Scholars Journal of Applied Medical Sciences
Abbreviated Key Title: Sch J App Med Sci
ISSN 2347-954X (Print) | ISSN 2320-6691 (Online)
Journal homepage: www.saspublishers.com

OPEN ACCESS

Pharmacy

Major Risk Factors of Depression: A Study in a Specialized Hospital, Dhaka, Bangladesh

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DOI: 10.36347/sjams.2019.v07i10.052 | **Received:** 02.10.2019 | **Accepted:** 09.10.2019 | **Published:** 30.10.2019

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Abstract **Original Research Article**

Background: Depressive disorder is increasing worldwide at an alarming rate. Bangladesh is one of the developing countries where incidence and prevalence of depression disorders have been increasing dramatically. But these suffering can be prevented by controlling risk factors. Otherwise, this incidence rate will increase unless concerted efforts are made and national policies of prevention of risk factors are undertaken. ***Aim of the study:*** The aim of this study was to evaluate the major risk factors of depressive disorder in patients of Bangladesh. ***Methods and Materials:*** This prospective observational study was conducted in the Department of Psychiatry of United Hospital Limited, Dhaka, Bangladesh during the period from January 1015 to December 2015. The ethical committee of the hospital had approved the study before starting the intervention. In total 80 patients with any type of depressive disorder attended the hospital during the first tenure of the study (First 6 months) were finalized as the study population. Proper written consents were obtained from all the study people previously. ***Results:*** In our study, among total 80 participants 33 (41.25%) were male and 47 (58.75%) were female. Among total study population the highest number of patients found from 21 to 40 years' age group which was 34 (42.50%) in number. The majority of participants were married 58, (72.5%), unmarried were 12 (15%), and divorced/widow-widower were 10 (12.5%) among all study population. In analyzing the types of depression among the study population we found the highest number of patients was with major depression (MDD) and it was 23.75%. ***Conclusion:*** The acquired information of this study regarding the factors of depressive disorders may help the treatment professional and researchers in their professional works. But for getting more clear and specific information on this issue we would like to conduct more study in more several places with larger sized sample.

Keywords: Risks, Factor, Depression, Disorder.

INTRODUCTION

Now a day depressive disorder is a major public health concern worldwide. After Industrial revolution the major risk factor was tremendously increase in the world especially in developed countries. Now in the developed as well as in development countries people are major concern about risk factors of depressive disorders. Depression also called depressive disorder or clinical depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. It affects on one's feelings, thoughts behavior, emotions even on physical activities. Depression is also a common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration [1, 2]. It usually occurs as a result of adverse life events, such as: losses of a significant person, object, relationship or health, but it can also occur due to no apparent cause [1]. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her every day responsibilities [3]. Furthermore, recent research has demonstrated that genetic factors also contribute to the response rate to antidepressants, and therefore these genetic factors might also contribute as risk factors for developing depression or relapses [4-6]. Most likely, depression is caused by a combination of genetic, psychological, environmental, and biological factors [7]. Other risk factors for depression are pregnancy, childbirth, (peri) menopause, hormonal factors and menstruation, (low

tolerance to) stress, impulsive behavior, alcohol or substance abuse, a family history of depression, alcohol abuse or suicide, sociocultural factors, poverty, severe or chronic medical conditions, insomnia, being a female, intimate partner violence, (childhood) sexual abuse and tobacco use [8, 9]. A study in 2010 demonstrated that major depressive disorder severity is significantly associated with increased treatment usage/costs, treatment adequacy, unemployment, and disability and with reduced work performance [10]. One may have trouble doing normal day-to-day activities, and sometimes you may feel as if life isn't worth living. More than just a bout of the blues, depression isn't a weakness and you can't simply "snap out" of it. Major depressive disorder affects approximately 17.3 million American adults, or about 7.1% of the U.S. population age 18 and older, in a given year [11]. Depression may require long-term treatment. But don't get discouraged. Most people with depression feel better with medication, psychological counseling or both. The nervous system is the part of an animal's body that coordinates its voluntary and involuntary actions and transmits signals to and from different parts of its body. Nervous tissue first arose in wormlike organisms about 550 to 600 million years ago. The central nervous system (CNS) controls most functions of the body and mind. It consists of two parts: the brain and the spinal cord. The brain is the center of our thoughts, the interpreter of our external environment, and the origin of control over body movement. Like a central computer, it interprets information from our eyes (sight), ears (sound), nose (smell), tongue (taste), and skin (touch), as well as from internal organs such as the stomach. The spinal cord transmits sensory reception from the peripheral nervous system. It also conducts motor information to the body's skeletal muscles, cardiac muscles, smooth muscles, and glands. There are 31 pairs of spinal nerves along the spinal cord. These nerves each contain both sensory and motor axons. The spinal cord is protected by vertebrae and connects the peripheral nervous system to the brain, and it acts as a "minor" coordinating center. It allows the body to function. The brain is protected by the skull; however, if the brain is damaged, the results to the human body can be very consequential. There is still a lot to learn about the nervous system and the pathologies associated with it. What we do know is that, there are two parts of nervous systems in the human body, and they relate to each other. The first is the central nervous system, which includes the brain and the spinal cord. The second nervous system, known as the peripheral nervous system, contains all the nerves in the body that lie outside of the spinal cord and brain. These two systems communicate with each other to make sure our body parts, such as our fingers, can send signals to the central nervous system for processing in our brains. The physicians have to work on both parts of the nervous system as well as the physiological aspect of a patient to treat depressive disorders.

OBJECTIVES

General Objective

- To determine the possible risk factors associated with depressive disorders in Bangladesh.

Specific Objectives

- To assess the types of depressive disorders among patients in Bangladesh.

METHODOLOGY AND MATERIALS

This was a prospective observational study and was conducted in the Department of Psychiatry of United Hospital Limited, Dhaka, Bangladesh during the period from January 1015 to December 2015. The ethical committee of the hospital had approved the study before starting the intervention. In total 80 patients of both gender with any type of depressive disorder attended the hospital during the first tenure of the study (First 6 months) were finalized as the study population. Proper written consents were obtained from all the study people before starting the observational procedure. A pre designed common questioner containing all the necessary questions regarding this study data were used for collecting patient's information. According to the sample technic all the data were collected from: doctor's chamber visit, patient's word visit, consult with doctors, consult with patients, patient's data sheet, hospital register books, interview with patients, interview with guardians and/or attendants. According to the inclusion criteria patients with depression for more than 6 months, only adult patients (Age range: 20-90 years) were included in this study. On the other hand, accordin to the exclusion criteria depressive children, patients with diabetes mellitus, severely ill patients, and very week geriatric patients were excluded from the study. For collecting data MS Excel and for analyzing data SPSS version 20 were used. On the other hand, for displaying data tables, charts and bar-diagrams were used as per need.

RESULTS

In our study, among total 80 participants 33 (41.25%) were male and 47 (58.75%) were female. So female were dominating here. Among total study population the highest number of patients found from 21 to 40 years' age group which was 34 (42.50%) in number. This trend was followed by 23 (28.75%) from 41 to 60 years' age group, 13 (16.25%) from 61 to 80 years' age group, 7 (8.75%) from ≤20 years' age group and 3 (3.75%) from >80 years' age group. In analyzing religious status of participants we found among the total study population Muslims were 72 (90%), Hindus were 7 (8.75%), Buddhists were 0 (0%) and Christian were 1 (1.25%). Among the total participants the highest were Muslims and very rare was Buddhist. In our study, among total 80 participants 6 (7.5%) were Illiterate, 16 (20%) were Primary passed, 26 (32.5%) were

Secondary level educated, 21 (26.5%) were Higher Secondary level educated, 10 (12.5%) were at least Graduate. The highest number of participants was Secondary level educated and the very less participants were with other non-formal education. Most likely, depression is caused by a combination of genetic, psychological, environmental, and biological factors [7] and also other risk factors for depression is the loss of spouse, divorced and one of the most intimate partner's violence. In our perspective observational study, the majority of participants were married 58, (72.5%), unmarried were 12 (15%), and divorced/widow-widower were 10 (12.5%) among all study population. In analyzing occupational status we found the highest cases were found from household worker person which was 31%. This trend was followed by 26% from service holders, 15% from day laborer, 14% from businessmen, 11% from students and only 3% from other non-formal or irregular working people. In analyzing monthly family income we found the highest number of patients was from below 10,000 BDT/month income group and they were 38.75%. Then 23.75% were from above 30,000 BDT/month income group, 21% were from 20,000-30,000 BDT/month income group and 16.25% were from 10,000-20,000 BDT/month income group. Among total study population the highest 25% patients were from such family in which the total family members were 3 in number. Family members were in total 2 of 18.75% participants 4 of 26.25% participants and more than 4 of 23.75% participants. The highest 43.75% participants lived in semi paka buildings. Then 30% lived in buildings, 20% lived in kancha houses and only 6.25% lived in slam areas. In analyzing the types of depression among the study population we found the highest number of patients was with major depression (MDD) and it was 23.75%. This trend was followed by 15% with atypical depression, 12.5% with bipolar depression, 11.25% with postpartum depression, 10% with seasonal affective disorder (SAD), 8.75% with situational depression, another 8.75% with psychotic depression, 7.50% with dysthymia and 2.50% with premenstrual dysphoric disorders.

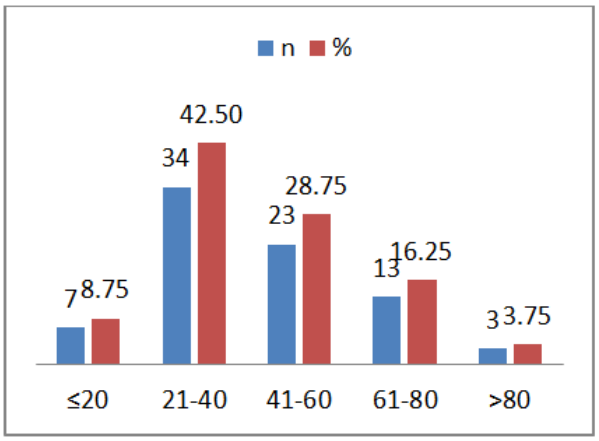

Fig-1: Age distribution of participants (N=80)

Table-1: Religious status of participants (N=80)

Religion	n	%
Islam	72	90
Hinduism	7	8.75
Buddhist	0	0
Christian	1	1.25

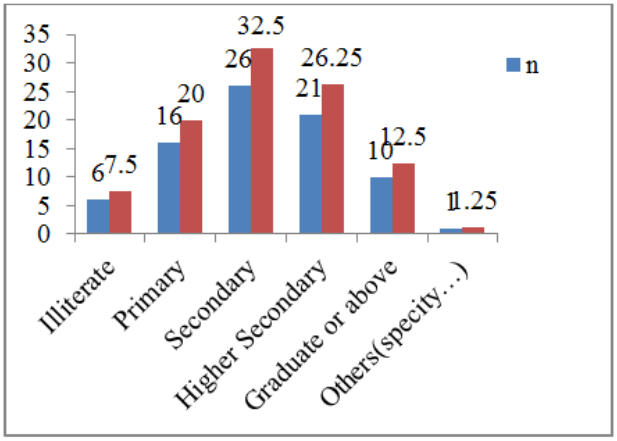

Fig-2: Educational Status of participants (N=80)

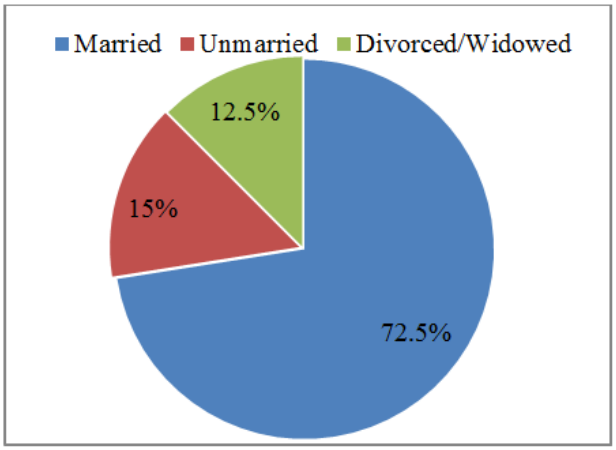

Fig-3: Marital status of participants (N=80)

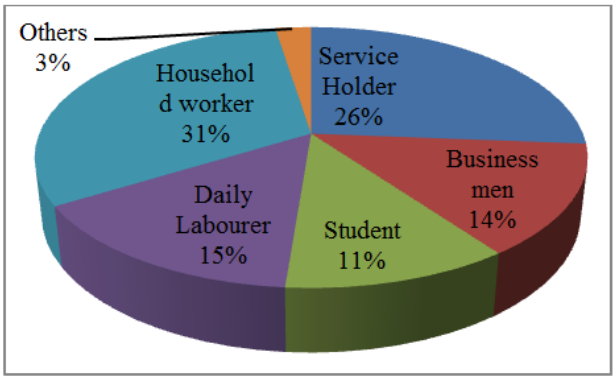

Fig-4: Occupation of participants (N=80)

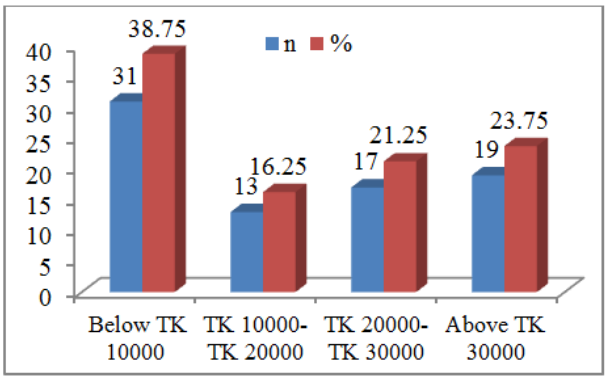

Fig-5: Monthly income of participants (N=80)

Table-2: Family member of participants (N=80)

Family members	n	%
Two	15	18.75
Three	25	31.25
Four	21	26.25
More than four	19	23.75

Table-3: Household Status of participants (N=80)

Household Status	n	%
Kancha (No bricks)	16	20
Semi Paka Building	35	43.75
Building	24	30
Slum Area	5	6.25

Table-4: Types of depression among participants (N=80)

Types	n	%
Major Depression	19	23.75
Atypical Depression	12	15.00
Bipolar Disorder	10	12.50
Postpartum Depression	9	11.25
Seasonal Affective Disorder	8	10.00
Situational Depression	7	8.75
Psychotic Depression	7	8.75
Dysthymia	6	7.50
Premenstrual Dysphoric Disorder	2	2.50

DISCUSSION

Depression disease or disorder is one of the major health problems throughout the world. It is emerging as a serious health problem in Bangladesh and other developing countries. Our negligence and unawareness may lead to these life threatening diseases. Not only the patients but their family members are also at risk of suffering from depression disease. In a third world country like Bangladesh, it puts a great pressure on the economy to treat high cost diseases like depressive disorder. Besides the developed world also not free from this burden. Epidemiological studies worldwide have consistently reported major depressive disorder (MDD) to be among the most common psychiatric disorders, with an estimated lifetime prevalence in the range of 12% to 16% in Western communities [12], and much lower in Asia, ranging between 3% and 6% [13]. MDD can be chronic or recurrent, consequently affecting and impacting individuals for many months, years or even decades. MDD is also associated with significant comorbidity, poor health and mortality. In our study we found maximum patients with depressive disorder are female. We found, among total 80 participants 33 (41.25%) were male and 47 (58.75%) were female. In some study we observed the ratio of female patients higher than ours. In a study they stated, the prevalence of MDD among women in these studies is typically reported to be 1.5–3 times higher than that observed in men [14], which is consistent with our findings. In our study, among total 80 participants 6 (7.5%) were Illiterate, 16 (20%) were Primary passed, 26 (32.5%) were Secondary level educated, 21 (26.5%) were Higher Secondary level educated, 10 (12.5%) were at least Graduate. The highest number of participants was Secondary level educated and the very less participants were with other non-formal education. So the incidence of depressive disorder is lower in higher educated people. I another study[15], Wang, Schmitz and Dewa [15] found similar results in their study as well. Both studies found a decline in reported depression when educational level went up, as was found in this study. Marital status is also a major concern for depressive disorders. In our perspective observational study, the majority of participants were married 58, (72.5%), unmarried were 12 (15%), and divorced/widow-widower were 10 (12.5%) among all study population. Although, the number of married patients is high but the number of unmarried and widow or widower patients is also alarming. For example, people with a mental illness may be less likely to get married or more likely to experience more marital difficulties, which may result in divorce or separation [16]. Widowed women also had higher odds of MDD than their single counterparts, as the death of a spouse may have adversely affected their mental health [17]. Contrary to some findings that marriage was a 'buffer' or protective factor for depression [18], others have found that married women were more likely to have higher rates of depression compared to those who were divorced or separated [19]; however, we did not find this association among our sample. In analyzing occupational status we found the highest cases were found from household worker person which was 31%. This trend was followed by 26% from service holders, 15% from day laborer, 14% from businessmen, 11% from students and only 3% from other non-formal or irregular working people. Besides this, In analyzing monthly family income we found the highest number of patients was from below 10,000 BDT/month income group and they were 38.75%. Then 23.75% were from above 30,000 BDT/month income group, 21% were from 20,000-30,000 BDT/month income group and 16.25% were from 10,000-20,000 BDT/month income group. But in literature review we did not find any major correlation of depression related to occupation, family income or the number of family members.

Among total study population the highest 25% patients were from such family in which the total family members were 3 in number. Family members were in total 2 of 18.75% participants 4 of 26.25% participants and more than 4 of 23.75% participants. We have collected the data of living slandered of our participants. The highest 43.75% participants lived in semi paka buildings. Then 30% lived in buildings, 20% lived in kancha houses and only 6.25% lived in slam areas. In analyzing the types of depression among the study population we found the highest number of patients was with major depression (MDD) and it was 23.75%. This trend was followed by 15% with atypical depression, 12.5% with bipolar depression, 11.25% with postpartum depression, 10% with seasonal affective disorder (SAD), 8.75% with situational depression, another 8.75% with psychotic depression, 7.50% with dysthymia and 2.50% with premenstrual dysphoric disorders. This information may help in treating the depressive patients. Our findings should be viewed in the context of some limitations. First, depressive symptoms were assessed based on self-report and may be subject to various biases. Furthermore, it has been suggested that women may be more willing to admit their depressive symptoms or experiences to an interviewer than men [20].

LIMITATIONS OF THE STUDY

This cross-sectional study was conducted in a single community with a small sized sample. So the results and findings may not reflect the actual scenario of the whole country.

CONCLUSION AND RECOMMENDATIONS

In Bangladesh the awareness of general people about the factors of depressive disorder is developing day by day. The acquired information of this study regarding the factors of depressive disorders may help the treatment professional and researchers in their professional works. But for getting more clear and specific information on this issue we would like to conduct more study in more several places with larger sized sample.

REFERENCES

1. National Institute for Health and Clinical Excellence (NICE). Depression: the treatment and management of depression in adults (update) (CG90). 2009; Available at: http://www.nice.org.uk/guidance/CG90. Accessed 01/23, 2013.
2. Depression: A Global Public Health Concern. WHO, 2012. Available at: http://www.who.int/mental_health/management/depression/who_paper_depression_wfmh_2012.p df. Last accessed 16 January 2013.
3. World Federation of Mental Health. DEPRESSION: A Global Public Health Concern. Available at: http://www.wfmh.org/2012DOCS/WMHDay%202012%20SMALL%20FILE%20FINAL.pdf. Accessed 01/16, 2013.
4. Weizman S, Gonda X, Dome P, Faludi G. Pharmacogenetics of antidepressive drugs: a way towards personalized treatment of major depressive disorder. Neuropsychopharmacol Hung, 2012 Jun;14(2):87-101.
5. Porcelli S, Fabbri C, Serretti A. Meta-analysis of serotonin transporter gene promoter polymorphism (5-HTTLPR) association with antidepressant efficacy. Eur Neuropsychopharmacol, 2012 Apr;22(4):239-258.
6. Crisafulli, C., Fabbri, C., Porcelli, S., Drago, A., Spina, E., De Ronchi, D., & Serretti, A. (2011). Pharmacogenetics of antidepressants. *Frontiers in pharmacology*, *2*, 6.
7. The National Institute of Mental Health. Depression Booklet. Available at: http://www.nimh.nih.gov/health/publications/depression/depression-booklet.pdf. Accessed 02/04, 2013.
8. University of Maryland Medical Center. Depression - Risk factors. Available at: http://www.umm.edu/patiented/articles/what_risk_factors_depression_000008_3.htm. Accessed 02/07, 2013.
9. Beydoun HA, Beydoun MA, Kaufman JS, Lo B, Zonderman AB. Intimate partner violence against adult women and its association with major depressive disorder, depressive symptoms and postpartum depression: a systematic review and meta-analysis. Soc Sci Med, 2012 Sep;75(6):959-975.
10. Birnbaum HG, Kessler RC, Kelley D, Ben-Hamadi R, Joish VN, Greenberg PE. Employer burden of mild, moderate, and severe major depressive disorder: mental health services utilization and costs, and work performance. Depress Anxiety, 2010;27(1):78-89.
11. (National Institute of Mental Health "Major Depression", 2017), https://www.nimh.nih.gov/health/statistics/major-depression.shtml
12. Kesler RC, Berglund P, Dernler O, Jin R, Koretz D, Merikangas KR, Rush AJ, Walters EE, Wang PS. National Comorbidity Survey Replication: The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication (NCS-R). JAMA. 2003;289:3095-105.
13. Chong SA, Abdin E, Vaingankar JA, Heng D, Sherbourne C, Yap M, Lim YW, Wong HB, Ghosh-Dastidar B, Kwok KW, Subramaniam M. A population-based survey of mental disorders in Singapore. Ann Acad Med Singapore. 2012;41:49-66.
14. Kessler RC. Epidemiology of women and depression. Journal of affective disorders. 2003 Mar 1;74(1):5-13.

15. Wang JL, Schmitz N, Dewa CS. Socioeconomic status and the risk of major depression: the Canadian National Population Health Survey. Journal of Epidemiology & Community Health. 2010 May 1;64(5):447-52.
16. Green RG. The influence of divorce prediction variables on divorce adjustment: An expansion and test of Lewis' and Spanier's theory of marital quality and marital stability. Journal of Divorce. 1983 Sep 19;7(1):67-81.
17. Carey RG. Weathering widowhood: Problems and adjustment of the widowed during the first year. OMEGA-Journal of Death and Dying. 1980 Mar;10(2):163-74.
18. Van de Velde S, Bracke P, Levecque K. Gender differences in depression in 23 European countries. Cross-national variation in the gender gap in depression. Social science & medicine. 2010 Jul 1;71(2):305-13.
19. Parker G, Brotchie H. Gender differences in depression. International review of psychiatry. 2010 Oct 1;22(5):429-36.
20. Young MA, Fogg LF, Scheftner WA, Keller MB, Fawcett JA. Sex differences in the lifetime prevalence of depression: does varying the diagnostic criteria reduce the female/male ratio?. Journal of Affective Disorders. 1990 Mar 1;18(3):187-92.