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Original Research Article

A Comparative Study of the Influence of Midwifery Consultation on the Knowledge and Attitude of Infertile Women with Mild to Moderate Depression Undergoing IVF

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Abstract: The aim is to investigate that how much midwives' consultation can influence depressed infertile women's attitude and knowledge, to improve their quality of life and their probable success in their treatment. In this study sixty mild to moderate (scared 10-47) depressed infertile women were chosen by easy purposive sampling by Beck Depression Inventory (BDI). Patients in midwifery consultation group were consulted and guided in three fields and six sessions, consultation and advice for patients was from 8 weeks before embryo transfer until the transfer day. The level of the knowledge and attitude of consulting group after consultation sessions has increased dramatically and significant ($p<0.001$). But in control group no significance is seen. From the finding of these studies it can be concluded that consultation by the people who have hands on professional infertility treatments and also know consultation techniques and support of infertile people can improve these people's knowledge and their change of attitude.
Keywords: midwifery consultation, infertility treatments, Beck Depression Inventory (BDI).

INTRODUCTION

According to WHO definition, infertility is the failure of reproduction after one year of unprotected intercourse, and it's prevalence in the world is 5-21% [1]. There are a lot of evidence to show the effect of psychological condition of infertile patients under treatment and its results [2] in order to decrease the stress which postpones the effectiveness of infertility treatments, it is necessary for the patients to get enough education about the reasons of infertility, and its different treatments and its pre and post care [3].

In a lot of studies , It is tried to help these people improving the treatment or promoting the quality of their lives by psychological intervention or consultation or education or supplementary medical treatment [4-6] .Midwives have an important role in women's perception of infertility or pregnancy disorders , they can also aware them of the medical procedures of infertility. Having a close relationship with the physician can make a team in which midwives have a key and important role in hygienic care of women [7, 8]. In fact their awareness can have a crucial role in their emotional compatibility, and may affect the medical process positively [9].

On the other hand, talking to infertile women about the dangers and consequences and success rate of pregnancy can improve their participation. Therefore, one of the main responsibilities of health givers and therapists like midwives, in increasing the awareness and attitude of these patients through treatment until a good result is achieved [10].

In this study we have tried to investigate that how much midwives' consultation can influence depressed infertile women's attitude and knowledge that are undergoing IVF that can finally help them to improve their quality of life and their probable success in their treatment.

MATERIALS AND METHODS

In order to investigate the role of midwifery consultation on infertile women's knowledge and attitude undergoing treatment of infertility and its treatment, sixty mild to moderate (scared 10-47) depressed infertile women were chosen by easy purposive sampling in Shiraz Mother and Child hospital. The 2nd edition of depression questionnaire is composed of 21 multiple choice questions and measures physical, behavioral and cognitive depression. Based on different studies including Ghasemzade *et al*. (the reliability of this test was reported by Cronbach's alpha 0.87 and content validity 0.74 in Iran which is the base of the present study [11]. All the chosen patients were asked for their full medical history and underwent physical exam and routine tests in order to enter the study. The criterion of entering the study was: having general health, having mild to moderate depression, being untreated psychologically and mentally in the past and present, no alcohol consumption and smoking and drug abuse. The criterion for exiting the study was: lacks of tendency to co operate, stopping treatment in ovulation stimulation steps (like ovaries' hyper stimulation and …).

Data gathering tools were patients' demographic questionnaires which were filled by infertile women designed by the researchers' knowledge and attitude questionnaire with Cronbach's alpha 0.79 reliability and its validity was confirmed with three specialists in the field and also depression questionnaires were filled in the very beginning final phase of treatment (embryo transfer) for both groups. Chosen patients were grouped in two groups accidentally called controlled and midwifery consultation group (30 patients in each groups). Both groups were given the same pamphlet to see no difference while having possible relationship.

Patients in midwifery consultation group were consulted and guided in three fields and six sessions: first field, consultation about IVF treatment methods and giving required advice in different stages of treatment .Second field, consultation on how to have a good nutrition plan related to promoting general health and improving the consequences of infertility treatment .Third field, consultation on the needs for suitable exercises and relaxation methods in the process of infertility treatment and patient's support and companionship in IVF procedures. In this study it is tried to have a mutual relationship which is a prerequisite for an effective consultation. The consultation was done individually and for each person in six sessions and three different fields (each field in two sessions) and each session 30 minutes in a special room. In intervention group, the consultation and advice for patients was from 8 weeks before embryo transfer until the transfer day. The control group was under the normal treatment of the center.

For data analysis we used the usual statistical methods like variance analysis, Chi square, T- test, by SPSS 20. The problems for the research were: patients' lack of intention to participate in consultations sessions which were resolved by explanations. The other one was disconnecting the treatment is middle of the way which were out of control so they were removed from the study.

Ethical considerations

Getting the permission from the Shiraz University of Medical Sciences Authorities and being in coordination with IVF ward and laboratory of Mother and Child hospital in Shiraz all the participants were assured to keep their secrets and information confidential and they can get out of the research whenever they wish. This study extracted from an approved Thesis Shiraz University of Medical Sciences with Ethical code No ct-92-6902

RESULTS

After finishing the intervention in control group one person (being unwilling to use the medications) and 5 people (not answering the questionnaires) were put out of study. In consultation group 4 people (being not regularly present in consultations sessions), and 2 people (not filling the questionnaire) were put out of the study. At last this research was done on 48 people. Demographic informations of the people under research are shown in table 1 and 2.

Table−1: frequency distribution of qualitative demographic features in both control and interventional group

group	midwifery consultation			control		
Variables	max	min	M/±SD	max	min	M/±SD
age	37	24	30.0 ± 4.17	41	21	32.29 ± 5.73
Length(m)	170	155	159.95 ± 4.12	168	152	159.37 ± 3.89
Weight(kg)	100	47	66.0 ± 12.88	100	47	66.45 ± 11.78
BMI	38.10	17.8	25.78 ± 4.89	37.64	18.83	26.18 ± 4.65
Duration of marriage (year)	18	2	8.37 ± 4.78	25	2	9.29 ± 6.16
duration of infertility	14	1	5.50 ± 3.67	19	1	6.62 ± 4.96

Table-2: Qualitative distribution of qualitative demographic features in both control and interventional group

Variables	group	Midwifery consultation			control
family relationship between couples	Yes	%28	9	%28	9
	No	%35.7	15	%35.7	15
Patient education	Lower than diploma	58.3	14	%75	18
	College education	41.7	10	%25	6
Husband education	Lower than diploma	70.8%	17	%66.7	16
	College education	29.2%	7	%33.3	8
Jobs Patient	employee	25%	6	%20.8	5
	housekeeping	75%	18	%79.2	19
Jobs Husband	employee	33.3%	8	%33.3	8
	Self employment	66.7%	16	%66.7	16
contraception methods	Yes	25%	6	%45.8	11
	no	75%	18	%54.2	13
Infertility factor	Male	43.8%	14	%21.9	7
	Female	15.8%	3	%52.6	10
	Both	27.3%	3	%36.4	4
	Unknown	33.3%	4	%25.0	3
Mensturation	Regular	66.7%	16	%70.8	17
	Irregular	33.3%	8	%29.2	7
Type of infertility	Primary	%35.7	20	%28.6	16
	Secondary	22.2%	4	%44.4	8

Quantitative and qualitative variables in both groups were studied by T-test and Chi-square. There was no significant statistical difference considering 0.105 between them and both groups were assessed homogenous. Meaning that in both groups age variables (p=0.218), BMI (P=0.1669), infertility cause (p=0.1325), pregnancy history (P=0.501), type of infertility (P=0.398), marriage duration (P=0.457), family relationship between couples (P=0.399) were the same and distribution between 2 groups is homogenous.

In table 3 average score of knowledge and attitude in both control and intervention group in the beginning and after the finishing of the study were compared and in table 4 the depression rate of both groups before and after intervention is shown.

Table-3: comparing attitude and knowledge level before and after intervention in both control and intervention group.

Groups		N	M /SD	Mean difference	P – value
Consulting group	Pre Consulting knowledge	24	14.62 ± 3.82	-9.00000	0010.
	After Consulting knowledge	24	23.62 ± 2.60		
Control group	knowledge at first	24	13.43 ± 2.36	0.0625	0.185
	knowledge at end	24	13.5±2.34		
Consulting group	Pre Consulting attitude	24	49.12 ± 7.90	-13.04167	0010.
	After Consulting attitude	24	62.16 ± 8.15		
Control group	Attitude at first	24	45.78±6.23	-1.21739	0.17
	Attitude at end	24	47±6.12		

According to data of the table, the level of the knowledge and attitude of consulting group after consultation sessions has increased dramatically and significant ($p<0.001$). But in control group no significance is seen.

DISCUSSION

According to table 1&2, all qualitative and quantitative variables of both groups were compared and no significant statistical difference was observed between them and the distribution of people in both groups was homogenous. The demographic features of participants in tables 1& 2 show that the age of the participants in this study was between 20 to 41 (30.82±4.27) years and their BMI also was between 17.70±0.38 (25.68±4.27). The average duration of the infertility in couples in this study was 5.75±4.25. In Yuan et al study in 2013, the average age of infertile women was 33.1 years and the average duration of infertility was 6.8 years [12] and in Paulo Serafini et al in 2009 also the average age of infertile women was 32.95 and the average duration of infertility was 4 years. As it observed almost all of infertile women look for treatments after the age of 30 and suffering 5 to 6 years of psychological and mental and social problems of infertility and its primary treatment. In this phase the destructive effects of infertility and its aftermaths is more obvious and more impressive comparing to the earlier of pregnancy. This people have depression and anxiety like the early years of facing this problem. Therefore, their needs for additional help like consultation and professional supports for treatment and increasing knowledge and improving their attitude to infertility and its treatment seems to be more [13].

In a study in 2012 in Iran by Somayh Hashemi et al on 180 infertile women under treatment, 66.85% patients had primary infertility and it was like 54.55% was male problem, 28.2% female problems 17.35% both male and female problems [14]. In a study by Goranti et al in 2011 on 108 infertile women under treatment, 64% had primary infertility. In terms of the cause, 27% was female, 12% unknown and 19% was both male and female problems for infertility [15].

In most of the studies in developing countries [16] and especially in recent years [17], like the current study, most of the causes of infertility were reported primarily. These families have no experience of giving birth and feel lack of perception the meaning of life and being a parent and this problem enhances their psycho mental problems. Therefore, these people need guidance and appropriate models by the use of consultation to accept the new situation and different from what they had in their dreams. Involving them in medical procedures and stimulating their feelings along with some cares and attentions can lead to more success and giving them their required self confidence and a better acceptance and perception of the situation.

As can be observed in tables 3 the level of knowledge and attitude of people towards infertility and its treatment has increased. While the level of attitude and knowledge of control group in the same period has not changed. From the finding of these studies it can be concluded that consultation by the people who have hands on professional infertility treatments and also know consultation techniques and support of infertile people can improve these people's knowledge and their change of attitude.The other issue that needs attention is the low knowledge and attitude of these women about pregnancy and its treatments [18].

So these women need enough information about infertility and its treatments in a simple and non medical language [19]. It seems that this issue is ignored because of the crowded clinics and too busy infertility experts. It seems this need can be met by the trained midwives who only put their time for this matter.

As this is specified in this study, adding a consultation and guidance phase (step) along with usual treatments steps can effectively influence their change of attitude and their knowledge increase. In Gourounti study the level of stress and depression in infertile women is known to be connected with their coping mechanisms and getting the problems under control and it is noted that infertility clinics the perception of depression and stress level relating to their treatments should be paid more attention [20].

Suggestions

According to the obtained results in this study it is recommended to open a special ward in infertility centers for midwifery consultation in treatment issues, relaxation techniques, suitable exercises, stress and depression confronting methods and … in order to lower the problems of these vulnerable people and make them have a better life. Also by following the consultation intervention effects on the results of infertility treatments, their effectiveness can be surveyed.

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