



A COMPARATIVE STUDY TO ASSESS THE LEVEL OF STRESS AND COPING AMONG HUSBANDS AND WIVES ATTENDING INFERTILITY CLINICS OF SELECTED HOSPITALS, KOLKATA.

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Abstract : Husbands and wives exposed to infertility perceive stress and present differently by using different coping strategies. The investigator conducted a comparative study to assess the level of stress and coping among husbands and wives attending infertility clinics of selected hospitals, Kolkata. Richard Lazarus and Folkman transactional model of stress and coping was the conceptual basis for the study. By non probability convenient sampling technique, 30 husbands and 30 wives were selected as sample and a valid, reliable (reliability of two tools computed by Cronbach's alpha, are respectively 0.91 and 0.73), structured interview schedule was employed to collect data from infertility clinic of S.S.K.M Hospital, Kolkata. For statistical analysis Descriptive statistics, Unpaired 't' test of equal variance, Pearson Correlation Coefficient and Chi square test were used. The result revealed that in four out of five subscale scores namely social concern "t"=4.40, sexual concern "t"=3.69, relationship concern "t"=2.53 and need for parenthood "t"=2.29 at df= 58 and 0.05 level of significance wives have significantly higher level of stress than husbands. There was no significant difference ("t"=0.87, df=58 at 0.05 level of significance) between coping of husbands and wives. There was significant association between coping of husbands and selected variables age, habitat, and years of treatment, while for wives only habitat had significant association. The study has implications in different fields of nursing. Psychological aspect of infertility and difference in level of stress between husbands and wives should be considered in treatment and nursing care to decrease psychological suffering and fruit-bearing outcome.

Keywords : Stress, coping, infertility and infertility clinic.

INTRODUCTION :

Children is the beauty of life where each one of us can see himself in different way through his or her offspring, and because of them parents starts to work, earn money, keep promises, build a home, construct great city finally willingly they may leave all of that to give them the chance. Reproduction is the only means of sustaining human life, pregnancy and childbirth typically are associated with positive emotions.

It is a growing problem and across virtually all cultures and societies almost all over the World and affects an estimated 10%-15% of couples of reproductive age. Male and female factors are each believed to account

for 40% of cases of infertility; the remaining 20% are either unexplained - so-called idiopathic infertility - or of shared etiology.

Infertility is the inability to conceive after twelve months of regular sexual relation without the use of contraception or, carry to a live birth, a pregnancy (Morin-Davy, 1998). According to a study by the WHO that compiled data from 277 national surveys in 190 countries, reveals that 48.5 million couples worldwide are unable to have a child. The data from India is very sparse and far between; overall, 7% of currently married women in India are childless. Southern region shows 10.9%, Western 10.7%, Eastern 6.5%. The WHO estimates the overall prevalence of infertility in India to be between 3.9 and 16.8% i.e. 30 million couples in India suffer from infertility. In West Bengal the prevalence rate is relatively lower, the range is from 2.45% to 2.9%.

NEED FOR THE STUDY :

Infertility has mental, social, and reproductive consequences, including depression, anxiety, aggressiveness, feelings of guilt, lack of tone-regard, lack of confidence, psychosomatic complaints, prepossessions, relationship difficulties, and sexual dissatisfaction. Infertility treatment involves more complicated, uncomfortable, and humbling medical procedures for women, so the managing strategies used by women may differ from those used by men.

When a couple is diagnosed with infertility, they generally witness a variety of factors. As the men and women defy the different surrounding situations, they perceive and present stress and manage else. So the knowledge of this difference will help the health professional in understanding the significant emotional effects of the infertility experience and to provide need-based, appropriate physical as well as psychological care to the husbands and wives individually.

So far, there haven't been any comparative studies on infertility-related stress and managing strategies among men in West Bengal. So, it was decided to conduct a comparative study to assess the position of stress and coping among men and women attending infertility conventions.

VARIABLES UNDER STUDY :

- **Research Variable** – In this study the research variables were Stress and coping among husbands and wives attending infertility clinic.
- **Selected Variable** - Age, years of marriage, education, occupation, type of family, per capita family income, habitat, years of treatment.

OPERATIONAL DEFINITION :

Infertility :

According to WHO Infertility refers to the failure to achieve a pregnancy after 12 months or more of regular unprotected intercourse. In present study, infertility refers to the failure to achieve a pregnancy after 12 months or more of regular unprotected intercourse and at least 3 years after marriage.

Stress :

Stress is a complex pattern of cognitive appraisals, physiological responses, and behavioural tendencies that occur in response to a perceived imbalance between situational demands and our resources needed to cope with them.

Coping :

Coping refers to cognitive and behavioural activities that a person used in an attempt to manage a trying situation.

ASSUMPTION :

- Infertility will produce stress among the husbands and wives.
- Stress and coping towards infertility varies among husbands and wives.
- Husbands and wives attending infertility clinic will talk about their stress and coping spontaneously.
- Stress and coping can be measured by standardized tool.

HYPOTHESES :

From the above findings the following hypotheses can be formed-

1. There is significant difference between the level of stress among husbands and wives attending infertility clinics.
2. There is no significant difference between coping among husbands and wives attending infertility clinics.
3. There is significant relationship between the level of stress and coping among husbands and wives attending infertility clinics.
4. There is no significant association between level of stress and selected variables, age, years of marriage, education, occupation, type of family, per capita family income, habitat, years of treatment of husbands and wives attending infertility clinics.
5. There is significant association between coping with age, habitat and years of treatment of husbands attending infertility clinics.
6. There is significant association between coping and habitat of wives attending infertility clinics.

DELIMITATION :

The study was delimited to husbands and wives who were present at infertility clinic at the time of data collection, who were willing to participate and who could speak and understand Bengali / English.

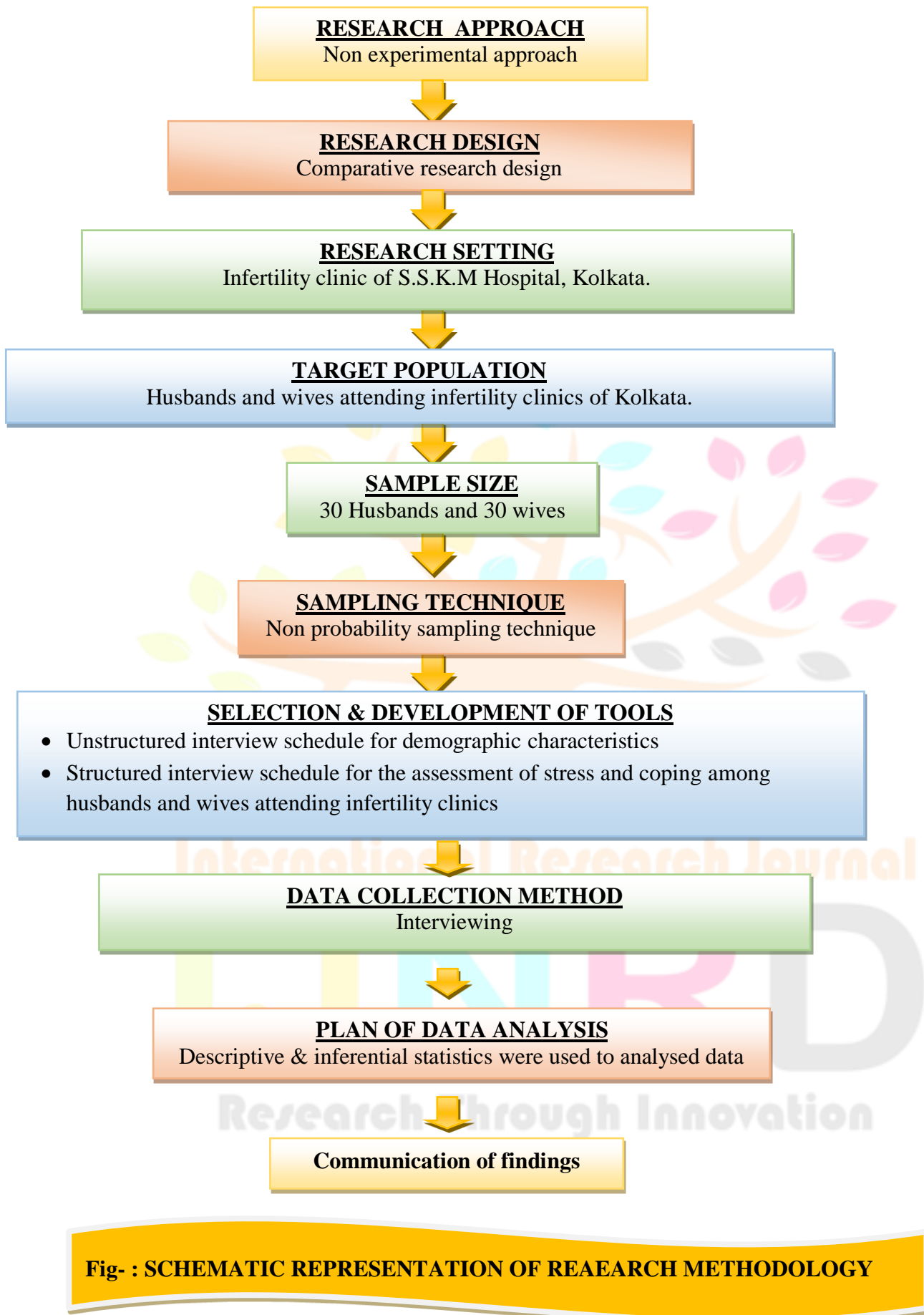
CONCEPTUAL FRAMEWORK :

Conceptual framework represents a less formal attempt at organizing phenomenon. The Conceptual framework can serve as a spring board for the generation of research hypothesis and can provide an important context for further research. The framework of present study was adopted from transactional model of stress and coping by Lazarus and Folkman (1984) explaining the relation between stress, individual perception of stress and coping strategies.

In this model Lazarus and Falkman (1984) explained stress involves the precipitating and predisposing factors by the environment, and the response of the individual subjected to these factors. These factors led to cognitive appraisal which considers two major elements that majorly contribute in his response to stress.

REVIEW OF LITERATURE:

Review of literature of the present study had been organized under the following section. Section- I : Level of Stress among the husbands and wives attending the infertility clinic. Section-II : Coping among the husbands and wives attending the infertility clinic.

RESEARCH METHODOLOGY :**VARIABLES UNDER STUDY :**

Variables are qualities, properties or characteristics of persons or situations that change or vary and are closely defined to promote their measurement or manipulation within study.

Research variables :

In this study, the research variables used were -

- Level of stress among husbands and wives attending infertility clinic.
- Coping among husbands and wives attending infertility clinic.

Demographic variables :

Age, years of marriage, education, occupation, per capita family income, type of family, habitat, years of treatment.

SAMPLING CRITERIA :

Inclusion criteria :

- All the age groups of husbands and wives attending the infertility clinic.
- All the primary infertile husbands and wives attending the infertility clinic.
- Those that can able to understand and read either Bengali or English.
- Those who give consent to participate in the study.

Exclusion criteria :

- Couple on treatment for secondary infertility.
- Couple married for less than 3 years.

DESCRIPTION OF THE TOOL :

The tool was divided into three parts as section I, section II and section III.

Section I: Unstructured interview schedule to collect background information of husbands and wives attending the infertility clinic. Section II: Structured interview schedule to assess level of stress among husbands and wives attending the infertility clinic. Section III: Structured interview schedule to assess coping among husbands and wives attending the infertility clinic.

ETHICAL CONSIDERATION :

Ethical committee clearance :

Permission was taken from the ethical committee of NRS Medical College and Hospital.

Administrative clearance :

- The Principal, Govt. College of Nursing, N.R.S. Medical College and Hospital
- D.H.S of West Bengal.
- D.M.E of West Bengal.
- Joint D.H.S (Nursing), West Bengal.
- M.S.V.P, Nursing superintendent, Head of the Obstetrics and Gynecology department, N.R.S. Medical College and Hospital and S.S.K.M Hospital.

Informed consent :

- Informed consent was taken from all respondents.
- Privacy and confidentiality was maintained throughout the study.

PILOT STUDY :

Pilot study was conducted from 11.9.17 to 16.9.17 at infertility clinic of N.R.S Medical College and Hospital, Kolkata. 5 husbands and 5 wives attending infertility clinic were selected by non probability sampling method. Self introduction was given and purpose of the study was explained and confidentiality was assured. Informed consent was taken from each participant. The tool was administered to the subjects and data was collected.

Collected data was tabulated, analysed and statistically calculated with the help of descriptive and inferential statistics. The findings of the pilot study revealed that tool was effective and no difficulty encountered regarding the technique. After gaining the experience, it was decided to proceed for the main study.

ANALYSIS AND INTERPRETATION OF DATA :

The present study has been undertaken on the level of stress and coping among husbands and wives attending infertility clinics of selected hospitals, Kolkata. The study was conducted at infertility clinic of S.S.K.M. Hospital, Kolkata.

Section I : Findings related to assessment of the level of stress among husbands and wives.

Table 1 Frequency and percentage distribution of level of stress among husbands and wives attending infertility clinic.

Level of stress	Range of score	n(n ₁ +n ₂)=60	
		Husband n ₁ =30 f(%)	Wives n ₂ =30 f(%)
Low Stress	≤ 220	5(50)	(30)
Average Stress	221 – 237	(20)	(17)
Moderate Stress	238 – 249	(10)	(23)
High Stress	≥ 250	(20)	(30)

Maximum possible score = 276

Minimum possible score = 46

Table 1 depicted that half of the husbands belonged to low stress group, where 30% of wives fell in each low and high stress group.

Section II: Findings related to assessment of coping among husbands and wives attending infertility clinic.

Table 2 Frequency and percentage distribution of coping among husbands and wives attending infertility clinic.

Level of coping	Range of score	n(n ₁ +n ₂)=60	
		Husband n ₁ =30 f(%)	Wives n ₂ =30 f(%)
Not used coping	≤ 20	0(0)	0(0)
Used coping a little	21 – 40	7(23)	9(30)
Used coping sometimes	41– 60	16(54)	18(60)
Used coping a lot	≥ 61	7(23)	3(10)

Maximum possible score = 80

Minimum possible score = 20

Table 2 presented that majority (54%) of husbands used coping sometimes and 23% used coping a lot. In contrary to that 60% of wives used coping sometimes and 10% used a lot.

Section III: Findings related to comparison of the level of stress among husbands and wives attending infertility clinic.

Area wise 't' value calculated between level of stress of husbands and wives.

Table 3 Area wise comparison of level of stress among husbands and wives attending infertility clinic.

Content Areas	Maximum and Minimum possible score	Husbands n ₁ =30		Wives n ₂ =30		't' value
		Mean ± sd	Mean (%)	Mean ± sd	Mean (%)	
Social concern	60 and 10	37.07± 8.80	61.78	46.13±7.06	77.88	4.40*
Sexuality Concern	48 and 8	26.2± 8.07	54.58	33.7±7.66	70.21	3.69*
Relationship concern	66 and 11	45.53± 9.38	68.98	51.33±8.31	77.77	2.53*
Rejection of childfree life	42 and 7	36.63± 10.69	87.21	37.03±3.60	88.16	0.19 NS
Need for parenthood	60 and 10	44.93± 8.16	74.88	49.70±7.93	82.83	2.29*

't'(58)=2.00 ; p<0.05*, NS-Not significant.

Data presented in table 3 showed that calculated 't' value in four areas out five, namely social concern (4.40), sexuality concern (3.69), relationship concern (2.53) and need for parenthood (2.29) were found to be higher than table value (2.00) except in rejection of child free life (0.19) at df=58 and 0.05 level of significance. So, there was significant difference between level of stress between husbands and wives in social concern, sexuality concern, relationship concern, and need for parenthood. Accordingly, wives have significantly higher level of stress than husbands in the above mentioned four areas.

Table 4 Comparison of coping among husbands and wives attending infertility clinic.

Group	Variable	n(n ₁ +n ₂)=60		't' value
		Mean	SD	
Husband	coping	51.56	10.91	0.87 NS
Wives		48.90	11.84	

't'(58)=2.00 ; p<0.05, NS-Not significant.

The data presented in Table 4 exhibited that mean of coping score of husbands and wives were respectively 51.56 and 48.90 with SD respectively 10.91 and 11.84. Calculated 't' value (0.87) was found to be lower than table 't' value (2.00) at df=58 and 0.05 level of significance. Hence, there was no significant difference between coping of husbands and wives.

Section IV: Findings related to the relationship between level of stress and coping of husbands and wives attending infertility clinic.

'r'and 't' value calculated between level of stress and coping of husbands and wives attending infertility clinic.

Table 5 Correlation between level of stress and coping of husbands and wives attending infertility clinic.

Variables	Husbands n ₁ =30		Wives n ₂ =30	
	'r' value	't' value	'r' value	't' value
<ul style="list-style-type: none"> • Stress • coping 	0.74	5.84*	0.75	6.01*

't'(28)=2.05 ; p<0.05*

The findings given in the table 5 indicated a strongly positive correlation between stress and coping both for the husbands (0.74) and wives (0.75) attending infertility clinic. Further, to confirm the significance of the correlation coefficient value, 't' value computed in husbands (5.84) and wives (6.01); were found to be greater than table 't' value (2.05) at df 58 and 0.05 level of significance. So, there was statistically significant, strongly positive correlation between level of stress and coping in husbands and in wives as well.

Section V: Findings related to association between level of stress of husband and wives with selected variables.

Table 6 Association between level of stress of husbands and wives attending infertility clinic with selected variables.

$n(n_1+n_2)=60$

Selected Variable	Level of Stress			Level of Stress		
	Husband $n_1=30$			Wives $n_2=30$		
	χ^2 Value	df	P level	χ^2 Value	df	P level
Age	3.79 NS	1	0.05	1.88 NS	1	0.17
Years of marriage	0.29 NS	1	0.59	2.60 NS	1	0.10
Education	0.00 NS	1	1.00	0.20 NS	1	0.67
Occupation	0.24 NS	1	0.62	0.00 NS	1	1.00
Type of family	0.23 NS	1	0.63	0.14 NS	1	0.70
Family income	0.74 NS	1	0.38	0.19 NS	1	0.67
Habitat	3.75 NS	1	0.05	0.07 NS	1	0.79
Years of treatment	1.88 NS	1	0.17	1.88 NS	1	0.17

$\chi^2 = 3.84, df=(1), p<0.05, NS=$ Not Significant.

The table 6 denoted that the Chi-square test computed between level of stress and selected variables (age, years of marriage, education, occupation, type of family, per capita family income, habitat, years of treatment) at $df=1$ and 0.05 level of significance was less than table value. So, there was no significant association between level of stress and selected variables for both the husbands and wives.

Table 7 Association between coping of husbands and wives attending infertility clinic with selected variables.

$n(n_1+n_2)=60$

Selected variables	Coping			Coping		
	Husband $n_1=30$			Wives $n_2=30$		
	χ^2 Value	Df	P level	χ^2 Value	df	P level
Age	4.84*	1	0.03	0.21 NS	1	0.65
Years of marriage	2.17 NS	1	0.14	0.00 NS	1	1.00
Education	0.16 NS	1	0.69	1.88 NS	1	0.17
Occupation	0.10 NS	1	0.74	0.29 NS	1	0.60
Type of family	1.07 NS	1	0.30	0.57 NS	1	0.45
Family income	1.14 NS	1	0.29	2.98 NS	1	0.08
Habitat	6.04*	1	0.01	7.35 *	1	0.01
Years of treatment	4.43*	1	0.04	0.21 NS	1	0.65

$\chi^2 = 3.84, df=(1), p<0.05^*, NS=$ Not Significant

The table 7 showed that chi square test computed between coping with selected variables at $df=1$ and 0.05 level of significance, revealed that age (4.84), habitat (6.04) and years of treatment (4.43) in husbands and in wives only habitat (7.35), were greater than table value. So, there was significant association between coping

of husbands and selected variables age, habitat, and years of treatment, while for wives only habitat had significant association.

CONCLUSION :

The following conclusions were drawn from the present study-

- Wives have significantly higher level of infertility related stress than husbands.
- There is no significant difference between coping behavior of husbands and wives.
- There is a significant correlation between the stress and coping behavior of both husbands and wives toward infertility.
- Therefore there is a clear need to integrate counseling session with the present treatment modalities for fruit bearing outcomes.

IMPLICATIONS :

The findings of this study have implications in the following areas.

Nursing education :

One of the greatest frustrations for infertile couples is health-care professionals, including nurses', lack of knowledge and understanding regarding the significant emotional effects of the infertility experience. Health-care providers need to be aware of each infertile emotional effects of infertility. The result of this study relating to emotional effects of infertility in men is important for practitioners. The emotional needs of men also need to be taken into consideration

Nursing Administration :

Nurse administrators are the backbone for providing facilities to improve the stress and coping of the childless couples. There should be a provision for the nurses to devote time for giving health education regarding "awareness/advice, blame/balance, and competence/compassion."

Nursing practice :

Health education is an important aspect of nursing practice. The expanded role of the professional nurse emphasizes those activities, which promote health and strengthening of the infertile couples in the family and society

Nursing research :

The present study reveals that majority of the husbands as compared to wives had better coping. So the nurses, especially, those working in the community, should take initiative in conducting research studies regarding this aspect in the community. A planned awareness program can be organized in the community to educate the people.

Limitations :

The limitations of the study were

- Minimal numbers of subjects were included in sample, which limited the generalization of findings.
- Most of the respondents were from low economic levels.
- Information collected from the husbands and wives attending infertility clinic was based on their verbal response only.

Recommendations :

On the basis of the present study, the following recommendations have been made for further studies:

The present study may be replicated on a larger sample

1. A comparative study may be conducted between rural and urban couples
2. A comparative study may be conducted between young couples and old couples in order to assess their stress and coping behaviour
3. A study may be conducted to know the impact of group psychological interventions on pregnancy rates in infertile couple.

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