

DEPRESSION AND COPING STRATEGIES AMONG WOMEN WITH INFERTILITY, ATTENDING THREE GYNAECOLOGICAL CLINICS IN IBADAN.

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Abstract

Infertility is a crisis that leads to a psychological imbalance. Depression as a consequence of infertility seems to be on the increase. Depressed clients are extremely vulnerable but adequate coping strategies could play valuable role in emotional response. There is a dearth of literature on depression and coping modalities among infertile women in Ibadan. The study therefore assessed depression and coping strategies among women with infertility attending three gynaecological clinics in Ibadan, using a descriptive cross-sectional approach in eliciting information from 79 women. Beck Depression Inventory and Ways of Coping Checklist were used. The mean age of participants was 35 years \pm 6.0, with increased age being significantly related to depression ($P < 0.007$). Escape avoidance, positive reappraisal and planned problem solving, tended to be associated with reduced depression. Education of nurses should emphasize skill development in counselling in infertility. A future study with larger sample might identify significant coping strategies.

Introduction

Infertility in Africa is commonly associated with negative psycho-social consequence^[1-5]. It is a crisis that leads to a psychological imbalance especially when a possible and quick solution is not found for it^[3]. Also, It entails a loss of something even though previously nonexistent is thought to be tangible and therefore impacts negatively on a couple's mental and social wellbeing^[6]. In Nigeria, about 15% of married couples aged 19 to 45 years have various forms of infertility problems^[7]. Of these 23.6% had primary infertility, 28.3% had secondary infertility while the remaining 48.1% had other

gynaecological disorders^{[7] [8]} World Health Organisation (2004) estimated that 60 to 80 million couples worldwide currently suffer from infertility. In Africa, up to 65% of gynaecological consultations are for infertility^[7]. It is a growing problem across all cultures and societies almost all over the world and affects an estimated 10-15% of couples of reproductive age^[6]. Depression is a reaction which appears as a consequence of sorrow^[9]. There is evidence that the majority of infertile women will report depressive symptoms at some point during their treatment especially following unsuccessful treatment cycles^[10].

KEYWORDS: *Infertility, Depression, Coping strategies*

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Infertility is one of the basic issues of reproductive healthcare. In the International Conference on Population and Development (ICPD, 1994), infertility is a programme for action which should be reached for all by the year 2015^[11]. It is not solely a medical problem as it could also impose psychological stress on a marriage or relationship. Most studies of women seeking infertility treatment show significant rates of depressive symptoms persisting even after

pregnancy are attained ^[13]. A highly pro-natalist society such as Nigeria, where women have few occupational choices and motherhood is the only identifier of adult status, infertility is highly stigmatizing ^[14]. The inability to have children damages both cultural and adult identity leading to social rejection and marginalisation ^[14].

Recent surveys have converged on the view that depression is becoming a 'silent epidemic' which is contributing significantly to disability and mortality ^[15]. There is now solid evidence that facing infertility is one of the most distressing across several countries and cultures ^[16]. Also, epidemiology shows that infertility is a global problem, but its relationship with depression has to be shown clearly especially in this culture. Healthcare professionals seldom recognise the psychosocial distress in women undergoing fertility treatment which is a major factor contributing to disability around the world ^[17]. In the absence of services designed to improve mental health of women with infertility, it is anticipated that depression will continue and will become the leading cause of disability by year 2020 ^[15]. Despite severe negative consequences, infertility has received insufficient attention in safe motherhood and reproductive health programmes ^[12].

Observation shows that infertility is a global health concern, although there are programmes to reduce high rate of fertility in the country but presently there no programmes that address the high rate of infertility. Clinics do not provide counselling services; no known intervention programmes specifically address infertility, neither are there educational messages that include infertility as a major issue. Although some studies have been done on infertility, but none has focused on the relationship between infertility, depression and coping strategies.

This study is therefore assessed depression and coping strategies among women with infertility in three gynaecological clinics in Ibadan.

It is hope that the results from the study might help in developing psychosocial nursing intervention programme for women in this locality. In addition it will help in integrating, counselling and follow-up services in infertility management.

Objectives

- Determine the proportion of women with depression among infertile women.
- Identify the predisposing factors leading to depressive symptoms among women with infertility.
- Identify the severity of depression among women with primary infertility and women with secondary infertility.
- Identify the coping strategies among women with infertility problems.

Conceptual framework

Roy's adaptation model believed that a person's adaptive responses are a function of the incoming stimulus and the adaptive level. She conceptualizes the person as having four modes of adaptation; physiological, self concept, role function and interdependence. The adaptive responses that promote integrity of the person were measured with Coping theory that assess the distress level of people who experienced different social and health problems or people who faced stressful encounters that culminated to depression as a result of infertility.

MATERIALS AND METHODS

The study utilized a descriptive cross-sectional study design to assess depression and coping strategies among women with infertility in Ibadan.

Respondents consisted of 79 women diagnosed with infertility who were seeking healthcare from gynaecological hospitals in Ibadan. The procedure was a non probability purposive sampling method. The sample size was distributed proportionally among the institutions based on their respective patients turn out. Inclusion criteria were: age range between 25-47 years, infertility duration of greater than 1year and being diagnosed with primary or secondary infertility. Exclusion criteria included unwillingness to participate

Two standardised instruments, Beck's depression tool and ways of coping scales were adapted by the researcher. The questionnaire was divided into four sections: Section A was the demographic data contained eleven⁽¹¹⁾ questions, Section B was assessment of level of depressive affect contained twenty one⁽²¹⁾ questions, Section C was factors contributing to depression consisted of ten⁽¹⁰⁾ questions and Section D was assessment of coping strategies consisted of fourteen⁽¹⁴⁾ questions. In order to examine its suitability to this environment, it was tested for reliability using a test-retest method using twenty⁽²⁰⁾ women with infertility from another center who did not participate in the study. The interval between the two tests spanned two weeks. The data collected were analysed and the reliability coefficient was found to be 0.8 (Cronbach Alpha). In addition the local language (Yoruba) version was developed using back-to-back translation.

Consent of the respondents were obtained following detailed information on objective of the research. Each respondent was given a questionnaire to complete. One researcher and one trained research assistant were responsible for the distribution and collection of the questionnaires. Based on patient's turnout in each institution data collection continued until adequate sample size was collected which lasted for five weeks.

Data were analysed using Statistical Package for the Social Sciences version 21. The socio-demographic distribution of respondents was done by distribution tables and simple frequencies. Categorical variables were summarized using percentages and Chi-square for the variables. Independent t-test was used to compare scores of the two groups. Continuous variables were summarized using means and standard deviations (SD). The weight attached to each response range from 0 (absence of the symptom) to 3 (severe presentation of the symptoms). Total scale scores on depression scale ranged from 0 to 63. Scores of 17 and above indicates a clinically significant depression. The classification of depression scores was as follows; 0 – 16 (Without depression), 17 – 27 (Mild depression), 28 – 34 (Moderate depression) and 35 – 63 (Severe depression). All factors contributing to depression entered in a multiple regression analysis. The percentage response of women on items of how they cope with their infertility problem was grouped together using the grouping theme. Statistical significance was set at $p < 0.05$.

RESULTS

Table 1: Socio-Demographic Characteristics of Respondents

S/N	Variables	Number	Percentage (%)
1	Age group		
	25-34 years (Young women)	39	49.4
	35-46 years (Older women)	40	50.6
	Total	79	100
2	Education		
	Primary	12	15.2
	Secondary	37	46.8
	Tertiary	30	38.0
	Total	79	100
3	Marital status		
	Married	77	97.5
	Single	2	2.5
	Total	79	100
4	Type of marriage		
	Monogamous	63	79.7
	Polygamous	16	20.3
	Total	79	100
5	Occupation		
	Employed	68	86.1
	Unemployed	11	13.9
	Total	79	100
6	Religion		
	Christianity	54	68.4
	Islam	25	31.6
	Total	79	100

The women's age ranged from 25 to 46 years. The mean age was 35years +_ 6.0 standard deviation. The ages of the women were normally distributed (Figure 4.1). Sixty seven respondents (84.8%) had a minimum of secondary school education. Seventy seven (97.5%) of the respondents were

married. Sixty three (79.7%) of the respondents were into monogamous type of marriage. Sixty eight (86.1%) of the respondents were gainfully employed. Fifty five (68.4%) of the respondents were Christians.

Information on Obstetric and Gynaecological history.

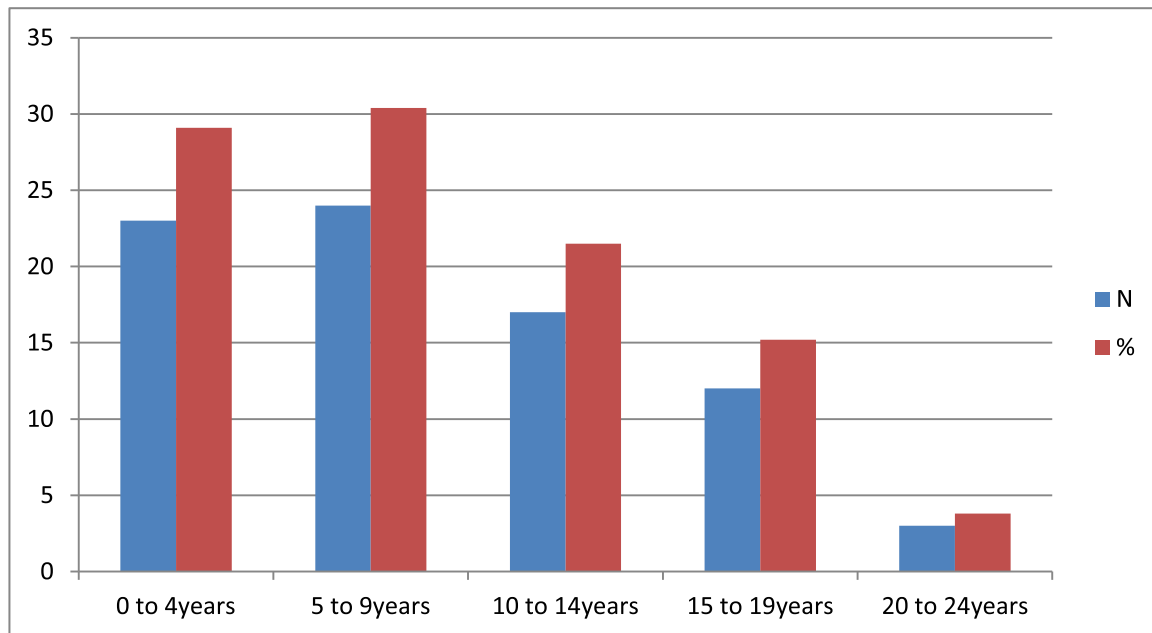


Figure 1: Bar chart showing years of marriage distribution of participants.
The modal year of marriage was between 5-9years (30.4%).

Table 2: Years of duration of infertility

S/N	Variables	Number	Percentage (%)
7	Years of duration of infertility		
	1-5 years	38	48.1
	6-10years	20	25.3
	11-15years	10	12.7
	16-20years	9	11.4
	21-25years	0	0.0
	26-30years	2	2.5
	Total	79	100

The duration of infertility was grouped with the modal years of infertility being 1-5years (48.1%) having the highest frequency. The duration of infertility of women were normally distributed.

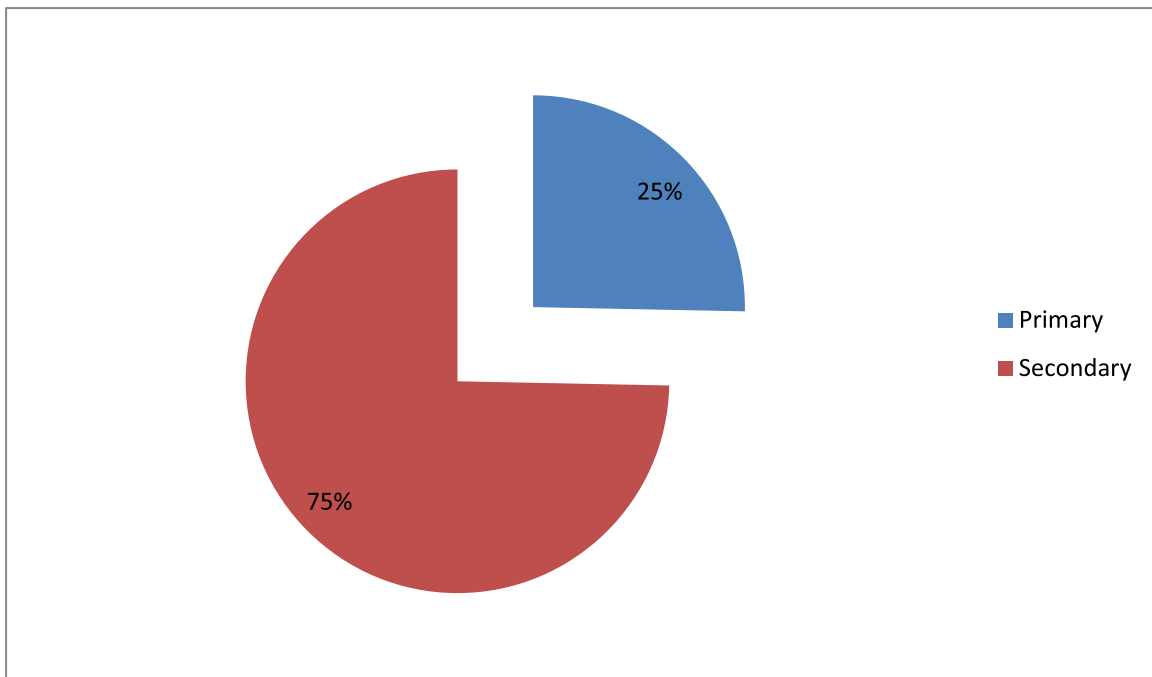


Figure 2: Pie chart showing type of infertility distribution of participants.

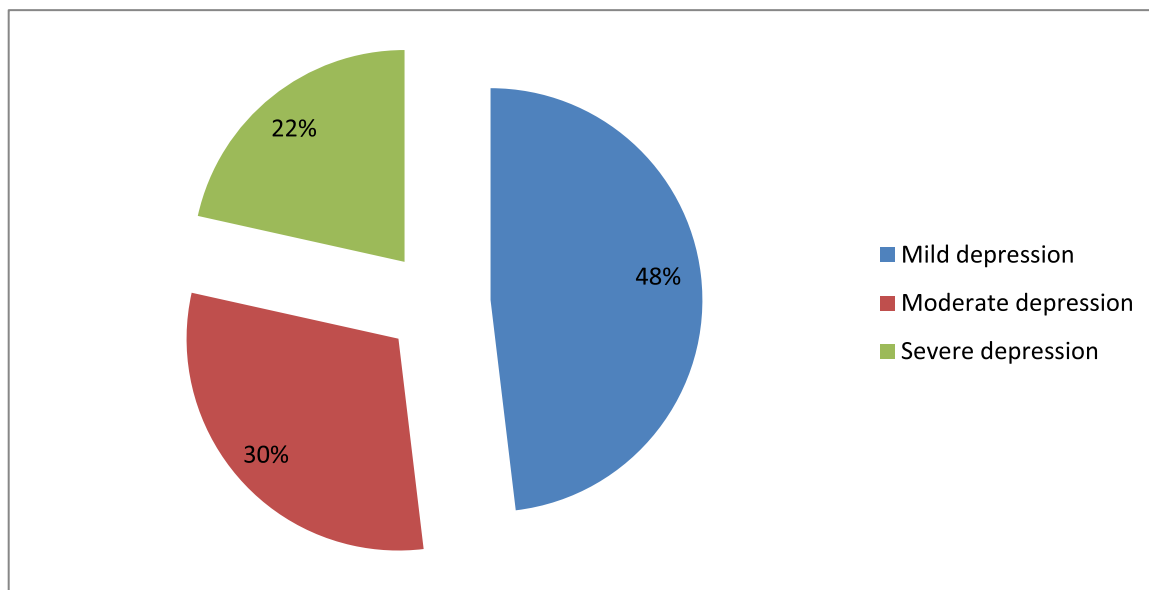
Fifty nine (74.7%) of the respondents had secondary infertility while only twenty (25.3%) had primary infertility.

Table 3: Outcomes of previous pregnancies

S/N	Variables	Number	Percentage (%)
9	Outcomes of previous pregnancies		
	Live births	22	27.8
	Still births	17	21.5
	Miscarriage/abortion	20	25.3
	Nulligravida	20	25.3
	Total	79	100

Twenty (25.3%) of the respondents were nulligravida while fifty nine (74.6%) respondents had achieved at least one pregnancy with or without positive outcome.

Figure 3: Pie chart showing level of depressive affect of respondent based on Beck Depression Inventory score



According to Beck’s inventory thirty eight (48.1%) of the respondents had mild depression, twenty four (30.4%) of the respondents had moderate depression and seventeen (21.5%) of the respondent had severe depression.

Table 4: Factors contributing to depression among women

S/N	Variables	Yes	No	Unsure
1	Unanswered questions on why it is difficult to get pregnant.	65 (82.3%)	12(15.2%)	2(2.5%)
2	Grandparents publicising their expectation for grandchildren	56 (70.9%)	20(25.3%)	3(3.8%)
3	Temporary separation/Polygamy	25 (31.6%)	39(49.4%)	15(19%)
4	Threat of divorce from husband and relations	33 (41.8%)	44(55.7%)	2 (2.5%)
5	Prolonged high cost of treatment without result.	51 (64.6%)	26(32.9%)	2 (2.5%)
6	Friends unsympathetic and offer unhelpful suggestions.	20 (25.3%)	41(51.9%)	18(22.8%)
7	Lack of Nurses support when treatment failed.	14 (17.7%)	57(72.2%)	8 (10.1%)
8	Exclusion from friends and families children’s parties.	18 (22.8%)	59(74.7%)	2 (2.5%)
9	Symbolic association of woman living with infertility as barren land and a tree without fruit.	16 (20.3%)	59(74.7%)	4 (5.1%)
10	Multiple pregnancy losses during treatment	12 (15.2%)	66(83.5%)	1 (1.3%)

The table indicates factors contributing to depression among women with infertility. Sixty five (82.3%) respondents had unanswered questions on why it is difficult to

get pregnant, while fifty six (70.9%) of respondents indicated grandparents publicising their expectation for grandchildren. In addition to this, twenty

five (31.6%) respondents reported temporary separation/polygamy, thirty three (41.8%) respondents opined threat of divorce from husband and relations, fifty one (64.6%) respondents prolonged high cost of treatment without result, twenty (25.3%) respondents indicated that friends were unsympathetic and offered unhelpful suggestions and fourteen (17.7%) respondents lack of Nurses

support when treatment failed. Eighteen (22.8%) of the respondents reported exclusion from friends and families children's parties, for sixteen (20.3%) respondents it was symbolic association of woman living with infertility as barren land and a tree without fruit while twelve (15.2%) respondents reported multiple pregnancy losses during treatment.

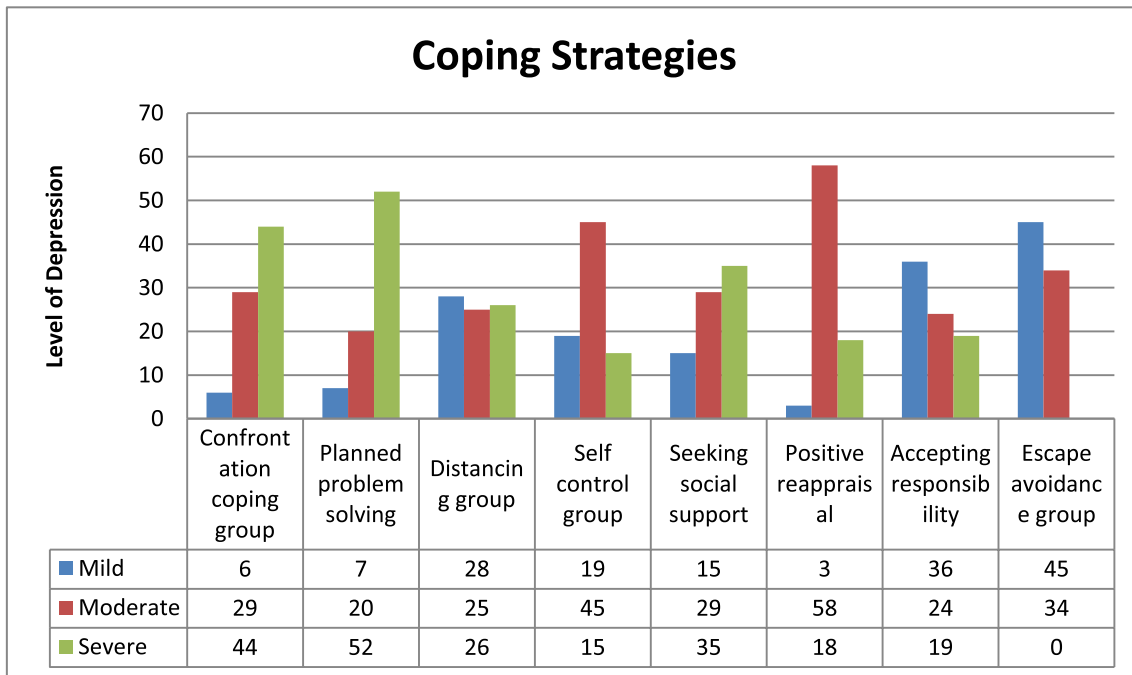
Table 5: Respondents coping strategies

S/N	Variables	Mild	Moderate	Severe
1	Confrontation group	6 (7.6%)	29(36.7%)	44(55.7%)
2	Planned problem solving group	7 (8.9%)	20(25.3%)	52(65.8%)
3	Distancing group	28 (35.4%)	25(31.6%)	26(32.9%)
4	Self control group	19 (24.1%)	45(57.0%)	15 (19.0%)
5	Seeking social support group	15 (19.0%)	29(36.7%)	35(44.3%)
6	Positive reappraisal group	3 (3.8%)	58(73.4%)	18(22.8%)
7	Accepting responsibility group	36 (45.6%)	24(30.4%)	19(24.1%)
8	Escape avoidance group	45 (57.0%)	34(43.0%)	0 (0.0%)

In table 5, ways of coping strategies variables were grouped into eight subscales of coping behaviours: confrontation (active coping), distancing (suppression of competing activities), self-control (restraint coping), seeking social support (seeking social support for instrumental reasons, seeking social support for emotional reasons), accepting responsibility (focus on and venting of emotions), escape-avoidance (denial, behavioural disengagement, mental disengagement, alcohol-drug disengagement), planned problem solving (planning, turning to religion) and positive

reappraisal (positive reinterpretation and growth, acceptance). The common coping strategies utilized by women with infertility were Confrontation forty four (55.7%) respondents, planned problem solving fifty two (65.8%) respondents, Distancing twenty eight (35.4%) respondents, Self control forty five (57%) respondents, Seeking social support thirty five (44.3%) respondents, Positive reappraisal fifty eight (73.4%) respondents, Accepting responsibility thirty six (45.6%) respondents and Escape avoidance forty five (57%) respondents.

Figure 4: Bar chart showing respondents coping strategies in relation to level of depression



Forty five respondents utilized escape avoidance coping strategy had mild depression, fifty eight respondents utilized positive reappraisal had moderate depression and fifty two respondents utilized planned problem solving had severe depression



Figure 5: Pie chart showing respondents coping strategies summation grouped

As shown in figure 5, using Ways of Coping scale to assess coping strategies forty three (54.5%) of respondents are coping effectively while thirty six (45.6%) developed ineffective coping strategies as a result of infertility.

DISCUSSION

The aim of this study was to assess depression and coping strategies among women with infertility in Ibadan. The study can be valuable because it used a self-reported inventory that differs in both cost and time from structured interview. Beck Depression Inventory assessed affective, somatic and cognitive symptoms of depression while Ways of Coping checklist Inventory assessed individual personal coping strategies in a stressful situation. The two inventories produced a higher percentage of valid answers.

The findings of this study revealed that the level of depression increases with age which is not an unexpected result, because it is logical that when a woman gets older she might be anxious since she knows there is an age limit to fertility. This could even be more dissatisfying in an African country like Nigeria, where emphasis on fertility of a woman determines social identity as well as acceptance into the family [18, 19]. The fact that most of the respondents had a minimum of secondary education, points to the fact that the group were moderately educated. It is therefore not surprising that this could have contributed to the persistent worry associated with the group as they might have sourced for educational materials to improve their knowledge on infertility. Studies have shown that the more educated an individual is, the more knowledgeable they are about their condition. It is an uncommon finding that duration of infertility did not have any effect on depression. This disagrees with previous studies, [9, 20], who reported that depression increases with duration of infertility and there was a trend of increasing psychological stress with lengthening of infertility time. However, it could be that the pressure mounted on couples from onset after marriage could have reached the peak at an early stage and early

years of marriage making them to develop resistant and therefore, are not moved by the duration of infertility because they have been stressed to their limit. Unknowingly, subtle remarks by the society expressed by nicknaming a woman as 'iya ibeji' (mother of twins) immediately after wedding could also have contributed to pressure and early resistance experienced by this group. Such insinuation at an early stage could have affected their psychological and emotional reaction and might have led to early depression.. Therefore, it is not surprising that depression peaked between the 1-5 years of infertility and decreased at about 26-30years in the study.

The predominance of secondary infertility in this study (74.7%) agrees with other studies in our country [19]. Similarly, findings from a New York study [20] that women who have previous miscarriage are at risk for depression and anxiety symptoms in subsequent years is in line with it. This contrast the situation in other developed world where depression is higher among women with primary infertility [21].

Near half of the respondents had mild depression, while approximately 30% of the respondents had moderate depression and severe depression was above 20%. This agrees with previous studies [20]. The variation could be explained by the fact that fertility is one of the main and most important reason for marriage in this culture . Equally important to this, is the issue of being a mother; nursing their children and having satisfying relationship. For instance, studies of post mastectomy clients in Nigeria assure that while their counterpart in United States are concern with the cosmetic effect of the surgery [22], the Nigerian women were mainly disturbed by their inability to breastfeed and concern about their husband's reaction [23]. It is

therefore necessary that nurses should be equipped with many culturally adapted answers that could offer comfort to women with infertility.

That exclusion of women with infertility from friends and families' children's parties was significant, confirms studies in Nigeria and Malawi that women were more likely to suffer the social and psychological consequences of infertility such as physical and mental abuse, neglect, abandonment, economic deprivation, social ostracism and marital breakdowns [24]. The Yoruba infertile women experience social exclusion as they are often accused of being a witch and of having devoured their own children [25]. Their exclusion is a usual finding but invitation cards can be sent. The women may have decided not to attend because it is children's party.

More than half (54.4%) of the women were coping effectively but depression was high among respondents who used positive reappraisal, planned problem solving and escapes avoidance coping strategies. Positive reappraisal and planned problem solving may be because these strategies were associated with a lot of expectations that would change their conditions. Escape avoidance coping strategies occur as a result of disappointment and lack of emotional support in all efforts to change the situation. This disagrees with previous studies [26]. However there may be need to replicate the study using a larger sample and a prospective approach to fully appreciate the effect of these strategies.

Implications of the study to Nursing

Firstly, there is need to develop nursing programmes for prevention of depression and nursing interventions among women with infertility. Secondly, care providers especially nurses should be trained in skills

which will help them to pay more attention to stressful life events, in particular those related to the level of depressive effects experienced by women with infertility. Also, there should be a provision for the nurses to devote time to plan and organize supportive programmes which are cost-effective. A hospital policy should provide health education or written information to all in-patients and out-patients. Health education material such as leaflet and pamphlets should be made available to the public about infertility and services available in the clinic. Thirdly, nurses must plan programs to improve emotional and psychological state of women with infertility by providing counselling. Nurses working in the hospital and community health settings can provide information to the public to have better awareness regarding the specific needs of women with infertility.. Lastly, health policy in developing countries needs to recognise the public health burden of depression as it affect women with infertility. Key health services available in the clinics should include; training of care providers, integrating psychological care, strengthening social support network, counselling and follow-up services in infertility management.

In conclusion, women living with infertility should be viewed holistically in order to identify their psychosocial needs and institute early intervention. This will go a long way in preventing depression. Nurses should be able to develop interventions and educational programmes in hospitals that focus majorly on infertility. In addition, there is need for policy makers to focus on measures that will address the needs of women with infertility in order to promote their health and improve psycho-social adjustment. This will ultimately improve physiological adaptation and better outcome.

Limitation

The study could not be generalised in Ibadan as only three institutions were used.

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