

A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE REGARDING SURROGACY AMONG INFERTILE COUPLES ATTENDING SELECTED INFERTILITY CLINICS OF AMRITSAR, PUNJAB

Kamalpreet Kaur^{1*}, Sarabjot Kaur¹, Sandeep Kaur¹

¹Assistant Professor, Khalsa College of Nursing Amritsar, Punjab, India.

ABSTRACT

Introduction: Surrogacy is a method of reproduction where the fertilized egg from another woman is implanted into surrogate's uterus or the surrogate may use her own egg and another men's sperm to become pregnant and after delivery surrogate women handover's the child to the infertile couple. **Aim:** The aim of this present study was to assess the knowledge and attitude regarding surrogacy among infertile couples in selected infertility clinics of Amritsar, Punjab. **Tool and methods:** A non-experimental research design used in the study. A structured knowledge questionnaire comprising of 18 questions and attitude scale regarding surrogacy comprising of 16 statements was used to collect the data from 100 infertile couples by using purposive sampling technique attending satjot human and reproduction centre, kd hospital and infertility clinics, Amritsar, Punjab. **Results:** The results showed that among 100 infertile couples, majority (87%) had average knowledge followed by 11% had good knowledge and only 2% had poor knowledge regarding surrogacy. Regarding attitude majority (62%) of infertile couples had negative attitude and 38% had positive attitude. **Conclusion:** Regarding association of knowledge and attitude with selected socio demographic variables such as age, religion, educational status, family income was found to be statically non-significant whereas type of family, duration of marriage and number of attempt to infertility treatment was found to be statically significant at $p < 0.05$.

Key words: Knowledge, Attitude, Surrogacy, Infertile couples.

Corresponding Author

Kamalpreet Kaur

Email:- kanupreet1987@gmail.com

Article Info

Received 12/10/2020; Revised 20/11/2020

Accepted 21/12/2020

INTRODUCTION AND BACKGROUND OF THE STUDY

Nelson Lindeman (2010) [1] stated that Surrogate means 'Substitute' Which means that surrogate mother is the substitute for the genetic-biological mother. In a common language, we can say that surrogate mother is a person who is hired to bear a child which she hands over to her employer at birth. From the last decade surrogacy arrangements were generally confined to kith and kin of close family/friends/relatives usually as an altruistic deed. But with the introduction of financial arrangements in this process, surrogacy has extended its

network beyond the family, community, state and even across the country.

ART (2010)[2] described that surrogacy is an agreement in which a women agrees to become pregnant for infertile couple and this is achieved with the help of assisted reproductive technology in which neither of gametes belong to her or her husband with the intention of carrying it to handing over the child to the person or persons for whom she is acting as surrogate. Or A surrogate mother is a women who agrees to have an embryo generated from the sperm of a men who is not her husband and the oocyte for another woman implanted in her uterus to carry the



pregnancy to full term and deliver the child to its biological parents.

Child Birth Solutions Article (2008)[3] described two types of surrogacy “traditional” and “gestational”. “Traditional surrogacy is done via artificial insemination where the surrogate is using her own egg and another man's sperm” whereas “Gestational surrogacy is done via In Vitro Fertilization (IVF) where fertilized eggs from another woman are implanted into the surrogate's uterus”.

Lalsamerdon (2008)[4] described that in 1984 the world saw the first successful birth through gestational surrogacy. Ten years later, in Chennai, this happened for the first time in India. Three years after that, in 1997, an Indian acted as a gestational carrier and got paid for it, in order to obtain medical treatment for her paralyzed husband. In the past couple of years, the number of births through surrogacy doubled with estimates ranging from 200 up to 350 in 2008 alone. As briefly addressed before, India is rapidly becoming the most popular country for fertility tourists

Need of study

The lack of researches regarding surrogacy poses several problems. A number of surrogacy related questions remained unanswered, including: is it legal to become surrogate mother in India? Will the child born to an Indian surrogate mother be a citizen of the country? Whose name will appear on birth certificate? How commissioning parents claim parenthood? What happens if surrogate mother changes her mind and refuses to handover the baby or blackmails for custody. Who will take the responsibility of surrogated child if the commissioning refuses to take the child? What will happen if the child will born disables? What will happen if the sex of the child is not to the liking of commissioning parents? Such questions need to be thorough analysis so this all will be answered with applying research on people knowledge and attitude regarding surrogacy.

ICMR (2008) [5] described that government of India has taken certain steps including surrogacy agreements, introduction and implementation of National Guidelines for Accreditation, Supervision and Regulation of Assisted Reproductive Technology (ART) Clinics in 2006 and guidelines have been issued by the Indian Council of Medical Research (ICMR) under the Ministry of Health and Family Welfare, Government of India. But still the surrogate mothers and intended parents are not properly familiar with surrogacy. However, till now there is no legal provision dealing directly with surrogacy laws to protect the rights and interests of the surrogate mother, the child, or the commissioning parents.

Objectives

1. To assess the knowledge regarding surrogacy among infertile couples.
2. To assess the attitude regarding surrogacy among infertile couples.
3. To determine the correlation between knowledge and attitude regarding surrogacy among infertile couples.
4. To determine the association of knowledge and attitude regarding surrogacy among infertile couples with selected socio-demographic variables.
5. To develop and distribute guidelines regarding surrogacy among infertile couples.

Review of literature

Rahmani A et al (2008) [6] conducted a descriptive study to assess the knowledge and attitude regarding surrogacy among 238 infertile women at infertility clinic of Iran. Data were collected by using a researcher developed questionnaire that included 25 items based on a five-point Likert scale. Data analysis was conducted by statistical software using descriptive statistics. The study reveals that more than half of infertile couples have average level of knowledge regarding surrogacy whereas 89.9% women had positive attitude, 15.1% women considered gestational surrogacy against their religious beliefs, 67.2% said that children who were born through surrogacy would be better and 73.1% believed that children born through surrogacy will face mental problems.

L Kirkland et al (2009) [7] conducted a study to evaluate the knowledge and attitude of infertile people towards surrogacy as a means of assisted reproduction. An online survey was sent to them from UK universities, 185 anonymous replies were received. A total of 72.2% agreed with surrogacy as a means of assisted reproduction; 43.9% thought the intended mother was the legal mother at birth; 28.7% correctly identified the surrogate mother as the legal mother; 76.0% felt that the intended mother should be the legal mother at birth; 15.2% thought surrogacy arrangements were enforceable by law, 29.2% correctly knew they were not. There was no difference in knowledge of surrogacy among infertile people who had studied well compared with those who had not. Infertile males were generally tolerant in their attitudes to surrogacy.

Lindemun et al (2009) [8] conducted a study to assess the knowledge and attitude regarding surrogacy among 350 infertile couples attending selected infertility clinics of Iran. A structured knowledge broacher and five point likert scale was prepared regarding surrogacy. 78% of infertile couples had poor knowledge and 22% had good knowledge regarding surrogacy. Whereas majority 67% infertile couples had negative attitude and 33% had positive attitude regarding surrogacy.



McMahon C (2009) [9] conducted a survey to assess knowledge, attitude and their intention to donate embryos to other couples for Surrogacy and IVF in Sydney (Australia). Infertile couples completed a survey regarding attitudes to embryo donation and conditional embryo donation. The result revealed that of the clients surveyed, 99 infertile women (35%) with positive attitude and 66 infertile men (23%) responded with negative attitude and 42% indicated they should be more likely to donate their ovum and semen if donation was conditional or a good amount of money paid to them for Surrogacy and males 86% had good knowledge whereas 14% females had average knowledge regarding surrogacy.

Farhnaz Sohraband (2009) [10] conducted a cross sectional study to assess the Knowledge of infertile couples about assisted reproductive technology and surrogacy among 400 infertile patients at Iran. Out of them, 167 patients (41.7%) were scaled to have good knowledge and 223 patients had a poor knowledge about ART and surrogacy. 45.6% of men, 43.4% of women and 64.8% of patients with a history of passing previous ART cycles had a good knowledge. 95% of patients disagreed to have sperm or ovum donation or to undergo surrogacy. Less than half of patients presented to be knowledgeable about ART and surrogacy.

Wastlender G et al (2005) [11] conducted a study to evaluate the attitude of women towards oocyte donation and surrogacy. Five different groups of women with approximately 50 patients in each group were asked anonymously about their attitudes towards oocyte donation and surrogacy motherhood. More than 90% of women in all groups have negative attitude towards surrogacy. The women of infertile groups were more in favor of donating oocytes as compared to women of fertile groups ($p < 0.05$). Majority of 56% in all groups believe that they can use the oocytes from their own siblings to be a surrogate.

MATERIAL AND METHODS

Research approach and design: For the present study, Non-experimental research approach with descriptive research design was utilized to achieve the objectives of the study.

Sample and sampling technique: In this study, sample consists of **100 infertile couples** attending selected infertility clinics of Amritsar, Punjab and Purposive sampling technique was used to select the sample.

Research tool and data collection procedure: A structured knowledge questionnaire and 5 point attitude scale was prepared to assess the knowledge and attitude regarding surrogacy among infertile couples. The tool consisted of following parts:

Part I: Socio demographic profile

Demographic data (1-7) items include age, religion, educational status, family income (in rupees), type of family, duration of marriage, number of attempts to infertility treatment.

Part II: Structured knowledge questionnaire regarding surrogacy

Structured knowledge questionnaire was prepared to assess the knowledge regarding surrogacy among infertile couples. It consists of 18 multiple choice questions each having three options. Each correct answer carries 1 mark and wrong answer carry 0 mark. Maximum knowledge score was 18 and minimum knowledge score was 0.

Part III: Attitude scale regarding surrogacy

Attitude scale was prepared to assess the attitude regarding surrogacy among infertile couples. 5 point attitude scale consist of 16 statements was used i.e. strongly agree, agree, neutral, disagree, strongly disagree containing the mixture of positive and negative declarative statements. Positive items are 1, 2, 3, 4, 5, 11, 12, 13, 16, 17 and negative items are 6,7,8,9,10,14,15. Attitude scale was divided into 2 categories i.e Positive (≥ 40) and (< 40). Attitude score was divided into 2 categories i.e

Data analysis:

Analysis of data was done in accordance with the objective of the research study. It was done by using descriptive and inferential statistics such as mean, percentage, standard deviation, correlation coefficient and ANOVA test, Pie charts and bar diagrams were used to depict the findings of the study.

Ethical consideration

Written permission was taken from managing director of Satjot Human and Reproduction Center and K.D. Hospital, Amritsar and also written informed consent was taken from infertile couples who were willing to participate in the study and to gain their confidence.

RESULTS:

Table 1 reveals the frequency and percentage distribution of sample characteristics. It shows that according to age, majority (49%) of infertile couples were between 35-40 years, (40%) in the age group of 41-45 years followed by (11%) in the age group of 46-50 years. According to educational status, approximately half of the subjects i.e. (49%) infertile couples studied upto senior secondary, (35%) upto graduate or above and only (16%) studied upto metric. Regarding religion, majority (38%) of infertile couples belongs to Sikhism/ Hinduism and only (24%) belongs to Christianity. Regarding family income (in rupees), majority (52%) of infertile couples having income above 15,000, (42%) having 10,000-15,000 and only (6%) having income 5000-10,001. According to type



of family, majority (52%) of infertile couples belongs to nuclear family followed by (48%) from joint family. Regarding duration of marriage, majority (67%) of infertile couples had marriage duration of 1-5 years followed by (24%) were married from 6-10 years and remaining (9%) were married from 11-15 years. According to no. of attempts to infertility treatment, majority (45%) of infertile couples had already taken infertility treatment for 2 times (33%) for 1st time and remaining 22% for 3 or above.

Hence it was concluded that majority of infertile couples were in the age group 35-40 years, passed senior secondary, had family income above 15,000 rupees per month and belonged to nuclear families. Majority of infertile couples had marriage duration of 1-5 years belonged to Hinduism/Sikhism and already had taken infertility treatment 2 times.

Table 2 and figure 3 reveal the frequency, percentage and mean distribution of infertile couples according to their level of knowledge regarding surrogacy. Majority (87%) of infertile couples had average knowledge regarding surrogacy, (11%) had good

Structured knowledge questionnaire regarding surrogacy was categorized into 3 levels.

Level of knowledge	Score	(%)
Good	13-18	≥72%
Average	7-12	34-71%
Poor	0-6	≤33%

knowledge and only (2%) had poor knowledge regarding surrogacy.

Hence, it was concluded that majority of infertile couples had average level of knowledge regarding surrogacy.

Table 3 and figure 4 depicts frequency, percentage and mean distribution of infertile couples according to their attitude regarding surrogacy. Majority (62%) of infertile couples had negative attitude and only (38%) had positive attitude regarding surrogacy.

Hence, it was concluded that majority of infertile couples had negative attitude regarding surrogacy.

Table 4 represents the correlation between knowledge and attitude regarding surrogacy among infertile couples. The coefficient of correlation between knowledge and attitude was calculated by using Karl Pearson correlation coefficient formula which was found to be non-significant i.e. (r=.067) at p<0.01 and weakly positive correlated with each other.

Hence, it was concluded that as the knowledge of infertile couples increases, attitude also changes the same vice versa.

Attitude	Total score
Negative attitude	<40
Positive attitude	≥40

Table 1. Frequency and percentage distribution of sample characteristics

N=100

Demographic variables	Frequency (n)	Percentage (%)
Age (in years)		
35-40	49	49
41-45	40	40
46-50	11	11
Above 50	0	0
Educational status		
Primary	0	0
Middle	0	0
Metric	16	16
Senior secondary	49	49
Graduate or above	35	35
Religion		
Hinduism	38	38
Islam	0	0
Sikhism	38	38
Christianity	24	24
Family income (in rupees)		
Upto 5000/-	0	0
5001-10,000/-	6	6
10,001-15,000/-	42	42



Above 15,000/-	52	52
Type of family		
Nuclear	52	52
Joint	48	48
Duration of marriage		
1-5 years	67	67
6-10 years	24	24
11-15 years	9	9
Above 15 years	0	0
Number of attempts to infertility treatment		
1	33	33
2	45	45
3 and above	22	22

Table 2. Frequency, percentage and mean distribution of infertile couples according to their level of knowledge regarding surrogacy
N= 100

Levels of knowledge	n	(%)	Mean	SD
Good ($\geq 72\%$)	11	11		
Average (34-71%)	87	87	10.45	1.97
Poor ($\leq 33\%$)	2	2		
Maximum score= 18				
Minimum score= 0				

Table 3. Frequency, percentage and mean distribution of infertile couples according to their attitude regarding surrogacy.
N= 100

Attitude	n	(%)	Mean	SD
Positive (≥ 40)	38	38		
Negative (< 40)	62	62	39.42	7.82
Positive attitude = ≥ 40				
Negative attitude = < 40				

Variables	n	(%)	Mean
Knowledge	10.45	1.97	1.97
Attitude	39.42	7.82	0.67 ^{NS}
Maximum score = 18	Positive attitude = ≥ 40	NS=Non significant	
Minimum score = 0	Negative attitude = < 40		

DISCUSSION

In this chapter, an attempt has been made to discuss the findings of the study with the findings of other studies. The present study was conducted in selected infertility clinics of Amritsar, Punjab. Total sample was 100 infertile couples. Purposive sampling technique was used to collect the samples. The analysis of data regarding surrogacy knowledge among infertile couples revealed that 87% of the infertile couples had average knowledge

whereas 11% were had good knowledge and only 2% were had poor knowledge regarding surrogacy. Regarding surrogacy attitude among infertile couples revealed that majority (62%) of infertile couples had negative attitude and only (38%) had positive attitude regarding surrogacy. The correlation between knowledge and attitude regarding surrogacy among infertile couples was found to be significant which means that as the knowledge of infertile couples increases the attitude also the same as vice versa.



Figure 1. Percentage distribution of infertile couples according to their level of knowledge regarding surrogacy

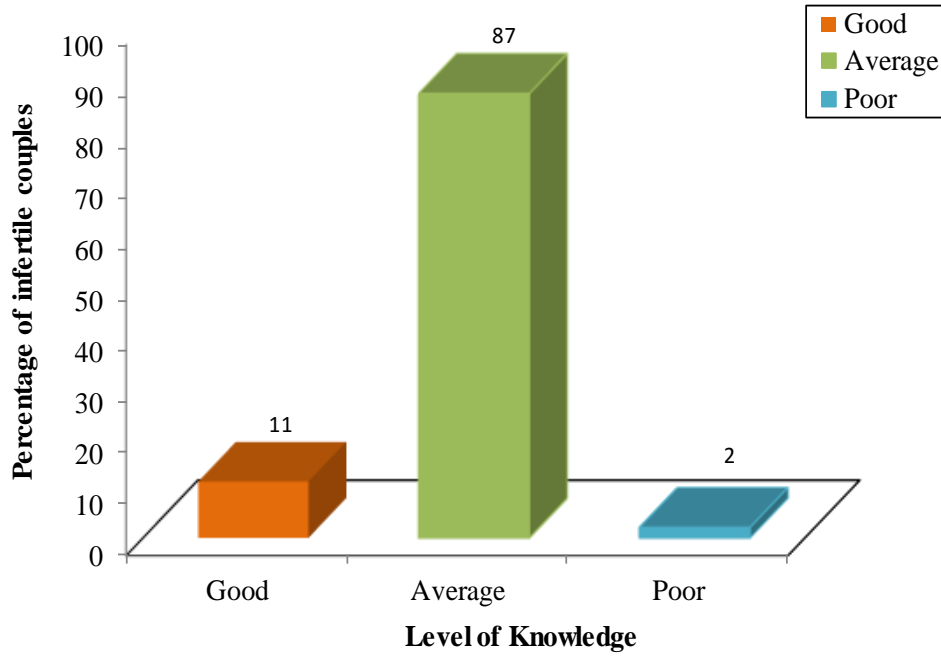
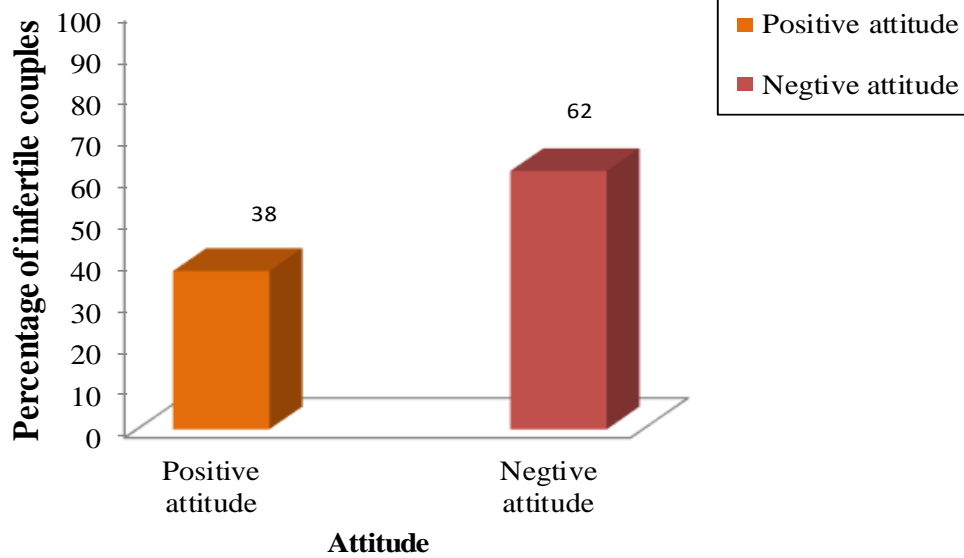


Figure 2. Percentage distribution of infertile couples according to their attitude regarding surrogacy



CONCLUSION

Surrogacy is an agreement in which a woman agrees to become pregnant for infertile couple and this is achieved with the help of assisted reproductive technology in which neither of gametes belong to her or her husband with the intention of carrying it to handing over the child

to the person or persons for whom she is acting as surrogate. Or A surrogate mother is a women who agrees to have an embryo generated from the sperm of a men who is not her husband and the oocyte for another woman implanted in her uterus to carry the pregnancy to full term and deliver the child to its biological.

REFERENCES

1. Nelson Hilde Lindeman. Cutting motherhood in two some suspicions concerning. Surrogacy Boom.199; 2(3):162-186
2. The Assisted Reproductive Technologies (Regulation) Bill-2010, Indian Council of Medical Research (ICMR), Ministry of Health & Family Welfare, Govt. of India, pg. 4(2).
3. <http://childbirthsolutions.com/articles/traditional-versus-gestational-surrogacy/>
4. Indian council of medical research guidelines on surrogacy.2008;12(4):122
5. Rahmani A, Sattarzadeh N, Gholizadeh L, Sheikhalipour Z, Allahbakhshian A, Hassankhani H. Descriptive study for attitude regarding surrogacy among infertile women. Department of Medical-Surgical Nursing and Midwifery Faculty Iran. Journal. 2011; 4(3):138-42.
6. Lkirkland, Foudila. Prospectiva study on surrogacy.2009;2(4):76-79
7. Macmahon C. study to assess intention towards embryo donation and attitude on Surrogacy. Pubmed journals. 2009;6(3):343-347
8. Sehaan, Semon J. evaluative study on knowledge and attitude on surrogacy. Pubmed publication.2009;5(3):245-247
9. Farhnaaz sohraband, Allahbakhshian A, Hassankhani H. Descriptive study for knowledge regarding surrogacy among infertile women. Department of Medical-Surgical Nursing and Midwifery Faculty Iran. Journal. 2008; 4 (3):138-42.
10. Macmahon C. study to assess intention towards embryo donation and attitude on Surrogacy. Pubmed journals. 2009;6(3):343-347
11. Westlander G, Janson PO, Tagnfors U, Bergh C. Evaluative study on women attitude towards oocyte donation and Surrogacy. Department of Obstetrics and Gynaecology. 2006; 77 (3): 317-21.

