بسم الله الرحمن الرحيم

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Assessment of level of anxiety and depression in infertile women undergoing assisted reproductive technology and its associated factors

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Key points

- Background
- Justification
- Research methodology
- Results and discussion
- Conclusion
- Recommendations
Background:

- **infertility** is the inability to get pregnant after a year of unprotected intercourse.

- Mental stress, particularly anxiety and depression, resulting from infertility may be due to various factors, including uncertainty of the cause of infertility, uncertain treatment duration, financial stress, and pressure from others who know the couple.
General objective:

- The present study general objective is to assess the level of anxiety and depression in infertile women attending infertility clinics seeking assisted reproductive and its correlated factors.
Specific Objectives:

- To assess anxiety level.
- To assess depression level.
- To describe the woman’s factors associated with anxiety and depression.
Justification

- The psychological impact of infertility has now been widely reported. It may result in stress on the couple and their relationship.

- Women undergoing in vitro fertilization (IVF) may find the experience stressful, and couples that get on on IVF treatment are experiencing a major life event that is associated with increased levels of anxiety, depression, and stress.
Justification

- In our local settings there is no counseling service given to the couples during the course of treatment and there was no similar research that studies the level of anxiety and depression in women experiencing assisted reproductive technology and its associated factors.
Prevalence of Infertility

- **Infertility** is the inability to get pregnant after a year of unprotected intercourse.
- Approximately 10 to 15 percent of couples will meet this definition.
The Hospital Anxiety and Depression Scale (HADS)

- The HADS is a self-administered rating scale composed of 14 questions, seven for anxiety and seven for depression. It is a valid and reliable in both hospital and community settings.
- The HADS has been successfully used to screen emotional disorders in subjects with a variety of diseases, including infertile women.
RESEARCH METHODOLOGY
Chapter Two: Research Methodology

2.1 Study Design
The study is a descriptive, cross-sectional, and facility based study.

2.2 Study Area:
Sudan. Khartoum State

2.3 Setting and site selection
The setting of the study was in the Sudan Center for assisted reproduction and in vitro fertilization and Dr. Elsir fertility Center.
Chapter Two: Research Methodology

2.4 Population/sample

Study population includes all patients referred to the infertility clinics seeking assisted reproductive technology for infertility between April and July 2013 were asked to participate in this study.
2.4 Population/ sample

- Inclusion criteria only the infertile women matched the following inclusion criteria included in this study: infertile, aged 18-45 years old and waiting for treatment cycle of IVF, ICSI or intrauterine sperm injection (IUI).
- Exclusion criteria clients who didn’t match inclusion criteria were excluded.
- Those who did not agree to take part in the study were excluded.
Chapter Two: Research Methodology

3.6 Data collection technique
The data was collected using structured interview with the participant, conducted by the researcher.

3.7 Data collection tool
It was by using questionnaire comprising two parts first the Sociodemographic data and the possible factors associated with anxiety and depression designed by the researcher, second hospital anxiety and depression scale (HAADs).

3.8 Data Analysis
Data were analyzed automatically by IBM SPSS Statistics 20.0.
Chapter Two: Research Methodology

3.9 Bias
Errors introduced by bias were minimized by making the study sample statistically powerful (i.e. 95% confidence), and increasing the sample size. Also the samples was randomly selected, to make the sample as representative of the population as possible.

3.10 Ethical Considerations
The study was done after taking permission from centers’ managers as well as verbal permission from the participant. The questionnaires were anonymous to insure the privacy of data.
Results and Discussion
Key points in discussion

a. Anxiety and depression scores
b. Age
c. Occupation and sufferings
d. The level of education
e. The duration of infertility
f. The cause of infertility
g. Feeling of pressure from people around
Discussion:
Anxiety and depression scores in percentages

- In percentage 33.3% of our participants have anxiety and 26.3% have depression.
- Comparing this to other studies Fatemeh et al which found that 40.8% of their study subjects had depression and 86.8% had anxiety. Another showed that 67% of infertile women suffered from anxiety while 24.9% had depressive disorders.
Discussion:
Anxiety and depression scores in percentages

- Anderson et al 16. (2003), using the HADS, also found that about a 25% of the infertile women attending the clinics had a high level of anxiety.
Discussion:
Anxiety and depression scores

- In addition, Upkong et al.\textsuperscript{5} in Nigeria and indicated that the prevalence of anxiety and depression in the infertile women was 37.5\% and 42.9\% respectively. Domar found that More than a quarter (26.8\%) of all these participants had depressive disorders, and even more (28.6\%) had anxiety disorders.\textsuperscript{8}
Discussion:
Anxiety and depression scores in percentages

- This variation between studies may be due to sociodemographic characteristics of participants but they all agree that the effect of infertility on the mental health of infertile is great and needs more attention.
Discussion:

Age

- The mean age of the 114 participants was 32.89 ± 6.7 years and average duration of infertility was 5.5 ± 3.9 years.
- Depression and anxiety higher levels were at age over 40 years.
Discussion:
Age

- This is supported by Drosdzol A (17) which found the at risk age is age over 30 years. Meanwhile Depression and anxiety were more severe in 21–25 years in a previous study done in Iran (11), However Mariko Ogawa (4) found no relationship between anxiety and depression and age.
Discussion:
Occupation and sufferings

- It is clear that housewives achieved higher scores than employed ones which may be due to the fact that engaging in outside home activity and makes them have less leisure time to think on infertility matters and give the sense of achievements and personal-satisfaction.

- This support another study\(^9\) and also Ogawa. And (11) and Drosdzol A, (17).
Discussion
The level of education

- The prevalence of anxiety and depression has inverse relationship with the level of education the higher educational level the lower anxiety or depression scores.

- The explanation for this may be due to the sense of self confidence and enhanced self-esteem that education gives.
Discussion
The level of education

- Another fact that infertility may make the women tries to achieve another success when she feels failure in childbearing. Various Studies supports this findings (11) (17)

- In contrast to this Fatemeh Ramezanzadeh (11) found that there is no significant relation between them. That contrast may be due to different social views to the educated women between societies.
Discussion
The duration of infertility

- Additionally to this we found that the longer the duration of infertility the lower the scores, the peak of anxiety and depression scores were when the infertility duration is 4-6 years.
Discussion
The duration of infertility

- In a previous study, DOMAR et al. (18) and others (17) reported that anxiety levels are the highest in the second and third year of infertility and that these levels decrease after six years (11).

- This was also demonstrated by others (12) (13). Unlike Drosdzol A, (17) which stated that ‘It was shown that the first three years (1–3) anxiety and/or depression are in its lowest limit and after 4 to 9 years it becomes worse.'
Duration of infertility

- <3 yrs.: 43
- 4-6 yrs.: 27
- 7-10 yrs.: 30
- >10 yrs.: 13

Number: blue bars, Anxiety: red bars, Depression: gray bars
In this study there was no clear relationship between anxiety or depression and the cause of infertility whether a male.
Feeling of pressure from people around

- Nearly 40% of participants said that they feel pressure from people around them about fertility matters in this study as it is expected for such community.

- This findings are similar to a study by Fatemeh Ramezanzadeh et al (17) and Ting-Hsiu Chen (13)
they feel pressure from people around

- Infertile women may have their gender identity questioned, experience social exclusion, be suspected of having evil potential and be subject to harassment, especially from their in-laws (Koster-Oyekan, 1999; Upton, 2001).
Conclusion

- Infertility which is a common disorder, along with its treatment put the lady in a great psychological and social stresses.
- Special attention and care must be given individually to each lady according to her needs and risk factors age employment status and duration of infertility so as minimize the anxiety and depression levels.
Recommendations

1. Counseling services should be available at infertility clinics and referral to psychiatrists for profound cases.

2. Training nurses to be effective counselors because of their close relationship with patients.
Recommendations

3. Establishing an infertility association because infertile women prefer to communicate with each other’s and share stories than talking with someone else.

4. Buildings and environment of the infertility centers must be designed in a way that the lady can find something to do during waiting times, one of the participants stated that ‘I am happy in my daily life but when I came here I became depressed ’.
References


References


References


References

Appendices

The questionnaire
سُبْحَانَكَ اللَّهُمَّ وَ بِحَمْدِكَ نَشْهَدُ أَنَّكَ أَنْتَ نَسْتَغْفِرُكَ وَ نَتَّوَبُ إِلَيْكَ