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Satisfaction level among infertile women regarding patient-centered care in the fertility clinic at CSHW

Mayura Madhava Dharmadasa ¹, S. Sridharan ², N. Prasanthi ³, W.S Kalansooriya ⁴, Chamodya Herath ⁵, Tharuka Herath ⁵, Hansini Pramudika ⁵, M. M. Tajan Fernando ^{5,*} and Dinithi Lakshani Thilakasiri ⁵

¹ District General Hospital Matale, Sri Lanka.

² Ministry of Health, Sri Lanka.

³ National Hospital for Respiratory Diseases, Sri Lanka.

⁴ Fertility and Family Planning Unit, Castle Street Hospital for Women, Sri Lanka.

⁵ Department of Research, Blue Ocean Insight (Pvt) Ltd, Sri Lanka.

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Abstract

This cross-sectional study was conducted at the Castle Street Hospital for Women's Specialized Fertility Clinic in Colombo 08, Sri Lanka. The purpose of this study is to investigate how patients with infertility felt about receiving therapy that was tailored to their specific needs. A sample of 425 individuals is addressed using the Patient-Centered Care Questionnaire (PCC-Q). The results showed that the clinic's emphasis on personalized attention and care was highly praised. The requirement for further enhancement of the richness of PCC is significantly emphasized to its maximum potential. The study suggests improvements to the client's satisfaction through PCC service efficiency which included an appointment system for consultations and ultrasound scanning, additional written information, and expanded theatre facilities.

Keywords: Patient-Centered Care; Infertility; Satisfaction of Life; Distress

1 Introduction

The implementation of Patient Centered Care (PCC) is widely recognized as a means of achieving improved healthcare outcomes. The primary aim of this study is to ascertain the characteristics that were considered to be of notable importance by patients about augmenting patient care, specifically within the context of sub-fertile couples.

As a prominent establishment within the nation, the subfertility clinic located at CSHW must prioritize the assurance of superior quality in the services it offers. The evaluation of a high level of satisfaction with Assisted Reproductive Technology (ART) involves the consideration of various domains, among which PCC holds a significant position (Inge, et al., 2008; Gonen, 2016). Hence, evaluating the degree to which infertile patients perceive PCC holds significant importance. The psychological welfare of this particular demographic warrants consideration, given its potential impact on the national economy and society, particularly given that they are within the reproductive age range of 15-49 years.

The availability of specialized fertility services in the country is limited, particularly in the government sector. Despite being a nation with a lower middle-income status, Sri Lanka offers its populace access to a comprehensive range of healthcare services at no cost. The establishment of In Vitro Fertilization (IVF) facilities has not yet been realized. Therefore, it is imperative to evaluate the pertinent factors that require attention before the execution of the expansion

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^{*} Corresponding author: M. M. Tajan Fernando

of fertility services in the country. By prioritizing the evaluation of patient satisfaction and implementing measures to enhance PCC, the efficacy of healthcare services can be improved.

The main aim of this research is to offer a thorough depiction of the level of satisfaction among infertile women regarding PCC in the Fertility Clinic in CSHW. The women who are actively seeking treatment at the Fertility Clinic at Castle Street Hospital are considered as the sample.

The sub-objectives are;

- To provide an analysis of PCC in a clinical setting, specifically focusing on the experiences and perspectives of female patients.
- To evaluate the satisfaction level of life experienced by female patients receiving medical care at a clinic during their treatment.
- To evaluate the levels of distress experienced by women who are receiving treatment at a clinic.

The findings of this study may prove useful for policymakers in their efforts to enhance healthcare facilities for this patient population. Despite numerous investigations conducted in European nations concerning the patient-centric nature of fertility care dispensed (Inge, et al., 2008; Pedro et al., 2013; Gonen, 2016), no comparable inquiry has been carried out in Sri Lanka thus far.

2 Literature review

About nine percent of the reproductive population worldwide experiences infertility, and of them, 56% seek fertility treatment to conceive (Boivin, et al., 2011). Increasing a patient's pregnancy success rate has long been the major goal of fertility clinics. However, in recent years, many infertility specialists have highlighted the importance of providing care that improves patients' satisfaction (Jacky et al., 2011), treatment compliance (Jacky et al., 2012), and overall patient well-being during treatment (Aarts et al., 2012). Patient-centered care (PCC) is defined by (Inge, et al., 2008) as "care that respects and attends to the individual patient's preferences, requirements, and values." Aarts et al. (2012) found a positive association between the presence of a strong positive psychological capital relevant to PCC and improved mental health outcomes, characterized by reduced levels of anxiety and depression. However, it has yet to examine which parts of PCC are crucial, nor the mechanisms by which they can affect well-being.

In the field of infertility care, there is a growing consensus that patient feedback on the satisfaction of their care should be considered alongside more traditional measures of success, such as pregnancy or live birth rates (Inge et al., 2008). This is because several factors, such as the patient's lifestyle and prognosis, affect pregnancy and birth rates, making them a poor predictor of the satisfaction of care offered (Homan, et al., 2017). Process indicators like patient-centered care (PCC) that focus on the patients' experience with treatment are seen as more direct evaluations of the satisfaction of care and provide useful information to enhance therapy (Dancet, et al., 2015). Patients themselves indicate that patient-centered care is an essential criterion when selecting fertility clinics (Inge et al., 2008) and that they are willing to trade off a higher success rate for patient-centeredness (Dancet et al., 2011). When deciding between reproductive clinics, patients also value a focus on their individual needs.

PCC can be conceptualized at two levels: at the interpersonal level, as the traits that health professionals should have when interacting with patients (such as communication skills and respect), and at the organizational level, as the traits that should be present in the health system such as; treatment accessibility and care organization (Principles of patient-centered care, 2012). PCC refers to the qualities such as; empathy and good communication that healthcare providers should exhibit when interacting with patients. The Picker Institute's approach to PCC at the organizational level (Principles of patient-centered care, 2012) is widely regarded as one of the most comprehensive approaches to PCC because it takes into account both the technical and interpersonal aspects of treatment. Physical comfort, emotional support, and relief from fear and worry, continuity and transition, coordination and integration of care, accessibility, respect for patients' values, choices, and requirements; information, communication, and education, patient and family involvement, and these eight facets of care that were identified from literature (Principles of patient-centered care, 2012).

Recently, Dancet et al., (2011) replicated the Picker Institute's procedures to provide a detailed, patient-perspectivebased description of PCC in infertility care. This study's results provided empirical backing for the Picker Institute framework and found two additional factors: the clinic's and staff's competence and the attitude of clinic employees and their interactions with patients. Subsequently, using focus groups, this model of PCC was verified in a worldwide sample of 48 patients from four different European nations (Dancet, et al., 2014).

This body of work has been critical in refining the concept and operationalization of this construct, learning more about the role of PCC in infertility care, and raising awareness of the topic (Jain, et al., 2019). However, knowing which specific PCC features are more closely associated with it and how this association works is necessary for properly organizing infertility care to improve patients' health throughout treatment (Gluvas, 2015). To begin, it's possible that PCC directly correlates with happiness. The data tend to agree with this idea. Previous research including 427 female patients from 29 reproductive clinics in the Netherlands (Aarts et al., 2012) established a causal relationship between PCC and improved satisfaction of life and psychological wellness (anxiety and depression). The researchers were unable to establish which features of the PCC are more strongly associated with an individual's level of pleasure because they only produced an aggregate score for the PCC rather than separating the various components of the PCC into separate categories. Second, PCC may be connected to happiness in a roundabout way. Generally speaking, decreasing patients' anxiety about therapy may make it possible for higher pleasant experiences regarding the interpersonal components of PCC to be linked indirectly to well-being. Treatment procedures such as; injections for hormonal stimulations are associated with increased anxiety (Deborah & Jacky, 2008), as those are the unknown outcomes of treatment (Verhaak, 2012) and the experience of treatment failure (Kelly, et al., 2006). Patients' anxiety and misconceptions about therapy could be alleviated and corrected through increased communication, information provision, and patient engagement in decision-making (Boivin, et al., 2011), perhaps leading to enhanced well-being.

Finally, better coping with treatment may be an indirect result of having more favorable impressions of PCC's organizational aspects. Evaluations and treatments for infertility in medicine are technically challenging; they require constant monitoring (through, for example, ultrasound scans) and follow-up appointments. Because of this, they can cause significant disruptions to patients' regular lives and careers (Kelly et al., 2016). Streamlining the paperwork needed in providing care could make patients' lives easier and hence enhance their health.

2.1 Accessibility and Availability

The majority of the women in this study were referred to in vitro fertilization (IVF) clinics by their primary care physicians, specialists, and other healthcare professionals, such as oncologists, gynecologists, surgeons, and others. It is noteworthy that this trend was particularly prevalent in Israel (Selma, et al., 2010). A significant number of cancer patients conveyed appreciation for receiving prompt attention at IVF clinics. As an illustration, certain female individuals have reported being diagnosed with cancer on one day and subsequently attending their initial in vitro fertilization clinic consultation on the following day (Sofia, et al., 2013). The women in this study found the convenient and effortless accessibility to be a source of significant solace.

Nonetheless, in certain instances in both nations, referrals and access to in vitro fertilization (IVF) were not readily available. The issue of fertility was found to be either omitted from the cancer workup or left to the responsibility of women to independently locate a medically assisted reproductive technology (ART) facility that offers MEF (mature egg freezing) services (Aarts, et al., 2012). In addition, some adolescents have reported that their peers who are receiving treatment for cancer in pediatric oncology settings are not consistently recommended for music engagement therapy. Consequently, the process of referral and access occasionally necessitated self-advocacy, thereby contributing to a considerable amount of stress (Pedro, et al., 2013).

2.1.1 Information and Explanation

In contrast to infertile patients seeking treatment at IVF clinics, women undergoing MEF frequently possess limited prior knowledge regarding fertility and infertility. Hence, upon their arrival at in vitro fertilization clinics, individuals are frequently appreciative of proficient fertility counseling services (Robinson, et al., 2014). Such services offer a glimmer of hope amidst a medical setback. This holds particularly true for individuals diagnosed with cancer, who frequently experience a sense of being overwhelmed by their diagnosis, are in a state of complete shock, and characterize the initial days as a blur (McSweeney, et al., 2021). The expeditious requirement for treatment, characterized by some women as a rapid and intense experience, necessitates the timely dissemination of information regarding MEF (Shandley, et al., 797-810). This is crucial in enabling women to make well-informed decisions regarding their course of action. In addition, it is imperative to provide cancer patients with pragmatic anticipations regarding the achievable outcomes within a singular MEF cycle (Skålén, et al., 2020).

2.1.2 Coordination and integration

Female cancer patients expressed a high level of appreciation for nonfertility services that were effectively coordinated and integrated, with seamless continuity of care across multiple clinics. The participants expressed gratitude for prompt referrals from their oncologists to nearby IVF clinics and also noted a team-oriented approach to their medical care (Streisfield, et al., 2015). Coordinated nonfertility services have been well-established in various major hospitals in Israel. However, due to the vastness and intricacy of the healthcare system in the United States, the provision of coordinated services cannot be assured. Women who seek treatment at IVF clinics express gratitude for the comprehensive services offered by these clinics. This includes facilitating connections with external organizations such as cancer charities and pharmacies that offer MEF medications at reduced or no cost (Domar, et al., 2018).

2.1.3 Involvement

Except in one case, it was observed that family members played a significant role in the MEF cycles of all women who participated in this study (Lande, et al., 2015). Patients frequently had loved ones present at clinic visits and egg retrieval procedures. On occasion, they provided aid to women in administering hormone injections (Dodge, et al., 2017). In the United States, they frequently provided financial assistance for MEF expenses when their female relatives required it. Acknowledging the crucial function of the family, particularly parents, in the context of medically assisted reproduction, it is imperative to recognize their significance within in vitro fertilization clinic environments (Bedrick, et al., 2019). It is recommended that healthcare providers inquire whether patients desire to involve their family members in discussions and decisions about medical end-of-life care, particularly in the case of younger patients. Nevertheless, achieving equilibrium concerning familial participation holds significance (Shemirani & Castrillon, 2017). In certain instances, parents may apply inconspicuous influence on their female offspring to bear offspring in the future via medically assisted reproductive technologies (MEF).

3 Material and method

3.1 Research Approach

The research uses the deductive approach. Applying theory to facts to test the theory is a common part of deductive, or a priori, analysis. This method of data analysis might be seen as a "top-down" strategy. Typically, this involves assigning codes to the data in advance, as is done in quantitative analysis (Bingham & Witkowsky, 2022). The deductive approach can help you to systematically analyze how different variables (such as age, gender, education level, and income) interact with one another and impact your findings.

3.2 Population

The study population comprises 1800 infertile women who sought treatment at Castle Street Hospital's fertility clinic between December 2021 and March 2022. The second visits made by these women were not taken into consideration during this specific period. The objective of the study was to evaluate patient-centered care (PCC) within a fertility clinic setting in Sri Lanka. The sample size is determined using a simple random sampling technique.

3.3 Sample

The formula computes the minimum sample size needed, taking into account various factors such as the critical value (1.96) corresponding to a specified confidence interval (95%), the anticipated population proportion (P), and the acceptable level of absolute error (D). In this scenario, the hypothesized population proportion was set at 0.5 to represent an equal distribution, and the predetermined level of acceptable absolute error was established as 0.05.

$$\frac{N = Z^2 \times P (1 - P)}{D^2}$$

N - Minimal sample size

Z - Critical value (1.96) of specified confidence interval which was 95%

P - Anticipated population proportion

D - Acceptable amount of absolute error (0.05)

$$\frac{N = (1.96)^2 \times 0.5 (1 - 0.5)}{(0.05)^2}$$

= 384

- The required sample size was increased by a predicted 10% non-response rate.
- Therefore, the sample size obtained was = 384 + 41

= 425

3.4 Data Collection and Analysis

Both primary and secondary data are used in this research. Primary data was collected through a structured questionnaire and 393 respondents were positively engaged with the survey. This data is analyzed using IBM SPSS 23. During the design phase, multiple consultations were conducted with medical administrators at different hierarchical levels to ensure the questionnaire's face validity and content validity. The questionnaires underwent translation and subsequent back translations to ensure linguistic consistency. Pretesting was conducted to further validate both the checklist and questionnaire. Secondary data was gathered using international journal articles, books, reports, and other reliable secondary data sources.

4 Results

Demographics	Categories	Ν	Percentage %
Age of the female person (years)	25 and below	34	8.7
	26 to 30	116	29.5
	31 to 35	140	35.6
	36 to 40	69	17.6
	40 and above	34	8.7
Ethnic Group	Sinhala	355	90.3
	Tamil	20	5.1
	Moor	18	4.6
Education Level	Up to grade 5	1	0.3
	Grades 5 to 10	15	3.8
	G.C.E O/L	134	34.1
	G.C.E A/L	155	39.4
	Higher education	87	22.1
Job	Self Employed	29	7.4
	Staff in Government Sector	83	21.1
	Staff in the Private Sector	92	23.4
	Unemployed	189	48.1
Family Income	Below Rs.10, 000	11	2.8
	Between Rs.10, 001- 30,000	103	26.2
	Between Rs.30, 001- 50,000	179	45.5
	above Rs.50, 000	100	25.4
Distance to the Hospital	Less than 5km	32	8.1
	5 to 15km	60	15.3

 Table 1
 Demographics

	15 to 30km	90	22.9
	30 km and more	211	53.7
Living Environment	Husband and wife only	193	49.1
	With the female partner's parents	63	16
	With the male partner's parents	137	34.9
Duration of Married Life	Less than 2 years	151	38.4
	2 to 5 years	129	32.8
	6 to 9 years	60	15.3
	10 years and above	53	13.5
Duration of Treatment	< 36 Months	140	35.6
	36-85 Months	60	40.7
	86-135 Months	73	18.6
	136-185 Months	16	4.1
	> 185 Months	4	1
Duration of trying for a baby	< 36 Months	157	39.9
	36-85 Months	177	45
	86-134 Months	52	13.2
	135-183 Months	3	0.8
	> 183 Months	4	1
previous conceptions	Never Conceived	258	65.6
	Conceived Naturally	90	22.9
	Conceived after Treatment	45	11.5

Subfertile women in Sri Lanka had a mean age of 32.2 years when the study was conducted. Patients between the ages of 31 and 35 made up the largest age group (35.6%), with those between the ages of 25 and 29 making up 8.7%. The study indicated that women are delaying medical attention until later in life and that fertility rates for women begin to fall in their mid-thirties and continue to drop after the age of 35. The bulk of female clinic visitors were Sinhalese (90.3%), with the rest being either Tamil or Moor (9.3%). In line with the median monthly income of Rs 43511 per household in Sri Lanka, the vast majority of patients came from families with monthly incomes of LKR 30,001–50,000.

The average length of a patient's marriage was 4.5 years, with 38.4% of couples having been married for less than 2 years. Only 13.5% of the population had been married for less than 10 years. Over eighty-four percent of the participants had been attempting to conceive, with some having been in therapy for as long as seven years. Only 1% of the sample had been on treatment for more than 15 years, yet those 4 patients were among them.

Subfertility was seen in 65.6% of the sample due to primary causes and in 34.4% due to secondary causes. One in eight people with secondary subfertility has also had primary subfertility at some point in their lives. According to conventional wisdom, having a child soon after getting married is a major life achievement. Half of the couples in the sample had different housing arrangements, with 49.1% living alone and 34.9% with the husband's family. Mothers-in-law of infertile women are a source of stress because of the societal stigma attached to infertility. More study is needed to determine whether or whether female patients' suffering increases when they live with their in-laws.

Table 2 Descriptive Statistics

Variable	Indicator	Mean	SD
Accessibility and Availability	PCC1	4.1	1.303
	PCC2	4.49	1.487
	PCC3	4.71	1.367
	PCC4	4.51	1.248
Information and Explanation	PCC5	4.75	0.893
	PCC6	4.64	1.019
	PCC7	4.93	0.781
	PCC8	4.98	0.802
	PCC9	4.89	0.894
Staff's Communication Skills	PCC10	4.9	0.885
	PCC11	4.99	0.789
	PCC12	5.06	0.705
	PCC13	4.91	0.894
	PCC14	4.73	1.084
Respect for Your Values and Needs	PCC15	4.84	0.842
	PCC16	4.97	0.735
	PCC17	5.12	0.699
	PCC18	4.82	0.922
	PCC19	4.83	1.094
Coordination During Treatment	PCC20	4.13	1.535
	PCC23	4.31	1.699
	PCC24	4.61	1.23
	PCC25	3.95	1.566
Care of Organization	PCC26	4.98	0.97
	PCC27	5.16	1.087
	PCC28	3.87	1.508
	PCC29	4.66	1.244
	PCC30	5.35	1.063

The computation of the mean and its utilization in descriptive statistics is a valuable methodology for comprehending the central tendency of the data and making well-informed decisions grounded in this measure. Accessibility and availability were assessed for patient satisfaction, with a maximum score of 5. The lowest score was for distance to the clinic and waiting time to meet a doctor. This may be due to the majority (53.7%) of patients arriving at the clinic from 30km or far. Implementing an appointment system for consultations and ultrasound scanning is thought to improve productivity (Dizaj, 215).

A study in Indonesia found that the lowest element of PCC in two subfertility clinics was the low level of accessibility. However, a study in Portugal showed positive experiences for accessibility, written information, and information and explanation. The highest mean score was for the time doctors had to explain things to the patient, while the lowest was for the received written information. Communication skills were evaluated, with a high mean score for listening to patients and the lowest for freedom to talk about errors and incidents. A study in Teheran, Iran, and the Netherlands found that communication rated best out of all dimensions of PCC. Overall, improving accessibility and availability is

crucial for improving patient satisfaction and overall patient care (Homan, et al., 2017). The study found that a clinic in the Netherlands provided patients with access to all medical records, including examination findings, ultrasound scan findings, surgical records, and drug records. However, the clinic did not receive sufficient support from patients' perspectives, requiring long hours of discussions.

A well-trained approach is necessary to change the minds of distressed and anxious patients into positivity. A psychiatric counselor is considered mandatory for a clinic setup, as it helps identify those in need of treatment at their first and subsequent visits (Dutta, 2021). Continuity was found to be one of the least important factors in satisfaction of care (Covington, 2015). Respect and partner engagement were seen as strengths, but emotional support and continuity of care were seen as shortcomings, in a survey of 286 women and 280 men at 13 reproductive clinics in the Netherlands. Physical amenities, tidiness, wait times for surgical intervention, laboratory tests, and medication availability were evaluated. The availability of free, essential medications at the clinic received a very high mean score of 5.35 out of a possible 6. This section averaged 4.8 out of 5 overall.

Patients who went to the Specialized Fertility Clinic at Castle Street Hospital for Women were happy with the level of care they received since the staff there used a patient-centered approach to providing medical services. As a direct consequence of this, the organizational structure of this clinic has the potential to act as a template for the expansion of fertility services over the entire island. If the questionnaire created for this study proves to be valid and reliable, it can be used to assess the quality of care provided by other Sri Lankan fertility clinics, allowing the study's findings to be extrapolated to the country as a whole.

5 Discussion

Patients who were Sinhalese females, between the ages of 31 and 35, educated level higher than GCE O/L, and employed made up the majority of the study group, which had an overall response rate of 92.4%. A significant portion of them had an average monthly income between Rs. 30,001 and 50,000 (45.5%), and 49.1% of them were living independently as a pair. The majority were primarily infertile (65.6%), while secondary infertile made up 34.4% of the population. The majority of respondents had been married for less than two years (38.4%), even though 13.5% of them had been married for 10 years or more. Many of them had traveled more than 30 kilometers to visit the clinic (53.7%), and they had been receiving therapy for infertility for an average of 3.7 years (40.7%).

Patients who visited the Specialized Fertility Clinic at Castle Street Hospital for Women expressed satisfaction with the level of treatment they received in terms of the patient-centered approach used by the staff there. As a result, the configuration of this clinic can serve as a model for the rollout of fertility services across the entire island. The questionnaire developed for this research can be determined as a valid and reliable instrument for assessing the quality of care provided by other fertility clinics in Sri Lanka, which will allow for the results to be extrapolated to cover the entire country. Out of the six dimensions that make up PCC, the variables that patients perceive as being "more important" need to be investigated further for medical professionals to be able to place a greater emphasis on the aspects of care that patients consider to be of the utmost significance. Patients who need surgical intervention but do not yet have an appointment are being admitted to the regular obstetrics and gynecology wards. In this particular study, neither the difficulties experienced by these patients nor the standard of care obtained by them while they were hospitalized were analyzed. If this element is taken into consideration, more theatre facilities and a separate ward may be required for this unit. This research did not include any of the participants' male partners. It is necessary to focus on the challenges that they are experiencing during the therapy process, paying particular attention to the potential psychological effects of these challenges. Because this was a cross-sectional study, attempts to determine the causes of discomfort were futile. It would be desirable to carry out comparable studies in Fertility Clinics at Teaching Hospital Kandy, TH-Mahamodara, and TH-Ragama etc., where it would be possible to generalize the results to the level of the entire nation.

It was observed that patients felt more satisfied with the care they received when it was provided by the clinic that best suited their needs. In light of this, measures should be implemented to reinforce the referral system to appropriate clinics for various medical or surgical issues if it is determined that such treatment is required. It was necessary to arrange for extra theatre facilities to be brought to this facility. As it was seen that the majority of patients traveled from a great distance, expanding fertility facilities appears to be necessary. This may be accomplished by establishing at least one clinic that specializes in infertility in each of the country's districts. If implemented, a system for making appointments to visit the doctor and for ultrasound screening would cut down on the amount of time spent waiting, which in turn would increase the productivity of both patients and caregivers. Because there are not many treatment options available to doctors (other than ovarian stimulation coupled with timed intercourse and intrauterine insemination), there should be attention paid to improving treatment options provided by the government sector, if

possible, even though the cost will be high, because otherwise, they would be unaffordable to many patients. This is because many patients would not be able to afford them. Patients should be given more time to discuss mistakes and occurrences since this feedback would be very significant for the improvement of the health sector by uncovering its inadequacies and for the enhancement of the satisfaction of treatment that is delivered. Those patients who could benefit from the assistance of a psychiatrist could be identified more easily during their visits to the clinic if a straightforward method were used to evaluate the patients' psychological states. This would help to recognize the category of patients before the symptoms become more severe. The provision of a separate Counsellor or Psychologist to this clinic, as well as the organization of training programs for healthcare workers, in particular physicians and nurses, on the appropriate counseling approaches for patients with psychological disorders, could lead to improvements in this facet of patient care. Alternatively, this facet of patient care could be improved by the arrangement of training programs. It is important to try to schedule follow-up appointments with the same physician whenever it is practical to do so. This would not only improve the patient's compliance with therapy, which would result in a stronger doctor-patient relationship, but it would also relieve the patient of the burden of having to explain their situation numerous times to a variety of doctors. It is recommended that measures be implemented to improve the laboratory facilities that are available for infertile patients, particularly those that are related to hormonal evaluations. Patients would benefit from receiving sufficient written information on the various available treatment strategies, potential adverse effects of medications, and nutritional requirements. This would assist patients in gaining a better understanding of their current condition and the outcome of the reproductive therapy that they are undertaking. They would be able to make better decisions and feel less anxious about getting treatment, including surgical procedures, if they had a better understanding of this area of healthcare, which would help them make better decisions. Generalization of the findings is possible if studies of a similar nature are conducted in clinics located in other parts of the country. This would also allow for the development of strategic solutions to address any shortcomings in patient-centered care that might exist.

6 Conclusion

The Specialized Fertility Clinic at Castle Street Hospital for Women provides a significant service through their PCC units in an efficient manner. This clinic setup, which results in a significant level of patient satisfaction, can therefore serve and be used as a model for the dissemination of fertility care across Sri Lanka.

Compliance with ethical standards

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Disclosure of conflict of interest

The authors of this study, titled "Satisfaction level among infertile women regarding patient-**c**entered care in the Fertility Clinic at CSHW," declare no conflicts of interest that could influence the research process or its findings. The study was conducted impartially and without any financial or personal associations that could potentially compromise the objectivity and integrity of the research outcomes.

Statement of ethical approval

Ethical considerations are of utmost importance in every research study. In this investigation, primary data will be obtained through voluntary engagement of individuals, while maintaining complete anonymity throughout the entire research process. The collected information will be strictly used for scientific purposes, with no negative consequence or detrimental impacts resulting from its utilization.

Statement of informed consent

When the human subjects are involved, appropriate precautions will be taken, including obtaining written consent to guarantee their approval of the publication of pertinent data in the journal. The authors will strictly adhere to all ethical principles and uphold the integrity of the research.

References

- [1] Aarts, J. M. et al., 2012. How patient-centred care relates to patients' satisfaction of life and distress: a study in 427 women experiencing infertility. Human Reproduction, 27(1), p. 488–495.
- [2] Bedrick, B. S. et al., 2019. Factors associated with early in vitro fertilization treatment discontinuation. Fertility and Sterility, 112(1), pp. 105-111.
- [3] Bingham, A. J. & Witkowsky, P., 2022. Deductive and inductive approaches to qualitative data analysis., s.l.: SAGE Publications..
- [4] Boivin, J., Bunting, L., Collins, J. A. & Nygren, K. G., 2011. International estimates of infertility prevalence and treatment-seeking: potential need and demand for infertility medical care. Human Reproduction, 22(6), p. 1506–1512.
- [5] Covington, S. N., 2015. Miscarriage and stillbirth, Routledge: Miscarriage and stillbirth.
- [6] Dancet, E. F. et al., 2014. Patients from across Europe have similar views on patient-centred care: an international multilingual qualitative study in infertility care. Human Reproduction, 27(6), pp. 1702-1711.
- [7] Dancet, E. F. et al., 2015. The patients' perspective on fertility care: a systematic review. Human Reproduction Update, 16(5), p. 467–487.
- [8] Dancet, E. F. et al., 2011. Patient-centred infertility care: a qualitative study to listen to the patient's voice. Human Reproduction, 26(4), p. 827–833.
- [9] Deborah, L. & Jacky, B., 2008. A feasibility study of a brief coping intervention (PRCI) for the waiting period before a pregnancy test during fertility treatment. Human Reproduction, 23(10), p. 2299–2307.
- [10] Dizaj, A. V., 215. Infertility care in Royan Institute: a patient centredness analysis. Payesh (Health Monitor), 15(3), p. 325–332.
- [11] Dodge, L. et al., 2017. The impact of younger age on treatment discontinuation in insured IVF patients. J Assist Reprod Genet, Volume 34, pp. 209-215.
- [12] Domar, A. D. et al., 2018. Burden of care is the primary reason why insured women terminate in vitro fertilization treatment. Fertility and Sterility, 109(6), pp. 1121-1126.
- [13] Dutta, D., 2021. Does infertility affect the satisfaction of life of infertile women? A study in a gynecology outpatient department of a tertiary care hospital of Kolkata. Medical Journal of Dr. DY Patil Vidyapeeth, 14(6), p. 685.
- [14] Gameiro, S., Boivin, J., Peronace, L. & Verhaak, C. M., 2012. Why do patients discontinue fertility treatment? A systematic review of reasons and predictors of discontinuation in fertility treatment. Human Reproduction Update, 18(6), p. 652–669.
- [15] Gameiro, S., Verhaak, C. M., Kremer, J. M. & Boivin, J., 2013. Why we should talk about compliance with assisted reproductive technologies (ART): a systematic review and meta-analysis of ART compliance rates. Human Reproduction Update, 19(2), p. 124–135.
- [16] Gluyas, H., 2015. Patient-centred care: improving healthcare outcomes. Nurs Stand, Volume 30, p. 50–7.
- [17] Homan, G. F., Davies, M. & Norman, R., 2017. The impact of lifestyle factors on reproductive performance in the general population and those undergoing infertility treatment: a review. Human Reproduction Update, 13(3), p. 209–223.
- [18] Inge, W. v. E., L.D.M. Nelen, W., Rosella, P. H. & Jan, A. K., 2008. Coming soon to your clinic: high-satisfaction ART. Human Reproduction, 23(6), p. 1242–1245.
- [19] Jacky, B. et al., 2012. Tackling burden in ART: an integrated approach for medical staff. Human Reproduction, 27(4), p. 941–950.
- [20] Jacky, B., Janet, T. & Andrea, B., 2011. The fertility satisfaction of life (FertiQoL) tool: development and general psychometric properties. Human Reproduction, 26(8), p. 2084–2091.
- [21] Jain, T. et al., 2019. 30 years of data: impact of the United States in vitro fertilization data registry on advancing fertility care. Fertil Steril, 111(3), p. 477–88.
- [22] Kelly, J., Hughes, C. M. & Harrison, R. F., 2006. The hidden costs of IVF. Irish medical journal, 99(5), pp. 142-143.
- [23] Kelly, J., Hughes, C. M. & Harrison, R. F., 2016. The hidden costs of IVF. Irish medical journal, 99(5), pp. 142-143.

- [24] Lande, Y. et al., 2015. Why do couples discontinue unlimited free IVF treatments?. Gynecol Endocrinol, Volume 31, pp. 233-236.
- [25] McSweeney, W. et al., 2021. It's not you, it's me: a descriptive study of patient complaints and surgeon understanding. ANZ Journal of Surgery, 91(10), pp. 1991-1995.
- [26] Pedro, J., Cristina Canavarro, M., Boivin, J. & Gameiro, S., 2013. Positive experiences of patient-centred care are associated with intentions to comply with fertility treatment: findings from the validation of the Portuguese version of the PCQ-Infertility tool. Human Reproduction, 28(9), p. 2462–2472.
- [27] Principles of patient-centred care, 2012. Picker Institute. [Online] Available at: http://pickerinstitute.org/about/picker-principles/ [Accessed 30 May 2023].
- [28] Robinson, L. et al., 2014. A 36-month study of patient complaints at a tertiary fertility centre. Human Fertility, 17(1), pp. 45-49.
- [29] Selma, M. M. M. et al., 2010. Determinants of patients' experiences and satisfaction with fertility care. Fertility and Sterility, 94(4), pp. 1254-1260.
- [30] Shandley, L. M. et al., 797-810. Patient-centered care: factors associated with reporting a positive experience at United States fertility clinics. Fertility and Sterility, 113(4), p. 2020.
- [31] Shemirani, N. L. & Castrillon, J., 2017. Negative and Positive Online Patient Reviews of Physicians—1 vs 5 Stars. JAMA Facial Plastic Surgery, 19(5), p. 435–436.
- [32] Skålén, h., Nordgren, L. & Annerbäck, E., 2020. Patient complaints about health care in a Swedish County: characteristics and satisfaction after handling. Nursing, 3(4), pp. 203-211.
- [33] Sofia, G., Maria, C. C. & Jacky, B., 2013. Patient centred care in infertility health care: Direct and indirect associations with wellbeing during treatment. Patient Education and Counseling, 93(3), pp. 646-654.
- [34] Streisfield, A., Chowdhury, N., Cherniak, R. & Shapiro, H., 2015. Patient centered infertility care: The health care provider's perspective. Patient Experience Journal, 2(1), pp. 93-97.
- [35] Verhaak, C. S. J. E. A. e. a., 2012. Predicting Emotional Response to Unsuccessful Fertility Treatment: A Prospective Study.. J Behav Medicine, Volume 28, p. 181–190.

Dr. Assaddume Gedara Mayura Madhava Dharmadasa is a highly accomplished healthcare professional with extensive experience in hospital management and public healthcare. He holds an MBBS degree from the University of Science and Technology Chittagong in Bangladesh (2012) and has pursued further studies in the field of Medical Administration. He completed his MSc in Medical Administration at the Post Graduate Institute of Medicine at the University of Colombo, Sri Lanka. Currently, (2022), Dr. Dharmadasa is pursuing his MD in Medical Administration at the Post Graduate Institute of Colombo Sri Lanka. Dr. Dharmadasa served as the Chief Public Health Officer in the Padaviya division of Anuradhapura Sri Lanka. Furthermore, he served as the Medical Superintendent at Base Hospital Kanthale Srilanka. Currently, Dr. Dharmadasa holds the position of Acting Director at the District General Hospital Matale Sri Lanka.
Dr. S. Sridharan is a highly accomplished medical professional with extensive experience in medical administration and healthcare quality. He pursued postgraduate studies at the Postgraduate Institute of Medicine in Colombo, Sri Lanka, earning a Master's Degree in Medical Administration in 2002 and an MD in Medical Administration in 2008. He has held various significant roles in the healthcare sector, including serving as the Director of Healthcare Quality and Safety and as the Acting Director General of Health Services from August 2020 to November 2021 in Sri Lanka. Currently, he holds the position of Deputy Director General (Planning). Dr. Sridharan is an avid researcher and has conducted several studies on healthcare-related topics which include factors contributing to indoor overcrowding at mental hospitals, key factors affecting continuous quality improvement programs in government hospitals, and more.

Author's short biography

Dr. K.K.N. Prasanthi is a dedicated healthcare professional with a wealth of experience in respiratory diseases. She currently serves as the Deputy Director at the National Hospital for Respiratory Diseases in Welisara-Ragama. Driven by a passion for healthcare administration, she pursued further education and obtained an MSc in Medical Administration from the Postgraduate Institute of Medicine at the University of Colombo. To further enhance her expertise in healthcare quality and safety, Dr. Prasanthi completed a Postgraduate Diploma in Healthcare Quality and Safety at the Faculty of Medicine, University of Colombo, and the University of Reading. Throughout her career, Dr. Prasanthi has demonstrated exceptional leadership skills and a commitment to improving healthcare services, particularly in the area of respiratory diseases. She is well-regarded for her contributions to patient care, medical administration, and healthcare quality.
Dr. Wasana Sandeepani Kalansooriya is a highly experienced medical professional with a background in Obstetrics and Gynaecology. She obtained her MBBS degree from the University of Science and Technology in Chittagong, Bangladesh. Her journey as a medical officer commenced with her internship at the Gynaecology and Obstetrics department, Teaching Hospital Mahamodara, Galle, where she honed her skills and gained valuable experience in managing a diverse range of obstetric and gynecological cases. Currently, she serves as a Medical Officer in the Fertility and Family Planning units at Castle Street Hospital for Women, Sri Lanka. Her experience in Subfertility Medicine allows her to support and guide couples facing difficulties in conceiving, providing them with comprehensive fertility treatments and counseling.
Tharuka Devindi Herath received her Bachelor of Science degree in Computer Networks at the University of Wolverhampton in the UK in 2023. She is a technical officer at Mobitel (Pvt) Ltd and works at the research department in Blue Ocean Insights Pvt Ltd a research company located in Sri Lanka. Presently, she engages in a business development project conducted by Blue Ocean Insights Pvt Ltd Sri Lanka. Her research interests are psychology, business development, data analysis, management, and sociology.
Chamodya Sandupani Herath received her Bachelor of Science degree in Logistics and Transportation at the CINEC campus in Sri Lanka in 2018. She is an operational analyst at HealthRecon Connect (Pvt) Ltd and works at the research department in Blue Ocean Insights Pvt Ltd a research company located in Sri Lanka. Presently, she engages in a sociology project conducted by Blue Ocean Insights Pvt Ltd Sri Lanka. Her research interests are Sustainability, business development, data analysis, and strategic management.
Hansini Pramudika received her Bachelor of Science degree in Operations and Technology Management from the University of Sri Jayewardenepura, Sri Lanka, and her Master of Business Administration degree from the University of Kelaniya, Sri Lanka in 2016 and 2019, respectively. She works as a research consultant at Blue Ocean Insights Pvt Ltd in Sri Lanka. Currently, she is conducting a sustainable agriculture project. Her research interests include sustainability, sociology, business development, data analysis, and strategic management.
M. M. Tajan Fernando received his Bachelor of Science degree in Physical Science at the University of Colombo in Sri Lanka in 2007. He is an entrepreneur and works as a director in Blue Ocean Insights Pvt Ltd a research company located in Sri Lanka. He obtained his Master of Business Administration degree at the University of Kelaniya Sri Lanka, in 2019. Presently, he is engaged in a sustainability project conducted by Blue Ocean Insights Pvt Ltd Sri Lanka. His research interests are sustainability, psychology, physical science, and sociology.
Dinithi Lakshani Thilakasiri obtained her Master of Business Administration degree from Asia e University in Malaysia in 2023. She is currently working as the Operations Manager in Blue Ocean Insights (Pvt.) Ltd. Sri Lanka. Currently, she is conducting research in green consumption behavior and sustainable development. Her research interests are sustainability, management, and sociology.