



Prevalence, And Outcome of Management of Major Depressive Disorder Among Patients in Federal Neuro-Psychiatric Hospital, Calabar, Cross River State, From January, 2012 to December, 2014

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Abstract

This study examined the prevalence, and outcome of management of major depressive disorder among patients in Federal Neuro-Psychiatric Hospital, Calabar, Cross River State, **from January, 2012 to December, 2014**. Four specific objectives were stated to determine the frequency of occurrence, medical and nursing management and outcomes of MDDs. 130 MDD patients (34 males and 96 females) admitted in the study area from January, 2012 to December, 2014 were used for the study. A checklist was developed and used to review the patients' records/folders. Data collected through the checklist were analyzed on frequency tables and presented in pie charts. They were interpreted using simple percentage analysis. The result showed that the rate of occurrence of major depressive disorder in Federal Neuro-Psychiatric Hospital, Calabar, from January 2012 to December 2014 was low, with a ratio of 1:11; anti-depressants (100.00%), anti-psychotics (78.40%), mood stabilizers (46.10%) and anti-anxiety (46.10%) drugs were the major pharmacotherapy used in the management of clients with major depressive disorder in Federal Neuro-Psychiatric Hospital, Calabar, with anti-depressants such as selective serotonin reuptake inhibitors (SSRI) and aminomine oxidase inhibitors (AMOI), and typical and atypical anti-psychotics such as chlorpromazine, steezine and clozapine olonzepine mostly in use as combined therapy and non-received only anti-depressants; while majority of the patients were managed using cognitive behavioural therapy, behavioural therapy and family therapy; but ECT was not widely used. The nursing management strategies mostly in use in the Hospital were: assessment and assistant with psychological need, close observation/monitoring, one-on-one psycho-education, medication education and nurses' review. Majority 81(62.31%) of the MDD patients had a good outcome (GO) after treatment. It was recommended that the management of MDD should include other forms of management strategies utilized in other establishments around the globe like combination of pamphlet, telephone psycho-education and calls to patients to remind them of medication time and keeping to appointment, further studies that will adopt the patient follow-up approach to determine patients rate of responding to treatment, patients satisfaction with care and care givers satisfaction were recommended since this present study was mainly a retrospective study, based on review of patients' folders and hospital records.

Keywords: Prevalence; Outcome of management; Major depressive disorder; Patients.

1. Introduction

1.1. Background to the Study

Major depressive disorders (MDDs) are mental disorders characterized by all-encompassing low mood accompanied by low self-esteem and loss of interest or pleasure in normally enjoyable activities [1]. MDDs are common treatable illnesses which could develop in anybody; it is certainly not a sign of weakness [2]. A major depressive disorder is a syndrome of sadness or grief, characterized by a greater intensity and duration and by more severe symptoms and functional disabilities than is normal. Depressive signs and symptoms are characterized not only by negative thoughts, moods, and behaviors but also by specific changes in bodily functions (for example, crying spells, body aches, low energy or libido, as well as problems with eating, weight [3].

As a major cause worldwide [4], said that MDDs have a high prevalence level in the society in recent times. Lifetime prevalence varies widely, from 3% in Japan to 17% in the US. In most countries the number of people who would suffer from depression during their lives falls within 8–12% range. In the UK, the weekly prevalence of major depression is reported to be 2.3 per cent and that of milder depressive states 7.7 per cent. Rates are more approximately two to three times higher in women than men. Dysthymia (a state in South America) has been reported to have an annual prevalence rate of 2.5 percent [5].

Depression is an illness requiring personalized professional treatment. The management of depressive disorder can be one of the most rewarding aspects of care practice, as studies have consistently showed that most patients with depressive episodes can be effectively treated. Treatment modalities for depressive disorder include: antidepressant medication, psychotherapy, electroconvulsive therapy [6-8].

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However, despite availability of treatment modalities for major depressive disorders, the management had always been associated with varieties of outcome and effects. For instance, the result of a study to determine the course of illness in a cohort of depressed patients treatment for 6 months showed that out of 175 patients, 101 (58%) had good outcome (achieved recovery and remained well), 54 (31%) had a fluctuating outcome (achieved recovery or remission but suffered a relapse or recurrence), and 20 (11%) had a poor outcome (remained depressed for the 6 months) [9-11].

Major depressive disorders have resulted in distress and burden on not only the patients, but on their families and the society at large. Despite all effort by individual, government, and corporate organizations, MDDs have continued to prevail in the society. Depression has subjected many people to a state of helplessness. The disease also poses a lot of challenges to medical facilities such as the Federal Neuro- Psychiatric Hospital, Calabar, responsible for caring for clients with MDD, as many of the patients lack the resources to pay the hospital bill. After management of the disease, some of the patients appear to be successfully treated while many are not. It is therefore the researcher's interest to investigate the prevalence, and outcomes of management of major depressive disorders in Federal Neuro-Psychiatric Hospital, Calabar, from January, 2012 to December, 2014.

1.2. Statement of the Problem

Major depressive disorders are mental illness characterized by all-encompassing low mood accompanied by low self-esteem and loss of interest or pleasure in normally enjoyable activities. In Federal Neuro-Psychiatric Hospital, Calabar, major depressive disorder, which is a major cause of impaired quality of life has a high prevalence rate of 1:8%. As a matter of fact, the hospital records showed that major depressive disorders account for over 50 percent of cases admitted in the facility.

Interestingly, major depressive disorders are a manageable disease, with different strategies such as cognitive behavioral therapy, interpersonal therapy, behavioral therapy, family therapy, individual therapy, and group therapy often adopted for its management. Consequently, individuals who receive treatment for depressive disorders often have varying outcomes ranging from good outcome, fluctuating outcome, poor outcome to death.

Despite the effective management strategies adopted in the hospital, the prevalence seems not to have reduced evidenced by over-flooding of the hospital with clients with major depressive disorder. It is therefore the aim of this research to determine the prevalence, management and outcome of MDD in Federal Neuro-Psychiatric Hospital, Calabar, Cross River State, from January, 2012 to December, 2014

1.3. Aims and Objectives of the Study

The purpose of the study was to determine the prevalence, and outcome of management of major depressive disorder among patients in Federal Neuro-Psychiatric Hospital, Calabar, Cross River State, from January, 2012 to December, 2014.

- To determine the rate of occurrence of major depressive disorder among patients in Federal Neuro-Psychiatric Hospital, Calabar, from January 2012 to December 2014.
- To determine the medical management strategies utilized in the treatment of major depressive disorder in Federal Neuro-Psychiatric Hospital, Calabar.
- To determine the nursing management strategies utilized in the treatment of major depressive disorder in Federal Neuro-Psychiatric Hospital, Calabar.
- To determine the outcomes of management strategies used for the treatment of major depressive disorder in Federal Neuro-Psychiatric Hospital, Calabar.

1.4. Significance of the Study

The study may give nurses and other health workers an insight into the prevalence and proportion of major depressive disorder. The findings of the study might help to educate and enlighten care givers about issues involved in patients management and the outcome of various approaches.

In addition, the findings of this research may stimulate further studies in areas of management and treatment outcomes.

2. Literature Review

2.1. Prevalence of Major Depressive Disorders

The prevalence of mental disorders has been studied around the world, providing estimates on how common [3]. Different criteria or thresholds of severity have sometimes been used. National and international figures are typically estimated by large-scale surveys of self-reported symptoms up to the time of assessment; sometimes a figure is calculated for the occurrence of disorder in the week, month or year prior to assessment—a point or period prevalence; sometimes the figure is for a person's lifetime prior to assessment—the so-called lifetime prevalence.

Andrade, *et al.* [4] Reported that about 450 million people worldwide suffer from some form of mental disorder or brain condition, and that one in four people meet criteria at some point in their life [12]. Depression is a major cause of worldwide [13]. In a study on epidemiology of major depressive episodes: results from the international consortium of psychiatric epidemiology, lifetime prevalence varies widely, from 3% in Japan to 17% in the US. In most countries the number of people who would suffer from depression during their lives falls within an 8–12% range.

In a study on depression and myocardial infarction: relationship between heart and mind [6], it was reported that the weekly prevalence of major depression in the UK was 2.3 per cent and that of milder depressive states 7.7 per cent. In North America, the probability of having a major depressive episode within a year-long period was found to be 3–5% for males and 8–10% for females [13]. Major depressive disorder (MDD) affects the lives of over 15 million people annually [14].

MDDs are the most frequent condition seen in primary care, although figures vary [15]. An international study on nursing strategies for managing major depressive disorders found a median prevalence of more than 10 percent in primary care settings among patients suffering from depressive disorder [16]. Also, up to 20 percent of those attending primary health care in developing countries suffer from MDD [17]. A study to determine among other variables prevalence of MDDs revealed that 5 to 13 percent of United States adult experienced MDDs at any time during their lives [18].

It was reported that Center for Disease Control and Prevention (CDC) showed that in any 2 weeks period, more than one in 20 individuals were depressed [19]. In a study to assess the current prevalence of depression in Oyo State, Nigeria and the rural–urban variation in prevalence, it was revealed that the overall prevalence of major depressive disorder was 5.2%; prevalence among women (5.7%), among men (4.8%), and among adolescents (9.6%) [20].

2.2. Medical Management of Patients with Major Depressive Disorder

Management of major depressive disorder can be one of the most rewarding aspects of primary care practice because most patients with MDD episodes can be effectively treated [6]. Treatment modalities for MDDs could be categorized into antidepressant medication, different forms of formal psychotherapy and electroconvulsive therapy [6]. A review of earlier research from 1979 to 2002 on the efficacy of St. John's Wort for depression showed that 26 out of 27 studies reported that St. John's Wort was either as effective as antidepressant medications or more effective than a placebo or both for minor depression [21]. In 10 of these trials, Hypericum was statistically demonstrated to be at least as effective, if not more effective, as the specific selective serotonin reuptake inhibitor treatment and with a placebo or both [21].

A review of trials that were not limited to only experimental design revealed that Hypericum was well tolerated and effective in the management of MDDs [21]. Contradictory reports showed that Hypericum appears to have some undesirable side effects [22-24]. In a systematic review of clinical trials from 1991 through 2002, fluoxetine was found to be more effective in the treatment of major compared with Hypericum. The result suggests further comparative well designed trials [25, 26].

A database study of over 3000 patients found considerably better treatment adherence with once daily versus twice daily bupropion [27, 28]. These data support once daily administration of antidepressants. There has long been a debate about effective doses of TCA with consistent evidence that they are not routinely prescribed at recommended doses [29].

The case may be different in more severely ill patient as increased failure to achieve full recovery has been described for 'inadequately' treated depressed hospitalized patients who had inadequate doses and poorer medication adherence [30]. The elderly generally have higher plasma concentrations for a given dose and they have a higher rate of side-effect related dropouts in RCTs so that lower doses of antidepressants are usually recommended [31].

Therapeutic drug monitoring is an established procedure for lithium and some anticonvulsants but is rarely used for antidepressants. It potentially has a use in assessing adherence or where there is relatively low therapeutic index and/or a therapeutic window; in practice this applies to TCAs, either when there is a high risk of toxicity or when there is lack of efficacy and side effects despite adequate doses [32]. Antidepressant medication exerts a modest beneficial effect for patients with combined depressive and substance use disorders. Medication should therefore not be considered a standalone treatment; concurrent therapy directly targeting the addiction is recommended [33].

Cognitive-behavioral therapy for depression (CBT-D) or a relaxation control was found to be useful and relevant to MDD patients' recovery [34]. After monitoring the course of depressive symptoms as treatment for methamphetamine dependence progressed, participants reported a significant decrease in depressive symptoms regardless of specific treatment modality [35]. Similar result was reported among alcohol, opioid, and polysubstance users in three different clinical settings [36].

In a study of Combined Psychotherapy and Pharmacotherapy for the Treatment of Major Depressive Disorder, findings showed that combined treatment is associated with a small improvement in efficacy [37]. The authors suggested that adding psychotherapy to antidepressant medication may be particularly efficacious among chronic or severely depressed patients [37]. In a related study to recuperating women from major depressive disorders, women who received the cognitive-behavioral intervention reported fewer depressive symptoms and chronic stressors, and less negative thinking [16].

2.3. Nursing Management of Patients with Major Depressive Disorder

Nursing care of hospitalized depressed persons involves careful monitoring of clients' status and the effectiveness of treatments [38]. Nursing care focuses on three areas of need. Immediate needs are those related to critical and safety issues. Short-term needs are concerned with identifying and reducing or eliminating obvious problem areas which hamper return to community living [38].

Long-term needs are issues related to maintenance of persons in the least depressive state for as long as possible. To provide a sound basis for planning and implementing such care, nurses must understand the dynamics of depression, the issues which dictate selected treatment methods, and the issues which are likely to shape and

change the treatment of depression in the future. Nursing must accept the responsibility of acting in a responsible, professional manner to ensure the best possible treatment for clients within the restraints imposed by policy decisions [38].

In order to ensure compliance with psychiatric treatment in primary care, psychiatric nurses should adopt the following modalities: the identification and evaluation of risk factors; close follow-up (eg, visits every 3–4 weeks for the first 3 months; nurse/patient relationship, including the amount of time spent explaining the treatment, the expected duration of treatment and likely side effects [39]. Nurses' attitudes toward treatment and capacity for empathy and discontinuation of a particular antidepressant in cases of very unfavourable adverse effects is also very important [39].

Nursing diagnosis, therapeutic nursing management and nursing interventions are efficient nursing strategies for managing patients with major depressive disorders [40]. Nursing diagnoses involves: risk for violence, self-directed or directed at others; impaired verbal communication; decisional conflict; altered role performance; hopelessness; fatigue; self-care deficit; altered thought processes; self-esteem; and anxiety. Therapeutic nursing management involves: safe environment; psychological treatment; individual, group and family psychotherapy Social treatment (Milieu therapy, family therapy, and therapy Psychopharmacologic and Somatic treatments (administer antidepressant medications, continued assessment by monitoring client's mental health status is critical, particularly in terms of agitation and electroconvulsive therapy). Nursing interventions involves: Use of behavioral contracts to meet outcomes relating to "no self-harm" or no suicidal ideation or plan; assess regularly for suicidal ideation or plan; observe client for distorted, negative thinking; assist client to learn and use problem solving and stress management skills; explore meaningful losses in the client's life and help the client and family to identify the internal and external indicators of major depressive disorder [40].

The role of the Nurse Practitioner (NP) in managing patients with depressive disorder pain involves pain consciousness and practice climate [41]. Pain consciousness was the NP's awareness of and sensitivity to pain as a problem patients brought to the clinical setting. Practice climate was the regulatory atmosphere or environmental tone in which the NP functioned. NPs used strategies to manage patients with depressive disorder pain that differed according to both the regulatory environment and the NPs awareness and sensitivity to pain [41].

Outcome of Management of Major Depressive Disorder

A systematic review of randomized clinical trials (RCT) on evidence of the effectiveness of electroconvulsive therapy in the psychiatric practice, with the view to review indication, efficacy and outcomes of electroconvulsive therapy ECT in Porto Alegre University, Brazil, revealed that the contemporaneous ECT practice was associated with very low morbimortality rates of about 2 to 4.5 deaths at every 100,000 procedures carried out, which is comparable to the risk associated to short-term anesthesia in small surgical procedures [42].

There is always a complication for every 1,400 procedures [43]. Among these complications are: laryngospasm, prolonged apnea, prolonged convulsions, dental damage and circulatory failure⁴⁴. The most important negative outcome of ECT is the memory deficit, which presents as a post-ictal confusion, retrograde and/or anterograde amnesia, or, in a small number of patients, as a long-term subjective memory deficit (difficult to detect and quantify with accuracy) [44]. Retrograde and anterograde amnesia usually persists for 1 to 6 months after the end of ECT sessions, and in general the acquisition and retention of new memories, as well as the long-term memory, do not suffer an irreversible damage [44].

In some studies with reliable methodology, electroconvulsive therapy (ECT) was shown to be superior to moderate dosages of antidepressants [45, 46]. ECT was found to be better than paroxetine in the treatment of patients with non-responsive depression to two types of antidepressants [45]. ECT superiority also compared to antidepressants in general, tricyclic antidepressants and inhibitors of monoamine oxidase inhibitors (MAOIs) [46]. Similar results proved that psychosis predicted better response to ECT [47].

In a study of individuals with polysubstance use disorders, [48] found that higher depressive symptom scores at intake predicted decreased likelihood of abstinence at discharge even when demographic and treatment-related variables (e.g., length of stay) were controlled. [49] Found that higher levels of depressive symptoms at treatment entry were also associated with increased dropout rates from treatment.

A study of 298 male veterans [50] measured depressive symptoms during and 3 months after participation in an inpatient alcohol treatment program. Clients with mild to moderate depressive symptoms at the 3-month follow-up were 2.9 times more likely than non-depressed subjects to experience relapse. Severely depressed clients were 4.9 times more likely to relapse. Depressive symptoms both during treatment and at follow-up were no more likely to be associated with relapse than were depressive symptoms at follow-up only.

Rickards [51] Examined whether patient depressive symptoms interacted with therapist focus on painful emotional material in predicting the outcome of alcohol treatment. For clients with clinically diagnosable depression, a low therapist focus on painful emotional material was associated with better drinking outcomes. However, this relationship did not hold for clients with mild depression. These results were confirmed by a more recent reanalysis of the data from research by Roger, *et al.* [52].

A study by Sapin, *et al.* [53] on the long-term outcome of major depressive disorder in psychiatric patients in Helsinki, Finland. The study included 163 patients with DSM-IV MDD (71.5% of those eligible) diagnosed using structured and semi-structured interviews and followed up at 6 months, 18 months, and 5 years with a life chart between February 1, 1997, and April 30, 2004. The effects of comorbid disorders and other predictors on outcome were comprehensively investigated.

3. Methods

3.1. Research Design

The research design adopted for the study is the retrospective research design. The design was preferable because it enabled the researcher to review the records of patients who had suffered from depressive illness in Federal Neuro-Psychiatric Hospital, Calabar, Cross River State, from January, 2012 to December, 2014.

3.2. Research Area

Federal Neuro-Psychiatric Hospital, Calabar is a tertiary health care institution, located in Calabar, the capital city of Cross River State. The hospital provides both out and in-patients services and is made up of different departments including clinical services, Nursing department, Laboratory, Pharmacy, Medical Records, Electro-Convulsive Therapy, Occupational Therapy, Library, Research and Training Unit, Administrative, Account, Kitchen, Laundry and Maintenance Department/Units. The Hospital has 111 psychiatry nurses, and 15 medical doctors (Psychiatric). It serves as the United Nations office for drug and crime control, training institution for medical students, nurses and social workers as well as treatment center for psychiatric patient.

3.3. Study population

The population of the study consists of all the 130 patients who had attended Federal Neuro-Psychiatric Hospital, Calabar, Cross River State, from January, 2012 to December, 2014.

3.4. Sample and sampling technique

The sample for the study consist of all 130 cases of Major Depressive Disorders (MDD) admitted between January, 2012 and December, 2014 which make up a total of one hundred and thirty (130) patients to determine the prevalence of major depressive disorder in the hospital. However, the admission records and folders of this sample were specifically reviewed to collect data on the management and outcome of Major Depressive Disorders (MDD) in the hospital under review.

3.5. Instrument for Data Collection

The instrument for primary data collection was a validated checklist constructed by the researcher. The checklist was designed to collect data on: section A- socio-demographic data of subjects; section B- the rate of occurrence of MDD in Federal Neuro-Psychiatric Hospital, Calabar; section C- the medical management of depressive illness; section D- the nursing management of MDD; section E- the outcome of management of depression in Federal Neuro-Psychiatric Hospital, Calabar, from January, 2012 to December, 2014.

3.6. Procedure for Data analysis

Data were presented using frequencies, percentages and charts such as pie chart, bar chart and histogram. The hypotheses were tested for significance using the Chi-square (χ^2) test.

4. Results

Table-1. Clients' Socio-Demographic Data

Variable	Frequency	Percent (%)
Sex:		
Male	44	33.85
Female	86	66.15
Total	130	100
Age in years:		
15-24	29	22.30
25-34	34	33.08
35-44	36	27.60
Above 45	22	16.92
Total	130	100
Marital status:		
Single	38	29.23
Married	56	43.08
Divorced	20	15.38
Widow	16	12.30
Total	130	100
Level of Education:		
No formal education	19	14.62
Primary education	21	16.15
Secondary education	59	45.38
Tertiary education	31	23.85

Total	130	100
Occupation:		
Farmer	15	11.54
Business	22	16.92
Civil servant	21	16.15
Student	21	16.15
unemployed	34	26.15
pensioners	17	13.08
total	130	100

The results presented in Table 1 showed that majority {86 (66.15%)} of the clients were males, while the remaining 44 (33.85%) were females. 29 (22.30%) clients were those between 15 - 24 years, those that were between 25 - 34 years were 43 (33.08%), those between 35 - 44 years were 36 (27.60%), while the remaining 22 (16.92%) were above 45 years. Thirty-eight 38 (29.23%) out of the 130 clients were single; 56 (43.08%) were married; 20 (15.38%) were divorced; while 16 (12.30%) were widows. Furthermore, 19 (14.62%) clients had no formal education, 21 (16.15%) had primary education, 59 (45.38%) attained secondary education, while 31 (23.96%) attained tertiary education. Also, majority of the clients, 34 (26.15%) were unemployed; 22 (16.92%) were into business; 21 (16.15%) were civil servants; 21 (16.15%) were students; 15 (11.54%) were farmers; while 17 (13.08%) were pensioners.

Table-2. Nursing Management Strategies Utilized In the Management of MDD in Federal Psychiatry Hospital, Calabar (2012-2014) Nursing Management Frequency Total Observed & Not Observed

Statement	Observed	Not observed
Assessed and assisted with psychological need	130 (100.00)	130 (100.00)
Assessed and assisted with social need	96 (73.85)	34 (26.15)
Close Observation/monitoring	130 (100.00)	130 (100.00)
One-on-one psycho-education	130 (100.00)	130 (100.00)
Maintaining suicide caution card (safety)	118 (90.77)	12 (9.23)
Maintaining quite environment	60 (46.15)	70 (53.85)
Nurses review	130 (100.00)	130 (100.00)
Physical needs (bed bathing or bathroom bath)	117 (90.00)	13 (10.00)
Medication education	130 (100.00)	130 (100.00)
Assistance with spiritual needs	59 (45.38)	71 (54.62)

Table 2 revealed that all the 130 (100.00%) clients with MDD were assessed and assisted with psychological need; closely observed and monitored; given one-on-one psycho-education; given medication education and their conditions reviewed by the nurses. Also, 96 (73.85%) clients were assessed and assisted with social need, while 34 (26.15%) were not; Suicide caution (safety) cards were maintained for 118 (90.77%) clients, but were not maintained for 12 (9.23%); 117 (90.00%) clients were either bed bathed or bathed in the bathrooms, while 13 (10.00%) were not. Lastly, 59 (45.38%) clients were assisted with spiritual needs, but 13 (10.00%) clients were not.

Table-3. Chi-square (X²) test of the relationship between medical management strategies and the outcome of management Of MDDs in Federal Psychiatry Hospital, Calabar (2012-2014).

	Poor Outcome	Fluctuating Outcome	Good Outcome	Total	X ²
Assisted with psychological need	12	15	103	130	
Assisted with social need	0	0	96	96	
One-on-one psycho-education	43	33	54	130	
Maintaining suicide caution card (safety)	24	42	52	118	28.8
Maintaining quite environment	12	20	28	60	
Nurses review	24	16	30	70	
Bed bathing or bathroom bath	24	44	49	117	
Medication education	36	43	51	130	
Assistance with spiritual needs	12	17	30	59	

P> 0.05; df = 1; Critical X² = 28.87; Calculated X² = 200.51

4.1. Discussion

The findings of the study revealed that the rate of occurrence of major depressive disorder among clients admitted in Federal Neuro-Psychiatric Hospital, Calabar, from January 2013 to December 2014 is low, and compared with other mental illnesses. The study showed that out of 1406 (100.00%) clients, only 130 (9.25%) clients were admitted with major depressive disorder. Thus, the rate of occurrence of major depressive disorder in Federal Neuro-Psychiatric Hospital, Calabar, from January 2012 to December 2014 was one out of every 11 clients, with a ratio of one is to eleven (1:11). The result is similar to finding from a study on epidemiology of major depressive episodes, which showed that lifetime prevalence varies widely; and that in most countries of the world, the number of people who would suffer from depression during their lives falls within an 8–12% range⁵. Also, the findings correspond with other study which after assessing the lifetime prevalence and age-of-onset distributions of DSM-IV disorders in North America showed that the probability of having a major depressive episode within a year-long period is 3–5% for males and 8–10% for females [13].

Also, the medical strategies mostly used in Federal Neuro-Psychiatric Hospital, Calabar were Anti-depressants such as selective serotonin reuptake inhibitors (SSRI) (e.g. fluoxetine and citalopram); Aminomine oxidase inhibitors (AMOIs) (e.g. mirtazapine and tricyclic eg Amitriptyline); Typical and atypical anti-psychotics such as chlorpromazine, thioridazine and clozapine olanzapine. The study revealed that Electroconvulsive Therapy (ECT) was not in use; whereas, cognitive behavioural therapy, behavioural therapy and family therapy were psychotherapies mostly used in the management of MDD in Federal Neuro-Psychiatric Hospital, Calabar. The findings agree with those from another study which revealed that selective serotonin reuptake inhibitor (SSRI), placebo, sertraline (zoloft) and St. John's Wort were very effective in the treatment of major depressive disorder [21]. Also, the findings correspond with a study which concluded that adding cognitive-behavioral therapy to anti-depressant medications may be particularly efficacious in preventing relapse, particularly among individuals discontinuing [37]. Furthermore, the study revealed that the nursing management strategies mostly in use in Federal Neuro-Psychiatric Hospital, Calabar were assessment and assistance with psychological need; close observation/monitoring; one-on-one psycho-education; medication education and nurses' review. Other nursing management strategies utilized in the management of the patients, although not all the patients were assessed and assisted with psychological need, maintaining suicide caution card and bed/bathroom bathing. This result agrees with the recommendations that clients with MDDs should be managed using nursing diagnoses, therapeutic nursing management and nursing interventions [40]. Another result revealed that majority of the clients (79.23%) with MDD in Federal Neuro-Psychiatric Hospital, Calabar from 2012 – 2014 had good management outcome (GO), (achieved recovery and remained well), 14(11.54%) clients had a fluctuating outcome (achieved recovery or remission but suffered a relapse or recurrence), and 13(9.23%) had a poor outcome (remained depressed for about 6 months), and no death was recorded. The result is in line with a study in Porto Alegre University, Brazil, carried out to determine evidence of the effectiveness of electroconvulsive therapy in the psychiatric practice, The study revealed that the contemporaneous ECT practice was associated with very low morbimortality rates of about 2 to 4.5 deaths at every 100,000 procedures carried out, which is comparable to the risk associated to short-term anesthesia in small surgical procedures [42].

4.2. Conclusion

The study was conducted to determine the prevalence, management and management outcome of major depressive disorder in Federal Neuro-Psychiatric Hospital, Calabar from January 2012 – December 2014. From the findings it is obvious that the prevalence of MDDs among clients admitted in Federal Neuro-Psychiatric Hospital, Calabar, from January 2012 to December 2014 was 130 (9.25%) clients out of 1406 (100.00%) clients, with a ratio of one out of every 11 clients (1:11). The medical management strategies were: Anti-depressants such as selective serotonin reuptake inhibitors (SSRI) (e.g. fluoxetine and citalopram); Aminomine oxidase inhibitors (AMOIs) (e.g. mirtazapine and tricyclic eg Amitriptyline); Typical and atypical anti-psychotics such as chlorpromazine, thioridazine and clozapine olanzapine. Electroconvulsive Therapy (ECT) was not in use; whereas cognitive behavioural therapy, behavioural therapy and family therapy were psychotherapies mostly used in the management of MDD. The nursing management strategies mostly in use were assessment and assistance with psychological need; close observation/monitoring; one-on-one psycho-education; medication education and nurses' review. Other nursing management strategies utilized in the management of the patients, although not all the patients were assessed and assisted with psychological need, maintaining suicide caution card and bed/bathroom bathing. Majority of the patients with MDD in Federal Neuro-Psychiatric Hospital, Calabar from 2012 – 2014 had a good (GO) management outcome, followed by those who had fluctuating management outcome; no death was recorded.

4.3. Recommendations

Based on the findings of the study the following recommendations were given:

The management of MDD should include other forms of management strategies utilized in other establishments around the globe like combination of pamphlet, telephone psycho-education and calls to patients to remind them of medication time and keeping to appointment.

Randomized Control Clinical Trials (RCT) in efficacy of various anti-depressants and anti-psychotics should be carried out to determine the most effective type of drugs to be used.

A comparative study on different types of psychotherapies should be carried out to determine the most effective therapy rather than using CBT, BT and family therapy (FT) alone.

Training sessions, seminars and workshops should be organized for nurses on the individualized nursing care for patients with MDD and on good documentation of nurses' activities on various MDD patients' management.

Depression is a treatable condition therefore all patients who suffer from MDD should learn to adapt to difficult life challenges and should avoid alcohol, sleeplessness, suicide and develop will power over permissiveness and keep to medical advice.

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