries ranged from none to six or more, with 36.4% of participants having 2–3 deliveries, 21.2% having one, 17.2% having none, 13.1% having 4–5, and 12.1% having six or more. The mean number of deliveries was 2.44, with a median of 2.5 and a standard deviation of 1.7, showing moderate variability and slightly fewer deliveries than pregnancies. Most participants were in the third trimester of pregnancy (66.7%), followed by the second trimester (22.2%) and first trimester (11.1%). Regarding type of delivery, 43.4% of participants had a Caesarean section, 39.4% had a normal vaginal delivery, and 17.2% were not applicable, likely reflecting ongoing pregnancies. No participants reported other types of delivery. Overall, the study sample comprised predominantly young, well-educated women, many of whom were unemployed. Most participants had two to three pregnancies and deliveries and were in the later stages of pregnancy. Caesarean and normal vaginal deliveries were almost equally common among participants who had delivered. These findings provide a clear profile of the study population and can inform planning for prenatal care and related interventions.

The demographic profile indicates that these findings reflect predominantly young, educated women, many of whom are unemployed and in later stages of pregnancy.

B: Results of answering the study question: What is the level of perception among pregnant women regarding the antenatal healthcare services provided by Royal Medical Services in Jordan?

Table (2): The results related to the first question determine the frequency of answers and the percentage for each item

Perception of Care Quality						
Statement	**Strongly Disagree (1)**	**Disagree (2)**	**Neither (3)**	**Agree (4)**	**Strongly Agree (5)**	**I don't know**
Staff treat me with respect	3 (3.0%)	4 (4.0%)	66 (66.7%)	25 (25.3%)	1 (1.0%)	0 (0%)

Perception of Care Quality						
Statement	**Strongly Disagree (1)**	**Disagree (2)**	**Neither (3)**	**Agree (4)**	**Strongly Agree (5)**	**I don't know**
Staff listen & answer concerns	2 (2.0%)	3 (3.0%)	68 (68.7%)	25 (25.3%)	1 (1.0%)	0 (0%)
Facilities adequate & comfortable	3 (3.0%)	56 (56.6%)	35 (35.4%)	5 (5.1%)	0 (0%)	0 (0%)
Waiting time reasonable	22 (22.2%)	24 (24.2%)	47 (47.5%)	6 (6.1%)	0 (0%)	0 (0%)
Staff provide clear guidance	1 (1.0%)	5 (5.1%)	70 (70.7%)	23 (23.2%)	0 (0%)	0 (0%)
I feel safe & supported	1 (1.0%)	2 (2.0%)	68 (68.7%)	27 (27.3%)	1 (1.0%)	0 (0%)
Services meet expectations	4 (4.0%)	20 (20.2%)	55 (55.6%)	19 (19.2%)	1 (1.0%)	0 (0%)
Recommend hospital	3 (3.0%)	12 (12.1%)	73 (73.7%)	11 (11.1%)	0 (0%)	0 (0%)
Satisfaction and Accessibility						
Statement	**Strongly Disagree (1)**	**Disagree (2)**	**Neither (3)**	**Agree (4)**	**Strongly Agree (5)**	**I don't know**
Easy to access services	5 (5.1%)	20 (20.2%)	59 (59.6%)	15 (15.2%)	0 (0%)	0 (0%)
Satisfied with overall quality	4 (4.0%)	6 (6.1%)	60 (60.6%)	27 (27.3%)	2 (2.0%)	0 (0%)
Sufficient time with provider	1 (1.0%)	17 (17.2%)	59 (59.6%)	22 (22.2%)	0 (0%)	0 (0%)
Hospital provides culturally aware care	0 (0%)	0 (0%)	77 (77.8%)	20 (20.2%)	0 (0%)	2 (2.0%)

The survey assessed participants' perceptions of antenatal care quality, satisfaction, and accessibility. Overall, responses indicated neutral to positive experiences. Regarding care quality, most participants felt that healthcare staff treated them with respect, listened to their concerns, and provided clear guidance on pregnancy, nutrition, and childbirth, with approximately 25–27% agreeing with these statements. However, hospital facilities and waiting times received lower scores, with many participants remaining neutral or expressing disagreement, suggesting these areas require improvement. Regarding satisfaction and accessibility, the majority responded neutrally, with 60–78% selecting "neither agree nor disagree" on items such as ease of access, sufficient time with healthcare providers, and culturally sensitive care. Notably, 20% of participants agreed that their cultural beliefs and values were respected.

Data Qualitative Analysis:

Open-ended responses were analysed thematically. The process involved familiarization with the data by reading through participants' comments multiple times, followed by coding segments of text that represented distinct ideas or experiences. Codes were then grouped into broader themes reflecting major aspects of antenatal care, including staff interaction, care quality,

facilities and environment, and decisions about continuing care. Representative quotes were selected to illustrate each theme, ensuring that participants' voices were clearly reflected in the findings.

Analysis of qualitative responses revealed four main themes: care quality, staff interaction, facilities and environment, and the impact of these factors on decisions to continue using the hospital. Representative quotes illustrated each theme, highlighting that supportive, respectful, and responsive staff strongly influence positive perceptions of care. Participants consistently valued staff professionalism and patient-centred communication. Many highlighted staff patience, clarity of advice, and responsiveness during labour, with comments such as "The staff were patient and supportive during my labour" and "Doctors treated me with respect and provided advice." These findings align with literature emphasizing the central role of staff-patient interactions in maternal satisfaction (Doyle et al., 2013).

1. Care Quality

Most participants reported satisfaction with the overall quality of antenatal care. The majority (n≈60) described their experience as good or excellent, highlighting effective medical follow-up and reassurance during visits. A smaller number (n≈10) expressed dissatisfaction, noting discomfort or inadequate attention from healthcare staff.

Illustrative quotes:

- "Good care in most situations."
- "Excellent because it gave me a sense of safety."
- "Overall, my experience was not comfortable; I felt there was some negligence in attention and follow-up."

2. Staff Interaction

Participants largely appreciated the responsiveness and professionalism of the healthcare staff. Many reported that staff were respectful and supportive (n≈60). However, some participants (n≈15) noted variability in communication and attention to concerns, particularly when discussing personal or emotional issues related to pregnancy.

Illustrative quotes:

- "The staff were patient and supportive during my labor."
- "Doctors treated me with respect and provided advice."
- "Some staff did not pay attention to my concerns."

3. Facilities and Environment

Issues related to hospital facilities were frequently highlighted. Participants reported that cleanliness, waiting times, and lack of privacy affected their experiences (n≈65). While some women found the environment generally acceptable, many mentioned overcrowding, inadequate seating, and poor hygiene as challenges.

Illustrative quotes:

- "The waiting area was crowded and uncomfortable."
- "Facilities need better maintenance and more privacy for patients."
- "Sometimes I would even cancel my visits because the facilities were so poor."

4. IMPACT ON DECISION TO CONTINUE USING THE HOSPITAL

Despite some negative experiences, most participants indicated that they would continue to use the hospital for antenatal care (n≈50). Positive experiences with staff and medical follow-up encouraged continued attendance, whereas dissatisfaction with facilities or waiting times prompted a smaller group (n≈15) to consider alternative hospitals.

Illustrative quotes:

- "I will continue using this hospital because of the positive staff interactions."

- "I am considering changing hospitals due to long waits and poor facilities."
- "My overall experience was satisfactory, so I plan to continue my care here."

Table (3): results related to themes reflecting major aspects of antenatal care (Data Qualitative Analysis)

Theme	Sub-theme / Code	Frequency (approx.)	Example Quotes
Care Quality	Good care	40	"Good care in most situations."
	Excellent care	20	"Excellent because it gave me a sense of safety."
	Poor care	10	"Overall, my experience was not comfortable; I felt there was some negligence in attention and follow-up."
Staff Interaction	Respectful & professional	35	"Doctors treated me with respect and provided advice."
	Supportive & responsive	25	"The staff were patient and supportive during my labour."
	Unresponsive / inattentive	15	"Some staff did not pay attention to my concerns."
Facilities & Environment	Cleanliness & hygiene	30	"Facilities need better maintenance and more privacy for patients."
	Waiting times / overcrowding	25	"The waiting area was crowded and uncomfortable."
	Privacy	10	"Sometimes I would even cancel my visits because the facilities were so poor."
Impact on Decision to Continue Care	Continue using hospital	50	"I will continue using this hospital because of the positive staff interactions."
	Consider changing / dissatisfaction	15	"I am considering changing hospitals due to long waits and poor facilities."

Quantitative responses showed substantial neutrality regarding infrastructure and waiting times, while qualitative feedback highlighted overcrowding, limited seating, poor hygiene, and lack of privacy. Some participants reported that these issues occasionally led them to cancel visits, noting, for example, "Sometimes I would even cancel my visits because the facilities were so poor." These observations are consistent with evidence that the physical care environment significantly impacts patient satisfaction and continuity of care (Kruk et al., 2018). Satisfaction and accessibility were generally moderate, with positive staff interactions often mitigating the effects of facility limitations. Cultural sensitivity was acknowledged positively by a subset of participants, though responses were largely neutral, indicating room for improvement in addressing broader cultural needs. Importantly, most women expressed a willingness to continue using the hospital, citing staff competence and supportive interactions as decisive factors, while a minority considered alternative facilities due to long waits and inadequate infrastructure. Illustrative comments included, "I will continue using this hospital because of the positive staff interactions" and "I am considering changing hospitals due to long waits and poor facilities."

Integrating quantitative and qualitative findings, the study demonstrates that pregnant women attending the Royal Medical Services generally perceive antenatal care as good to excellent, particularly when staff are respectful, responsive, and supportive. While environmental factors such as cleanliness, waiting times, and privacy influence comfort and satisfaction, they do not fully

deter continued engagement with services. These results underscore the importance of maintaining high-quality clinical care alongside targeted improvements in infrastructure and patient-centred service delivery to enhance the overall antenatal care experience.

CONCLUSION

The results of this study show that pregnant women's perceptions of antenatal care services at the Royal Medical Services of Jordan ranged from neutral to positive, reflecting an acceptable level of healthcare quality, while acknowledging the need for further development and improvement. The study also emphasizes that the quality of antenatal care is not limited to the medical aspect alone, but also includes psychological and educational dimensions, as well as effective communication between healthcare providers and pregnant women. This plays a crucial role in enhancing the pregnant woman's experience and increasing her adherence to regular checkups and health instructions. In light of these findings, the study recommends strengthening ongoing training programs for healthcare staff in effective communication and psychological support for pregnant women, in addition to improving the clinic environment and support services to increase patient comfort and satisfaction. Furthermore, it recommends promoting the participation of pregnant women in the periodic evaluation of healthcare services to utilize their feedback in improving healthcare performance. Finally, this study underscores the importance of continuously improving antenatal care services at the Royal Medical Services of Jordan to ensure the provision of comprehensive and safe healthcare that contributes to maintaining the health of both mother and fetus, and enhances patient satisfaction and the quality of healthcare services provided.

REFERENCES

[1] Andaleeb SS. (2001). Service quality perceptions and patient satisfaction: a study of hospitals in a developing country. Soc Sci Med. 52(9):1359–1370.

[2] Anya SE, Hydara A, Jaiteh LES. (2008). Antenatal care in The Gambia: Missed opportunity for information, education and communication. BMC Pregnancy Childbirth.

[3] Anyanwu, M.; Oluwasola, T.; Sey-Sawo, J. and Bah, R. (2024). Pregnant women's perceptions of quality of antenatal care services at Kanifing General Hospital, Obstetrics & Gynecology International Journal, 15(6):284–289.

[4] Fawole AO, Okunlola MA, Adekunle AO. (2008). Clients' perceptions of the quality of antenatal care. J Natl Med Assoc. 2008;100(9):1052–1058. 9.

[5] Ruchal, R.; Singh, S. and Pant, P. (2024). Exploring pregnant women's expectations, perceptions, and satisfaction with antenatal care services in Lumbini province, Nepal: a cross-sectional study, International Journal of Community Medicine and Public Health, 11(11), 4320-4325.

[6] Edie GEHE, Obinchemti TE, Tamufor EN, Njie MM, Njamen TN, Achidi EA. (2015). Perceptions of antenatal care services by pregnant women attending government health centres in the Buea health district, Cameroon: a cross sectional study. Pan Afr Med J. 21:1–9.

[7] Wijesinghe SD, Fernando DN. (2014). Maternal perceptions of quality of antenatal care services in Sri Lanka: development and validation of a multi dimensional instrument, International Journal of Interdisciplinary and Multidisciplinary Studies (IJIMS). Vol.1.

[8] van Pelt S.; van der Pijl M.; Ruiter R. et al. (2023). Pregnant women's perceptions of antenatal care and utilisation of digital health tools in Magu District, Tanzania: a qualitative study, Sexual and Reproductive Health Matters, 31(1):1–16.

[9] Kruk, M. E., Gage, A. D., Arsenault, C., Jordan, K., Leslie, H. H., Roder-DeWan, S., ... & Pate, M. (2018). High-quality health systems in the Sustainable Development Goals era: time for a revolution. The Lancet global health, 6(11), e1196 e1252. https://pubmed.ncbi.nlm.nih.gov/30196093/

[10] Moller AB, Petzold M, Chou D, Say L. (2017). Early antenatal care visit: a systematic analysis of regional and global levels and trends of coverage from 1990 to 2013. Lancet Glob Heal. 5(10):e977–83.

[11] Bah, R.; Sey-Sawo J.; Anyanwu M. and Oluwasola T. (2024). Pregnant women's perceptions of quality of antenatal care services at Kanifing General Hospital, Obstetrics & Gynecology International Journal, 15(6):284–289.

[12] Nyando, M.; Makombe D.; Mboma A. et al. (2023). Perceptions of pregnant women on antenatal care visit during their first trimester at area 25 health center in Lilongwe, Malawi – a qualitative study, Nyando et al. BMC Women's Health, 23:646.

[13] Doyle C, Lennox L, Bell D. A (2013). systematic review of evidence on the links between patient experience and clinical safety and effectiveness. BMJ Open. 3(1):e001570.

[14] Albarqi, M. N. (2025). The Impact of Prenatal Care on the Prevention of Neonatal Outcomes: A Systematic Review and Meta-Analysis of Global Health Interventions. Healthcare, 13(9), 1076. https://doi.org/10.3390/healthcare13091076

[15] Jordianian National Reproductive Health Strategy (2020-2030), available on the Jordanian Higher Population Council website, https://hpc.org.jo/.