Effectiveness of Cognitive Restructuring Counselling Technique in Managing Anxiety Among Couples with Infertility Challenges in Gombe State, Nigeria

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Abstract
This study investigated the effectiveness of cognitive restructuring counselling technique in managing anxiety among couples with infertility challenges in Gombe State, Nigeria. The population of this study was seventy-six (76) couples of reproductive age with infertility challenges that were registered and receiving infertility treatment at the two Government owned hospitals selected for this study. These are: Federal teaching hospital, Gombe and Specialist Hospital Gombe. Forty-two (42) patients accessing infertility treatment from Federal teaching hospital and thirty-four (34) patients accessing infertility treatment from specialist hospital Gombe (i.e. 42+34 = 76). Thirty-eight (38) couples were selected to participate in the study. The researcher employed quasi-experimental pre-test/post-test and control group design, in which selected couples were assigned to two experimental groups. The experimental group were treated with cognitive restructuring counselling tecnique while the control group didn't receive any treatment. The treatments were carried out within eight weeks of counselling sessions. Group counselling method was employed in the study. Each of the subjects was administered with pre-test/post-test research instrument using Beck Anxiety Inventory (BAI) Two research objectives and two research hypotheses were formulated. The data collected were analyzed using dependent sample t-test to test hypothesis 1 and independent t-test was used to test hypothesis 2 at 0.05 level of significance. Results from data analysis revealed that cognitive restructuring counselling technique was effective in managing anxiety among couples with infertility challenges. It was also recommended that cognitive restructuring should be used in managing anxiety level of couples faced with infertility challenges in various health centres.
Keywords: cognitive restructuring, couple, anxiety

Introduction

Infertility is considered as the inability of couples to be able to conceive pregnancy and reproduced offspring after having regular sexual relationship for a period of one year and above without the use of any contraceptive. Accoding to Nordica Fertility Centre (2015), infertiliity is the inability to conceive after one year of unprotected intercourse, or the inability to carry pregnancy to term. Lampic, Svanberg and Karlstron (2006) stated that, infertility refers to a state of childlessness in a population of women of reproductive age. Many couples experience serious challenges in the period of diagnosis and treatment of infertility and see it as a life stressful event or a circumstance that sometimes exposes couples to behavioural problems such as depression, anxiety, stress which may lead to irrational thinking and beliefs. However, there are two major types of infertility which include: Primary infertility and Secondary infertility. Primary infertility is the inability to conceive a first child, while Secondary infertility is the inability to conceive after one life birth (Gibson & Myers, 2000).

Infertility is not limited to one culture as it found across every culture and in different social classes all over the world. According to Butler (2003), infertility affects about 168 million people worldwide; generally, one in ten couples experiences primary or secondary infertility. Infertility among individuals, vary

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from society to society. In some African societies, infertility is often believed to be due to sundry reasons such as witchcraft, and sorcery or as punishment for infidelity (Idrisa & Ojiyi, 2000).

In Africa, bearing children is accorded a serious priority. This is because children are believed to carry the names of family members' generations after generations. When couples are faced with infertility challenges; some seek medical attention while others go for traditional medicine. Infertility is associated with social, economic and psychological consequences. Psychological consequences exist in form of distress, depression, anxiety, hopelessness, helplessness, low-self-esteem and social isolation or withdrawal (Illmense, Levanduski, Vidali, Hussaini & Goudas, 2009). One of the constructs of infertility and a major challenge to couples is anxiety which is a form of behaviour disorder. According to Oladele (2004), anxiety is a learnt response to unpleasant stimulus. Therapies that survives in the future will need to be based on solid theory as well as proven effectiveness. Long-term psychotherapy systems have lost much of their popularity and with the growth of managed care is becoming accessible only to the rich. Those systems that will flourish will provide measurable outcomes in relatively few sessions and be applicable to people from all socio-economic levels of society. These systems must be taught and used by persons other than psychotherapists: teachers, group workers, drop-incented employees.

Statement of the Problem

Infertility is a serious phenomenon that has effect on both men and women in Gombe State, but in many cases, the blame is mostly on women. The male partners sometimes stay away from the hospitals, thereby exposing the women to all sorts of hazards and frustration, both culturally and socially. In most cultures, women suffer personal grief and frustration, social stigma, and often serious economic deprivation. They receive the major blame for reproductive mishaps and in many places, infertility lead to divorce, jeopardizing a woman's livelihood. In some Nigerian cultures, infertile women are treated as outcast and their

bodies are buried in the outskirts of the town. Also, among the Ewe and the Ashanti, a man or woman without a child is not considered fully an adult and, after death, they are not buried with full rituals. However, in Gombe State where the researcher has lived, couples with infertility challenges are sometimes considered as witches or being wicked. In some cases, women are accused of serious accusations from in-laws of not being able to bear children for their sons and this may result into marital crisis or divorce. The infertile women are sometimes blamed for any mischievous deaths in their homes or community.

Couples' struggling with infertility challenges are faced with emotional and mental health concerns like anger, depression low self-esteem, hopelessness, worthlessness and anxiety. Partners may become more anxious to conceive, ironically increasing sexual dysfunction and social isolation. Marital discord often develops in infertile couples, especially when they are under pressure to make medical decision. They experience stigma, sense of loss, and diminished self-esteem in the setting of their infertility and can be reminded of their conditions through television shows, movies and commercials that relate to children and these messages may lead couples to believe that they are not a functioning part of the society.

Several studies conducted on infertility are on its causes and treatments thereby paying little attention to psychological effects of the problem. In developed countries infertility treatment goes hand in hand with psychological treatment to improve the chances of getting positive result (conceiving). Where the result is not forthcoming, person with infertility couples are prepared mentally against any challenges ahead which will in turn enable them to live a positive and well-adjusted life. The underlying factors to those problems are due to lack of functioning counselling centres to cater for the needs of the infertile couples. This pathetic situation has rendered many more couples facing infertility challenges helpless and hopeless. It has caused many marital crisis and divorce between married couples in Gombe State. These and more are some of the challenges faced by infertile couples in Gombe

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State. It was on the basis of this, that the researcher was prompted to examine the effectiveness of cognitive restructuring counselling technique in managing anxiety among couples with infertility challenges in Gombe State, Nigeria.

Objectives of the Study

The objectives of the study are tofind out:
1. The effectiveness of cognitive restructuring counselling technique on the pre-test/post-test means scores on anxiety level among couples with infertility challenges in Gombe State, Nigeria.
2. The anxiety level between the groups exposed cognitive restructuring counselling technique and those in the control group among couples with infertility challenges in Gombe state, Nigeria.

Research Hypotheses

The following null hypotheses were tested in the course of the study

Ho$_1$: There is no significant difference in the effectiveness of cognitive restructuring counselling technique on the pre-test/ post-test means scores on anxiety level among couples with infertility challenges in Gombe State, Nigeria.

Ho$_2$: There is no significant difference on the anxiety level between the group exposed to cognitive restructuring counselling technique and those in the control group in Gombe state, Nigeria.

Methodology

The research design used was quasi-experimental design involving pre-test, post-test and control groups. William (2006) opined that the quasi-experimental design involves the manipulation of one or more independent variables but there is no random assignment of subject groups. Therefore, couples with infertility challenges were purposively selected and assigned to experimental and control groups. The population of this study was seventy-six (76) couples of reproductive age with infertility challenges that were registered and receiving infertility treatment at the two

Government owned hospitals selected for this study. These are: Federal teaching hospital, Gombe and Specialist Hospital Gombe; forty-two (42) patients accessing infertility treatment from Federal teaching hospital and thirty-four (34) patients accessing infertility treatment from specialist hospital Gombe (i.e. 42+34 = 76).

The 38 couples with infertility challenges. This was because the numbers of couples undergoing treatment in both hospitals were not many. Purposive sampling was used in selecting sample for the study. Among the 38 samples, 20 were assigned to cognitive restructuring at both Federal teaching hospital and Specialist hospital, Gombe. While 18 patients from Federal teaching hospital and Specialist hospital, Gombe constituted the control group.

The instrument used for this study was Beck Anxiety Inventory. BAI in Adefokun (2015). The Beck Anxiety Inventory (BAI) is also a 21 item test; it is a self-report inventory. It is one of the most widely used scales for assessing intensity of anxiety, and each of its items describes a specific behavioural manifestation of anxiety.

The reliability of BAI was also obtained by Beck, the original developer, using the test-retest method and Cronbach's Coefficient Alpha, for BAI: $r = 0.86$ at $p < 0.01$ and $\alpha = 0.96$ at $p < 0.01$, The test was also shown to have a high reliability index after two-weeks test-retest reliability (Pearson $r = 0.93$). The researcher made use of dependent samples t-test to analyzed hypothesis 1 and independent t-test was used to analyzed hypothesis 2 tested at 0.05 level of significance.

Result

The researcher employed mean and standard deviation of the groups in providing answers to the research questions.

Question One: What is the effectiveness of cognitive restructuring counselling technique on the pre-test/post-test means score on anxiety level among couples with infertility challenges in Gombe state?

Table 1: Anxiety level among couples with infertility challenges that were exposed to cognitive restructuring in Gombe state.

Groups	Treatments	N	Mean	Std. Deviation
Pre-test anxiety	Cognitive restructuring	20	33.79	8.48
Post-test anxiety	Cognitive restructuring	20	23.14	5.08

Source: field data (2021)

Table 1 shows the pre-test and the post test mean scores on anxiety level among subject exposed to cognitive restructuring counselling technique. From the table, the pre-test mean and post-test mean scores on anxiety level for experimental group 20(33.79, 23.14) This show that cognitive restructuring counselling technique was effective in reducing anxiety level of subjects in the treatment group.

Question Two: What is the anxiety level between the groups exposed to cognitive restructuring and those in the control group among couples with infertility challenges in Gombe state, Nigeria?

Table 2:   Anxiety level among couples with infertility challenges exposed to cognitive restructuring and those in the control group

	Treatment	N	Mean	Std. Deviation
Post-test anxiety	Cognitive Restructuring	20	23.14	5.08
Post-test Control group	Control Group	18	25.57	7.26

Source: field data (2021)

Table 2 shows that mean score of subjects on anxiety level in cognitive restructuring counselling technique 20(23.14) which is lower than the means score on anxiety level of subjects in the control group 18(25.57). This indicated that cognitive restructuring counselling technique is more effective in reducing the anxiety level among couples experiencing infertility challenges, than the control group. The difference in the means score on anxiety was attributed to effectiveness of cognitive restructuring compared to the control who did not received any treatment in any form.

Hypotheses Testing
In this study, two null hypotheses formulated were tested at 0.05 level of significance.
H0$_1$ There is no significant difference on the effectiveness of cognitive restructuring counselling technique on the pre-test/ post-test means scores on anxiety level among couples with infertility challenges that were exposed to cognitive restructuring in Gombe state, Nigeria.

This hypothesis was tested by subjecting the pre-test and post-test scores of the respondents to t-test analysis as presented in Table 3.

Table 3:   Anxiety Level of Respondents Exposed to Cognitive Restructuring Technique.

Variables	N	Mean	Std. Deviation	t-Cal	*p*-Value	Decision
Pre-test	20	33.79	8.478	6.930	.000	Rejected
Post-test	20	23.14	5.082			

Source: field data (2021)

Table 3 shows that t-test indicated scores were significantly lower for the post-test ($M = 23.14$, $SD = 5.082$) than for the pre-test ($M = 33.79$, $SD = 8.48$), $t(13) = 6.930$, $p = .000$. Thus, the respondents' anxiety level reduced significantly after being exposed to cognitive restructuring because the realized p-value was less than the .05 level of significance. This indicated that there was significant reduction in the anxiety level of the respondents' due to the effect of the intervention technique. Therefore, H01 which stated that, there is no significant

difference on the effectiveness of cognitive restructuring counselling technique on the pre-test/post-test mean scores on anxiety level among couples with infertility challenges in Gombe State, Nigeria is rejected.

Ho₂: There is no significant difference in the anxiety level between the group exposed to cognitive restructuring counselling technique and those in the control group in Gombe state, Nigeria.

This hypothesis was tested by subjecting the post-test mean scores of the respondents to t-test analysis as presented in Table 4.

Table 4: Anxiety Level between the Respondents Exposed to Cognitive Restructuring and those in the Control Group.

Variables	N	Mean	Std. Deviation	t-Cal	*p*-Value	Decision
Cog. Restructuring	14	23.14	5.082	-	.411	Not rejected
Control Group	14	25.57	7.261	.850		

Source: field data (2021)

Table 4 shows that t-test indicated scores were lower for co gnitive restructuring ($M = 23.14$, $SD = 5.082$) than for the control ($M = 25.57$, $SD = 7.261$), $t (13) = -850$, $p = .411$. Though the anxiety level of the respondents' exposed to cognitive restructuring reduced more than those in the control group, the difference was not significant between the two because the realized p-value is greater than the .05 level of significance. Therefore, H0₂ which stated that there is no significant difference in the anxiety level between the group exposed to cognitive restructuring and those in the control group among couples with infertility challenges in Gombe State, Nigeria is accepted.

Summary of Findings
The following are the summary of the major findings:
1. There is a significant difference in the effectiveness of cognitive restructuring counselling technique on the pre-test/ post-test means scores on anxiety level among couples with infertility challenges in Gombe State, Nigeria. This was as a result of the treatments received.
2. There is no significant difference in the anxiety level between the group exposed to cognitive restructuring counselling technique and those in the control group in Gombe State, Nigeria.Though there is difference but not significant.

Discussion of Findings
Finding revealed that there was a significance differences in the effectiveness of cognitive restructuring counselling technique on the pre-test/post-test means score on anxiety level among couples with infertility challenges in Gombe state Nigeria.

 This finding agrees with the result of Cousineau and Domar (2007) on some of psychological disturbances associated with infertility diagnosis and as being experienced by couples with infertility challenges. They reported that the inability to conceive children is experienced as a stressful situation by some individuals and some couples all around the world. The report added that the consequences of infertility are manifold such as societal repercussions and personal sufferings as well as emotional responses which include distress, loss of control, stigmatization, disruption in the developmental trajectory of adulthood, results from finding by Cousineaus and Domar concluded that psychological interventions, such as stress management, and coping skills training have shown to have significant effects for infertile patients. Result from the present study indicated that cognitive restructuring is effective in managing couples with infertility challenges.

Another finding also reveals that there were no significant differences in the anxiety level among couples with infertility challenges exposed to cognitive restructuring counselling technique and those in the control group. The

anxiety level of those in the experimental group reduced more than those in the control group, the difference was not significant between the groups. The result of testing this hypothesis is in line with the findings of Haeffel, (2010) which revealed that, a significant difference exists in the effectiveness of women exposed to cognitive restructuring counselling technique and those in the control group who did not receive any counselling treatment. The findings revealed that there were no differences in the incidence of anxiety level between the experimental group and the control group. While it is in contrast with the findings from Hamid (2010), that has shown that cognitive-restructuring intervening have caused a significant difference in decreasing the anxiety in infertile women compared with the control group.

Conclusion
The following are the summary of the major findings:
1. There is significant difference on the effectiveness of cognitive restructuring counselling technique on the pre-test/ post-test means scores on anxiety level among couples with infertility challenges in Gombe State, Nigeria. This was as a result of the treatments received.
2. There is no significant difference on the anxiety level between the group exposed to cognitive restructuring counselling technique and those in the control group in Gombe State, Nigeria.Though there is difference but not significant.

Based on the findings of the study the following are the conclusions drawn.

The respondents' anxiety level reduced significantly after being exposed to cognitive restructuring counselling technique. Therefore, cognitive restructuring counselling technique was effective and should be used in managing anxiety level of couples with infertility challenges.

Furthermore, respondents exposed to cognitive restructuring had their anxiety levels reduced more than those in the control group among couples therefore cognitive restructuring should be used to manage those in the control group.

Recommendations
Based on the findings of the study, the following recommendations were made:
1. Cognitive restructuring counselling techniques should be employed in managing anxiety level of couples faced with infertility challenges in various health centres.
2. Since respondents exposed to cognitive restructuring had their anxiety levels reduced more than those in the control group, though it was not significant, the control group should be exposed to cognitive restructuring counselling techniques.

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