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BAHIR DAR UNIVERSITYSCHOOL OF MEDICINE
DEPARTMENT OF PSYCHIATRY

High Magnitude Of Depression Among Breast Cancer Patients In Bahir Dar,Ethiopia 2026 G.C:

A Multi-Center Cross-Sectional Study

A Thesis Submitted To Department Of Psychiatry, College Of Medicine And Health Science In Partial Fulfillment Of The Requirement ForSpeciality Program In Psychiatry.

***Principal Investigator*;** Dr.Solomon Yalew(Year 3 Psychiatry Resident)

Advisors:

1. Dr,Michael Beka(Md,Psychiatrist, Assistant Professor Of Psychiatry)
2. Dr.Abrham Bogale (Md,Psychiatrist, Assistant Professor Of Psychiatry)
3. Mr.Minale Tareke(Msc In ICCM, Assistant Professor Of Mental Health, Phd Fellow)

April 30, 2026 G.C

Bahir Dar, Ethiopia

Name Of The Invedtigator	Solomon Yalew Abeje (Md ,Psychiatry Resident)
Adress Of The Investigator	Tell: +251937424855 Email: Solomoyalew55@Gmail.Com
Name Of Advisors	1.Michael Beka (Md,Psychiatrist, Assistant Professor Of Psychiatry) 2.Abrham Bogale (Md,Psychiatrist, Assistant Professor Of Psychiatry) 3.Minale Tareke (Msc In ICCMH,Lecturer, Assistant Professor In Mental Health,Phd Fellow)
Address Of Advisors	Phone(1): +251913164444 Phone(2): +251913689431 Phone(3): +251913395731
Full Title Of The Research	Prevalence And Determinants Of Depression Among Breast Cancer Patients At Referral Hospitals In Bahir Dar City, Ethiopia.2026 G.C.
Study Area And Period	A Institution Based Crosss Sectional Study Was Carried Out From February -March 2026 At Referral Hospitals In Bahir Dar City Northwest Ethiopia

Declaration

I, the under signed, declared that this is my original work, has never been presented in this or any other University, and that all the resources and materials used for the research, have been fully acknowledged.

Principal investigator

Name: Solomon Yalew Abeje (MD,Psychiatric Resident)

Signature: _____

Date: 26/08/2018 E.C

Advisor

Name: Michael Beka (MD, Psychiatrist, Assistant Professor of Psychiatry)

Signature: _____

Date: 26/08/18

Advisor

Name: Abrham Bogale (MD,Psychiatrist, Assistant Professor of Psychiatry)

Signature: _____

Date: 26/08/18

Advisor

Name: Minale Tareke (MSC In ICCMH,Lecturer, Assistant Professor In Mental Health)

Signature: _____

Date: 24/8/2018 E.C

Bahir Dar University "College of Medicine & Health Sciences" Department of Psychiatry

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ACRONYMS AND ABBREVIATIONS

- AOR - Adjusted OddRatio
- BC- Breast Cancer
- CI - Confidence Interval
- DSM - Diagnostic Statistical Manual
- ETB - Ethiopian Birr
- DALYS- Disability-Adjusted Life Years
- FHCSH- Felege Hiwet Comprehensive Specialized Hospital
- HADS-Hospital Anxiety And Depression Scale
- OSSS - Oslo Social Support Scale
- PTSD-Posttraumatic Stress Disorder
- QOL-Quality Of Life
- TGCSH- Tibebe Ghion Comprehensive Specialized Hospital
- WHO - World Health Organization

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ABSTRACT

BACKGROUND*:* Depressionaffects between 30% and 40% of cancer patients; however, many cases go undetected and untreated. Depression is one of the most common psychological consequences of breast cancer.It has been diagnosed in one out of five breast cancer womenand negatively affects women's quality of life. InAmhara region, previously estimated prevalence was 60.2% and some important independent variables like fear of recurrence/progression/of disease, distance to a cancer treatment center, and side effects of cancer chemotherapy were not assessed.

OBJECTIVE: The aim of this study was to assess the magnitude and determinants of depression among breast cancer at referral hospitals in Bahir Dar city, Ethiopia, 2026 G.C.

METHODS*:*An institutional-based cross-sectional study was conducted among 355 breast cancer patients Bahir Dar city, private and governmental hospital who had oncology unit or care, Northwest Ethiopia, using a systematic random sampling technique. The study period was from February-March 2026 G.C. Data was collected by face-to-face interview using semi-structured questionnaire usingKobo data collection tool, with depression and anxiety was assessed using the HADS checklistand some data was recruited from card documentation. The collected data was thenexported to SPSS version 25.0 for processing and analysis.The correlation between independent and dependent variables was evaluated using a logistic regression model. Both bi-variable and multivariable logistic regression analyses were employed to identify determinant factors associated with depression among breast cancer patients. A p-value of less than 0.05 was considered statistically significant.

RESULT: The overall rate of depression was around 46.1%.Age(AOR=0.37, CI=0.158-0.865),duration of cancer diagnosis(AOR=4.18, CI=1.41-12.3), presence of comorbid anxiety(AOR=0.12, CI=0.034-0.426) and coping status(AOR=2.16, CI=1.022-4.594) are statistically significant determinant factors.

CONCLUSION: The prevalence of overall depression among breast cancer patients was found to be low compared to national and sub-Saharan African studies.Age,duration of cancer diagnosis, anxiety and coping status were found to be determinant factors of depression. Designing hospital based screening strategies targeting women with breast cancer for evaluation of depression is necessary. The need to adapt and implement evidence-based interventions to reduce psychological distress like depression is essential.It is recommended that early detection and diagnosis of depression among breast cancer is paramount important.

1. INTRODUCTION

1.1 BACKGROUND

Depression is one of the most common severe mental illness in the general population. According to recent global burden study result shows that around 4% of general population had depression.it is 1.5times more common among female than male(1).

Depressive disorder affect all aspects of life including relationships with friends, family and community. Additionally it may result from well-known medical and surgical condition as comorbidity or as a consequence of medical illness. From oncologic perspective, the prevalence and associated factor of depression among cancer is researched and shows there is high burden of anxiety, psychological distress among cancer patients in general and breast cancer as a risk factor in particular(2).

Breast tumors can spread throughout the body and become fatal. The perception of female appearance has evolved over the years. It is influenced by the media, which encourages women to achieve an ideal body. In this sense, breast size is related with femininity and the ideal definition of beauty(3).

Consequently, when women are diagnosed with breast cancer (BC), and their breasts undergo a physical transformation, it likely compromises their sexual identity, interpersonal relationships, and sense of self. Therefore, BC and its treatment could influence body image and female identity in various ways, as well as decrease women's self-esteem. Consequently, this situation could bring upon depressive symptoms because it evokes feelings of inferiority and fear of rejection from one's partner, children, or friends(4).

Depression is one of the most common psychological consequences of BC. It has been diagnosed in one out of five BC womenand negatively affects women's quality of life. As depression decreases immunity and chances of survival, interventions that improve overall health are relevant for BC treatment. Studies that address aspects of self-esteem and body image and their relationship with BC are highly relevant because it is considered a public health problem. BC is the most recurrent cancer among womenand has a high mortality rate and serious psychological repercussions(5),(6),(7).

Being diagnosed with breast cancer or receiving treatment for it which mainly comprises of mastectomy (surgery), radiotherapy or chemotherapy or in combination, is itself a traumatic experience to women and therefore, many breast cancer patients have intense fear toward their disease and the ongoing treatment process, and many of them even have depression and other psychiatric morbidities.This emotional distress in patients is associated with a reduction in overall quality of life, and influences compliance levels with medical treatment negatively, and hence results in an elevated risk of mortality, this is why emotional distress is also called as the sixth vital sign in cancer care(8).

Breast cancer and its treatment can lead to many health issues such as lymphedema, pain, early menopause, and sexual problems, along with psychosocial ill effects like anxiety, depression, and self-image concerns. Compared to general population, there have been increasing rates of depression in cancer patients. It is 25% rate overall and differs for different cancers. Specifically Breast 1.5-46%; Lung 11-44%.Treatment options include psychological interventions and yoga or classic pharmacotherapy, such as antidepressants, in cases of true depression(9,10).

1.2. STATEMENT OF THE PROBLEM

In 2023, depressive disorders were identified as the third-largest contributor to the global burden of disability, and this contribution has continued to increase over time.Early identification and management of depressive disorders in adolescents and young adults is crucial for preventing long-term psychological and physical health issues, and for mitigating the burden of non-communicable diseases like cancer. (11,12).

Globally, between 2010 and 2019, the incidence, prevalence, and disability-adjusted life years (DALYs) of depression among individuals aged 10–24 steadily increased, disproportionately affecting adolescents. These patterns highlight the critical necessity for focused prevention and intervention efforts(13).

The global prevalence of depression among patients with breast cancer was 32.2%,while the prevalence of anxiety and depression among patients with cancer in low-and middle income countries was 21% for major depression and 18% for anxiety disorders(14).

In a recent meta-analysis, results affirmed that breast cancer patients with depressive symptoms had a 25% higher mortality rate. In other words, even after receiving effective physical therapy, the existing stress and depression may remain and eventually lead to a lower recovery rate and decreased level of QOL. Despite the importance of the issue, most of the oncology settings focus on treatment procedures which mainly are based on physical signs and symptoms of patients whereas their psychological distress and mental well-being are frequently ignored(15),(16),(17).

A study done in Ethiopia reported the prevalence of depression and anxiety among patients with different types of cancer was 58.8 and 60%, respectively. In Ethiopia, many issues related to breast cancer are still uncovered. The psychiatric squeal is one of them. As a result, there is a need to investigate the burden of psychiatric suffering among patients with breast cancer. Moreover, the factors influencing the occurrence of the problems are yet to be assessed. Hence, the current study is designed to assess the magnitude and factors associated with anxiety and depression among patients with breast cancer in northwest Ethiopia,Bahir Dar(18).

While a few study for Bahir Dar Hospital could be found, a study from August 2025 in Addis Ababa found that 25% of breast cancer patients had depression, and a 2022 study found that 25% of cancer patients in the Amhara Region had symptoms of depression. The prevalence of depression among cancer patients is a significant concern, affecting quality of life and treatment adherence, and often linked to factors like pain, poor social support, and financial crisis(18),(19).

Even though the prevalence of depression among cancer patient was researched previously inAmhara regionparticularly among breast cancer patients which shows that the burden were still high at regional level wherebyadequate number of sample were utilized to generalize but the presence of current conflict related instability or other comorbid mental illness in the region could potentiallyaffect or worsen the care given to reduce morbidity and mortality of breast cancer patients.

Furthermore, some important variables which potentially could affect depression were not addressed like type of treatment & side effect of treatment .This also evidenced from recent report from ministry of health, in Ethiopia shows mental illness and other related cases among breast cancer were substantially high makes

recentlythe problem is still existing and needs to be searched more to assess the problem and associated factor in more specific setting and feasible enough to assess the burden at regional and national level.

1.3. LITERATURE REVIEW

1.3.1.MAGNITUDE OF DEPRESSION AMONG BREAST CANCER

Depression is a significant contributor to the global burden of disease and affects people in all communities across the world and it is estimated to affect 350 million people in 2004. Depression is a comorbid disabling disease that affects approximately 30%–40% of cancer patients. Studies have shown that the risk of depression in patients with breast cancer is higher than with other types of cancer and the general population. Due to its complex etiology and pathogenesis, early screening of depression among breast cancer patients is difficult resulting in many patients left undiagnosed and untreated(28),(29).

A global prevalence of depression among breast cancer patients was reported at 32.2% in a 2024 systematic review and meta-analysis, though specific studies from 2025 on worldwide prevalence are not yet available. Depression is a significant concern for breast cancer patients, associated with decreased quality of life, treatment adherence, and survival rates, with factors such as pain, lack of social support, financial concerns, and the stage of cancer influencing its development(29,30).

Compared to global research done, research on depression prevalence in European breast cancer patients is scarce in the provided results, studies from 2024 and late 2023 highlight a common issue. but one a systematic review from early 2024 noted that breast cancer patients generally experience higher rates of depression than the general population ,(31),(32).

Similar burden of depression rate was observed InSouth Korea study which reveals that reports that 59,340 breast cancer survivors exhibited an increased risk of depression compared to the age-matched control group. Notably, different patterns emerged by age group: survivors younger than 50 years had a 1.16-fold higher risk of depression at 1-year post-surgery, while older survivors had a decreased risk. Additionally, current smoking, dyslipidemia, and chemotherapy and endocrine therapy were potential risk factors (33).

In lie with the global trends, another research done at nationalDanish cohort study level results indicates that the risk of depression is highest during the first year following diagnosis and then decreases. This concurs with existing literature, such as a Danish cohort study reporting a relative ratio of 1.7 for depression in women with breast cancer, which diminished afterward. (34),(35).

Contrary to other study doe globally, other Danish cohort study and a recent cohort study conducted in France showed a variety of trajectories for depressive symptoms in breast cancer patients, including remission of depressive symptoms. The studies also reported increased depression prevalence in the year after diagnosis and a decrease thereafter, but were insufficient to delineate the actual risk compared to the non-cancer population(36).

In Africa, a slight lower rate but still a global similar rate was observed with a pooled prevalence of 45.6% in Sub-Saharan Africa and specific studies reporting 25% in one setting. Studies in places like Addis Ababa, Ethiopia, highlight the increased risk of depression in women with breast cancer compared to those without the disease (37),(38),(39).

Contrary to some global and European study like the Danish cohort study and French study, A systematic review and meta-analysis study in Sub-Saharan Africa in 2024 was higher which shows that the pooled prevalence of depression among breast cancer patients in Sub-Saharan Africa was 45.6% with significant heterogeneity. (40).

In Ethiopia, An institutional based cross sectional study was conducted among patients with breast cancer who were attending treatment at the Oncology Center of the Tikur Anbessa Specialized Hospital(TASH) reveals that study included randomly selected participants, of which 35.4 % were on stage III and 33 % on stage II and . 67.9% were on chemotherapy and surgery. The prevalence of anxiety and depression were 60.7% and 50.6% respectively(41),(42).

1.3.3.ASSOCIATED FACTORS OF DEPRESSION AMONG BREAST CANCER

Screening for psychological distress and its complications, more specifically depression can be challenging. Additionally, living with an undiagnosed and untreated mental health disorder can further exacerbate one's underlying distress of living with a new diagnosis. Considering this, it may be helpful to identify predictive factors of anxiety and depression in women with breast cancer as a means to enhance screening and treatment efforts(43).

A multicenter cross-sectional study conducted in the Souses-Massa region of Morocco over an 8-month period was done and results of this multiple linear regression analysis revealed factors that were associated with depression in breast cancer patients. These factors were principally socio demographic and clinical (47).

Among socio demographic factors, having minor children in charge was a risk factor for anxiety and depression in the study population; women with adolescents aged 10 to 18 years had higher levels of anxiety& depression . Other studies have confirmed these results. For example, Park (2018) found that being a mother of small children was a factor of psychological distress for young women with breast cancer. One explanation for this association is that women diagnosed with breast cancer fear that if they were to die, their children may be left alone(47),(48).

In contrast, A Cross-sectional study with 181 women with breast cancer, aged 57.0 years, who were undergoing treatment or after treatment in the Oncology Research Center in Florianopolis,Brazil shows that agewas an important factor as women aged 40–60 years had more depressive symptoms than women aged 61–80 years. (44).

The rationale putted for the above explanation were that younger women with breast cancer are typically more concerned with infertility because of chemotherapy treatment since it reduces the production of female hormones, shortens the period before menopause, and can cause infertility. Furthermore, body image tends to be more important in younger women; therefore, such women have more body afflictions and fear of disease recurrence, social isolation, and family and marital problems. This information could assist interdisciplinary care guidance, suggesting that psychological support should be included early in treatment(45).

Furthermore, a lower educational attainment was also linked with depression symptoms: women with a basic education presented a 37% prevalence ratio of depression symptoms when compared with women with at least a

high school degree. Lack of knowledge about the disease can complicate women's emotions; therefore, if they do not have access to information about treatment and survival rate, the main thought becomes one's end of life, which can cause more depressive symptoms. Most of the women in this study were retired, unemployed, waiting for health retirement diagnostic, and had low income. These factors could influence psychological aspects considering that women begin to worry about their future, returning to work and financial situation after treatment(46).

Furthermore, A primary level of education was a risk factor for developing anxiety& depression when compared to higher educational levels. Similarly, another study concluded that education level is a factor associated with anxiety and that women with low levels of education were four times more likely to be anxious than those with a higher level of education. Other researchers have also demonstrated this finding (52)

Physical exercise was also a protective factor against depression. Women who engaged in moderate physical exercise were less likely to have depression disorders than others, even post treatments. Physical exercise had significant positive correlations with self-esteem, overall health and quality of life (physical, emotional, cognitive and social aspects)(53).

Additionally, The availability of financial resources represented an assurance to face the expenses of life and care in cancer patients; in contrast, the lack of financial resources was a source of stress. A supportive evidence was got from a Moroccan study which found that financial difficulties were a risk factor for psychological disorders (anxiety and depression).Such findings in Morocco are in accord with another study that concluded that patients with less financial support were 3 to 4 times more likely to have depressive disorders (58)..

Social support is an additional determinant of psychological and mental well-being. The study described this support in two dimensions: availability and satisfaction. Regarding the social support scores, the median social support availability score was 8 (6;11), while the median social support satisfaction score was 24 (19;30).There was a significant negative association between social support satisfaction and anxiety and depression therefore, the scores for anxiety and depression decreased as social support satisfaction score increased. For social support availability, no relationship was observed(55).

Consistent with the above study findings, one study found associations between satisfaction with social support and improved global quality of life and other domains of quality of life, including psychological domains. Another study observed a significant negative correlation between anxiety and social support. Social support was again found to be a protective factor against anxiety and depression in breast cancer survivors. Similarly, according to a recent study carried in Addis Ababa in 2019, there was a statistically significant association between social support and depression. Another study in Taiwan in 2017, concluded that social support was a protective factor against depression. As demonstrated by these several studies, low social support is among the risk factors for anxiety and depression in women with breast cancer(55),(56),(57).

One study concluded that physical functioning assessed by the Karnofsky score was negatively associated with anxiety and depression, so that the better the physical condition was, the lower anxiety and depression scores were; consequently, the patient was protected against anxiety and depression. These results are supported by another study that concluded that better physical health was associated with decreased anxiety and depression. Notably, another study reported that psychological distress (depression and anxiety disorders) was associated

with poorer physical function. There are also data to support that patients with more physical symptoms were 3.8 times more likely to develop a depressive disorder than those who had normal activity without any or some physical symptoms(59),(60).

The stage of cancer at the time of diagnosis was another risk factor for the development of anxiety. study confirmed that advanced stages of breast cancer were predictive of anxiety: TNM III.Similarly, a study conducted by Aquil (2021) found that advanced cancer stage was associated with higher mental disorders (< 0.001). Moreover, various studies have reported that cancer patients with distant metastases had more psychological distress than patients with localized or loco regional disease(59),(61).

In a German study performed in 2020, time since diagnosis, advanced stage, treatments, and having children were not significant risk factors for depression; nonetheless, recurrence was associated with depression. Additionally, the study also found that recurrence was positively associated with depression (62).

In nationwide cohort study done in South Korea found that treatment with aromatase inhibitors and tamoxifen was associated with a higher risk of depression in older breast cancer survivors. While research on tamoxifen and depression is inconclusive, some studies report depression as a side effect leading to its discontinuation, while others find no association or even fewer depressive symptoms with tamoxifen use. Aromatase inhibitors alone have been linked to an increased depression risk .One study noted worsened depressive symptoms in postmenopausal women using aromatase inhibitor (65),(66)

The Global Cancer Observatory reported nearly 19.3 million new cancer cases and 10 million cancer-related deaths in 2020. Depression, anxiety, and pain may be interrelated due to the shared pathways of emotional and physical distress, where cancer's physical toll and uncertainty about the future contribute to both psychological and physical suffering. This interplay often amplifies the experience of each symptom, exacerbating the overall burden on patients(63).

Pain is often described as one of the most disturbing aspects of cancer and has a major impact on the quality of life of cancer patients. Data collected by Van den Beuken and colleagues in 2007 in the Netherlands stated that from 52 articles it was shown that pain is very common in cancer patients 33 % in recovered patients, 59% in patients receiving anticancer treatment and 64% in patients with metastatic or advanced disease(64).

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1.4 .CONCEPTUAL FRAMEWORK

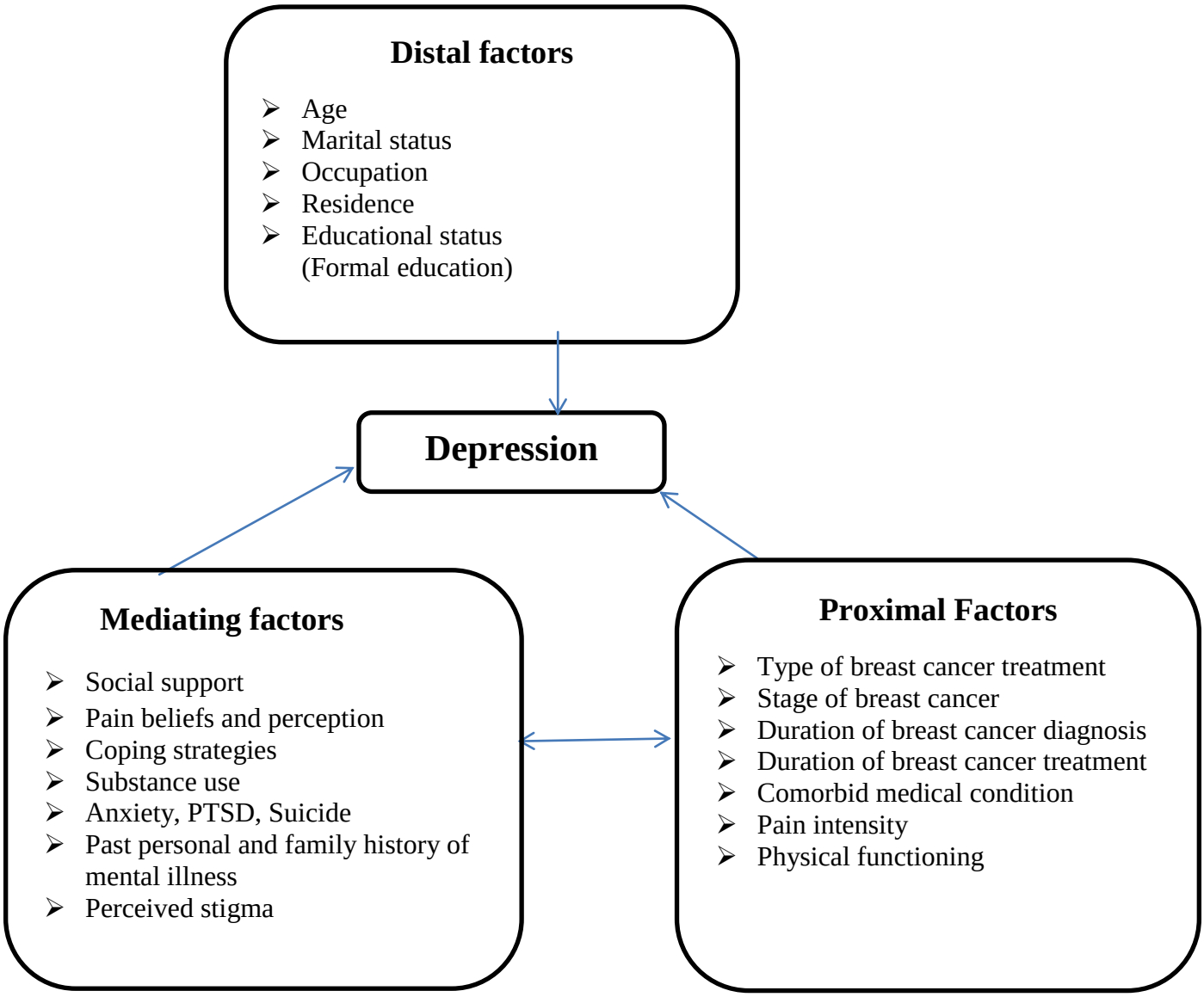


Figure 1: Magnitude and determinants of depression among breast cancer patients at referral hospitals inBahir Dar City Referral Hospitals, Ethiopia,2026 G.C(44,46,,53,55,59,60,64,66).

2. JUSTIFICATION AND SIGNIFICANCE OF THE STUDY

Women's with breast cancer face critical emotional and behavioral challenges, and the illness by itself as well as accompanying psychological and physical impacts can lead to long lasting issues that affect their social performance, well-being, and relationships.

Patients may feel isolated, struggle with mental health problems, and have a higher risk of depression. Providing mental health services in clinical care can help identify and support at-risk women's early, which is vital for building resilience and mitigating the long-term mental health effects of breast cancer, informing the psychological impact of the illness which is paramount important specifically for those women who are in conflict care giving settings.

Despite the high rates of psychological distress like depression, anxiety and other in Ethiopia, there are few localized studies on its mental health effects on women with breast cancer specifically following the ongoing conflict in the region which could potentially affect the psychological burden .This research addresses this gap by providing specific data from Bahir Dar city, which can help shape local mental health strategies and policies.

The study's findings are valuable for various stakeholders, policymakers and local authorities can use the data to develop effective mental health programs for women with breast cancer as well as high risk individual. Specifically, Oncologic unit in Bahir Dar city can create supportive environments to help women with breast cancer to cope with psychological distress, while mental health professionals can design targeted interventions based on local data.

3. OBJECTIVES OF THE STUDY

3.1. GENERAL OBJECTIVE:

- To assess the magnitude and determinants of depression among breast cancer patients attending referral hospitals.

3.2. SPECIFIC OBJECTIVES

- To assess the magnitudeof depression among breast cancer patients attending referral hospitals at Bahir Dar city, Northwest Ethiopia, 2026 G.C

- To identify determinant factors of depression among breast cancer patients attending referral hospitals at Bahir Dar city, Northwest Ethiopia, 2026 G.C

4. METHODS

4.1. STUDY AREA/SETTING

The study was conducted in government and private Oncology care giving hospitals serves the region found Bahir Dar city, Northwest Ethiopia, Bahir Dar city is located at the exit of the Lake Abbay from Lake Tana at altitude of 1,820 meters above sea level. The city is located approximately 578km from Addis Ababa. The Lake Tana is a UNESCO Biosphere reserve since 2015.

The city has a high incidence rate of cancer with its region but the exact number of dedicated oncologic care centers and specific total number of current patients is not publicly available. The primary hospital for oncologic care in the city and surrounding in the region are FHCSH,TGCSH governmental hospital and GAMBY and Afilas private General hospital. There are a total of 7 hospital in the city,3 public and 4 private though not all may offer specialized oncology units.Totally, around 1500-3000 new and follow up cases were see in the past 6mth.

The primary governmental hospitals in Bahir Dar city, Ethiopia, are Tibebe Ghion comprehensive specialized Hospital (TGCSH) and Felege Hiwot Comprehensive Specialized Hospital (FHCSH), both of which provide elective and emergency services.GAMBY Teaching General Hospital is one of the largest private hospitals in Ethiopia and is located in northwestern part of the country, Amhara region, Bahir Dar city,Currently, it is the leading private teaching and referral hospital in the area, with all-inclusive histopathology and cytology services in its pathology department.The other service from which oncologic patient was evaluated is Afilas private hospital.

4.2. STUDY DESIGN AND PERIOD

- A facility based cross-sectional study design was conducted from February-March 2026 G.C in accordance to envisaged schedule to determine the prevalence and identify determinant factors of depression among breast cancer patient.

4.3. POPULATION

4.3.1 SOURCE POPULATION

- All women patients over the age of 18 years who had a pathologically confirmed breast cancer diagnosis and/or were planned/ receiving cancer therapy.

4.3.2. STUDY POPULATION

- Eachbreast cancer patients over the age of 18 years who had a pathologically confirmed breast cancer diagnosis and/or were planned/ receiving cancer therapy atreferral hospitals in Bahir Dar city during study period.

4.4. ELIGIBILITY CRITERIA

4.4.1 INCLUSION CRITERIA

All women patients over the age of 18 years who had a pathologically confirmed breast cancer diagnosis and/or were planned/receiving cancer therapy duringdata collection period.

4.4.2. EXCLUSION CRITERIA

- Confirmed breast cancer patients over the age of 18 years with a critical medical condition who were unable to comprehend and respond to questions throughout and unable to give informed consent during the data collection period were excluded.

4.5. SAMPLE SIZE DETERMINATION.

The sample size was determined by using a single population proportion by taking the prevalence of depression among breast cancer of 30 % from a study conducted in Addis Ababa Ethiopia with; 5% margin of error, 95% confidence interval as follows:

$$n= \left(Z\frac{\alpha}{2}\right)^2\left(\frac{p(1-p)}{d^2}\right)$$

Where

- **n=** required sample size
- **Zα/2=** critical value for normal distribution at 95% confidence level which equals to 1.96 (z value at α =0.05) Single population proportion for prevalence of depression among breast cancer.
- **P=** Expected magnitude of depression among breast cancer in the area,
- **d=** precision (margin of error 0.05)

-By adding 10% non-response rate, the total number of samples became 355.

4.6 .SAMPLING PROCEDURE

A systematic random sampling technique was employed to collect the required sample size for the study. Initially, patients was selected from each oncologic outpatient and inpatient unit in each study area who had confirmed breast cancer and/or getting treatment using a lottery method, and the total number of patients(sampling frame) in each OPD visit obtained from the hospital medical records. Samples was then be allocated to each unit of study area proportionally based on the total number of patients in each hospital.

From the total number of patients (1600), 563in TGCSH,540 in FHCSH,404 in GAMBY& 89in Afilas general private hospital cases obtained from rate of flow of patients in all units over the past 6mth duration on card documentation which had monthly follow up. Dividing the total casesto the total sample size (355) resultedthe sampling interval of 4.The first participant was selected randomly by a lottery method from one to 4, and the next respondent was chosen at regular intervals (every 4) was counted till the required sample size is finally reached.Based on the total number of patient visiting the medical care, the number of patient to be a study participant accordingly were;TGCSH-125,FHCSH-120,GAMBY-90 andAfilas general private hospital-20.

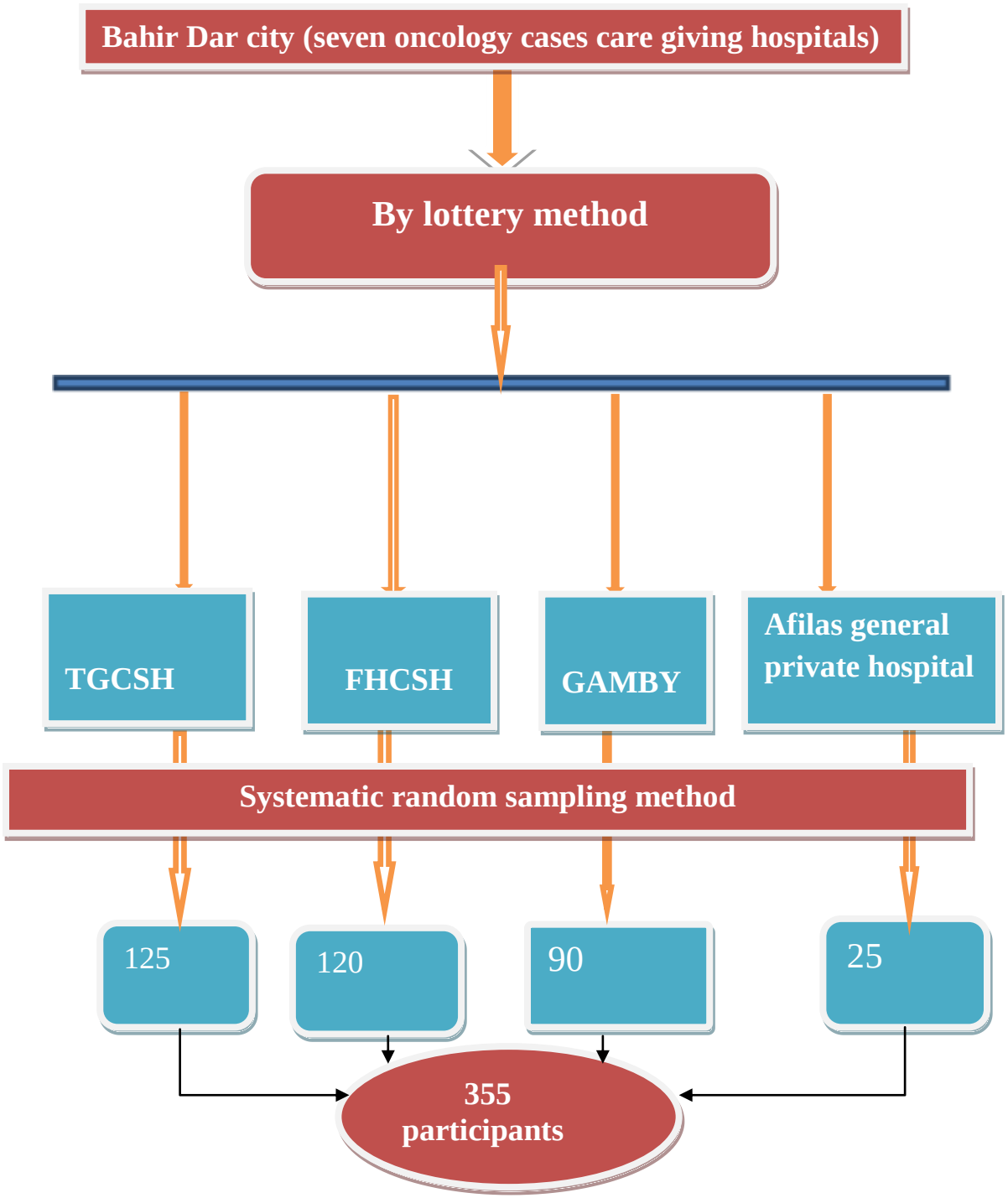


Figure 2.Schematic presentations of sampling procedures on the prevalence and determinants of depression among patients with breast cancer at referral hospitals inBahir Dar city, Ethiopia, 2026 G.C.

4.7. VARIABLES OF THE STUDY

4.7.1.DEPENDENT VARIABLE

- Presence or absence of depression among breast cancer

4.7.2.INDEPENDENT VARIABLES

- **Distal/Socio-demographic characteristics:** Age,Marital status, educational status, Residence.
- **Mediating factors/psychosocial factors:**Anxiety,PTSD**,**suicide, known family history of mental illness, past history of mental illness, substance use,Social Support, Pain believe and perception, coping mechanisms,perceived stigma.

- **Proximal/clinical factors:** Stage of breast cancer, duration of breast cancer diagnosis and treatment, type of cancer treatment,comorbid medical illness, physicalfunctioning.

4.8. OPERATIONAL DEFINITION

Depression and anxiety: The Hospital Anxiety and Depression Scale (HADS) was used to assess these variables. The 14-item measure examines depression and anxiety symptoms and is divided into two subscales, each having seven items that are assessed on a four-point scale (0–3). ()

Each subscale's total score runs from 0 to 21. Based on their results, the respondents was classified as normal (0–7),mild(8-10),moderate(11-14) and severe depression(15-21).This scale was also validated in Ethiopian patients with cancer patients.For this study, the internal consistency measurement of the HADS found to be a Cronbach's alpha coefficient of 0.92 and 0.89 for anxiety and depression subscales which was acceptable for this study.Patients who scored ≥ 8 for both anxiety and depression symptoms was considered as presence of depression and anxiety symptoms.()

PTSD-was measured by using 5 items scale based on primary care for PCL-5tool containing 5 items each with two scores,(yes) or (no) with cut off 4 and above will suggest PTSD.()

Multidimensional social support scale: It is social support screening instrument with 12 items and assess the level and severity of social support. The original version of the MSPSS is a 12-item scale with 7 possible responses to each statement (scored 1-7) giving a score out of a maximum of 84 with higher score indicating greater perceived social support.Scoring is in such a way that those scored12-35-low perceived support,36-60-medium perceived support,61-84 was labeled as high perceived support()

Current substance use: -was assessed by using 'yes' or 'no' question with ever and current use of substance, AUDIT and PKUST.Alcohol Use Disorders Identification Test (AUDIT), Self-Report Version, Typically, a score of 8 or above on the AUDIT is considered indicative of hazardous or harmful alcohol use and suggests further assessment and intervention may be necessaryand Problematic Khat Use Screening Tool (PKUST) with cut off point for identifying problematic Khat use in Ethiopia 12 or more is use.()

Pain intensity: From 0 to 10 numeric Pain Scale, mild (1–3), moderate (4–6) and severe (7-10)()

Functioning: wasassessed using WHODAS-12,items are about your health status in the last 30 days based on 5 sub scales.()

Pain believe and perception-was assessed using standard pain believe and perception inventory(PBPI) which is 16 item sized scale each scoring out of 4 based on subjective description as 1-strongly disagree,2-diagree,3-agree and 4- strongly agree.()

Comorbidity: was defined as greater than the coincidental presence of two disorders in the same person without inferring a causal relation

Coping strategies: assessed by using the brief coping orientation problem experienced (Brief-COPE) scale. The brief COPE is a shortened version of the COPE scale.

The scale has three higher-order subscales; problem-focused, emotion-focused, and avoidant or dysfunctional coping. The development of these sub-scales was conceptually driven, and the theoretical grouping of the items to their sub-scales was largely established using principal components analysis. Alternatively, the Brief-COPE items have been categorized into "adaptive/positive" A participant that scores more than or equal to the mean value of 28- Brief COPE scale item measures and "maladaptive/negative/passive" coping, ()

Perceived stigma: The perceived stigma was measured by using the perceived devaluation and discrimination scale (PDD). The PDD is a 12-item tool which measures the extent to which a person believes that most people will devalue or discriminate against someone with a mental illness. PDD was measured on a 4-point likert scale with possible scores ranging from 1 to 4 agreement scale (1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree).Then perceived stigma scores were dichotomized as those participants scoring greater than or equal to the mean score of 2.5 on PDD scales as having "high perceived stigma" and those scoring below the mean score as having "low perceived stigma."()

4.9. DATA COLLECTION TOOLS AND PROCEDURES

Data was collected using self-administered questionnaires that are first created in English and then translated into Amharic via Kobo data collection tool. The main tool to assess depression and anxiety was using the HADS which identifies depression and anxiety each having seven items that are assessed on a four-point scale (0–3),showing a Cronbach's alpha of 0.92 and 0.89 for anxiety and depression respectively.

PTSD was assessed using PCL-5 tool with a cut point of greater or equal to 30 satisfy for clinical significant symptomatic disorder.

Substance use history was assessed through yes/no questions about past and current use. For problematic alcohol use, the Alcohol Use Disorders Identification Test (AUDIT) will be used, showing a Cronbach's alpha of 0.84 and sensitivity of 90% with specificity of 85% in Ethiopia. Additionally, the Problematic Khat Use Screening Test (PKUST) will identify issues related to Khat use.

Suicidal behavior was assessed using the Suicide Behaviors Questionnaire-Revised (SBQ-R), which has a Cronbach's alpha of 0.88 and sensitivity and specificity rates of 86% and 92%, respectively.

A socio-demographic questionnaire was utilized to gather background information, while clinical and trauma factors was assessed through yes/no questions based on relevant literature. The questionnaires was adapted to fit the specific goals of this study.

4.10. DATA QUALITY CONTROL

To ensure data quality, seven data collectors and three supervisors were selected from mental health professionals in Bahir Dar university, TGSCH and accordingly professional nurse working in oncology/medical unit.The principal investigator trained them on data collection methods and tools. The questionnaire was translated into Amharic by psychiatric professionals and back-translated into English by an independent person for consistency and clarity.

A pretest was conducted 4 weak prior on 5% of participants outside the study area at Debre Tabor Comprehensive Specialized hospital,Debre Tabor to ensure questionnaire clarity. Supervisors and the principal investigator monitored the data collection process to ensure accuracy and any problem was forwarded and immediate solution and corrective measure was taken accordingly. Data was cleaned, checked for completeness, and promptly entered into a computer. If an eligible participant is absent during data collection, the preceding or succeeding patients was selected as a replacement to maintain sample size.

4.11. DATA PROCESSING AND ANALYSIS

Data was first checked for completeness before being coded and entered into Epi-Data version 4.6.0.2. After this, the data was exported to SPSS version 25 for analysis. Descriptive statistical methods wereemployed to estimate the frequencies and percentages of the variables. Logistic regression analysis was then be utilized to identify determinant factors. Specifically, bivariate logistic regression was conducted to determine which variables are associated with the dependent variable. Variables with a p-value of less than 0.25 were included in multivariable logistic regression for further analysis.

Finally, adjusted odds ratios with 95% confidence intervals was calculated for variables with a p-value of less than 0.05 in the multivariable logistic regression models, indicating statistical significance in their association with depression.Missing data were handled using multiple imputation by chained equations to minimize bias and maintain statistical power. The fitness of the model was checked using the Hosmer–Leme model, which showed goodness of fit.The fitness of the model also examined standardized residuals, leverage values, and Cook's distance to identify any influential observations or outliers that might affect the model's performance. The correlation between the selected variables that met the p-value criteria in the bivariate models was determined using the Pearson test for collinearity. Collinear covariates with a Pearson correlation coefficient greater than 0.5 was removed from the analysis by keeping only the variables most strongly associated with depression.

4.12. ETHICAL CONSIDERATION

Ethical clearance was obtained from the Ethical Review Board of Bahir Dar University College of Medicine and Health Sciences and Amhara Health Bureau. Following this, a permission letter and an official letter of cooperation wasobtained. Each study participants were approached individually and informed about the purpose of the study in understandable translated Amharic versions. Written consent was then obtained.

The importance and confidentiality of the information collected was explained to each competent participant before the interview begins.Participants were informed that they will not receive any benefits for participating in the study and that there were no consequences if they choose not to participate or withdraw during data collection.Any participant who scores more than the cut-point for depression, anxiety,suicide and PTSD or other sign of mental illness associated with breast cancer were linked for clinical evaluation and management.

4.13 DISSEMINATION OF RESULTS

The results of this study will be submitted and presented to the Bahir Dar University College of Medicine and Health Sciences and the Department of Psychiatry. The findings will also be disseminated to the Federal ministry of health, the Amhara Health Bureau, Bahir Dar city to support the timely management of women's with breast cancer. Additionally, the results will be published and shared with other relevant bodies.

5. RESULTS

5.1. Socio-demographic characteristics of participants

Of the total sample, the overall response rate was 352 (99.1%) in this study.Nearly half of the respondents, 172(47.9%) were aged above 46yrs.More than one third of participants (138, 39.2%) were married and almost nearly equal numbers of participants, 175(49.5%) and 177(50.3%) were living in rural and urban areas respectively. Concerning educational level, majority of patients, 110(31.3%)were attended diploma. (Table 1).

Table 1. Socio-demographic characteristics among breast cancer patients at referral hospital in Bahir Dar city 2026 G.C (n=352)

Variables	Category	Frequency (%)
Age	18-35	95(26.9%)
	36-45	92(26.1%
	>46	165(47%)
Marital status	Single	73(20.7%)
	Married	138(39.2%)
	Divorced	73(20.7%)
	Widowed	68(19.3%)
Residency	Urban	175(49.7%)
	Rural	177(50.3%)
Education	Can't read	47(13.4%)
	Degree and above	110(31.3%)
	Diploma	45(12.8%)
	Primary(1-8)	38(10.8%)
	Secondary	46(13.1%)
	University	66(18.8%)
Occupation	Daily labor	59(16.8%)
	Farmer	47(13.4%)
	Gov’t employed	54(15.3%)
	Housewife	144(40.9%)
	NGO employed*	17(4.9%)
	Student	31(8.8%)

5.2. Clinical characteristics among breast cancer patients

According to participants chart documentation, 149 (42.3%) in stage 3. Regarding the duration of cancer diagnosis, the majority of respondents,137 (38.9%) were greater than 24 months. The nearest one-thirds of respondents, 95(27%) received chemotherapy and surgery with small amount of respondent 19(5.4%) took radiotherapy alone. In terms of pain intensity, majority of respondents (159,45.2%) were in a status of severe pain.DM is the commonest comorbidity accounting majority of cases, 27(7.7%)(Table 2).

*Table 2.*Clinical characteristics of breast cancer patients at referral hospital in Bahir Dar city 2026 G.C (n=352).

Variables	*Category*	*Frequency (%)*
Stage of cancer	Stage 1	27(7.7%)
	Stage 2	62(17.6%)
	Stage 3	149(42.3%)
	Stage 4	114(32.4%)
Duration of cancer diagnosis	<12mth	92(26.1%)
	12-24mth	123(34.9%)
	>24mth	137(38.9%)
Duration of cancer treatment	<6mth	139(39.5%)
	>6mth	213(60.5%)
Type of treatment	Chemotherapy	89(25.3%)
	Chemotherapy and Surgery	95(27.0%)
	None	41(11.6%)
	Radiotherapy	19(5.4%)
	Radiotherapy and Surgery	48(13.6%)
	Surgery	60(17.0%)
Pain intensity	Mild	51(14.5%)
	Moderate	96(27.3%)
	Severe	159(45.2%)
	No pain	46(13.1%)
Comorbid medical condition	DM	27(7.7%)
	HTN	20(5.7%)
	Cardiac illness	9(2.6%)
	Stroke	2(0.6%)
	Asthma	2(0.6%)
	No comorbidity	292(83.0%)

**DM-diabetes mellitus, HTN-hypertension*

5.3. Prevalence of depression among breast cancer patients

According to HADS, overall rate of depression in this study was 46.1% (95% CI 42.1% to 54.1%).the prevalence of moderate to severe depression among study participants were around 13% (54/352) with moderate depression accounts majority of respodents,40(10.4%) and severe depression of 14(2.6%).(Figure 1).

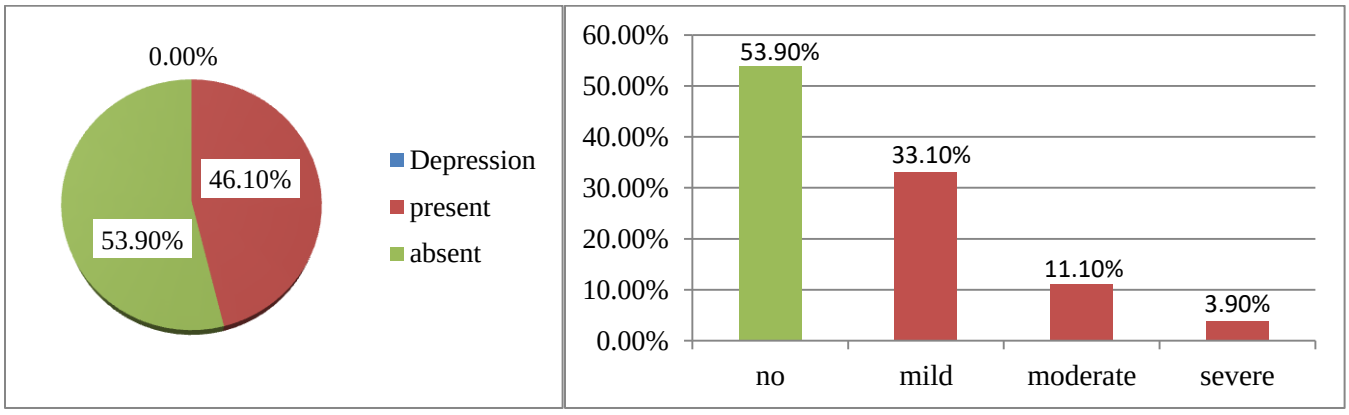


*Figure 3.*Prevalence and severity of depression among breast cancer patients at referral hospital in Bahir Dar city 2026 G.C (n=352).

5.4. Characteristics of determinant factors among participants

The nearest half of respondents,167(47.4%) who were assessed for anxiety based on HADS anxiety subscale tool had moderate anxiety followed with approximately one fourth of cases,87(24.7%) accounts severe anxiety In terms of social support, majority of cases, 142(40.3%0 were had good social support.

Majority of respondents, 153(43.5%) had moderate functional disability.Almost the greatest three fourth of participants, 330(93.8%) had no any form of substance use disorder and around one sixth of participants, 62(17.6%) were having clinical significant symptoms of PTSD. Majority of participants, 223(63.7%) had higher or maladaptive pain believe and perception and only 11(3.2%) had suicidal behavior.(table 3).

*Table 3.*Characteristics of determinant factors among breast cancer patients at referral hospital in Bahir Dar city 2026 G.C (n=352)

Variables	***Category***	***Frequency,%***
Anxiety severity	No	18(5.2%)
	Mild	80(22.7%)
	Moderate	167(47.4%)
	Severe	87(24.7%)
Social support level	Low perceived support	84(23.9%)
	Medium perceived support	126(35.8%)
	Good perceived support	142(40.3%)
Functional disability	Mild disability	104(29.5%)
	Moderate disability	153(43.5%)
	Severe disability	85(24.1%)
	Very severe disability	10(2.8%)
SUD status	Present	22(6.3%)
	Absent	330(93.8%)
PTSD symptoms	Present	62(17.6%)
	Absent	290(82.4%)
Perceived stigma level	Low perceived stigma	133(37.8%)
	High perceived stigma	219(62.2%)
Pain believe and perception	Lower/maladaptive	127(36.3%)
	Higher/adaptive	223(63.7%)
Suicide	Yes	11(3.2%)
	No	341(96.8%)

**SUD-substance use disorder, PTSD-post traumatic stress disorder, HADS-A for Hospital anxiety and depression scale anxiety subscales*

Concerning to coping status of the participants, The responses of each component of coping activities were summed. Then the mean of each component was computed and participants who scored above and equal to the mean were considered as having a positive/high coping strategy and those who scored below the mean value were considered as having a negative/low coping strategy. Based on this, The greatest half of participants,186 (53.3%) were had negative coping strategy.

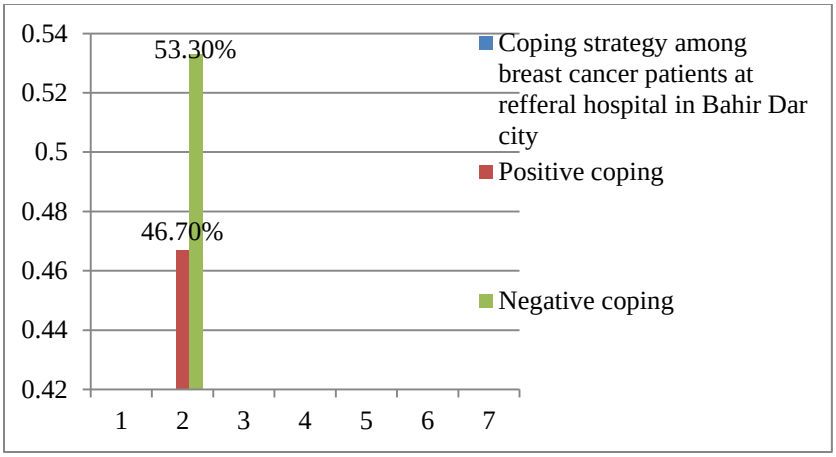


Figure 4. Coping strategy of breast cancer patient at Bahir Dar city referral hospitals,2026 G.C (n=352).

With this regards, among those who had negative coping strategy, majority of participant ,163 (76.2%) use emotion based coping followed with problem based coping strategy which accounts more than three fourth,72.8% and 73.1% used avoidance based coping had negative coping strategy.The majority (65%) of the participants stood on their ground and fought for what they wanted and above 64% of them didn't let it get to them while more than 73% of them coped by went along with fate. In the problem based coping, the highest percentages of participants do most of the activities for positive coping.

Regarding seeking social support, more than 81% talked to someone who could do something concrete about the problem and nearly 98% of them got professional help.

Most participants didn't do all activities of accepting responsibilities except only 76.5% told themselves things that helped them to feel better. From avoidance coping activities, more than 72% hoped a miracle would happen, got away from it for a while, tried to rest or take a vacation, and tried to make themselves feel well by eating, drinking alcohol, smoking cigarette, and using medication and accepted it.

Nearly 60% bargained to get something positive from the situation, and 67% changed something so things would turn out all right.

Table 4 .Cross tabulation of level of coping and coping strategies among breast cancer patients in oncology referral hospital in Bahir Dar city,2026 G.C(n=352)

			Problem based coping strategies		
			Low coping	High coping	Total
Coping status	Low coping	Frequency	155	31	186
		% within coping status	83.3%	16.7%	100.0%
		% within problem based coping strategies	**72.8%**	**22.3%**	52.8%
	High coping	Frequency	58	108	166
		% within coping status	34.9%	65.1%	100.0%
		% within problem based coping strategies	**27.2%**	**77.7%**	47.2%

			Emotion based coping strategies		
			Low coping	High coping	Total
Coping status	Low coping	Frequency	163	23	186
		% within coping status	87.6%	12.4%	100.0%
		% within emotion based coping strategies	**76.2%**	**16.7%**	52.8%
	High coping	Frequency	51	115	166
		% within coping status	30.7%	69.3%	100.0%
		% within emotion based coping strategies	**23.8%**	**83.3%**	47.2%
		% of Total	14.5%	32.7%	47.2%

			Avoidant based coping strategies		
			Low coping	High coping	Total
Coping status	Low coping	Frequency	136	50	186
		% within coping status	73.1%	26.9%	100.0%
		% within avoidant based coping strategies	**70.5%**	**31.4%**	52.8%
	High coping	Frequency	57	109	166
		% within coping status	34.3%	65.7%	100.0%
		% within avoidant based coping strategies	**29.5%**	**68.6%**	47.2%

5.5. Factors associated with depression inbreast cancer patients

From bivariate binary logistic regression, eight explanatory independent variables(age, stage of cancer, duration of cancer diagnosis, social support, perceived stigma, severity of anxiety, coping status and functionality) had an association with outcome variables, which was depression and had p-value of <0.25, then all this variables were computed for final multivariate logistic regression resulting age, duration of cancer diagnosis, anxiety severity and coping status were found to be significant determinant factors for depression in this study.

Age was one of significant determinant factor with those aged 36-45(AOR=0.37, CI=0.158-0.865) were 63% lower rate of depression compared to those 18-35age.The other factor, duration of cancer diagnosis with 12-24mth (AOR=4.18, CI=1.42-12.35) are 4.18times higher rate of depression than those less than 12mth cancer diagnosis. Thirdly, severity of anxiety within mild range (AOR=0.12, CI=0.034-0.426) were 88% lower rate of depression than those participants with severe anxiety.

Lastly, coping status were significant determinant factor with those who had low/maladaptive coping strategy (AOR=2.16, CI=1.022-4.594) are 2.16fold higher rate of depression than those higher/adaptive coping strategy. In this study, marital status, occupation, residency, educational status, comorbid medical condition, duration and type of cancer treatment, pain intensity was not associated with the outcome variables.

Table 5. Bivariate & multivariate binary logistic regression analysis significant determinant factors for depression among breast cancer patients at oncology referral hospital in Bahir Dar city 2026 G.C (n=352)

Factors	***Category***	***Depression***		***COR(95% CI)***	***AOR(95% CI)***	***P-value***
		Present	***Absent***			
Age	18-35yr	73	22	1	1	
	36-45yr	75	17	1.33(1.65-2.70)	0.37(0.158-0.865)	**0.002***
	>46yr	150	15	3.01(1.47-6.15)	0.50(0.209-1.208	0.502
Duration of cancer diagnosis	<12mth	83	9	1	1	
	12-24mth	107	16	0.72(1.11-5.51)	4.18(1.42-12.35)	**0.009***
	>24mth	108	29	0.403(1.92-3.49)	1.45(0.61-3.39)	0.397
Anxiety	Severe	83	4	1	1	
	Moderate	148	19	0.375(5.2-168.71)	0.27(0.84-0.922)	0.36
	Mild	61	19	0.15(2.12-46.34)	0.12(0.034-0.426)	**0.001***
	No	6	12	0.024(10.2-19.42)	0.008(0.01-0.43)	0.01
Coping status	Positive/high	145	21	1	1	
	Negative/low	153	33	0.671(0.45-0.98)	2.16(1.03-4.45)	**0.004***
Stage of cancer	Stage 1	24	3	1	1	
	Stage 2	53	9	0.722(1.22-5.67)	2.21(0.50-9.75)	0.292
	Stage 3	129	20	0.806(1.66-3.45)	1.35(0.67-0.99)	0.536
	Stage 4	92	22	0.522(0.79-0.97)	1.75(1.77-2.98)	0.166
Social support	Low	68	16	1	1	
	Medium	106	20	1.24(1.60-2.27)	1.10(1.45-3.46)	0.833
	Good	124	18	1.62(1.57-2.45)	1.94(1.53-3.22)	0.178
Perceived stigma	Low	107	26	1	1	
	High	191	28	1.657(1.92-2.97)	1.55(1.25-3.23)	0.235
Functionality	Mild	18	31	1	1	
	Moderate	180	42	4.42(0.008-0.990)	0.28(1.07-9.67)	0.508
	Severe	79	11	12.3(1.351-2.466)	0.66(0.29-0.98)	0.319

***-*Significant factors,*1*-Reference group, **COR**-Crude Odd Ratio, **AOR**-Adjusted Odd Ratio, **CI**-Confidence Interval*

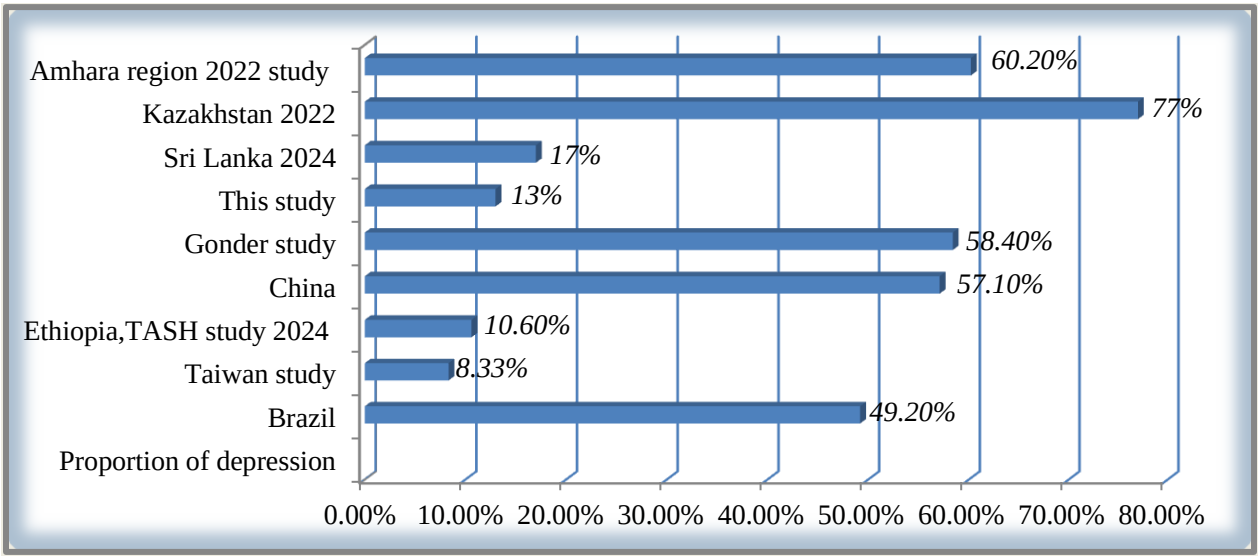
6. DISCUSSION

The purpose of this research was to evaluate the prevalence and determinant factors among breast cancer patients at referral hospitals in Bahir Dar city. Comparing this study with national and institutional level studies, it was found both in lower and higher range depending on the population studied and method employed in the study. When the result finding was compared with other study previously done in Ethiopia, it was more or less consistent with finding of this study despite the presence of flourishing potential factors in the region during research period like conflicts, war and its wide arrays of psychological and economic consequences portrays for depression proportion to be higher.

The prevalence of moderate to severe depression among breast cancer patients in this study was estimated to be 13%, which is higher rate than study done in Taiwan (8.33%). Contrary to this finding, the rate is lowered compared to study done in Brazil with estimated prevalence rate of depression were 49.2%,the rate of this study may be lowered since Brazilian study included participants even lower age group, higher sample size, include tool based assessment for psychological distress were utilized.

Extended to this lower rate was also observed compared to Chinese (58.8%) and Northern Ethiopia study in Gondar (58.4%), this could be resulted from tool discrepancy and varied socio-demographic factors finding like being predominate married participants, higher educational status and clinical variables like good social support which rationale for low depression rate in majority of participants in this study may lead the prevalence lower compared to other study.

Figure 5. Depression prevalence inprevious studies and this study.



A meta-analysis specifically done in Sub-Saharan Africa found that the pooled prevalence of depression among breast cancer patients was approximately 45.6% which is significantly higher than this finding in which this is observed since major significant factor and large amount of low financial income responsible for higher prevalence rate which was stipulated the major socioeconomic factor was not addressed in this research and may lower the finding compared to South African study finding.

Another cross sectional study done inTikur Anbessa Specialized Hospital (TASH) and St. Paul's Hospital Millennium Medical College ,Ethiopia showed that there was a prevalence rate of 10.6% with higher predominance for mild depressive symptom observed(37.3%) which favors also for this finding(result showed that around 33.1% of participant had mild depression) but slight lower rate of moderate to severe depression observed in the above cross sectional study which could be reasoned that this study were assessed more associated variables like coping status,PTSD, which could potentially alter the rate of depression between the studies.

A slight higher rate of moderate to severe depression prevalence was observed in one of cross sectional observational study done in India(21.5%) compared to this finding which is interpreted in terms of the fact that higher rate of poor social support, financial hardship, higher rate of psychological distress, comorbid health issues, poor quality of life and higher rate of pain intensity were observed in Indian study compared to this research finding which all are at high correlational risk for the development of depression in participant with breast cancer added with listed variables.

This study finding is also lower than a study conducted in Tunisia which reported the prevalence of depression among cancer patients to be 48%, the explanation for such big difference could be the inclusion of women only aged 65 and above who are demographically at higher risk of depression (67). Similarly, high prevalence of depression was reported from Turkey (46%) (68), South Africa (36.6%) (69), Mexico (43%) (70) and Nigeria 40.3% (71) using Hospital Anxiety and Depression (HADs) tool, Center for Epidemiologic Studies Depression Scale (CESD) and Mini International Neuropsychiatric Interview (MINI) for assessment of depression respectively.

Regarding the different risk factors for depressive symptoms identified in this study, participants' age was significantly associated with depression after controlling for other confounding factors. The risk of having depression decreased as the age increased marked by 68% lower rate in age group 35-45 compared to younger age. This finding is also consistent with a study done in Italy, China and USA which reported psychological disorders including depression among breast cancer to be higher among younger patients (72, 73,74).

Possible explanation for this is those women between 18 and 35 years of age were less likely to be married or had desired number of children. They are also more likely to refuse cancer treatment and may suffer from fear of death at young age, which will predispose them to greater psychological distress and depression. In this research finding, younger age is supported to be higher risk than older age 35-45 since younger one were found to be single, higher rate of advanced cancer stage with associated cancer treatment rate were high compared to older age group more than 35,this in turn leads to affect them hormonally and issues of infertility that may potentially linked with high rate of depression and even the majority of cases of PTSD and anxiety symptom across age was observed in younger age group which are strong predictors for the risk of depression.

Besides age, another determinant factor was duration of cancer diagnosis which had got odds of 4.18fold increment of depression in the duration interval of 1-2yr compared to less than 1yr cancer diagnosis this is supported also on several studies reported that prolonged cancer diagnosis is strongly associated with depression and breast cancer patients with longer cancer diagnosis and concomitant advanced stage had higher risk of depression as compared to those with early cancer diagnosis (75, 76, 77). But in this study, the significant association found between depression and cancer diagnosis especially duration of 1-2yr is supported with the finding that majority of patients lie under this diagnosis interval had advanced stage of cancer

diagnosis coupled with higher rate of pain intensity, perceived pain believe and perception, higher rate of perceived stigma for which this explanations are directly associated with high burden rate of depression compared to those participant less than 1yr cancer diagnosis and according to statistical finding,it showed that most cancer treatment were delivered specially chemotherapy based regimen in this age group which necessarily important to worsen or cause full-blown symptoms of depression as side effect.

Thirdly, the presence of comorbid anxiety especially severe intensity had 22% higher rate of depression compared to mild and normal range which was supported by cross sectional study done in Ghana (50) which showed that individuals with significant anxiety around the time of diagnosis or treatment are more likely to develop depressive symptoms later. Theoretical models (e.g., the tripartite model of anxiety and depression) explain this overlap clinically—negative affect and hyper-arousal overlap and can make both disorders more chronic when they co-occur. whether anxiety occurred as comorbidity or determinant correlational factor, one or in other ways it shared similar psychological stress and predisposition with depression which was evidenced that almost majority of participants who were single, duration of diagnosis less than 2yr, maladaptive coping mechanisms,higher PTSD risk, higher perceived stigma were found under the cross tab category of severe anxiety which can increase the comorbid risk of depression.

Last but not the least and fortunately potential determinant factor identified in this study is the presence of higher rate negative/maladaptive coping had odds of 4.18fold than among those participants with adaptive/positive coping strategy. This finding is inconclusively supported with studies done in Ethiopia(78),Sweden(79),according to this aforementioned research finding showed that those with adequate social support, those with duration of cancer diagnosis 1-3yr coped with stress about 77% lower rate than those diagnosis more than 5yr,participants who took chemotherapy alone cope stress adaptively 15times higher rate than those taking combination treatment.

Considering this, most of patient with low coping strategy had got high score on cross tabulation result for being single, more prolonged cancer diagnosis mostly more than 2yr,took combination treatment than those positive coping used participant and had higher rate of perceived stigma among this category which benchmark further them for higher rate of depression compared to their counterparts.

7. STRENGTH AND LIMITATION OF STUDY

As strength, it is tried to explore multiple explanatory independent variables, focused study population, semi - structured questionnaire utilized & ethical related conflict of interest were not happened during data collection. But the study is cross-sectional in nature, which cannot determine the causation of the association between associated factors and depression among adult breast cancer patients. It may be affected by bias due to using self-report measures.

Moreover, only those adult breast cancer patients who visited health facilities were included in the study and male breast cancer cases were not included and the burden of depression cannot be generalized for all breast cancer patients since we did not include those who stayed at home, this study was not also include some important variables like monthly income and tool for assessment of psychological distress which may affect the study result.Further standard assessment for those who scored more than 5 on PCL-5 for PTSD was not done. Whether anxiety was a comorbid or outcome of interest was not proposed.The medical comorbidity related complication and drugs were not assessed

8. CONCLUSION

The study found that the prevalence of depression was higher among adult breast cancer patients at Bahir Dar referral hospitals. Age, duration of cancer diagnosis, presence of anxiety and coping status were significant determinants with depression, but, occupation, residence, education, marital status, stage of cancer, treatment type and duration, comorbidity and pain beliefs and perceptions were not significantly associated with depression.To improve public and professional awareness, early detection, prompt treatment using practical and efficient regimens, and integration of psychotherapy, it is necessary to expand cancer screening programs to early identify risk factors and treat promptly need to be incorporated together with psychosocial care.

9. RECOMMENDATIONS

9.1. Recommendation for minister of health, regional health bureau and zone health office

- ✓ Designing hospital based screening strategies targeting women with breast cancer for evaluation of depression is necessary
- ✓ The need to adapt and implement evidence-based interventions to reduce psychological distress like depression is essential.
- ✓ Focusing on predicting magnitude and developing interventional guidelines for betterment of women health by incorporating mental health problems including depression and other.
- ✓ Designing ongoing evaluation and monitoring strategies of depression in women with breast cancer are necessary

9.2. Recommendation for health professionals

- ✓ Provide adequate post cancer counseling on preventing psychological distress like depression and other should be routine part of cancer care
- ✓ Health care providers recommended toinclude depression screening in their cancer care service.
- ✓ Awareness creation about negative burden of depression among breast cancerwomen during routine cancer treatment follow up is quit essential
- ✓ Since this study shows those who are diagnosed and treated early had low rate of depression, so it is recommended that early detection and diagnosis of breast cancer as well asdepression are paramount important.

9.3. Recommendation for researchers

- ✓ Longitudinal study is recommended for researchers to address the long term effects of depressive disorder among breast cancer related to conception, mental health problems, quality of life, complications and possible negative consequences on care givers.

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11. ANNEXES

11.1.Consent form

11.1.1.Participants Information Document

Code No----------Date----------

Dear participants. I am working as data collector for **Dr. Solomon Yalew**; who is undertaking a second degree specialty program in Psychiatry at Bahir Dar University. This letter serves to ask consent/assent from you to take part in this study.

The purpose of this study is to assess the prevalence of depression among breast cancer patients and its associated factors in Bahir Dar city. Your participation in this research is voluntary. If you decide not to participate there will be no negative consequences and no benefits for you. Except, if you have scored high on the measurement scale you will be, with your permission, be referred to any hospital that have mental health services for assistance. However, your participation on this study is very important for achievement of the study and for paying the way to develop evidence based mental health promotion, disease prevention and treatment for the integration of mental health service in the early detection and giving appropriate care at the community level thereby increasing the quality of care for these people.

There is no any risk that will occur to you because of your participation in this study. All the responses given by you and results obtained will be kept confidential using coding system whereby no one will have access to your response. You have full right to refuse and withdrawal to participate in this study if you don't wish at any time.

The Interview period will take about **20 minutes**. If you are willing to participate in this study, you need to understand and sign the agreement form and then you will give your responses to data collectors.

The name of the researcher is ***Dr.Solomon Yalew*** Tel: *0937424855*

Are you willing to participate in the interview? 1. Yes 2. I'm not

10.2.Questionnaire

Part 1: Socio- economic and demographic information

S. No	Questions	Response categories	Skips
SD1	Age in years	_____	
SD2	What is your current marital Status?	1.Single2.Married 3.Divorced 4.Widow	
SD3	Where is the place of your residence?	1. Urban 2. Rural	
SD4	What is your educational status	1.Can't read and write4. Primary (grade 1-8) 2.Secondary (9-12)5. University 3.Diploma6. Degree and above	
SD5	What is your occupation?	1. NGO employed2. Government employed 3.Housewife4.Farming 5.Dailylaborer6.Student 7. Unemployed 8. Other specify_____	

Part 2: Clinical Characteristics of the participants

S. No	Questions	Response categories	Skips
CL6	What is your stage of cancer?	1. Stage I 2. Stage II 3. Stage III 4. Stage IV	
CL7	How long have you known that you have a cancer		
CL8	For how long you have been on cancer treatment		
CL9	What kind of treatment are you taking now?	1. Chemotherapy 2. Radiotherapy 3. Surgery 4. Chemotherapy and Surgery 5. Radiotherapy and Surgery 6. none	
CL10	Subjective description of pain intensity	a. Mild(1-3) b. Moderate(4-6) c. Severe(7-10)	
CL11	Comorbid medical condition like DM,HTN,RVI,Cardiac illness	a.yes b.no	

Part 3. Multidimensional social support scale

Code	Statements	Very strongly	strongly	mildly disagree	Neutral	Mildly agree	strongly agree	Very strongly agree
SS01	There is a special person who is around when I am in need.	1	2	3	4	5	6	7

SS02	There is a special person with whom I can share joys and sorrows.							
SS03	My family really tries to help me.							
SS04	I get the emotional help & support I need from my family.							
SS05	I have a special person who is a real source of comfort to me.							
SS06	I have a special person who is a real source of comfort to me.							
SS07	I can count on my friends when things go wrong.							
SS08	I can talk about my problems with my family.							
SS09	I have friends with whom I can share my joys and sorrows.							
SS10	There is a special person in my life who cares about my feelings.							
SS11	I can talk about my problems with my friends.							
SS12	I can talk about my problems with my friends.							

Part 4. Hospital anxiety and depression scale (HADS)

No	HADS questions	
HA-1	I feel tense or "wound up"(A)	3. Most of the time2. A lot of the time 1.From time to time, occasionally0. Not at all
HA-2	I still enjoy the things I used to enjoy(D)	**0.Definitely as much 1.Not quite so much** **2.Only a little 3. Hardly at all**
HA-3	I get a sort of frightened feeling as if something awful is about to happen: (A)	3.Very definitely and quite badly 2. Yes, but not too badly 1. A little, but it doesn't worry me 0. Not at all
HA-4	I can laugh and see the funny side of things (D)	3 A great deal of the time 2. A lot of the time 1 From time to time, but not too often 0. Only occasionally
HA-5	Worrying thoughts go through my mind:(A)	3 A great deal of the time 2. A lot of the time 1 From time to time, but not too often 0. Only occasionally
HA-6	I feel cheerful(D)	3. Not at all 2. Not often 1. Sometimes 0. Most of the time
HA-7	I can sit at ease and feel relaxed(A)	**0. Definitely 1. Usually 2. Not often 3. Not at all**
HA-8	I feel as if I am slowed down(D)	3 .Nearly all the time 2. Very often 1. Sometimes 0. Not at all
HA-9	I got a sort of frightened feeling like "butterflies" in the stomach:((A)	**0. Not at all 1.Occasionally 2.Quite often 3.Very often**
HA-10	I have lost interest in my	3. Definitely 2. I don't take as much care as I should

	appearance:(D)	1. I may not take quite as much care 0. I take just as much care as ever
HA-11	I feel restless as if I have to be on the move:(A)	3. Very much indeed 2. Quite a lot 1. Not very much 0. Not at all
HA-12	I look forward with enjoyment to things: (D)	**0. As much as I ever did 1. Rather less than I used to** **2. Definitely less than I used to 3. Hardly at all**
HA-13	I get sudden feelings of panic:((A)	3. Very often indeed 2. Quite often 1. Not very often 0 .Not at all
HA-14	I can enjoy a good book or radio or TV program:(D)	**0 .Often 1. Sometimes 2. Not often 3. Very seldo**m
HA-15	Total score	

Part 5. Pain Belief and Perception Inventory

S. No	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
PB1	No one has been able to tell me exactly Why I am in pain.				
PB2	There are times when I am pain-free				
PB3	My pain is confusing to me				
PB4	My pain is here to stay.				
PB5	I am continuously in pain				
PB6	If I am in pain, it is my own fault				
PB7	I don't know enough about my pain.				
PB8	My pain is a temporary problem in my life.				
PB9	It seems like I wake up with pain and I go to sleep with pain.				
PB10	I am the cause of my pain				
PB11	There is a cure for my pain.				
PB12	I blame myself if I am in pain				
PB13	I cannot figure out why I am in pain				
PB14	Someday I will be 100% pain-free again				
PB15	My pain varies in intensity but is always with me				
PB16	I used to think my pain was curable but now I am not sure.				

Part VI. PC-PTSD 5-items scale for assessment of PTSD.

	In the past one month, have you…	(1)yes	(2)no
PT101	Had nightmares about the event(s) or thought about the event(s) when you did not want to?		
PT102	Tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?		
PT103	Been constantly on guard, watchful, or easily startled?		
PT104	Felt numb or detached from people, activities, or your surroundings?		
PT105	Felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event(s) may have caused?		

Part 7.Substance use related information

No	Questions	Yes	No	Code
SU01.	Have you ever used that in your life?	1	0	
SU02	Have you used that in the last 3 months?	1	0	
SU03	Have you ever used alcoholic drinks in your life?	1	0	
SU04	Have you used any kind of alcoholic drinks in the last 3 months?	1	0	
SU05	Have you ever used tobacco products?	1	0	
SU06	Have you used any kind of tobacco products in the last 3 months?	1	0	
SU07	Have you used any kind of PO/IV drugs not prescribed for medicinal use in the last 3 months?	1	0	

Part 8.Coping Orientation to Problems Experienced Inventory (Brief-Cope)

No	**Items** 1. I have not been doing this at all. 2. A little bit 3.A medium amount. 4**.** I have been doing this a lot.	**1**	**2**	3	**4**
C01	Have you turned to work or other activities to distract your mind from things?				
C02	Have you focused your efforts on doing something about the				

	situation you are in?				
C03	Have you said to yourself "This isn't real"?				
C04	Have you used alcohol or other drugs to feel better?				
C05	Have you been receiving emotional support from others?				
C06	Have you given up trying to deal with it?				
C07	Have you taken action to try to make the situation better?				
C08	Have you been refusing to believe that it has happened?				
C09	Have you been saying things to let my unpleasant feelings escape?				
C10	Have you been receiving help and advice from other people?				
C11	Have you been using alcohol or other drugs to help me through it?				
C12	Have you been trying to see it in a different light, to make it seem more positive?				
C13	Have you been criticizing yourself?				
C14	Have you tried to come up with a strategy on what to do?				
C15	Have you been getting comfort and understanding from someone?				
C16	Have you been giving up the attempt to cope?				
C17	Have you been looking for something good in what is happening?				
C18	Have you been making jokes about it?				
C19	Have you been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping?				
C20	Have you been accepting the reality of the fact that it has happened?				
C21	Have you been expressing my negative feelings?				
C22	Have you been trying to find comfort in my religion or spiritual beliefs?				
C23	Have you been trying to get advice or help from other people about what to do?				
C24	Have you been learning to live with it?				
C25	Have you been thinking hard about what steps to take?				
C26	Have you been blaming yourself for things that happened?				
C27	Have you been praying or meditating?				
C28	Have you been making fun of the situation?				

Part 9.Functioning (WHODAS-12)

The following items are about your health status in the last 30 days						
		None (0)	Mild (1)	Moderate (2)	Severe(3)	Extreme(4)
1	Standing for long periods such as 30 minutes?	0	1	2	3	4
2	Taking care of your household responsibilities?	0	1	2	3	4
3	Learning a new task, for example learning how to get to a new	0	1	2	3	4
4	How much of a problem did you have joining in community activities (for example festivities,	0	1	2	3	4
5	How much have you been emotionally affected by your health problem?	0	1	2	3	4
6	Concentrating on doing something for ten minutes?	0	1	2	3	4
7	Walking a long distance such as a kilometer or equivalent?	0	1	2	3	4
8	Washing your whole body?	0	1	2	3	4
9	Getting dressed?	0	1	2	3	4
10	Dealing with people you don't know?	0	1	2	3	4
11	Maintaining friendship?	0	1	2	3	4
12	Day to day work	0	1	2	3	4
13	Overall, in the past 30 days, how many days were these difficulties present?	Record number of days _____				
14	In the past 30 days, for how many days were you totallyunable to carry out your usual activities or work because of any health condition?	Record number of days _____				

Part 10:PDD-12 perceived stigma evaluation

	Items 1.Strongly disagree 2.Disagree 3.Agree 4.Agree	
1	Most people would be close friends with a person who once had breast cancer.	
2	Most people believe that a person who has breast cancer is just as intelligent as anyone else.	
3	Most people believe that a person who has been treated for breast cancer is just as trustworthy as anyone else.	
	Most people would accept a person who has had breast cancer as a teacher in a school.	
4	Most people believe that receiving treatment for breast cancer a sign of personal failure.	
5	Most people will not hire a person who has been hospitalized breast cancer to take care of their children, even	
6	if he or she had been well for some time.	
	Most people think less of a person who has been treated for breast cancer	
7	Most employers will hire a qualified person even if he or she has been treated for breast cancer .	
8	Most employers would prefer to hire someone who does not have a history of breast cancer .	
9	Most people I know would treat a person who has been treated for breast cancer the same way they treat	
10	everyone else.	
	Most young women would be reluctant to date a man who has been treated for breast cancer .	
11	Most people think that a person who has been hospitalized for breast cancer is dangerous and unpredictable.	
12		

አባሪ 3: የአማረኛዉክፍልቃለመጠይቅ፡

ኮድ……ቀን…….

ስሜ……..ይባላል፡፡በ……በጡትካንሰርታማሚዎችላይየሚታይየድብርትህመምን መለየትናተዛማጅችግሮችንለመገምገምጥናትእየሰራሁነው፡፡

ከጥናቱጋርበተያያዘየተወሰኑጥያቄዎችንልጠይቅዎትእፈልጋለሁ፡፡እርሶየሚሰጡንንመረጃለጠቅላላውሳኔብቻየምንጠ ቀመውሲሆንምስጢራዊነቱየተጠበቀነው፡፡ስምዎትስለማይጠቀስየሰጡንመረጃየእርሶይሁንየሌላሰውበምንምአይነትአ ይታወቅም፡፡ምንምአይነትደምመቅዳትናመርፌመውጋትአይካተትበትም፡፡እርሶበጥናቱውስጥፈቃደኛከሆኑብቻነውየ ሚጠቃለሉት፤በጥናቱመሳተፍካልፈለጉከጥናቱመውጣትይችላሉ፡፡መመለስየማይፈልጉትጥያቄካለአለመመለስ

የተሳታፊውፈቃድስምምነት

እኔየዚህጥናትተሳታፊእንድሆንየታጨውትግለሰብከዚህበፊትየተነበበልኝንመረጃበትክክልአዳምጫለው፡፡የጥናቱንዓላ ማ፣ጥቅምእናጉዳቱንበሚገባተረድቻለው፡፡ከዚህበተጨማሪእኔየምሰጠውመረጃከኔፍቃድውጪለማንምእንደማይሰጥ አረጋግጫለው፡፡በመሆኑምበጥናትውስጥለመሳተፍፍቃደኛመሆኔንበፊርማዬአረጋግጣለው፡፡

የተሳታፊውፊርማ _____
የጠያቂውስም _____
የጠያቂውፊርማ _____
ቀን _____

መጠይቅ

ክፍል 1: ኢኮኖሚያዊእናማህበራዊመረጃዎችየሚሰበሰቡበትክፍል

ተ.ቁ	ጥያቄ	የመልስክፍል	ቀጣዩንጥያቄይለ ፉት
01	እድሜሽስንትነው		
02	የትዳርሁኔታሽምንአይነትነው	1.ያላገባች2.ያገባች 3.የፈታች4.ባለቤቷየሞተባት	
03	የትነውየሚኖሩት	…….	
04	የትምህርትደረጃሽምንድነው	1.መፃፍእናማንበብየማትችል 2.የመጀመርያደረጃትምህርትያላት (1-8) 3.የሁለተኛደረጃትምህርትያላት (9-12) 4. ዩንቨርስቲ 5. ዲፕሎማ 6. ድግሪናከዛበላይ	
05	የ ምትሰሪ ወሰ ራ	1 የ መን ግስ ትያ ልሆነ 2. የ መን ግስ ትሰ ራተኛ 3. የ ቤትእ መቤት 4. ግ ብር ና 5.የ ቀ ን ሰ ራተኛ 6. ተ ማሪ 7.ስ ራየ ሌላ ት/ው፬.ሌላ ካ ለ ይ ገ ለ ፅ	

ክ ፍል 2: በ ህ ክ ምና ምር መራ ጋ ር ግን ኙነ ትያ ላ ቸውመረ ጃዎችለ መለ ካ ትየ ተዘ ጋጀመጠይቅ

ተ.ቁ	ጥ ያ ቄ	የ መልስ ክ ፍል	ቀ ጣዩ ን ጥ ያ ቄ ይለ ፉ ት
1	የ እ ስ ዎየ ካ ን ሰ ር ደ ረ ጃ ስ ን ት ነ ው?	1.ስ ቴጅ I 2.ስ ቴጅ II 3. ስ ቴጅ III 4. ስ ቴጅIV	
2	መቼበ ዚህ አ ይነ ትካ ን ሰ ር ተጠቂ ሆኑ ?	_____	

ክ ፍል 3: የ ማህ ረ ሰ ብድጋ ፎችዙሪ ያ የ ሚዳ ስ ስ መጠይቅነ ው

ተ.ቁ	ጥ ያ ቄ	በጭ ፡ ጭ ፡ ጭ ፡	በ ጭ ፡ ጭ ፡ ጭ ፡	በ መ ጭ ፡ ኑ ፡ ል ፡ ጭ ፡ ጭ ፡	ጭ ፡ ለ ፡ ተ ፡ ኛ ፡ ነ ፡ ኝ	በ መ ጭ ፡ ኑ ፡ ል ፡ ማ ማ ለ ፡ ው ፡	በ ጭ ፡ ጭ ፡ ነ ፡ ል ፡ ማ ማ ለ ፡ ው ፡	ሀ ፡ ሌ ፡ ሎ ፡ ሀ ፡ ል ፡ ነ ፡ ኝ ፡ ሀ ፡ ል ፡ ሀ ፡ ል ፡ ሀ ፡ ል ፡ ው ፡
501	እ ር ዳ ታ በ ሚያ ስ ፈ ል ገ ኝ ስ ዓ ት የ ሚ ረ ዳ ኝ የ ኔ የ ምለ ውሰ ወክ ጎ ኔ አ ለ ኝ	1	2	3	4	5	6	7
502	ሀ ዘ ኔ ን ና ደ ስ ታ ዬ ን የ ሚጋ ራ ኝየ ኔ የ ምለ ውሰ ወአ ለ ኝ	1	2	3	4	5	6	7
503	ቤ ተ ሰ ቦ ቼእ ኔ ን ለ ማገ ዝ ከ ል ባ ቸ ውጥ ረ ት ያ ደ ር ጋ ሉ ፡ ፡	1	2	3	4	5	6	7
504	ከ ቤ ተ ሰ ቦ ቼበ መን ፈ ስ እ ን ድጠነ ከ ር የ ሚያ ስ ፈ ል ገ ኝ ን ድጋ ፍአ ገ ኛ ለ ው ፡ ፡	1	2	3	4	5	6	7
505	እ ወጎ ተ ኛ የ ምቾ ት ምን ጨ ፀ ሆነ የ ኔ የ ምለ ውሰ ወክ ጎ ኔ አ ለ ኝ ፡ ፡	1	2	3	4	5	6	7
506	ባ ል ን ጀ ሮ ቼእ ኔ ን ለ መር ዳ ት ከ ል ባ ቸ ወይ ጥ ራ ሉ ፡ ፡	1	2	3	4	5	6	7
507	መ ጥ ፎ ሁ ነ ታ ዎ ች ቢ ገ ጥ መ ኛ የ ማ ይ ለ ዩ ኝ / የ ምመ ካ ቸ ወ ላ ል ን ጀ ሮ ች አ ሉ ኝ ፡ ፡							
508	ስ ለ ች ግ ሮ ቼ ከ ቤ ተ ሰ ቦ ቼ ጋ ር መ ወ ያ የ ት እ ች ላ ለ ው ፡ ፡	1	2	3	4	5	6	7
509	ሀ ዘ ኔ ን ና ደ ስ ታ ዬ ን የ ሚጋ ሩ ኝ ጉ ዋ ደ ኞ ች አ ሉ ኝ ፡ ፡	1	2	3	4	5	6	7
510	በ ህ ይ ወ ቴ ስ ለ ስ ሜ ቴ የ ሚገ ደ ው የ ሚጨ ቅ ል ዩ ሰ ወአ ለ ኝ ፡ ፡	1	2	3	4	5	6	7
511	ቤ ተ ሰ ቦ ቼበ ምወ ስ ና ቸ ወ ውሳ ኔ ዎ ች እ ኔ ን ለ መር ዳ ት ፍ ቃ ደ ኞ ች ና ቸ ው ፡ ፡	1	2	3	4	5	6	7
512	ስ ለ ች ግ ሮ ቼ ከ ጉ ዋ ደ ኞ ቼ ጋ ር መ ወ ያ የ ት እ ች ላ ለ ው ፡ ፡	1	2	3	4	5	6	7

ክፍል 4: ሆስፒታልወስጥ ጥለሚገኙለካንሰርተጠቂዎችየድብርትተጋላጫነትመለኪያመጠይቅ

1. የ መጨ ቅወይምየ መወጠርስ ሜትምን ያህልይሰ ማዎታል?

በ ጣምብዙጊ ዜ	3	
ብዙጊ ዜ	2	
አ ልፎአ ልፎ	1	
ምን ምአ ይሰ ማኝ ም	0	

2.ቀደምሲልያ ስደስ ቱዎየ ነ በሩ ነ ገ ሮችአ ሁን ምን ያ ህ ልያ ስደስ ቱዎ ታል?

አ ሁን ምእ ን ደድሮ ዉያ ስደስ ቱኛ ል	0	
ከ ድሮ ዉትን ሽ ቀን ሏ ል	1	
በ ጥቂ ቱስ ደስ ተኛ ል	2	
ጭ ራሽ አ ያ ስ ደስ ቱኝ ም	3	

3. አ ን ድመጥፎነ ገ ር ሊ.ያ ጋ ጥመዎየ ተ ቃረ በ የ መስ ለ የ ፍ ረ ሀ ት ስ ሜት ይሰ ማዎ ታል?

እ ጅግ በ ጣምይሰ ማኛ ል	3	
በ ጣምይሰ ማኛ ል	2	
በ ጥቂ ቱይሰ ማኛ ል	1	
ምን ምአ ይሰ ማኝ ም	0	

4. መሳ ቅና የ ነ ገ ሮችን አ ሲቂኝ ነ ን ማየ ትይችላ ሉ?

አ ብዛ ኛ ዉን ጊ ዜእ ችላ ለ ሁ	0	
እ ን ደድሮ ዉባ ይሆን ምእ ችልለ ሁ	1	
በ ጥቂ ቱእ ችላ ለ ሁ	2	
ምን ምአ ልችል ም	3	

5. ጭ ን ቀትን የ ሚያ ጭሩ ሀ ሳ ቦ ችበ አ እ ምሮ ዎ ምን ያ ህ ልጊ ዜይመላ ለ ሳ ሉ?

በ ጣምብዙጊ ዜ	3	
ብዙጊ ዜ	2	
አ ብዛ ኛ ዉን ጊ ዜባ ይሆን ምአ ልፎአ ልፎ	1	
አ ን ዳን ዴብቻ	0	

6. ደስ ተኛ ነ ዎት?

ምን ምደስ ተኛ አ ደለ ሁም	3	
ብዙጊ ዜደስ ተኛ አ ይደለ ሁም	2	
ብዙምባ ይሆን ደስ ተኛ ነ ኝ	1	
አ ብዛ ኛ ዉዉጊ ዜደሰ ትኛ ነ ኝ	0	

7. ተ ረ ጋ ግ ተ ዉመቀ መጥእ ና ዘ ና ማለ ትይችላ ሉ?

ሁሌምእ ችላ ለ ሁ	0	
አ ብዛ ኛ ዉን ጊ ዜእ ችላ ለ ሁ	1	
ብዙዉን ጊ ዜአ ልችል ም	2	
ምን ምአ ልችል ም	3	

8. ስ ራዎን ሲ.ያ ከ ና ዉኑ ፍ ጥ ነ ተ ዎምን ያ ህ ልየ ቀ ነ ሰ ይመስ ለ ዎ ታል?

እ ጅግ በ ጣምብዙጊ ዜ	3	
በ ጣምብዙጊ ዜ	2	
እ ልፎአ ልፎ	1	
ምን ምአ ልቀ ነ ሰ ም	0	

9. ሆድአ ከ ባ ቢየ ሚሰ ማየ መደ ን ገ ጥወይምየ መሸ በ ር ስ ሜት ይሰ ማዎ ታል?

ምን ምአ ይሰ ማኝ ም	0	
አ ልፎአ ልፎ	1	
ብዙጊ ዜ	2	
በ ጣምብዙጊ ዜ	3	

10. ስ ለ አ ለ ባ በ ሰ ዎ ትኩረ ትን መስ ጠትአ ቁ መዋ ል?

አ ዎን ምን ምት ኩረ ትእ የ ሰ ጠሁአ ይደለ ም	3	
የ ምፈ.ል ገ ዉን ያ ህ ልትኩረ ትየ ሰ ጠሁአ ይደለ ም	2	
ድሮ ከ ምሰ ጠዉትኩረ ትበ ጥቂ ቱያ ነ ሰ ትኩረ ትእ ሰ ጣለ ሁ	1	
ሁሌምየ ምሰ ጠዉን ትኩረ ትእ ሰ ጣለ ሁ	0	

11. አ ን ድ0 ታመሜ ድያ ለ በ ዎይመስ ልተ ረ ጋ ግ ተ ዎ መቀ መጥይቸ ግ ረ ዎ ታል?

በ ጣምብዙጊ ዜይቸ ግ ረ ኛ ል	3	
ብዙጊ ዜይቸ ግ ረ ኛ ል	2	

ብዙምአ ይቸግረኝ ም	1	
ምን ምአ ይቸግረኝ ም	0	

12. መጫኅ ገ ሮችን በ ደስ ታይጠብቃሉ?

አ ዎሁሌምበ ተለ መደ ዉወይ ምበ ድሮ ዉመጠን እ ጠብቃለ ሁ	0	
ከ ድሮ ዉወይ ምከ ተለ መደ ዉበ ጥቂ ቱባ ነ ሰ መጠን እ ጠብቃለ ሁ	1	
ከ ድሮ ዉወይ ምከ ተለ መደ ዉባ ነ ሰ መጠን እ ጠብቃለ ሁ	2	
ምን ምበ ደስ ታአ ልጠብቅ ም	3	

13. በ ድን ገ ትየ መደ ን ገ ጥወይ ምየ መሸ በ ር ስ ሜት ይሰ ማዎ ታል ?

በ ጣምብዙ ጊ ዜ ይሰ ማኛ ል	3	
ብዙ ገ ዜ ይሰ ማኛ ል	2	
አ ልፎአ ልፎ	1	
ምን ምአ ይሰ ማኝ ም	0	

14. በ ሬዲዮ ወይ ምበ ቴሌቪዥን ፕሮ ግ ራሞች ራሰ ዎን ያ ስ ደስ ታሉ?

አ ዎን ብዙ ጊ ዜ	0	
ብዙምባ ይሆን አ ዎ	1	
አ ልፎአ ልፎ	2	
በ ጣምአ ልፎአ ልፎ	3	

ከ ፍል 5.የ ሚሰ ማዎ ትን የ ህ መምስ ሜት ላ ይያ ለ ዎ ትን የ ግ ላ ዊእ ምነ ት ን ና መረ ዳ ትን የ ሚለ ካ መጠይ ቅ

ተ.ቁ	ጥ ያ ቄ ዎ ች	በ ጣም አ ልስ ማማ ም	አ ልስ ማማ ም	እ ስ ማማለ ሁ	በ ጣም እ ስ ማማለ ሁ
1	ማን ምሰ ወላ ምን እ ን ደ ዚህ አ ይነ ት የ ህ መምስ ሜት ውስ ጥ እ ን ደ ሆን ኩሊ ያ ስ ረ ዱኝ አ ል ቻ ሉ ም ፡ ፡				
2	ከ ዚ ህ በ ፊ ት ህ መሜሊ ፈ ወስ ይ ቸ ላ ል ብ ዬ አ ስ ብ ነ በ ር ነ ገ ር ግ ን አ ሁ ን ያ ን ን አ ላ ስ ብ ም፡ ፡				
3	ከ ህ መሜስ ሜት ነ ጻ የ ም ሆን ባ ቸ ወ ጊ ዜ ያ ት አ ሉ፡				
5	ህ መሜስ ሜት ሁ ሌ ም ከ እ ኔ ጋ ር ነ ው፡ ፡				
6	ሁ ሌ ም የ ህ መምስ ሜት አ ለ ኝ				
7	ህ መምስ ሜት ውስ ጥ መ ሆ ኔ የ ራ ሴ ወ ጥ ፋ ት ነ ው፡ ፡				
8	ስ ለ ህ መሜበ በ ቂ ሁ ኔ ታ ግ ን ዛ ቤ ወ ዳ ለ ኝ ም፡ ፡				
9	ህ መሜጊ ዜ ያ ዊ የ ኑ ሮ ዬ ች ግ ር ነ ው፡ ፡				
10	ከ እ ን ቅ ል ፌ ስ ነ ቃ ና ወደ ምኝ ታ ዬ ስ ሄ ድ በ ህ መምስ ሜት ውስ ጥ ሁ ኜ ነ ው፡ ፡				
11	የ ህ መሜምከ ን ያ ት እ ኔ ውራ ሴ ወ ጎ ኝ ፡ ፡				
12	ለ ህ መሜፈ ወስ አ ገ ኛ ለ ሁ፡ ፡				
13	በ ህ መምስ ሜት ውስ ጥ ስ ሆን ራ ሴ ን እ ወቅ ስ ላ ለ ሁ፡ ፡				
14	በ ህ መምስ ሜት ውስ ጥ ለ ምን እ ን ደ ሆን ኩ ማ ወቅ አ ል ቻ ል ኩ ም፡ ፡				
15	አ ን ዳ ን ድቀ ን መሉ በ መሉ ከ ህ መሜስ ሜት ነ ጻ እ ሆ ና ለ ሁ፡ ፡				
16	የ ህ መሜስ ሜት ሁ ሌ ም እ ኔ ጋ ር ቢ ኖ ር ም የ ህ መምስ ሜቱ (መ ጠኑ) ግ ን የ ተ ለ ያ የ ነ ው				

ከ ፍል 6፡ የ ድህ ረ -አ ደ ጋ የ ስ ሜት መረ በ ሽ ን የ ያ ዙ መጠይ ቆ ች

ባ ለ ፈ ወ ወር ምን ያ ህ ል አ ስ ጨ ቆ ዎ ት ነ በ ር ።		በ ጭ ራ ሽ	በ ት ን ሹ	መ ካ ከ ለ ኛ	በ መ ጠ ኑ	በ ጣ ም
01	ስ ለ ጥ ቃ ቱ በ ተ ደ ጋ ጋ ሚያ መረ በ ሽ እ ና ያ ል ተ ፈ ለ ጉ ት ወስ ታ ዎ ች መ ኖ ር ?	0	1	2	3	4
02	ስ ለ ጥ ቃ ቱ ተ ደ ጋ ጋ ሚያ ሚረ ብ ሹ ህ ል ሞ ች ማየ ት ?	0	1	2	3	4
03	በ ድን ገ ት ያ ጥ ቃ ት እ ን ደ ገ ና እ የ ደ ረ ሰ ብ ዎ ያ ለ ያ ህ ል ወ ይ ም እ ዛ ጥ ቃ ት ላ ይ እ ን ደ ገ ና እ ስ ካ ሉ እ ስ ኪ መስ ሎ ት ድ ረ ስ ተ ሰ ም ቶ ት ወ ይ ም ታ ይ ቶ ት ያ ው ቃ ል ?	0	1	2	3	4

04	ጥቃቱን የ ሚያ ስ ታውሶ ትነ ገ ር ላ ይሲሆኑ በ ጣምየ መና ደ ድስ ሜት ይታይቦ ታ ል?	0	1	2	3	4
05	የ ሆነ ነ ገ ር ጥቃቱን ሲያ ስ ታውሶ ት በ ጣምጠን ከ ር ያ ለ አ ካ ላ ዊ ምላ ሽ (ለ ምሳ ሌእ ን ደ ል ብ ምት መጨመር ፣ መተ ን ፈ ስ አ ለ መቻ ል እ ና ማላ ብን) የ መሳ ሰ ሉት ን አ ሳ ይ ተ ውያ ውቃሉ?	0	1	2	3	4
06	ስ ለ ጥ ቃቱ የ ሚያ ስ ታውሶ ት ን ት ወስ ታ ዎች ፣ ስ ሜቶ ች እ ና እ ሳ ቤ ዎ ች ማስ ወገ ድ?	0	1	2	3	4
07	ወ ጪ ዉ የ ሆኑ ጥ ቃቱ ን የ ሚያ ስ ታውሶ ት ን ነ ገ ሮ ች (ለ ምሳ ሌ፡ ሰ ዎ ች ፣ ቦ ታ ፣ ን ግ ግ ር ፣ እ ን ቅ ስ ቃ ሴ ዎ ች ፣ ነ ገ ሮ ች እ ና ሁ ኔ ታ ዎ ች) ማስ ወገ ድ እ ና ከ ነ ዚ ነ ገ ሮ ች መ ራ ቅ ይ ታ ይ ቦ ታ ል?	0	1	2	3	4
08	የ ደ ረ ስ ዎ ቦ ት ን ዖ ታ ዊ ጥ ቃ ት ዋ ና /ጠ ቃ ሚ ት ወስ ታ ዎ ች ን ለ ማስ ታ ወስ መ ቸ ገ ር / አ ለ መ ቻ ል?	0	1	2	3	4
09	በ ጣ ም ጠን ካ ራ የ ሆነ መ ጥ ፎ አ መ ለ ካ ከ ት ስ ለ ራ ስ ዎ ፣ ስ ለ ሌ ሎ ች ወ ይ ም ስ ለ ም ት ኖ ሩ በ ት አ ለ ም በ አ ጠ ቃ ላ ይ (ለ ምሳ ሌ፡ እ ኔ በ ጣ ም መ ጥ ፎ ነ ኝ ፣ የ ሆነ በ ጣ ም ት ል ቅ ች ግ ር አ ለ ብ ኝ እ ኔ ማ፣ ማን ም አ ይ ታ መን ም እ ና አ ለ ም በ አ ጠ ቃ ላ ይ አ ደ ገ ኖ ነ ች) ብ ሎ ማስ ብ?	0	1	2	3	4
10	ራ ስ ዎ ን ወ ይ ም ሌ ሎ ች ን ለ ደ ረ ስ ዎ በ ት ጥ ቃ ት ወ ይ ም ከ ዛ በ ኃ ላ ለ ተ ፈ ጠ ሩ ት ነ ገ ሮ ች ሁ ሉ መ ወ ቀ ስ ?	0	1	2	3	4
11	ጠ ን ከ ር ያ ለ መ ጥ ፎ ስ ሜ ት ይ ሰ ማ ዎ ታ ል (ፍ ር ሃ ት ፣ ን ዴ ት ፣ የ ጥ ፋ ተ ኝ ነ ት ስ ሜ ት ወ ይ ም ሀ ፍ ረ ት ን የ መ ሳ ሰ ሉ)?	0	1	2	3	4
12	ከ ዚ ህ በ ፊ ት ያ ዝ ና ና ዎ ት እ ና ያ ስ ደ ስ ት ዎ ት የ ነ በ ር ዎ ት ነ ገ ር ላ ይ ፍ ላ ጎ ት ማ ጣ ት ይ ታ ይ ቦ ታ ል?	0	1	2	3	4
13	ከ ሌ ሎ ች የ መ ራ ቅ ወ ይ ም ማ ን ኙ ነ ት ዎ ን የ ማ ቆ ም ስ ሜ ት ይ ታ ይ ቦ ታ ል?	0	1	2	3	4
14	ጥ ሩ ስ ሜ ት ያ ለ መ ሰ ማ ት ች ግ ር (ለ ምሳ ሌ ደ ስ ተ ኛ መ ሆ ን አ ለ መ ቻ ል)?	0	1	2	3	4
15	በ ጣ ም የ ሚ ያ በ ሳ ጨ ህ ሪ ዎ ች ን ማ ሳ የ ት ፣ ን ዴ ት ን መ ቆ ጣ ጠ ም አ ለ መ ቻ ል ወ ይ ም በ ሀ ይ ለ ኝ ነ ት ን ዴ ት ዎ ን መ ግ ለ ፅ ?	0	1	2	3	4
16	በ ጣ ም አ ደ ገ ኛ ነ ገ ሮ ች ን ማ ድ ረ ግ ወ ይ ም ሊ ጎ ዳ ዎ ት የ ሚ ች ሉ ነ ገ ሮ ች ን ማ ድ ረ ግ ?	0	1	2	3	4
17	ሁ ሌ ም በ ጣ ም ጥ ን ቁ ቅ ፣ በ ዙ ሪ ያ ዎ ያ ሉ ት ን ነ ገ ሮ ች ሁ ሉ በ ደ ን ብ መ ከ ታ ተ ል (ማ የ ት)፣ መ ሉ ጥ በ ቃ ላ ይ መ ሆ ን ?	0	1	2	3	4
18	ስ ጋ ት ወ ይ ም በ ቀ ላ ሉ መ ጨ ኔ ቅ እ ና ድ ን ጉ ጥ መ ሆ ን ?	0	1	2	3	4
19	ሀ ሳ ቦ ን መ ሰ ብ ሰ ብ አ ለ መ ቻ ል?	0	1	2	3	4
20	እ ን ቅ ል ፍ ሊ ወ ስ ዶ አ ለ መ ቻ ል ወ ይ ም መ ተ ኛ ት አ ለ መ ቻ ል?	0	1	2	3	4

ክ ፍ ል 7.የ አ ደ ን ዛ ዥ እ ፅ እ ና አ ል ኮ ል ፣ ተ ጠ ቃ ሚ ነ ት ሁ ኔ ታ በ ተ መ ለ ከ ተ መ ጠ ይ ቅ

ተ . ቁ	ጥ ያ ቄ ዎ ች	አ ዎ	የ ለ ም	ይ ዝ ለ ሉ
01	በ ህ ይ ዎ ት ዎ ጫ ት ተ ጠ ቅ መ ዉ ያ ዉ ቃ ሉ?	1	0	

02	ባለፉት 3 ወራትዉስጥ ጭስተጠቅመዉያ ዉቃሉ?	1	0	
03	በህይወትዎመጠጦችን ተጠቅመዉያ ዉቃሉ (ለምሳሌ፡ አረቄ፣ ጠላ ፣ ጠጅ. ወዘተ)?	1	0	
04	ባለፉት 3 ወራትዉስጥ ማን ኛዉን ምአይነ ትአልኮልተጠቅመዋል?	1	0	
05	በህይወትዎሲጋራተጠቅመዉያ ዉቃሉ?	1	0	
06	ባለፉት 3 ወራትዉስጥ ሲጋራተጠቅመዉያ ዉቃሉ?	1	0	
07	ባለፉት 3 ወራትዉስጥ የ ሚዋትወይምየ ሚወጋተጠቅመዉያ ዉቃሉ?	1	0	

ክፍል8.የ ስነ -አ ዕ ምሮእ ክልሲክ ሰ ትየ መቋቋሚያ ስ ልቶች (COPE-28)

ተ.ቁ	መጠይቆች	ፈጽሞላ ደ ር ግ ም	በ መጠኑ / አ ልፎአ ልፎአ ደ ር ጋ ለ ሁ	በ መካ ከ ለ ኛ መጠን አ ደ ር ጋ ለ ሁ	በ አ ብዛ ኛ ው አ ደ ር ጋ ለ ሁ
C01	ራሴን በ ሥራበ መጥመድችግሩን ለ መር ሳ ት እ ሞክ ራ ለ ሁ	1	2	3	4
C02	ስ ላ ለ ሁበ ትሁኔ ታበ ትኩረ ትበ ማሰ ብአ ን ድነ ገ ር ለ ማድረ ግእ ጥራ ለ ሁ	1	2	3	4
C03	ችግሩእ ን ዳ ልተፈ ጠረ ለ ራሴእ ነ ግ ራ ለ ሁ	1	2	3	4
C04	ጥሩ ስ ሜትእ ን ዲሰ ማኝ ለ ማድረ ግ መጠጥ/አ ልኮ ል / እ ጠጣ ለ ሁ	1	2	3	4
C05	የ ሥ ጎ ልቦ ና ድጋ ፍየ ሚሰ ጠኝ ሰ ውእ ፈ ልጋ ለ ሁ	1	2	3	4
C06	ስ ለ ችግሩ ማሰ ብምሆነ ምን ምነ ገ ር ማድረ ግአ ቆ ማለ ሁ	1	2	3	4
C07	ሁኔ ታውን ለ ማሻ ሻ ልእ ሞክ ራ ለ ሁ	1	2	3	4
C08	ሁኔ ታውመክ ሰ ቱን ላ ለ ማመን እ ጥራ ለ ሁ	1	2	3	4
C09	የ ወሰ ጥስ ሜቴን እ ወጥቼእ ና ገ ራ ለ ሁ	1	2	3	4
C10	ከ ሰ ዎችእ ር ዳ ታና ምክ ር አ ገ ኛ ለ ሁ	1	2	3	4
C11	አ ልኮ ልና መድኃ ኒ ትበ መውሰ ድችግሩን አ ሳ ልፋ ለ ሁ	1	2	3	4
C12	ችግሩን ከ ሌላ አ ቅጣጫ ማየ ትለ በ ጎ እ ን ደ ሆነ አ ስ ባ ለ ሁ	1	2	3	4
C13	ራሴን እ ተቻ ለ ሁ	1	2	3	4
C14	ምን ማድረ ግእ ነ ዳ ለ ብኝ የ ሚያ ስ ችል ስ ል ት ለ ማግ ኘ ትእ ሞክ ራ ለ ሁ	1	2	3	4

C15	የ ሚረዳኝ /የ ሚገ ነ ዘ በ ኝ / እ ና ምቾትየ ሚሰ ጠኝ ሰ ወእ ፈ ልጋ ለ ሁ	1	2	3	4
C16	ሁሉን ምመኳ ራን እ ተዋ ለ ሁ	1	2	3	4
C17	ከ ተ ፈ ጠረ ወጎ ገ ር መል ካ ምውጤት እ ጠብቃ ለ ሁ	1	2	3	4
C18	ስ ለ ችግሩ እ ቀ ል ዳ ለ ሁ	1	2	3	4
C19	ስ ለ ችግሩ ብዙ ላ ለ ማሰ ብ ሌላ ነ ገ ር መሥራ ት ለ ምሳ ሌ ገ በ ያ መሄ ድ፣ መተ ኛ ት ፣ ጥሩ ነ ገ ር ማሰ ብ፣ መ ጫ ወ ት	1	2	3	4
C20	የ ሆነ ውኳ ለ ሆነ እ ወጎ ታውን እ ቀ በ ላ ለ ሁ	1	2	3	4
C21	መጥ ፎ ስ ሜት ን ማወጣ ት	1	2	3	4
C22	በ እ ምነ ቴ ና ሐይ ማኖ ቴ ምቾ ት ና ሥ ላ ምለ ማ ግ ኘ ት እ ሞከ ራ ለ ሁ	1	2	3	4
C23	ምን ማድረ ግ እ ን ዳ ለ ብኝ ከ ሰ ዎች ምከ ር ና እ ር ዳ ታ ለ ማገ ነ ት እ ሞከ ራ ለ ሁ	1	2	3	4
C24	ከ ችግሩ ጋ ር መኖ ር ን እ ለ ምዳ ለ ሁ	1	2	3	4
C25	ስ ለ ምወ ስ ደ ወእ ር ምጃ በ ጥ ል ቀ ት አ ስ ባ ለ ሁ/አ ሰ ላ ስ ላ ለ ሁ/	1	2	3	4
C26	ለ ተ ከ ሰ ተ ወች ግ ር ራ ሴ ን እ ወ ቅ ሳ ለ ሁ	1	2	3	4
C27	እ ጸ ል ያ ለ ሁ	1	2	3	4
C28	ስ ለ ሁኔ ታ ውሰ ቄ አ ል ፈ ዋ ለ ሁ፡ ፡	1	2	3	4

ክ ፍ ል 9.ሃ ላ ፊ ነ ቶ ች

ባ ለ ፉ ት 30 ቀ ና ት የ ሚከ ተ ሉ ትን ሲ ያ ደ ር ጉ ምን ያ ህ ል ይ ቸ ግ ር ዎ ት ነ በ ር ?		
	ምን ም (0)	አ ነ ስ ተ ኛ (1)
ረ ዘ ም ላ ለ ጊ ዜ መቆ ም ምን ያ ህ ል ይ ቸ ግ ር ዎ ት ነ በ ር ?ለ ምሳ ሌ ግ ማሽ ሰ ዓ ት	0	1
የ ቤ ት ዉስ ጥ ሃ ላ ፊ ነ ቶ ች ን መወ ጣ ት ምን ያ ህ ል ይ ቸ ግ ር ዎ ት ነ በ ር ?	0	1
አ ዲ ስ ነ ገ ር ወ ይ ም ስ ራ ለ መማ ር ይ ቸ ገ ሩ ነ በ ር ? (ለ ምሳ ሌ የ እ ር ሻ ስ ራ፣ ባ ል ት ና ፣ የ እ ጅ ስ ራ፣ የ ሞ ባ ይ ል አ ጠ ቃ ቀ ም፣ ወ ዘ ተ…)	0	1
በ ማህ በ ራ ዊ እ ን ቅ ስ ቃ ሴ ዉጥ (ለ ምሳ ሌ፡ - ዓ መት በ ዓ ል ፣ ድግ ስ ፣ ለ ቅ ሶ ፣ እ ድር ፣ …ወዘ ተ)ልክ እ ን ደ ሌላ ዉሰ ዉመ	0	1
የ ር ስ ዎ የ ጠና ሁኔ ታ ምን ያ ህ ል ስ ሜት ዎ ትላ ይ ተ ጽ እ ኖ አ ደ ረ ገ ብ ዎ ት ?	0	1
በ ማሰ ሩ ት ስ ራ ላ ይ ህ ሳ ብ ዎ ን ለ ጥ ቂ ት ጊ ዜ (ለ 10 ደ ቂ ቃ)	0	1

ረዘ ምያ ለ ር ቀትለ መጓ ዝ ምን ያ ህ ል ይ ቸገ ሩ ነ በ ር ?ምሳ ሌየ ሩ ብሰ አ ት መን ገ ድ(1ኪ.ሜት ር)	0	1	2
ሰ ዉነ ት ዎን መታ ጠብ ዎ ምያ ህ ል ይ ቸግ ር ዎ ት ነ በ ር ?	0	1	2
ል ብስ ዎ ት ን መል በ ስ ምን ያ ህ ል ይ ቸግ ር ዎ ት ነ በ ር ?	0	1	2
ከ ማያ ዉቁ ዋ ቸ ዉሰ ዎ ች ጋ ር ተ ግ ባ ብ ቶ ጉ ዳ ይ መፈ ጸ ም ምን ያ ህ ል ይ ቸግ ር ዎ ት ነ በ ር ?	0	1	2
በ ጓ ደ ኝ ነ ት መቆ የ ት ምን ያ ህ ል ይ ቸግ ር ዎ ት ነ በ ር ?	0	1	2
የ ዕ ለ ት ተ ዕ ለ ት ስ ራ ዎ ን ወ ይ ም ት ም ህ ር ት ዎ ን ለ ማ ከ ና ወ ን ምን ያ ህ ል ይ ቸግ ር ዎ ት ነ በ ር ?	0	1	2
በ አ ጠ ቃ ላ ይ ባ ለ ፈ ዉኣ ን ድ ወ ር ጊ ዜ ዉስ ጥ እ ነ ዚ ህ ች ግ ሮ ች ለ ምን ያ ህ ል ቀ ና ት ነ በ ሩ ?	የ ቀ ና ት ብ ዛ ት ይ መ ዘ ገ ብ ---------- ቀ ና ት		
በ ባ ለ ፈ ዉኣ ን ድ ወ ር ጊ ዜ ዉስ ጥ በ ማን ኛ ዉ ም የ ጤ ና ች ግ ር ም ክ ን ያ ት የ ተ ለ መ ደ ስ ራ ዎ ት ን ወ ይ ም እ ን ቅ ስ ቃ ሴ ዎ ት ን መ ሉ በ መ ሉ ማ ድ ረ ግ ያ ል ቻ ሉ ት ለ ምን ያ ህ ል ቀ ና ት ነ በ ር ?	የ ቀ ና ት ብ ዛ ት ይ መ ዘ ገ ብ ---------- ቀ ና ት		