

Research Article
Volume 27 Issue 1 - October 2024
DOI: 10.19080/JGWH.2024.27.556204

J Gynecol Women's Health

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Exploring Women's Experience and Perspective with Patient Centered Fertility Care



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Submission: October 21, 2024; Published: October 28, 2024

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Abstract

Introduction: Patient-centered care (PCC) is increasingly recognized as a critical component of healthcare, particularly in fertility care, where emotional well-being, support systems, clinic organization, and communication quality significantly impact patient experience. Although fertility care providers acknowledge the importance of focusing on patients' needs, translating this understanding into practical, patient-centered infertility care (PCIC) can be challenging.

Methods: This study aimed to explore women experiences aged 18-45 years old with patient-centered infertility care (PCIC) at Fakih IVF and First IVF Fertility centers, AbuDhabi, UAE conducted between December 2023- June 2024. with quantitative data from the infertility patient centeredness questionnaire and qualitative insights from in-depth interviews. The goal was to assess the quality of care, focusing on patient satisfaction, support needs, and the extent to which care was personalized and patient centered.

Results: A total of 230 women completed the questionnaire, with an average age of 34. Patient satisfaction scores for fertility services were consistently high, ranging from 9.2 to 9.7. Empowerment in decision-making was also highly rated, with scores between 9.4 and 9.6. Counseling support during treatment was requested by 58% of participants, reflecting the psychological demands of fertility care. Informational support was sought by 35%, particularly among those with higher education, while 17.5% required practical assistance for managing logistical aspects of their treatment. Women <35 years showed a greater need for detailed information, whereas Women >35 years and those with primary education indicated a stronger need for emotional and practical support.

Conclusion: The study demonstrated high levels of satisfaction across multiple dimensions of fertility care in these fertility clinics, highlighting the importance of comprehensive information, emotional support, and clear communication in enhancing PCIC. Participants placed great value on staff competence, respect, and coordinated care. These findings emphasize that providing emotional and informational support, alongside personalized communication, is essential for improving patient-centered care in fertility clinics.

Keywords: Fertility care, vitro fertilization, uterine insemination, embryologists.

Abbreviations: Patient-Centered Infertility Care (PCIC), Patient centered care (PCC), Patient Centeredness Questionnaire (PCIQ-F), IUI (intra uterine insemination), IVF (In vitro fertilization) or ICSI (intracytoplasmic sperm injection), In-Depth Interviews (IDIs)

Introduction

Infertility poses a significant challenge for couples aspiring to become parents. While fertility treatments offer hope, many individuals face disappointment when treatment outcomes are not achieved, often due to various factors, including the premature

discontinuation of treatment. Studies in Europe report dropout rates ranging from 17% to 70% among individuals undergoing fertility treatments [1-5]. This wide range can be attributed to the complexity of defining treatment dropout and differences in research methodologies [6]. Despite these variations, the issue of treatment discontinuation remains a major concern for those struggling with infertility.

It is particularly distressing when couples abandon their goal of parenthood due to the psychological burdens associated with fertility treatments. Identifying factors that contribute to treatment discontinuation is crucial for developing targeted interventions to address specific challenges encountered during the process [7].

Several factors influence the decision to discontinue fertility treatments, including patient-related aspects such as emotional well-being and the nature of the treatments themselves. Additionally, clinic-related factors, including care organization and the quality of communication between patients and staff, significantly affect the overall treatment experience. Research indicates that insufficient information and poor care coordination contribute to treatment discontinuation [8]. Other common reasons include a lack of empathy, poor listening skills [9], and negative interactions with clinic staff [10].

Patient-centered care (PCC) is increasingly recognized as a vital component of healthcare, ensuring that care aligns with patients' needs and preferences [11]. In fertility care, while providers understand the importance of focusing on patients' needs, they often struggle to translate this understanding into practical application [12,13]. One of the main challenges is the lack of actionable patient feedback, which makes it difficult for healthcare professionals to fully comprehend patients' needs. Additionally, some providers may lack the motivation to adapt their practices to better meet patient preferences, which limits their ability to improve the quality of care [14,15].

From the patient's perspective, several attributes are essential in fertility care. These include competence, respect, coordinated care, access to information and resources, comfort during treatment, and support from both medical staff and loved ones [16]. Patients also highly value having a strong rapport with clinic staff and the continuity provided by a designated physician overseeing their care. Enhancing these aspects can help alleviate the emotional strain associated with fertility treatments and may reduce dropout rates. This highlights the need for an evaluation system that helps fertility healthcare providers enhance their services [17,4].

PCC is increasingly recognized as a key element of highquality care in infertility treatment [11]. In this context, patientcentered infertility care (PCIC) has been extensively studied, with research identifying ten key aspects: providing information, evaluating clinic and staff competence, ensuring continuity of care, coordinating services, ensuring accessibility, prioritizing patient comfort, fostering positive staff attitudes, emphasizing clear communication, involving patients in decision-making, respecting privacy, and offering emotional support throughout the process [18].

In recent years, countries in the Middle East, such as the United Arab Emirates and Saudi Arabia, have made substantial investments in healthcare infrastructure and insurance coverage to improve access to and utilization of fertility treatments. However, it remains unclear to what extent PCC is being effectively implemented and whether financial factors impact patient satisfaction among those seeking fertility care.

Understanding PCC in the MENA region presents unique challenges, influenced by cultural factors and a lack of comprehensive insight into the local context. While studies conducted in Europe provide valuable insights into PCC, cultural differences may limit their direct applicability in this region. Therefore, this study aimed to explore how women in the United Arab Emirates perceive patient-centered infertility care and how their experiences shape their views on receiving high-quality fertility services.

Methods

Design

A patient experience survey with qualitative and quantitative analysis of women aged 18-45 years old seeking fertility treatment at Fakih IVF center, Abu Dhabi and First IVF Fertility center, Abu Dhabi from December 2023 till June 2024.

Quantitative Component

The quantitative aspect of the study involved the use of an updated version of the Infertility Patient Centeredness Questionnaire (PCIQ-F) [19], with permission from its original author. This validated tool, developed by Webair et al. in 2021 [20], assesses various aspects of patient-centered care, including accessibility, information provision, communication, patient involvement, respect for values, continuity of care, and staff competence. The main objective was to evaluate the quality of care provided to patients undergoing infertility treatment. The questionnaire was structured into three sections: personal information, patient-centered infertility care, and an overall assessment of the quality of infertility care. Most questions followed a Likert scale format, allowing participants to choose from multiple-choice responses, while some items in the personal information section required short written answers.

Additionally, two questions related to counseling were added based on feedback from the pilot phase, where patients highlighted the need for such support. The final version of the questionnaire consisted of 35 items. The personal information section gathered details such as the fertility center name, participant age, education level, number of pregnancies and living children, types of treatments received, duration of infertility treatment, and current pregnancy status. The questionnaire assessed ten key

areas of patient experience: accessibility, cost, physical comfort, privacy, staff behavior and communication skills, staff expertise, information and education provided, psychological and emotional support, continuity and coordination of care, and involvement in decision-making. Participants were also asked for their opinions on the overall quality of care, their views on fertility counseling, and the type of counseling they found most beneficial.

Eligible participants were female patients who visited one of the two fertility clinics in Abu Dhabi, UAE, for treatments such as timed intercourse, intrauterine insemination (IUI), in vitro fertilization (IVF), intracytoplasmic sperm injection (ICSI), or minor surgical procedures. Participants were recruited through questionnaires distributed at the clinic reception areas, with two experienced fertility nurses serving as research coordinators at each center. Patients were provided with written information explaining the study's purpose and were informed that participation was voluntary. Written consent was obtained from all participants before data collection began.

Qualitative Component

The qualitative component involved in-depth interviews (IDIs) to explore women's perspectives on Patient-Centered Infertility Care (PCIC) [21]. Purposive sampling was used to recruit a diverse group of participants, ensuring a range of perspectives on PCIC. Variables such as age, education level, occupation, duration of marriage and infertility, type of infertility, number of living children, treatments received, the number of prior healthcare facilities visited, and the length of time seeking infertility care were considered. Participants were recruited until data saturation was reached, ensuring that no new themes emerged. This method allowed for a comprehensive exploration of PCIC from multiple perspectives. The interviews were conducted face-to-face, either during patients' waiting periods or post-procedure while they were resting. Each interview lasted 30 to 45 minutes and was led by a fertility nurse and researcher. An interview guide provided structure while maintaining flexibility for the collection of data.

The interviewer, who introduced herself as a researcher and fertility nurse with a special interest in patient-centered care, explained the study's purpose and provided a written consent form. Participants signed the form to indicate their agreement to participate. The interview was divided into two parts: the first gathered demographic information, while the second focused on the participants' experiences with fertility care. Six open-ended questions were used to explore their perspectives on PCIC. All interviews were audio-recorded and transcribed verbatim to ensure accuracy. A manual thematic analysis was used to identify patterns and themes in responses. Inductive coding was applied to describe, compare, and relate findings. The responses were read multiple times to gain a deep understanding, and initial codes were developed to capture the key features related to the research questions. Coding was done manually by highlighting text segments and assigning brief labels that represented the essence of each segment. Once initial codes were identified, they

were grouped into potential themes, which were examined for coherence and consistency.

After the themes were refined, each was clearly defined and described in detail, with representative quotes selected to illustrate key points. Two authors independently analyzed the data to identify common themes, with any discrepancies discussed until consensus was reached. After analyzing six interviews, the findings were reviewed and adjusted before further analysis. Codes were then categorized into subthemes and overarching themes. To ensure the accuracy and rigor of the findings, three methods were employed: first, two analysts independently reviewed the data for consistency; second, the study population was selected to ensure maximum demographic variation; and third, the interviews captured both positive and negative experiences with care, exploring participants' needs, expectations, and definitions of PCIC. These methods adhered to the guidelines of the Consolidated Criteria for Reporting Qualitative Research (COREQ).

Results

A survey was conducted to evaluate the quality of patient-centered care among women undergoing infertility treatment, with a total of 230 completed questionnaires. Of these, 119 respondents (51.7%) were from Fakih IVF Fertility in Abu Dhabi, and 111 (48.3%) were from First IVF in Abu Dhabi. The average age of participants was 34 years (ranging from 18 to 45 years), with an average of 2 pregnancies and 2 living children. The mean duration of infertility was 19.09 months.

Quantitative analysis

120 out of 230 (52.1%), reported a need for counseling support, emphasizing the importance of psychological support during infertility treatment. The most commonly requested type of counseling was informational support (35.5%), followed by practical and emotional support, underscoring the diverse nature of patient needs for comprehensive care. A majority of participants (56.52%) had higher education, holding a university degree or higher, reflecting a well-educated patient population. Additionally, 60% had previously undergone IVF treatment, and 77.83% were not pregnant at the time of the survey, highlighting the ongoing struggle with infertility among these individuals.

Overall, patient care received high satisfaction scores, ranging from 9.2-9.7, indicating a strong positive evaluation of the services provided. Similarly, patient education criteria were scored between 9.2 and 9.5, suggesting that participants felt well-informed about their treatment. Most respondents reported feeling empowered in making treatment decisions, with scores ranging from 9.4 to 9.6, reflecting positive relationships with their healthcare providers. However, scores for physical comfort, while generally favorable, were slightly lower, ranging from 8.6 to 9.5, suggesting an area for improvement. The overall quality of care received a mean score of 10, although some participants rated their experience as low as 4, indicating variability in individual satisfaction.

Table 1 presents the demographic and clinical characteristics of the respondents. Of the 230 participants, a few did not answer certain questions, leading to slight variations in sample size. Participants were fairly evenly split by age, with 51.6% under 35 years and 48.4% aged 35 or older. A majority (61.6%) had attained a university degree or higher. Prior to the study, 54.6% of participants had experienced 1 to 3 pregnancies, while 25.5% were never pregnant. Additionally, 52.4% reported having 1 to 3

living children, while 30.3% had no living offspring, highlighting that while many had experienced pregnancies, live births remained a challenge for some. IVF was the most commonly received treatment (60.8%), followed by ovulation induction and intrauterine insemination (IUI). Only 10.1% of participants were pregnant at the time of the survey, indicating that most (89.9%) continued to face infertility challenges.

Table 1: Demographic Characteristics of Patients

Parameters	
Age (n, %)	
<35	96 (51.6%)
≥35	90(48.4%)
Level of Education (n, %)	
Primary School	8 (3.8%)
Secondary school	73 (34.6%)
University or higher	130 (61.6%)
Number of pregnancies (n, %)	
0	43 (23.5%)
(1-3)	100 (54.6%)
(4-6)	32 (17.5%)
>6	8 (4.4%)
Number of living off springs (n, %)	
0	56 (30.3%)
(1-3)	97 (52.4%)
(4-6)	28 (15.1%)
>6	4 (2.2%)
Types of treatment previously performed (n, %)	
Ovulation Induction	50 (22.03%)
Intrauterine Insemination	34 (14.97%)
IVF	138 (60.8%)
Other surgeries	5 (2.2%)
Duration of infertility (mean)	19.09 (months)
Current Pregnancy status (n, %)	
yes	20 (10.1%)
No	179 (89.9%)

Table 2 details the reliability of the questionnaire across different domains of analysis. The intraclass correlation coefficient (ICC) for each domain exceeded 0.5, indicating consistent measurement of the intended constructs. The p-value (<0.001) confirmed that these results were statistically significant.

Table 3 and Figure 1 highlight the significant need for support during IVF treatment, with 58% of participants expressing the need for counseling. Informational support was the most

frequently requested (35.5%), reflecting patients' desire for comprehensive knowledge about the IVF process to aid informed decision-making. Additionally, 17.5% sought practical support to help manage the logistical aspects of treatment, highlighting the multifaceted nature of their needs. While only 10% specifically requested emotional support, this points to the importance of integrating both emotional and informational resources to create a more comprehensive support system.

Table 2: Interclass correlation coefficient of each group of questionnaires

Questionnaires	Total number of questions	ICC	p value
Comprehensiveness of care, communication, and information	8	0.62	<0.001
Patient education and support	7	0.57	<0.001
Patient empowerment	5	0.74	<0.001
Physical Comfort	4	0.54	<0.001

Table 3: Distribution of patient data with Counselling parameter and Type of support

Parameters	Number of patients (n, %)
Counselling required	120 (58%)
Counselling not required	87 (42%)
Type of support	
Practical	35 (17.5%)
Informational	71 (35.5%)
Emotional	20 (10.0%)
Practical & Informational	28 (14.0%)
Practical & Emotional	3 (1.5%)
Informational & Emotional	17 (8.5%)
practical, informational & Emotional	26 (13.0%)

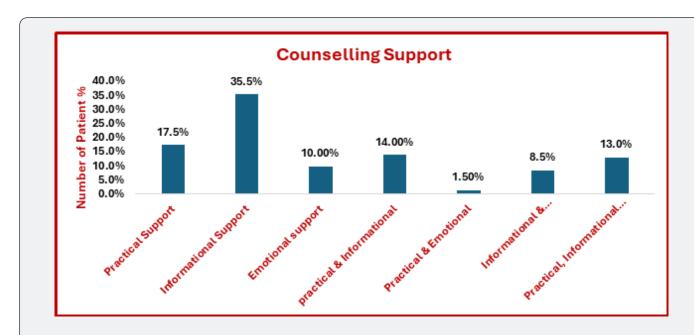


Figure 1: Distribution of patient data with counselling support

Figure 2 illustrates that women with university degrees required more counseling support than those with primary education. Moreover, women with university and secondary degrees tended to need more informational support, while those with primary education sought more emotional and practical assistance. This indicates that educational level influences the

type of counseling support needed during fertility treatment.

Table 4 and Figure 3 show that age was not significantly associated with the need for counseling, suggesting the necessity of providing comprehensive support services to all age groups. However, younger women (under 35) expressed a greater need

for information, while older women (over 35) required more emotional support.

Kendall's correlation method was used to assess the relationship between various patient-centered care parameters and overall quality, as shown in Table 5. The mean scores for comprehensiveness of care, patient education, support,

empowerment, and physical comfort all demonstrated statistically significant positive correlations with overall quality (p < 0.05). This indicates that higher scores in these areas were associated with higher overall satisfaction. The strongest correlation was observed with patient empowerment, followed by physical comfort.

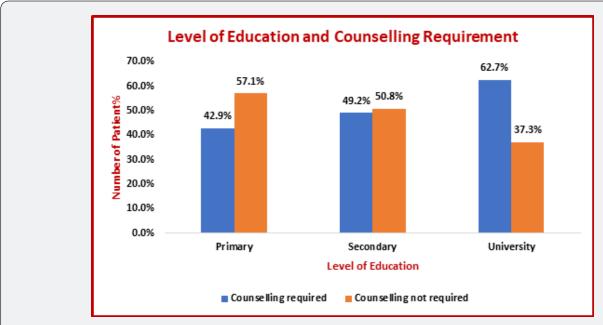


Figure 2: Relationship between Level of Education and counselling requirements

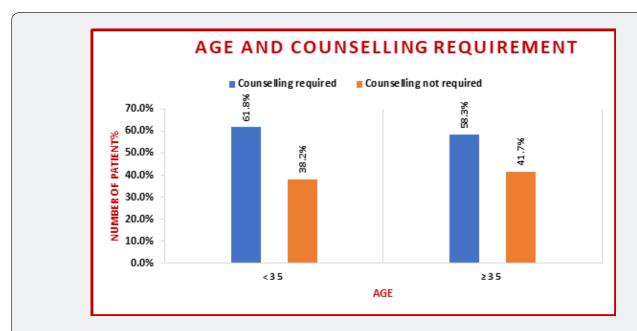


Figure 3: Relation between Age and counselling requirements

Table: 4 Association between Counselling requirement and Type of support with Age

Parameters	Age		Chi-square	p-value
	<35	≥35		
Counselling required	55 (61.8%)	34 (58.3%)	0.096	0.76
Type of Support				
Practical	17 (205%)	13 (16.3%)		
Informational	33 (38.8%)	26 (32.5%)		
Emotional	6 (7.1%)	12 (15%)		
Practical & Informational	12 (14.1%)	12 (15%)	6.69	0.35
Practical & Emotional	3 (3.5%)	0 (0%)		
Informational & Emotional	6 (7.1%)	6 (7.5%)		
practical, informational & Emotional	8 (9.4%)	11 (13.8%)		

Table: 5 Correlation Between Patient Centre Care Parameters and Overall Quality

Parameters	Overall Quality	
	Correlation coefficient (tau)	p-value
Mean Score of (1-24) Questions	0.598	<0.001
Comprehensiveness of care, communication, and information (Mean)	0.56	<0.001
Patient education and support (Mean)	0.599	<0.001
Patient empowerment (Mean)	0.685	<0.001
Physical comfort (Mean)	0.606	<0.001

Table-6 Logistic regression of Patient Centre Care Parameters and Counselling Requirement

Parameter	Cou	nselling Requirement	
	Adjusted OR	95% CI	p-value
Mean Score of (1-24) Questions	0.703	0.485-0.976	0.046
Comprehensiveness of care, communication, and information (Mean)	0.664	0.449-0.930	0.026
Patient education and support (Mean)	0.836	0.614-1.110	0.232
Patient empowerment (Mean)	0.743	0.526-0.993	0.064
Physical comfort (Mean)	0.813	0.621-1.029	0.105

Table 6 presents the logistic regression analysis of the association between counseling needs and patient-centered care parameters. The odds ratios (OR) for all parameters were close to 1, suggesting a minimal impact of these parameters on the need for counseling support. Statistically significant associations were found for the "mean score of all questions" (p = 0.046) and "comprehensiveness of care, communication, and information" (p = 0.026), indicating a decreased likelihood of requiring counseling support. However, "patient education and support" (p = 0.232), "patient empowerment" (p = 0.064), and "physical comfort" (p = 0.105) did not show statistically significant associations, as their p-values exceeded the significance threshold of α = 0.05.

Qualitative analysis

The qualitative analysis included interviews with eight women aged 21 to 40, representing a diverse range of educational

backgrounds, occupations, and marital statuses. Eight themes were discussed at the interviews as in Table-7. A key theme that emerged from the interviews was the importance of comprehensive and clear communication. Patients expressed a strong desire for detailed explanations of procedures and results, with one participant specifically suggesting that embryologists should explain embryo quality. This aligns with the high demand for informational support (35.5%) observed in the quantitative data and underscores the need for healthcare providers to prioritize patient education throughout the treatment process.

Emotional support emerged as another crucial aspect of PCIC. Several patients highlighted the need for reassurance, access to fertility counselors, and the importance of feeling supported throughout their fertility journey. This finding is particularly significant given that only 10% of participants in the quantitative survey specifically requested emotional support. It suggests

that while patients may not always explicitly ask for emotional support, they deeply value it when provided. This underscores the importance of integrating psychological care into fertility treatment, as recommended by the ESHRE guidelines. The interviews also revealed the importance of trust and continuity in the patient-provider relationship. Patients appreciated physicians who maintained hope and proposed innovative approaches despite setbacks. This finding highlights the value of a

personalized approach to care and the positive impact of a strong, supportive relationship between patients and their healthcare providers. Privacy concerns were raised by several interviewees, particularly regarding confidentiality during phone calls and in waiting areas. This aspect of care was not prominently featured in the quantitative results but emerged as an important issue in the qualitative data.

Table-7 Themes discussed in qualitative analysis

S. No	Theme	Key Points
1	1 Communication and Information	- Detailed explanation of results
1		- Emotional support and communication
2	Staff Competence and Professionalism	- Knowledge and professionalism of staff
3	Trust and Relationship with Healthcare Providers	- Trust in persistent and innovative physicians
4	Clinic Environment and Facilities	- Cleanliness and adequate space
4		- Acceptable waiting times >- Patient privacy
5	Availability of Support Services and Specialties	- Availability of specialty care and counseling
5		- Need for dietician and lifestyle advice
	Follow-up and Continuity of Care	- Effective follow-up and appointment reminders
6		- Continuity of care from the same nurses
7	Education and Awareness	- Need for educational sessions, leaflets increased awareness
8	Pain Management and Support	- Adequate pain management and professional support from the anesthesia team

Participants also underscored the importance of educational materials and awareness campaigns to improve understanding of treatments. They expressed a desire for more detailed explanations of procedures and results, longer consultation times, and clearer communication from healthcare professionals. The need for ongoing emotional support was universally mentioned, with participants advocating for the presence of fertility counselors and reassurance for partners. Many also highlighted the value of follow-up calls and support systems, particularly during emergencies.

The interviews revealed the necessity for a comprehensive, holistic approach to patient-centered infertility care those addresses both the medical and emotional needs of patients. This approach is vital for enhancing patient satisfaction and improving treatment outcomes.

Discussion

The most notable findings of this study is the significant value that patients place on fertility counseling and support—whether emotional, informational, or practical. This underscores the importance of having dedicated patient education personnel who can provide thorough information throughout the fertility treatment process. Nearly all participants in the qualitative interviews highlighted the need for educational materials, sessions, and brochures. Interestingly, the data showed that the

need for counseling was not correlated with educational level, indicating that fertility treatment imposes a complex emotional and financial burden that necessitates holistic support for all patients, regardless of their background or age.

The high demand for informational support (35.5%) reflects patients' need for comprehensive knowledge about the IVF process, empowering them to make informed decisions. This finding suggests that healthcare providers may not always recognize emotional support as part of their role or may lack the time to address it effectively. In a previous study involving fertility clinic physicians from 15 countries, less than half (45%) believed that addressing patients' emotional needs was necessary, and 72% admitted needing improvement in this area [22].

Additionally, 17.5% of participants expressed a need for practical support, while 10% specifically requested emotional support. This emphasizes the importance of integrating psychological care into fertility treatment and ensuring patients receive the information and guidance they need throughout their journey. Notably, the need for counseling was not significantly related to age, highlighting the importance of providing comprehensive support services across all age groups.

The European Society of Human Reproduction and Embryology (ESHRE) guidelines recommend routine, evidence-based emotional support for all fertility clinic staff, including physicians,

nurses, counselors, and psychologists. These guidelines, which contain 120 recommendations covering various aspects of care, stress the need for emotional support due to the fluctuating stress levels patients experience during the treatment cycle, particularly during critical stages such as oocyte retrieval, embryo transfer, and the waiting period before pregnancy test results [23].

The study also revealed a strong connection between higher patient satisfaction and factors such as the comprehensiveness of care, patient education, empowerment, and physical comfort. The strongest correlation was with patient empowerment, followed by physical comfort. During in-depth interviews, patients frequently emphasized the importance of privacy in waiting areas, procedure rooms, and recovery rooms. In addition, patients value highly skilled staff, continuity of care, and clean facilities as critical aspects of their fertility treatment experience.

These findings differ from other studies assessing patient-centered care, where communication skills and professional competency often scored highest, while continuity of care and transition management were ranked lower in countries like New Zealand, the Netherlands, Slovakia, Portugal, Iran, and Slovenia [24]. However, in this study, patients placed a significant emphasis on continuity and transition of care, as well as the availability of multidisciplinary teams to address the conditions affecting fertility. This suggests that patients highly value a holistic approach to fertility care.

Despite the overall high satisfaction reported, patients consistently emphasized the need for counseling services. The most significant demand was for informational and practical support, particularly related to correct injection administration, clear explanations of treatment protocols and procedures, and information on emerging technologies. These needs were frequently mentioned during patient interviews, indicating a strong desire for comprehensive education throughout the fertility treatment process. This suggests that even when patient satisfaction is high, there is still a substantial demand for enhanced educational and practical support to ensure patients feel fully informed and supported throughout their treatment journey

Conclusion

This study provided valuable insights into patient perspectives on fertility care at Fakih IVF and First IVF fertility centers in Abu Dhabi. The results highlighted high levels of satisfaction across various aspects of patient-centered infertility care (PCIC), with patients feeling empowered in their treatment decisions and expressing strong positive evaluations of the services provided. Key elements contributing to satisfaction included the competence and communication skills of healthcare providers, the accessibility of information, and the emotional support offered during treatment.

The findings emphasized the need for tailored, individualized care, as different demographic groups exhibited varying needs. Women <35 years old expressed a stronger desire for additional

information about their treatment, while women >35 years old required more emotional support. Women with higher education levels also sought more informational resources, demonstrating the importance of meeting patients' educational needs to foster a sense of empowerment and involvement in the decision-making process.

In conclusion, enhancing patient-centered care in fertility clinics can significantly improve the patient's experience. Delivering clear, comprehensive information, emotional support, and fostering strong patient-provided communication are critical components of high-quality care. These findings underline the importance of continuing efforts to ensure that fertility treatments are responsive to the diverse needs of patients, ultimately improving outcomes and patient satisfaction in fertility care.

Ethics Approval and Consent

This study was conducted in full compliance with ethical principles and guidelines. The research protocol and data collection procedures were approved by the Internal Research Ethics Committee of the First IVF Fertility Centre (REC - FIVF-2023-008) and the International Review Board of the Emirates of Abu Dhabi (DOH/CVDC/2024/390).

To safeguard participants' confidentiality and privacy, stringent measures were implemented. Written consent forms were securely stored separately from the collected data, ensuring participants' anonymity. All participants were informed that their data would be used strictly for research purposes, and they were given the right to withdraw from the study at any time without consequences.

Acknowledgements

The authors extend their heartfelt thanks to Ms. Sahana Chandrappa and Mr. Utpal Shetty, biostatisticians, Ms. Joelle Daoud (Nurse manager Fakih IVF Fertility center, Abu Dhabi), Ms Manel Gellah (OT manager, First IVF Fertility center, Abu Dhabi) for their invaluable contributions to this study. We also wish to acknowledge the Research Team at the Department of Health, Abu Dhabi, for their assistance throughout the research process.

Declaration of Interest

The authors declare no conflicts of interest. They have no affiliations or financial involvement with any organization or entity that has a financial interest in the subject matter discussed in this manuscript, including employment, consultancies, honoraria, expert testimony, grants, or royalties.

Funding

This study did not receive any external financial support.

Data Availability Statement

All data generated and analyzed during this study on patients' perceptions of patient-centered infertility care are securely stored

in an electronic system accessible only to the research coordinator and the statistician. The data have been anonymized to protect participants' confidentiality and are stored on a password-protected computer. While the data is not publicly available due to privacy considerations, anonymized data may be made available upon reasonable request, subject to approval from the relevant institutional review board.

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