MAGNITUDE AND ASSOCIATED FACTORS OF DEPRESSION AMONG ADULTS WITH CHRONIC SKIN DISEASE IN TERTIARY HOSPITALS IN ADDIS ABABA, ETHIOPIA, 2023: AN INSTITUTION-BASED CROSS-SECTIONAL STUDY.

PRINCIPAL INVESTIGATOR

KIDIST GEZAHEGN (BSC, MSC CANDIDATE)

A THESIS SUBMITTED TO NURSING DEPARTMENT, SCHOOL OF NURSING AND MIDWIFERY, COLLEAGE OF HEALTH SCIENCE, ADDIS ABABA UNIVERSIT PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ADULT HEALTH NURSING

JUNE, 2023

ADDIS ABABA, ETHIOPIA

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
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JUNE, 2023
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APPROVAL BY THE BOARD OF EXAMINATION

This thesis by Kidist Gezahegn is accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of masters in Adult Health Nursing.

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STATEMENT OF DECLARATION

By my signature below, I declare and affirm that this thesis is my own work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis, and completion of this thesis. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. Every effort has been made to avoid plagiarism in the preparation of this thesis.

This thesis is submitted in partial fulfillment of the requirement for a graduate degree from the Addis Ababa University at College of Health Sciences, School of Allied Health Sciences department of Nursing and Midwifery. The thesis is deposited in the Addis Ababa University Digital Library and is made available to local, national, and international scientific community. I solemnly declare that this thesis has not been submitted to any other institution anywhere for the award of any academic degree, diploma or certificate.

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ACRONYMS AND ABBREVIATIONS

AAU - Addis Ababa University

AD - Atopic Dermatitis

ALERT – All African Leprosy Tuberculosis Rehabilitation and Training Center

AOR - Adjusted Odds Ratio

BDI -Beck Depression Inventory

BIDI -Body Image Disturbance

COR -Crude Odd Ratio

DQOLI -Dermatology Quality of Life Index

HADS -Hospital Anxiety Depression Scale

LMIC -Low- and Middle-Income Country

MDD -Major Depressive Disorder

OPD -Outpatient Department

PHQ-9 -Patient Health Questioner-9

PI -Principal Investigator

QOL -Quality of Life

SPSS -Statistical Package for Social Science

TASH -Tikur Anbesa Specialized Hospital

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ABSTRACT

Background: - Globally depression is the leading cause of disability. It is prevalent in middle and low-income countries. Depression is common among people with chronic illness like chronic skin disease. The co-occurrence of depression and chronic skin disease markedly reduce quality of life, increase the morbidity and mortality of skin disease, also it has socioeconomic burden at individual level and at national level. In low-income country including Ethiopia, there is scarcity of information compared to high income country on the burden of depression of chronic skin disease patients.

Objective: To assess the magnitude and associated factors of depression among adults with chronic skin disease in tertiary hospitals in Addis Ababa, Ethiopia, 2023.

Methods: An institution-based cross-sectional study was conducted in three randomly selected tertiary hospitals in Addis Ababa. The study was conducted on 314 study participants attending an outpatient dermatology clinic. Depression was assessed through the patient health questionnaire-9. The statistical package for social science, version 27, was utilized to analyze the data. Bivariate analysis was used to test the association between an outcome and an explanatory variable. To declare an independent association, multi-variate analysis was done, and an odd ratio with a 95% CI was calculated. A p-value < 0.05 was considered statistically significant.

Results: The prevalence of depression among adults with chronic skin disease was 32.8%. In the multivariate analysis, depression was significantly associated with female sex AOR [0.123 95%CL (0.049-0.312)] P<0.001, 18-27 age group AOR [4.16 95%CL (1.006-15.28)], monthly income AOR (4.110 95%CI [1.612-9.48)] p=0.001, family history of mental illness AOR [6.21 95%CL [2.5-15.73)]p=0.001, involved body part AOR [4.12 95%CL (1.47-10.55)] p=0.003, and body image disturbance AOR [0.0556 95%Cl (0.023-0.155)] p=0.001.

Conclusion: In this study, depression was found to be a prevalent psychiatric co-morbidity in adult chronic skin disease patients. Female sex, young age group, monthly income, family history of mental illness, and body image disturbance *w*ere significantly associated with depression. It is crucial to regularly screen patients for depression, paying close attention to those who have risk factors.

Keywords: depression, Adult, chronic skin disease, associated factors, magnitude, tertiary hospitals, Ethiopian

CHAPTER ONE

1 INTRODUCTION

1.1 Background

Skin disease is a catch-all term for any condition that affects the skin. It has many different causes, including autoimmune diseases, infections, allergies, systemic illnesses, and genetics. Broadly skin disease classifies as acute and chronic type. Chronic skin conditions are those that last more than six months and are relapsing in nature. Skin disease can occur at any age (1,2). Report from the Global Burden of Disease (GBD) indicates that over one-third of the world's population suffers from skin problems, making them the fourth most prevalent cause of all human diseases. Among the most common and burdensome illnesses in the world is a skin disease, The various burdens of skin illness are high in low- and middle-income countries (LMIC) (3,4).

Depression is one of the most common mental illnesses. It is characterized by low energy, a gloomy mood, a loss of interest or pleasure, a sense of shame or feeling of inadequacy, interrupted sleep or appetite, and impaired concentration. It is divided into three categories, mild, moderate, and severe, depending on how severe the symptoms are (5). There are currently over 300 million people suffering from depression worldwide, with a 7% lifetime risk. Depression is prevalent in 11.1 percent to 53 percent in LMIC. Afghanistan, the Middle East, and North and Sub-Saharan Africa have the heaviest loads (6). The prevalence of depression in Ethiopia, found to be 6.8% (7).

Skin is the largest and most visible organ in the human body. Globally, in many cultures, healthy skin is set as a criterion for beauty, and everyone wants to be beautiful and attractive. When a skin problem occurs, it causes feelings of stigma, rejection, worthlessness, decreased attractiveness, low self-esteem, and low self-confidence (8–10). All the above feelings lead to mental illness. Human skin not only protects but also expresses who an individual is. Therefore, it is not unexpected for skin problems to have an impact on our mental health (11). Depression

are the most common types of mental illness. Patients with skin diseases suffer from mental health disorders more than the general population (12).

Depression is a common co-morbid mental illness among people with skin disease, different studies support this (13,14). The studies in Saudi Arabia, Germany, Egypt, and Ethiopia on the prevalence of depression among skin disease patients show 15.8%, 42.5%, 39.2%, and 23% respectively (15–18).

To the best of our awareness of the available information, few studies have investigated depression among chronic skin disease patients, so this study focused on contributing to the scarce evidence on the prevalence and correlated factors of depression among chronic skin disease patients.

1.2 Statement of the problem

Globally, the leading source of disability is depression, which also significantly increases the burden of disease. It makes up 7.5%, 7.9%, and 10% of all years lived with disability (YLD) globally, in Africa and Ethiopia, respectively. In LMIC, the number of people with mental illness is increasing at a fast rate (6). Furthermore, the burden of skin disease has been shown to be comparable to the mortality rates of meningitis, hepatitis B, obstructed labor, and rheumatic heart disease (4).

The skin serves as a sense organ and is the site of numerous activities that have a significant impact on how individual perceive, understand, and interact with others. Assumptions that skin diseases are communicable, the result of poor hygiene, and, in some cultures, only affect the sinful person, contributes to feelings of loneliness and melancholy in people who have skin problems. So, chronic skin disorders have implications that go beyond dermatology's purview (19).

The finding from several studies indicates the high prevalence of depression among people with skin disease. According to a study done in Pakistan 91.9% of skin disease patients presented with different stages of depression (20). In India, 33.3% of dermatological outpatients suffer from depression (21). In Nigeria, 49% of leprosy patients have co-morbid depression (22). In Sudan,

the prevalence of co-morbid depression was found to be 21.9% (23). Also in Ethiopia, the prevalence of depression among skin disease patients were 23.6% (18).

As skin disease is not limited to the skin, depression is also not limited to sad feelings or emotions. When chronic skin disease and depression occur together, they cause a complicated negative impact on an individual's physical, social, economic, mental, and emotional health. On the physical health, depression causes pain, excessive fatigue, a drop in libido, insomnia, and alterations in appetite (24). Even myocardial infarction and coronary heart disease risk may increase as a result of it (25). Psycho-socially, it can reduce attention span, create memory loss and a lack of interest, and cause family and social withdrawal, all of which have a detrimental effect on job or school performance. Most of the time, those who suffer from skin diseases are uncomfortable interacting with others. The patients become even more despondent as a result, and they become depressed, less self-assured, ashamed, and socially isolated (26).

Furthermore, psycho-social elements like depression can impact an individual's inflammatory and immune reactions, which may affect the onset of skin disorders and/or exacerbate their symptoms. The exacerbation increases the economic loss, waste of time, and human resources required, as well as it makes the treatment time long and boring (27,28).

Due to the persistently negative thoughts that lurk in their brains, employees lose interest in their jobs, housewives lose interest in their daily tasks, and students lose interest in their studies. People who are depressed use a lot of health resources and are less productive (29,30). For the reasons stated above, depression causes enormous economic loss. According to the report by the World Health Organization, depression and anxiety added up to a total of over $ 1 trillion in economic losses each year, a cost projected for mental illness to rise to $6 trillion by 2030 (31).

Numerous studies have demonstrated the direct link between skin disease and an increased risk of substance dependence. What's more alarming is the reported rise in suicidal thoughts and actions among people with skin problems (32). A survey of United Kingdom dermatological patients revealed that 5% of them had considered suicide (33). Depression is the leading cause of suicide; 56–87% of suicide attempters suffer from depression (34).

Depression among skin disease patients is significantly associated with female sex, low educational level, poor social support, decreased quality of life (QOL), stigma, and self-image disturbance (15,35–39).

If identified early on, the devastating effects of psychological co-morbidity in dermatology patients can be avoided. Patients tend to keep their emotions or unhappiness hidden since they often focus on physical problems most of the time. Several international studies have recommended the connection of dermatology service and psychiatric service for early diagnosing, treating and also preventing the co-morbidity of depression among chronic skin disease patients (40,41). Most healthcare facilities lack a protocol for routinely assessing the psycho-social impact of skin disorders (26).

The complex and detrimental impact of depression is severe if it is left undiagnosed and untreated. In LMIC nations like Ethiopia, treatment and support services are typically underdeveloped and unavailable. Around 85% of those in these countries, who have mental disorders are thought to not be receiving treatment (42).

Despite the high magnitude and detrimental effect of depression among people with chronic skin disease, very limited attention is given to this area by stakeholders, including researchers in Ethiopia. In Ethiopia, very limited studies were conducted in this area. Those studies were conducted on a limited type of skin disease at one institution. Therefore, this study will offer better information about the prevalence and associated factors of depression in people with chronic skin diseases. So, the aim of the study is to determine the magnitude and associated factors of depression among adults with chronic skin disease.

1.3 Significance of the study

Wide-ranging implications of early detection and treatment of mental illness includes a reduction in chronic skin disease-related morbidity and death, particularly in developing nations. This study evaluated the prevalence of depression among patients with chronic skin diseases, since understanding the scope of the issue is crucial for developing an early and effective response.

The study will also identify the linked elements that contribute to the high prevalence of depression; therefore, the results will be helpful in developing potential remedies to enhance the mental health of patients with chronic skin diseases. For policymakers and intervention designers to develop intervention strategies addressing mental health services in dermatological clinics, beside this, it will provide baseline data and suggest potential intervention methods for factors leading to these illnesses. Moreover, it will lay the foundation for future investigations and contribute to the scant body of literature on the prevalence of depression among Ethiopian adults with chronic skin diseases.

CHAPTER TWO

2 LITERATURE REVIEW

2.1 Magnitude of depression

A finding from a systemic review and meta-analysis done in 2018 in America on 106 studies among atopic dermatitis (AD) patients, reported the prevalence of depression in individuals with AD was 20.1% and without AD at 14.8% (43). Similarly, across sectional study carried out in Brazil in 2021 on 280 psoriasis patients using the hospital anxiety and depression scale (HADS), depression was found to be 19% (44).

An observational, multi-center, cross-sectional study conducted in 13 European countries on The Psychological Burden of Skin Diseases by using HADS with 4,994 participants (3,635 patients and 1,359 controls), and 10.1% of the patients presented with clinical depression (45). In contrast, 5.8% of dermatologic outpatients (OPD) in a 2016 observational case-control study in Norway had clinical depression compared to 0.9% of controls (46). However, in 2020, in a case-control study carried out in Lithuania on 543 patients with facial dermatoses and 497 healthy individuals using HADS, the magnitude of depression was 21.7% and 6.8% in patients and controls, respectively (47). Whereas, in Slovakia, a cross-sectional study conducted in 2016 on 104 dermatology patients revealed depression in 37.5% of the patients (12).

A finding from a cross-sectional study conducted on dermatologic OPD in Pakistan in 2018 using the Patient Health questionnaire-9 (PHQ-9) on 74 acne patients indicates that 91% of the participants presented with different stages of depression (20). However, a hospital-based cross-sectional study in 2022 among eastern Indian chronic skin disease patients (101 patients and 101 controls) using PHQ-9 depression found in 45.54% of chronic skin disease patients (48).
Depression was discovered in 40% of study participants in another cross-study conducted in this country among patients with common skin diseases(49). In contrast, a cross-sectional study in Malaysia's dermatology OPD on psoriasis patients using HADS in 2019 found depression in 8.5% of patients (37).

In 2019, a cross-sectional study conducted in Thailand on 104 vitiligo patients using the PHQ-9 showed 13.5% of depression in vitiligo patients (50). Whereas, across sectional study in Korea in 2013, among 325 geriatric dermatologic OPD patients using the geriatric depression scale, 62% of the study participants presented mild to moderate depression (51). A survey conducted in this country on adolescents with AD showed the prevalence of depression to be 31.0% (52).

In Cameroon in 2016, across sectional study conducted among 181 acne patients, depression was found in 6.2% of the participants (53). However, in Lagos, Nigeria, across sectional study conducted in 2021 among 706 dermatology OPD patients using HADS revealed various degrees of depression in 15.6% of patients (54). A comparative cross-sectional study conducted by HADS among acne patients in Zagazig, Egypt, found depression in 13.1% of patients (55).

In Sudan, a comparative cross-sectional study carried out among 105 chronic skin disease patients using the International Classification of Diseases-10 (ICD-10) determined the prevalence of depression in 21.9% of the study participants (23). Similarly, in Ethiopia, a mixed-methods study of 381 chronic skin disease patients using the PHQ-9 found 23% of them to be depressed (18).

2.2 Associated factors

2.2.1 Socio-demographic factors

A cross-sectional study conducted in Brazil among psoriasis patients using HADS showed that depression was significantly associated with female sex, middle age, and low income (35). A finding from India from a prospective observational study on 81 chronic dermatology disorder patients with different socioeconomic statuses in 2021 using HADS showed that patients with low economic status are more likely to develop depression (56). Another cross-sectional study on 356 dermatology OPD patients in Gandhi, India, in 2017 found significantly higher depression among females, illiterates, and less educated people, those doing household work, and having lower personal income (57). Similarly, in China, across-sectional study carried out in 2020 on skin disease patients determined female patients were 0.767 times more likely than male patients,

and unmarried patients were 0.660 times more likely than married patients to develop depression (58).

Finding from a cross sectional study conducted among Egyptian vitiligo patients using the Hamilton depression scale (HAM) indicate higher depression among female patients than male patients (59). In Nigeria, across sectional study conducted among 235 leprosy patients found a significant association between depression and male gender, having no spouse, unemployment, and having lower education (22). A study in Ethiopia showed participants from rural areas were three times more likely to develop depression than participants in urban areas (18).

On the other hand, some studies don't support the above association between depression and sociodemographic factors. A cross-sectional study conducted in Thailand on 104 participants indicated no statistically significant differences in PHQ-9 scores for gender, age group, and education level (50). This finding is also supported by a cross-sectional study conducted in Riyadh, Saudi Arabia, in 2015 on 847 dermatologic OPD patients by HADS, which stated no significant association between depression and sociodemographic factors (60). Similarly, in 2020, a cross-sectional study conducted in Nigeria on 709 dermatologic OPD patients showed no significant differences in depression according to sociodemographic status (54).

2.2.2 Clinical factors

Patients with a family history of depression are 9.45 times more likely to develop depression in Oman, according to a cross-sectional study of 260 dermatologic OPD patients, and patients with co-morbid medical disorders are twice as likely to develop depression (61). Another cross-sectional study on 356 adults with common skin diseases in 2022 in Gandhi, India found depression to be common among patients suffering for 13 months, taking treatment for a long time, and having co-morbidity (57). In eastern India, a cross-sectional study conducted among chronic skin disease patients determined the prevalence of depression was high among patients with skin lesions involving exposed body parts like the head, neck, hand, and foot (48). This finding is also supported by a study conducted in Egypt (59).

A cross-sectional study in Nigeria involving 235 leprosy patients revealed an association between depression, older age at disease onset, and longer illness duration (37).Similarly from a

prospective cross-sectional study conducted in Egypt in 2021 on acne patients determined the significant association between depression and prolonged acne duration (62).

2.2.3 Psycho-social factors

A cross-sectional study on 300 chronic skin disease OPD patients in Saudi Arabia in 2016 using the 21-item Depression, Anxiety, and Stress Scale found that patients with poor QOL were 9.54 times more likely to be depressed, and those without family support were 3 times more likely to be depressed (15). Similarly, across cross-sectional study conducted in Malaysia among people with psoriasis using HADS found high depression among patients with high DLQI scores (37).

In Nepal in 2020 across sectional surveys conducted among leprosy patients using the PHQ-9, depression scores positively related to the level of stigma the patients experienced (39). A mixed-methods study conducted in Ethiopia among people with chronic skin disease revealed that patients with poor self-image were 4.35 times more likely to develop depression than those with a good self-image, and patients with perceived stigma were 4.42 times more likely to develop depression (18).

2.2.4 Behavioral factors

A cross-sectional study on 147 dermatologic OPD patients in Kolkata, India, discovered a significant relationship between depression, smoking, and alcohol intake (26). Similarly, across sectional study conducted in Nigeria in 2020 among dermatologic OPD patients using the HPQ-12, dermatology patients who were alcohol drinkers were 0.3 times more likely to be diagnosed with psychopathology than nondrinkers, and patients who smoked were 3.7 times more likely to be diagnosed with a psychological disorder than non-smokers (66).

2.3 Conclusion

The prevalence of depression among skin disease patients ranged from 5.8% to 99.1% in cross-sectional, systematic review, comparative, non-comparative, and observational studies, while in case-control studies, the proportion of control subjects who developed depression was 0.9–14.8%

(20,43,46–50,63). Moreover, the association of depression with various factors like socioeconomic status among skin patients was that female sex, people with low income, housewives, and the illiterate were more affected by depression (35,56,58,64). Additionally, due to a lack of social and family support, those who experience stigma, poor self-image develop depression (15,18,37,39). Studies showed that a family history of depression, co-morbid medical disorders, and lesion involving the exposed body part were significant predictors of depression. Prolonged acne duration also correlated with the frequency of severe depression (48,57,65). Lastly, a significant statistical association was found between depression and smoking and alcohol intake (66).

2.4 Conceptual frame work

This conceptual framework specifies different literature's developed for studying in various countries for people with chronic skin disease, different factors associated with depression. It shows the effect of independent variables with dependent variable

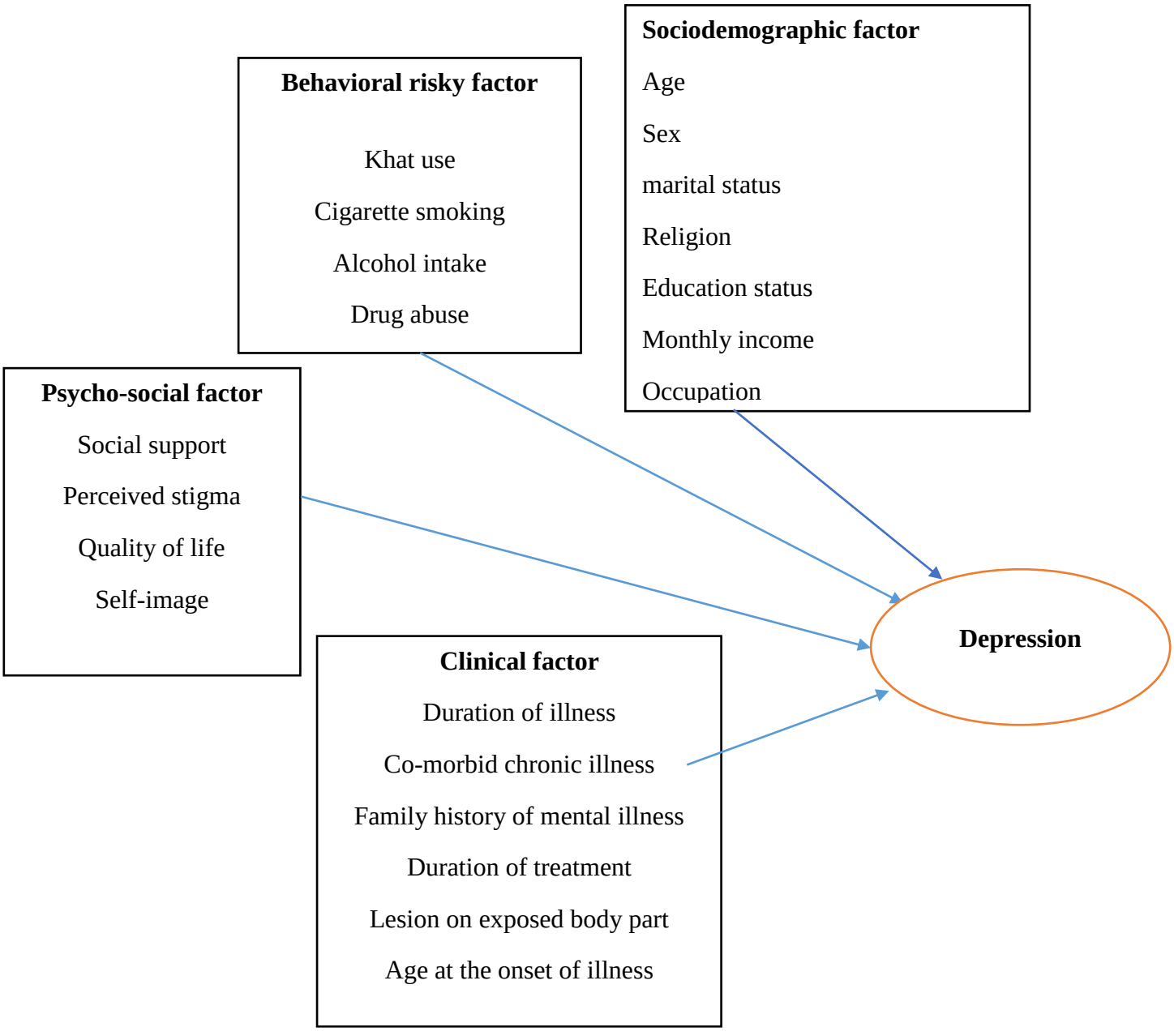

Figure 1: Conceptual frame work for the assessment of magnitude and associated factors of depression among adults with chronic skin disease (15,18,28,35–37,48,48,56,58,65,66)

CHAPTER THREE

3 STUDY OBJECTIVE

3.1 General objective

- To assess the magnitude and associated factors of depression among adults with chronic skin disease in tertiary hospitals in Addis Ababa, Ethiopia, 2023.

3.2 Specific objective

- To determine the magnitude of depression among adults with chronic skin in tertiary hospitals in Addis Ababa, Ethiopia, 2023.

- To identify factors associated with depression among adults with chronic skin disease in tertiary hospitals in Addis Ababa, Ethiopia, 2023.

CHAPTER FOUR

4 METHODS AND MATERIALS

4.1 Study area

The study was conducted in Addis Ababa, Ethiopia. Addis Ababa is the capital of Ethiopia and the place of headquarters for international organizations. Notably, the African Union and the United Nations Economic Commission for Africa (67). Currently, the Addis Ababa population is estimated to be 5,227,794 (68). In Addis Ababa, there are five tertiary hospitals. The study was conducted at dermatology unit in three randomly selected tertiary hospitals, including Tikur Anbesa specialized hospital (TASH), Saint Peter's specialized hospital, and All African Leprosy hospital (ALERT). All of them provide care for both acute and chronic skin diseases.

One of Ethiopia's biggest and oldest hospitals is TASH. TASH offers specialized therapeutic services for the entire country that are not offered by other public and commercial health institutions. About 370,000–400,000 people are treated and diagnosed at this hospital each year. There are over 1000 beds and 130 specialists in the facility (69). The dermatology clinic provide care for 600 patients per month, from them 250 are chronic skin disease (from the registration book).

Saint Peters hospital is one of the specialized referral hospitals in Addis Ababa. It is known for TB and leprosy treatment. 600 all kinds of skin disease get treatment in each month in this hospital, almost 200 of them are chronic skin problems (from the registration book).

A referral teaching hospital called ALERT is the other. Its official name has been expanded to include tuberculosis and is now All Africa Leprosy, Tuberculosis and Rehabilitation Training Centre. The center was formerly known by its initials, ALRT (hence the abbreviation). The modern medical facility has 240 beds with departments for surgery, dermatology, and ophthalmology in addition to an orthopedic workshop and a rehabilitation program (70). In month ALERT provide care for 3500 patients with different kind of skin disease, from them 1200 are chronic kind of skin disease (from registration book)

4.2 Study design and period

Institution based prospective cross-sectional study design was conducted from March 21 to April 21, 2023, among adults with chronic skin disease at the selected tertiary hospitals in Addis Ababa.

4.3 Population

4.3.1 Source population

All chronic skin disease patients attending tertiary hospitals in Addis Ababa

4.3.2 Study population

All chronic skin disease patients attending in selected tertiary hospitals in Addis Ababa

4.3.3 Study unit

Eligible chronic skin disease patient in selected tertiary hospitals available during data collection period

4.4 Eligibility criteria

4.4.1 Inclusion criteria

- ✓Adult chronic skin disease patients
- ✓Who is 18 years and older
- ✓Who is willing to participate in the study

4.4.2 Exclusion criteria

- Acutely physically or mentally ill and unable to respond because of the illness

4.5 Sample size calculation

Sample size was calculated using single proportion population formula, with the assumption of a 23.6% prevalence of depression among people with chronic skin disease taken from a study conducted in Boru Meda, Amhara region, Ethiopia, with a 95% confidence interval and 0.05 margins of sampling error (18).

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

where:

n= number of sample size

d= margin of error

Zα/2= the reliability coefficient corresponding to 95% confidence level (Z= 1.96)

P= 23% prevalence of depression among people with chronic skin disease taken from study conducted in Boru Meda, Amhara region Ethiopia

$$n = \frac{(1.96)^2 \times (0.23) \times (1-0.23)}{(0.04)^2} = 277.06$$

by adding 15% non-respondent rate, the total sample size was 318.

4.6 Sampling technique and procedure

In Addis Ababa, there are five tertiary hospitals that provide dermatological services to the public. From five tertiary hospitals, three were selected by a lottery method. The selected hospitals were TASH, Saint Peter, and ALERT. The study was carried out in a dermatology outpatient clinic. The number of study units from each hospital was proportionally allocated from the six months' patient visit load, according to the register book.

The six-month dermatology clinic chronic skin disease follow-up numbers were 1350, 1150, and 8000 in ALERT, TASH, and St. Peter, respectively.

The formula for proportion allocation is

$$n=n_f\frac{\times nk}{Nk}$$

Where n = is the required sample size in specific hospital

n_f= is the total sample size

n_k= is six-month patient flow in specific hospital

N_k = is the total population number

n for ALERT= $318 \times \frac{8000}{10500}$= 242

n for TASH = $318\times \frac{1350}{10500}$= 41

n for St Peter = $318\times \frac{1150}{10500}$= 35

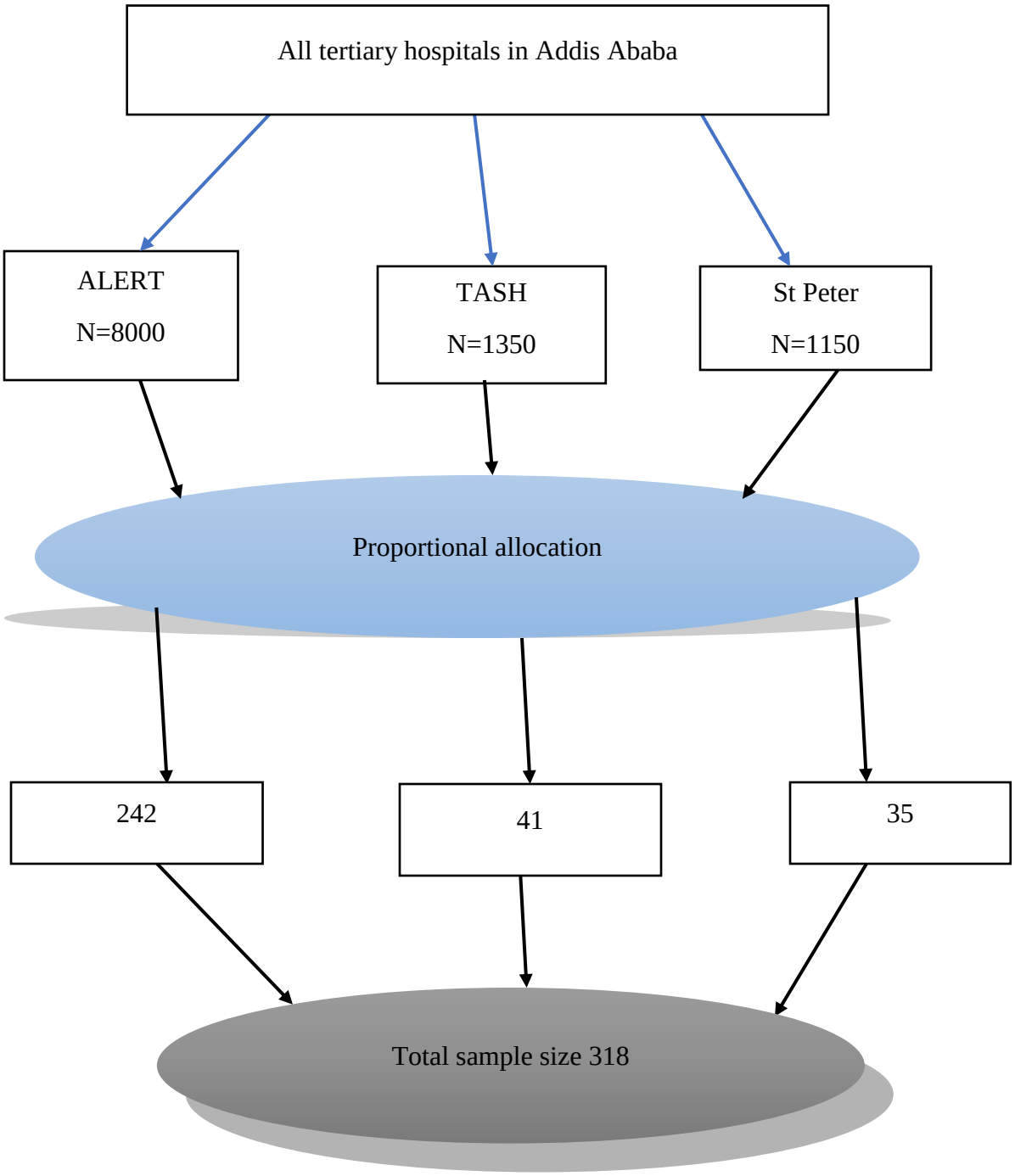

Figure 2: Schematic presentation of sampling procedure for the assessment of depression and associated factors among adults with chronic skin disease in Addis Ababa, 2023.

There was no sampling frame of participants for the selection; a systematic random sampling procedure was used. The interval was calculated by estimating the expected number of patients for one month, and then the number of patients for one month was divided by the required sample size. Following the calculation of the interval, the participants were taken from the clinic for each observed interval. The starting point was determined randomly.

Interval (K) for ALERT hospital is 1500/242 = 6.1≈ 6

Interval (K) for St. Peter's hospital is 200/35 = 5.7 ≈ 6

Interval (K) for TASH hospital is 250/41 =6.1 ≈ 6

So, that all the hospitals have the same interval,

A number between 1 and 6 selected randomly by the lottery method, and subjects were taken every 6 intervals of the selected number until the required number reached.

4.7 Operational definitions

Depression: Score greater than or equal to 5 on PHQ-9 scale (71).

Social support: Oslo 3-item social support scale poor:score3-8, Moderate:Score9-11and Strong : Score 12-14 (72).

Body image disturbance: On 7-item body image disturbance dermatological version, Participant who score above the mean indicate high body image disturbance (73).

Perceived stigma: At least one positive score among the 6-item questioners on the dermatological specific perceived stigma scale (74,75).

Poor quality of life: Score greater than or equal to 10 on Dermatological Life Quality Index (DLQI) (18).

Chronic skin disease: Patients presented with a skin disease which is chronic lasts greater than 6 month, and relapsing (48)**.**

Co-morbid chronic illness: Presence of at least one chronic medical illness like(

DM, hypertension, HIV/AIDIS,) which co-exist with chronic skin disease (65).

Visible lesions: - Lesion involving head, neck, upper and lower extremity (48)

Family monthly income: - According to world bank poverty line, those who earn less than $2.15 per day (or less than 3483 Ethiopian Birr per month) per day are considered to be below the poverty line, while those who earn more than $2.15 per day (or more than 3483 Ethiopian Birr per month) per day are considered to be above it.

Family history of mental illness: At least one family member's diagnosis with mental illness (65).

Current use of substance: Participant who use specific substance (like khat, smoking, alcohol, other) in the previous 3 month (76).

Previous substance consumers: Participant**s** who have previously consumed substance but who have not done so in the previous 12 months (76).

4.8 Study variables

4.8.1 Dependent variable

Magnitude of depression

4.8.2 Independent variables

Sociodemographic factors (Age, sex, religion, educational level, marital status, occupation, family monthly income, living area)

Psycho-social factors (perceived stigma, social support, body image, quality of life)

Clinical factors: (family history of mental illness, co-morbid chronic medical illness, age at the onset of illness, duration of illness, and lesion involving the exposed body part).

Individual characteristics (alcohol, cigarette smoking, khat use and other)

4.9 Data collecting instrument

Structured and semi-structured questions were used to assess the dependent and independent variables. The questionnaires were adopted from a similar study conducted in Ethiopia(18). It includes 1) socioeconomic and demographic characteristics; 2) clinical characteristics; 3) psycho-social factors; 4) a depression scale; and 5) behavioral factors.

Part one Sociodemographic: contain age, religion, sex, education level, marital status, monthly income, occupation and living area.

Second part Depression: - was assessed by a structured patient health questionnaire of nine items. It serves as a diagnostic tool for determining the prevalence of depression as well as its severity. It is developed according to the Diagnostic and Statistical Manual of Mental Disorders—IV. Clinicians as well as researchers prefer this tool to diagnose depression. For each question, the rating was done on a four-point Likert scale (0 = not at all, 1 = several days, 2 = more than half of the day, 3 = nearly every day). Each item was summed up, and the interpretation was done. The higher the participant's score, the more severe their depression.

The outcome was categorized as

- No depression (0-4).
- Mild depression 5-9
- Moderate depression 10-14
- Moderately severe depression 15-19
- Severe depression 20-27

PHQ-9 is found to be a reliable and valid tool to measure MDD among adults, with a sensitivity of 88% and specificity of 78%. It showed good internal consistency (Cronbach‘s alpha = 0.81) and test-retest reliability (intraclass correlation coefficient = 0.92). Its cutoff point is ≥ 5, which gives it optimal discriminator power for determining depression (71).

Part three clinical: characteristics include illness duration, co-morbid chronic medical illness, lesion on the exposed body part, age at the onset of illness, and a family history of mental illness, which was assessed by the questionnaire adopted and modified from similar studies (18)

Part four body image disturbance: was assessed using the standardized 7-item body image disturbance questionnaire (dermatologic version) (BIDQ). It assesses the degree of body image disturbance as a combination of dissatisfaction, distress, and dysfunction (77). The internal consistency of the BIDQ was demonstrated with a Cronbach alpha of 0.92. The higher patient result on the BIDQ indicates a high body image disturbance (73).

Part five Quality of life: was assessed by the dermatologic life quality index (DLQI). The scoring for every question is 0 = not at all, 1 = a little, 2 = a lot, 3 = very much, and question 7, "prevented work or studying," is a 3. At the end, all of the scores were added, resulting in a minimum score of 0 and a maximum score of 30.

The outcome of the quality of life is expressed as a score.

- 0–1: no effect at all on the patient's life,
- 2–5 small effects on the patient's life,
- 6–10 moderate effects on the patient's life,
- 11 – 20 very large effect on patient's life, and
- 21 – 30 extremely large effect on patient's life among the total

The higher the score, the more the quality of life is impaired (78).

In Ethiopia, it is considered to be highly consistent internally; Cronbach‘s alpha was 0.90 and the inter-item correlation average was 0.44. Indicates high internal consistency. The mean DLQI score for all patients was 8.42, and the highest score was for item 2 (feeling self-conscious). The item with the highest score among new patients was item 1 (pain), while that among treated patients was item 4 (clothes choice). The Amharic DLQI appears feasible, reliable and valid among patients with podoconiosis in southern Ethiopia (79).

Part six perceived stigma: Perceived stigma was assessed by the perceived stigma scale for skin disease, which contains 6 items. Each item was rated on a 4-point scale (0 = never, 1 =

occasionally, 2 = frequently, and 3 = always). The overall score ranges from 0 to 18. A high score on this scale reflects high stigmatization. Cronbach‘s alpha for the stigmatization scale was 0.88 in patients with psoriasis and 0.81 in patients with atopic dermatitis (80).

Part Seven: Participants' social support was determined by the Oslo Social Support Scale (OSS-3). It contains three questions. Its internal consistency (Cronbach‘s alpha) was 0.756. The total result was determined by adding all the items together; it ranges from 3–14. A high score indicates high levels of social support, whereas a low score indicates low levels of social support.

The interpretation was:

- "Poor support" 3–8
- "Moderate support" (9–11) and
- "Strong support" 12–14. (81)

4.10 Data collecting procedure

The interview took place after participants had completed their clinical assessments and met with their physicians. Data were collected through a structured and semi-structured questionnaire based on a face-to-face interview by three nurses who work outside the study facilities. An additional 3 supervisors, including 1 supervisor for one hospital, were required to control the data collection. The supervisors were second-year MSc nursing students. The principal investigator (PI) controlled the overall data collection process.

An interview for those who met the inclusion criteria took place in a confidential setting. When a chosen patient refused to take part in the study, the next qualified respondent was contacted for an interview.

4.11 Data quality assurance

Before the actual data collection day, 2 days of training were given to the data collectors on the aim of the study, data collection procedures, and measurements to be taken. The supervisor and the PI have monitored the day-to-day data collection process. The collected data were checked for completeness, accuracy, clarity, and consistency by the data collectors, supervisors, and PI on a daily basis.

4.12 Data processing and analysis

The collected data were coded, edited, cleaned, and entered into Epi Data v7.1 and analyzed using SPSS v27. Necessary data processing like re-coding, categorizing, computing, and counting was done before the actual data analysis. The descriptive result was summarized as mean, percentage, and standard deviation, and categorical variables were represented as frequency tables, pie charts, and bar charts based on the type of data. A P-value with 95% confidence intervals was used to calculate significance. After conducting a bivariate analysis between each independent variable and outcome variable to determine eligibility, those variables with a P-value of less than 0.25 were entered into a multivariate analysis, and those variables with a p-value of less than 0.05 with a 95% confidence interval were considered to have a significant association with the dependent variable using logistic regression.

4.13 Ethical considerations

Ethical approval of the study was obtained from the AAU College of Health Sciences, School of Nursing and Midwifery, and Department of Nursing Ethical Review Committee (ERC). A formal letter was sent to the hospital management. The aim and purpose of the study were explained to the participants. All information collected during the course of the research was kept strictly confidential. Information on the names and addresses of the participants was not recorded. The collected data were stored securely, and only the researchers conducting this study had access to the data. Participants were informed that their participation in the study is completely voluntary, that they can withdraw from the study anytime they want, and that the study has no physical risk for them. Those who decided to take part were asked to sign a written consent form. Subjects who were severely depressed were referred to a psychiatric clinic for confirmation of the diagnosis and further treatment.

4.14 Dissemination and utilization of results

The final result of the study shall primarily be submitted to the AAU, College of Health Sciences, as partial fulfillment of my master's degree. The result will also be submitted to St. Peter's specialized Hospital, Tikur Anbesa Hospital, and ALERT Hospital, and other concerned bodies. Contact with journals will be made, to publish and make the findings accessible to the scientific community. It will also be presented at various seminars and conferences as needed and used as a resource for future research.

CHAPTER FIVE

5 RESULTS

5.1 Socio-demographic characteristics

A total of 314 adult chronic skin disease patients were enrolled in the study, with a 98.7% response rate. Out of the total study subjects, 58% were female and 42% were male. The mean age of the respondents was 36.44 with (SD ±13.12), ranging from 18 to 74, with the largest proportion (37.3%) being between 18 and 27. Close to two-thirds of (65.9%) patients came from rural areas, and nearly half of the subjects were married (47.5%). 67.8% of the respondents were orthodox. Regarding education level and occupation status, 93.9% had formal education, and over three-fourths of subjects' monthly income was above the poverty line (Table 1).

Table 1: Description of socio-demographic characteristics of the respondents with chronic skin disease at tertiary hospitals in Addis Ababa. Ethiopia, 2023 (n=314).

Variables	Variable category	Frequency(n=314)	Percent(%)
Sex	Male	132	42
	Female	182	58
Age category	18-27	117	37.3
	28-37	61	19.4
	38-47	73	23.2
	≥48	63	20.4
Religion	Protestant	40	12.8
	Orthodox	213	67.8
	Muslim	61	19.4
Marital status	Single	126	40.1
	Married	149	47.5
	Divorced	29	9.2
	Widowed	10	3.2
Residency	Urban	107	34.1
	Rural	207	65.9
Education status	No formal education	19	6.1
	Primary education (1-8)	85	27.1
	Secondary and preparatory (9-12)	107	34.1
	Diploma graduate/degree and above	103	32.7
Occupation	Government employ	65	20.7
	Non-Government employed	50	15.9
	Housewife	34	10.8
	Student	38	12.1
	Own business	54	17.2
	No job	73	23.3
Average family Monthly income	Under poverty line	98	31.2
	Above poverty line	216	68.8

5.2 Clinical factors

The mean age for the onset of the illness was 32.63 with (SD±21.20), and nearly two-thirds of patients (64.3%) had an age onset of 21–40 years. 47.1% of the respondents had a duration of illness of less than one year. 60.5% of the subjects had lesions, which involve visible body parts, and 42.4% of participants had a family history of mental illness. Regarding other chronic co-morbidities, 41.1% of the subjects had chronic co-morbidities. Over three-fourths of participants use more than one medication (Table 2).

Table 2: Distributions of clinical characteristics of the respondents with chronic skin disease at tertiary hospitals in Addis Ababa. Ethiopia, 2023 (n=314).

Variable	Category	Frequency (n=314)	Percent (%)
Age of onset of the illness	<20years	48	15.3
	21-40 years	202	64.3
	41-60years	64	20.4
Duration of illness	Less than one years	149	47.5
	One up to five years	110	35
	Greater than five years	55	17.5
Co morbid medical illness	Yes	129	41.1
	No	185	58.9
Family history of mental illness	Yes	133	42.4
	No	181	57.6
Number of medications used	Only one	58	18.5
	Greater than one	256	81.5
Area involved	Visible body part	190	60.5
	Other part	124	39.5

5.3 Psychosocial characteristics

Of the total study participants, 44.6% had body image disturbance. The majority of the subject had adequate quality of life 85.7%. Regarding social support 30.6%, 58.9%, and 10.5% of participants had strong, intermediate, and poor social support respectively (Table 3).

Table 3: Psychosocial characteristics of the respondents with chronic skin disease at tertiary hospitals in Addis Ababa. Ethiopia, 2023 (n=314).

Variable	Category	Frequency (n=314)	Percent (%)
Quality of life	Good	269	85.7
	Poor	45	14.3
Perceived stigma	Yes	114	36.3
	No	200	63.7
Body-image	Good	174	55.4
	Poor	140	44.6
Social support	Poor	96	30.6
	Moderate	185	58.9
	Strong	33	10.5

5.4 Magnitude of depression

314 of participants completed the interview of PHQ-9 questions at baseline. The Prevalence of depression was 32.8%.

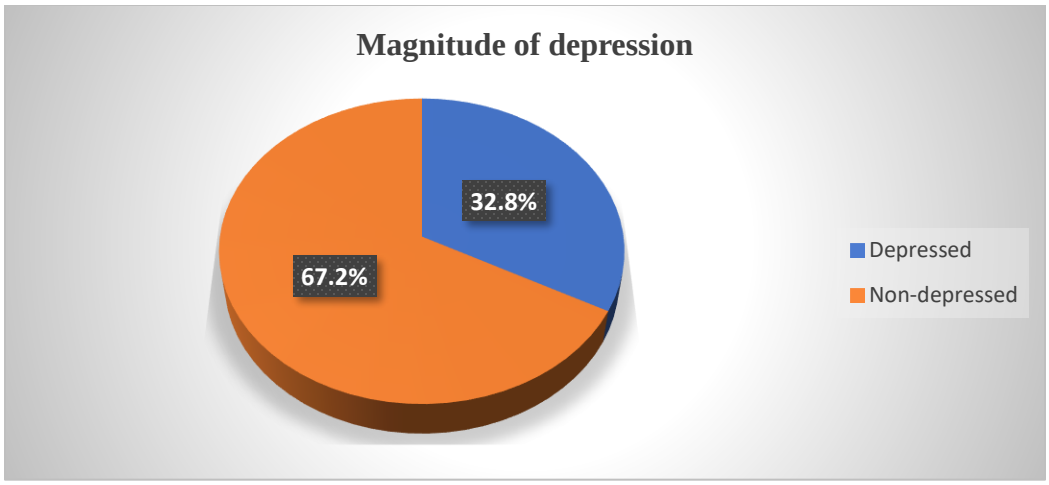

Figure 3: Magnitude of depression among adult chronic skin disease patients at tertiary hospitals in Addis Ababa, Ethiopia 2023. (n=314)

Out of the subjects with depression 32.8%, 29.7% had moderate depression, 2.5% had moderate severe depression and 0.6% had severe depression.

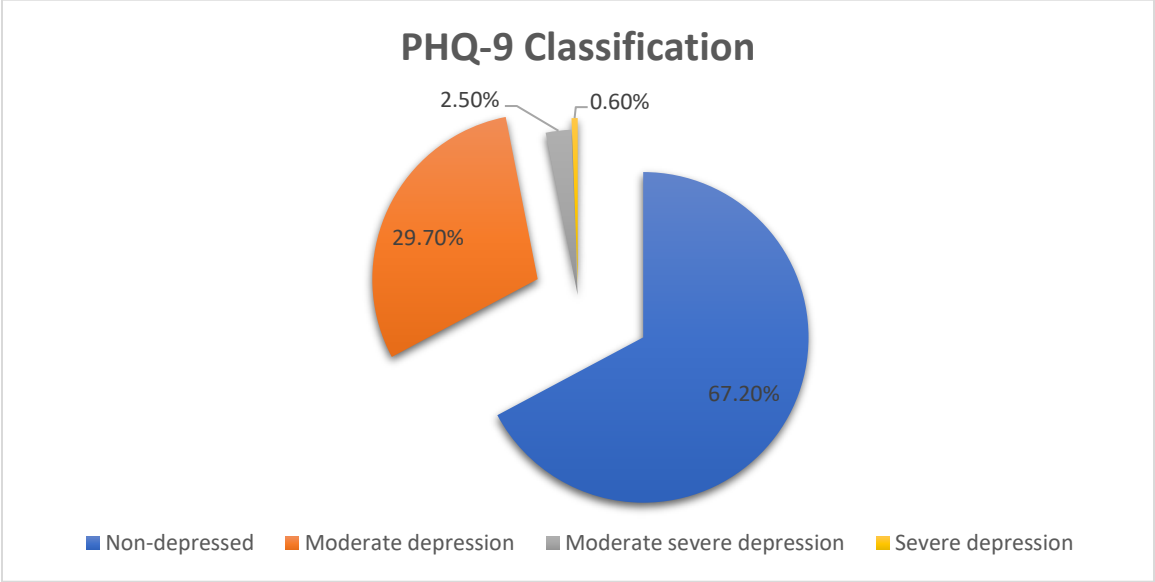

Figure 4:Severity of depression among adult chronic skin disease patients at tertiary hospitals in Addis Ababa, Ethiopia 2023. (n=314)

5.5. Substance use

From all study participants, 28% of respondents used substances in their lifetime and 25.8 were current users. Out of current substance users52 (16.6%) of them used alcohol and 23 (7.3%) used khat.

5.6 Associated factors of depression

5.6.1 Bivariate analysis

In a binary analysis from all different variables, Sex, age group from 18 to 27, income, number of medications, family history of mental illness, age at the onset of illness, involved body parts, chronic disease co-morbidities, quality of life, social support, and self-image disturbance were variables which fulfilled the criteria to enter multivariate analysis at p-<0.25 (Table 4).

5.6.2 Multivariate analysis

Multivariate analysis was applied to identify significant variables and control confounding variables. Multiple logistic regression was run with variables that, in bivariate analysis, had a p-value less than 0.25 and were associated with depression. In the final model, variables with a p-value of $\leq$ 0.05 were deemed to be substantially associated with depression.

The odds of developing depression among male patients were 87.7% times less as compared to females, [AOR 0.123 (0.049-0.312)]. those who were in the age group of 18-27 had about 4.16times odds of developing depression as compared to those age above 48 OR [AOR 4.16 95% C (1.006-15.28)]. Patients from under the poverty line were 4.11 times [AOR 4.110 95%CI (1.612-9.48)] more likely to develop depression than those above the poverty line. Having a family history of mental illness were 6.27 times more likely [AOR =6.27 95%CI (2.501-15.732)] to be associated with depression than their counterparts. Individuals with visible body lesions were 4.127 times (AOR=4.127,95%CI; 1.475-10.55) more highly associated with depression compared to those without visible body lesions. Patients who had no body image disturbance were 94.4% [AOD= 0.056 95%CI (0.023-0.155)] times less likely to be depressed as compared to patients with body image disturbance (Table 4).

The Hosmer and Lemeshow statistic has chi-square value of 9.55 and a significance of 0.29 which indicates that Hosmer and Lemeshow test is not statistically significant and therefore the model is quite a good fit. There is no any co-linearity among female sex, age group, family monthly income, family history of mental illness, visible body lesion and body image disturbance, because of above 0.1 tolerances and below 10 variance inflation factor for each variable.

Table 4: Factors associated with depression among adults with chronic skin disease at tertiary hospitals in Addis Ababa. Ethiopia, 2023 (n=314).

Variables	Category	No=211 N (%)	Yes=103 N (%)	COR (95% CI)	AOR (95% CI)
Sex	Male	113(53.6)	19(18.4)	0.196(0.111, 0.346) *	0.123(0.047, 0.312) ****
	Female	98(46.4)	84(81.6)	1	1
Age category	18-27	47(23.3)	70(68)	7.041(3.332, 14.87) *	4.169(1.006, 15.280) **
	28-37	51(24.2)	10(9.7)	0.927(0.362, 2.37)	0.669(0.139, 3.229)
	38-47	61(28.9)	12(11.7)	0.930(0.379, 2.282))	0.33(0.069, 1.608)
	≥48	52(24.6)	11(10.7)	1	1
Family monthly income	Under poverty line	46(21.8)	52(50.50	3.657(2.205, 6.066) *	4.110(1.612, 10.480) ***
	Above poverty line	165(78.2)	51(49.5)	1	
Age at the onset of illness	>20	26(12.3)	22(21.4)	2.339(1.058, 5.174) *	1.030(0.214, 4.957)
	21-40	138(65.4)	64(62.1)	1.282(0.684, 2.405)	0.941(0.299, 2.967)
	41-60	47(2.3)	17(16.5)	1	1
Co-morbidities	Yes	76(36)	53(51.5)	1.883(1.168,3.036) *	1.367(0.555, 3.369)
	No	135(64)	50(48.5)	1	1
Family history of mental illness	Yes	61(28.9)	72(69.9)	5.711(3.41, 9.54) *	6.273(2.501, 17.732) ****
	No	150(71.1)	31(30.1)	1	1
Body part	Visible	107(50.7)	83(80.6)	4.034(2.034, 7.046) *	4.127(1.475, 10.55) ***
	Other	104(49.3)	20(19.4)	1	1
No of medications	One	48(22.7)	10(9.7)	0.365(0.176, 0.756) *	0.714(0.193, 2.639)
	>one	163(77.3)	93(90.3)	1	1
Self-image	Good	162(76.8)	12(11.7)	0.040(0.02, 0.079) *	0.056(0.023, 0.155) ****
	Poor	49(23.2)	91(88.3)	1	1
Quality of life	Good	202(95.7)	67(65)	0.083(0.038, 0.181) *	0.292(0.084, 1.081)
	Poor	9(4.3)	36(35)	1	1
Social support	Poor	50(23.7)	46(44.7)	4.140(1.568, 10.932) *	3.56(0.613, 20.9)
	Intermediate	134(63.7)	51(49.5)	1.713(0.668,4.391)	1.536(0.306, 7.705))
	Strong	27(12.8)	6(5.8)	1	1

*p-≤0.25, **p-<0.05. ***p-≤0.01, ****p-≤0.001

CHAPTER SIX

6 DISCUSION

Skin is the largest and most visible organ of the human body, covering different parts. Unlike other illnesses, skin diseases cause additional psychiatric complications like depression due to their visibility. This study revealed a high proportion of depression among adults with chronic skin disease. Factors like sex, age, family income, family history of mental illness, involved body parts, and body image were significantly associated with depression.

In the current study, the prevalence of depression was 32.8%. The finding of this study is relatively in line with the cross-sectional study conducted in Korea, which was 31% (52), and the cross-sectional study in Ethiopia, which was 30% (82). However, it was lower in proportion than the study conducted in India: 48.8% (83), 60% (84), and 89% (85). The discrepancy might be due to differences in the study setting, measurement tools used, and population studied. One study (84) which used BDI (Beck depression inventory) to measure depression and took subjects only from the age group of 13–50, it is believed that the population of this age group was more concerned about their looks than other age groups. Another study (85) used BDI with a small sample size, and only female participants were included. This can be related to the fact that women are deprived of an active social life as the obvious skin lesions are perceived as harming the image of the beautiful and healthy and can induce disgust, a feeling of filth, and a fear of the spread of disease. The emotion of rejection causes avoidance and fearful behaviors related to potential bodily exposure (86). Thus, people end up shutting themselves up at home and refraining from even gazing in the mirror (87). Furthermore, another study (86) was conducted with small sample size and with only subjects from rural areas. Rural residents are less knowledgeable about the symptoms, cures, and causes of chronic skin diseases. As a result, individuals with chronic skin diseases did not receive timely treatment, and their condition grew worse. In the end, it causes more disability and depression. Furthermore, individuals who live in rural areas struggle to cope with chronic skin conditions because they think that bad spirits are to blame (18).

Higher prevalence rate than the current study also reported from Slovakia 37% (12), Pakistan 91% (20), and Korea 62% (51). The study from Pakistan (20) was done on subjects in the age group of 13 to 30; this might be the main reason for the discrepancy because people in this age range are very conscious of their looks. Because they value their appearance, are concerned about how others perceive them based on it, and want to appear attractive because this is the ideal age to begin and enter a romantic relationship, they are more likely to experience depression if something negatively affects their look (88). The study from Slovakia was done with BDI. On the other hand, a study from Korea was done on only geriatrics and used the geriatric depression scale.

This study prevalence rate was higher than that done in Saudi Arabia, which was 15.8% (15), in Europe 10.1% (45), and in Thailand , which was 13.5% (50). The cultural differences between advanced and developing nations may be the cause of this discrepancy. The majority of participants in the aforementioned research were educated, enjoyed a high standard of living, and resided in high-income nations. But the current study was conducted in a developing nation, and the vast majority of participants had poor levels of education, limited means of support, and lived in rural areas (49). As a result, compared to wealthy nations, the likelihood of developing depression may be higher. The other possible reason would be the difference in cutoff point used: in Thailand, the cutoff point was $\geq$ 9, and in Saudi Arabia,$\geq$ 10, unlike the current study's cutoff point of $\geq$5. Also, both studies used a self-administrated data collection procedure that did not give the participant the chance to ask for clarification on an unclear question, so they might simply answer them by guessing.

A lower prevalence rate than the current study was also reported from Egypt 13.1% (55), Saudi Arabia 12.6% (15), Malaysia 8.5% (37), Nigeria 15% (54), and Sudan 21% (23). The variation may be due to the difference in the patient studied, measurement tool, number of study participants, and setting of the study. The study in Nigeria (54) was conducted on new patients, unlike the current study, which was conducted on subjects on follow-up. Subjects on follow-up are more likely to be depressed than the new ones due to their continued visits to health centers, taking different kinds of medication, and lack of control over their illness despite all the effort

they make. In the case of the new patients, they are not yet exposed to continuous visits to the clinic or regular intake of different drugs, and they came with big hopes of controlling their illness in a short time with little effort, so their chance of developing depression might be lower than patients on follow-up treatment.

The current study reported a higher prevalence than the study conducted in the northeastern part of Ethiopia 23% (18); the likely reason could be that the current study was conducted in tertiary hospitals in Addis Ababa, which serve the whole population from different areas with severe illnesses referred from different areas. This contributes to the high prevalence of depression. The other reason could be the study population. In the current study, all kinds of chronic skin disease patients were included, unlike the previous one, which focused only on five kinds of chronic illness.

In the current study, the chance of developing depression was higher among females than males, the probability of developing depression among male patients were 87.7% lower as compared to females. This study in line with another study done in India (64), China (58), and Nigeria (22). This high prevalence of depression among female could be due to that, Females are more self-conscious about their looks than males are, and they perceive skin disorders as a danger. As a result, they experience more stress and reactions to it, which are associated with a higher rate of body dissatisfaction and low self-esteem (89). Additionally, societal variables like the pressure of household duties and the lack of opportunities for activities outside the home environment, as well as biological ones like hormone fluctuations with menstruation and pregnancy, may be contributing to the higher prevalence of depression in women than in men (90,91).

This study finding revealed that the likelihood of developing depression among those in the age group of 18–27 was 4times higher as compared to those above 48. This isin agreement with the study done in Sweden (92) and China (93). This increment could be due to, the degree to which one resembles the prevailing cultural ideals of physical and facial attractiveness is used to determine one's level of physical attractiveness. A physically appealing appearance can be a ticket to social inclusion and acceptance; the better you seem, the more favorably you are frequently regarded and treated in society. Also, nowadays young people start trying extra hard to appear nice, putting in endless hours boldly facing their reflection in the mirror, while the

beauty industry is hard at work creating idealized pictures for young populations to aspire to and copy to the extent they can. Therefore, if they fail to achieve their idealized picture, they start to experience depression and stress (94). The other explanation could be Patients who were older when their skin condition first manifested are less sensitive to outside criticism, less likely to fear rejection, and less likely to experience feelings of guilt and shame (95).

Chronic skin disease patients from below the poverty line were four times more likely to have depression than those from above the poverty line. This finding is supported by the study conducted in India (56), in Brazil (35) and other study in India (64). The likely reason could be that chronic skin disease treatment remains one of the most expensive treatments in medical science and also requires longer treatment and follow-up. So poor people cannot afford the treatment they need to control their disease, which increases their vulnerability to depression.

On the other hand, the association of depression with gender, age, and monthly income was not supported by studies conducted in Thailand (50) and Riyadh Saudi Arabia (60). The reason could be that those studies were conducted in developed countries, so they have easy access to medical treatment at a fair cost, better awareness about skin disease and mental illness, and easy access to aesthetic services as well as make-up.

Participants who had visible body part involvement were four times more likely to develop depression as compared to their counterparts. This is consistent with the study done in India (48), and Egypt (59). The possible reason could be, the person could feel more uneasy in social situations due to their visible lesions (59). Additionally, the aesthetic deformity of the exposed regions makes people avoid social situations and create a negative body image, which causes social withdrawal, severe depression, and suicidal thoughts in some people (96).

The study demonstrated that chronic skin disease patients with a family history of mental illness were 6 times more likely to have depression than their counterparts. This study is in line with other study conducted in India (97), in Poland (98), and other study in Poland (99). This could be attributed to genetics and other biological elements linked to depressive disorders. Strong evidence from genetic research suggests that a hereditary component plays a role in the development of depression (65).

Respondents with a good self-image were 94.4% less likely to have depression than those with a poor self-image. Supported by a study conducted in Poland (100), and Ethiopia (18). The likely reason could be that individuals' capacity to handle professional challenges and complete daily duties like housekeeping and grocery shopping is negatively impacted by their low self-image. They may feel useless and worthless as a result of these restrictions (101).

CHAPTER SEVEN

STRENGTH AND LIMITATIONS

7.1 Strength

This study was able to achieve all its objectives. Along with its prevalence, it also evaluated the degree of depression. Depression was assessed by the PHQ-9, which is a locally validated tool, to assess the depressive symptom. Also, most independent variables were assessed with standardized tools. The current study is a quantitative study, so the findings can be generalized to similar populations.

7.2 Limitations

The major limitation of this study may be the smaller sample size. As stated earlier, the PHQ-9 is a validated tool to assess depression, but it only determines the probability and cannot be used as a diagnostic tool. Inferences about causality cannot be drawn because the study used a cross-sectional design. Due to the sensitive nature of the topic and the face-to-face nature of the interviews, social desirability bias may be a problem for this study. It is likely that participants answered questions in a way they thought the interviewer would find most appealing.

CHAPTER EIGHT

CONCLUSION AND RECOMMENDATIONS

8.1 Conclusion

Unlike other illnesses, greater psychological problems are observed in a patient with skin disease because it is easily noticeable by others and because of the attractiveness of the anatomic structure of the skin. The current study discovered more than 30% of the study participants developed depression among chronic skin cases, which indicates a higher risk of depression in a patient with skin problems; among females, younger people (18–27), chronic skin problems, monthly income below the poverty line, clients who have a family history of mental illness and disturbed body image are more affected.

8.2 Recommendations

For minister of health and Addis Ababa health bureau

For greater client outcomes, it is preferable to take depression screening and treatment programs into account in addition to skin illnesses.

Need to cover or find a source to supply skin treatment medication for those under the poverty line to get free.

Promoting clinicians in the recognition of depression is also crucial.

Creating awareness about mental health and self-image, especially for young and female populations will decrease the risk of developing depression

It would be very helpful if the health minister provided all those costly chronic skin disease treatments and aesthetic services at a fair cost.

Providing the opportunity for health care providers to specialize in psych dermatology markedly decrease human resource and promote early diagnosis of depression

To health care providers working in the dermatology clinic

In order to reduce depression in individuals with chronic skin diseases and improve psychiatric and medical outcomes in this vulnerable population, early detection and treatment of depression should be employed.

Should put a lot of effort into referring such individuals to a psychiatry clinic for additional assessment and treatment.

Referrals to psychiatric clinics ought to be made right away for patients, who exhibit significant depression symptoms and suicidal ideation.

Routine screening of depression, with particular attention given to patients with identified risk factors: family history of mental illness, female sex, young age population, poor people, lesions involving visible body parts, and self-image disturbance would have great benefit.

To health care providers working in the psychiatry clinic

Providing psychiatric treatment and counseling to families and relatives of mentally ill individuals will decrease their risk of developing depression.

For each study facilities

Because patients with chronic skin diseases have a high prevalence of depression, it is important to strengthen the system of referral and consultation between dermatology clinics and psychiatry units.

Developing a screening guide and disseminate it to healthcare providers to help them spot depressed patients and counsel them or send them for additional evaluations and therapies would be very helpful for early identification of depression

It would be better if they provide health education on mental health, especially depression, to patients with chronic skin diseases.

Giving them access to a support group may foster social connections and decrease depression

For researchers

Future studies on

Depression's aftereffects

Depression in hospitalized chronic skin disease patients

Multicenter longitudinal studies using a diagnostic tool

Research with other study designs, case control study.

CHAPTER NINE

9 REFERENCES

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CHAPTER TEN

10 ANNEXES

Appendix A: Participant information sheet

Hello dear respondents, my name is_____, I am here to collect data which entitled with magnitude of depression and associated factors among adults with chronic skin disease. The study is conducted by Kidist Gezahegn, who is MSc student in adult health nursing in AAU, College of Health Science. It is sponsored by Arsi University.

The result that will come out of this study will be used by the government, health professionals and the health administrators to base their rational decision to develop additional treatment strategies to reduce the impact. The research is intended to benefit the dermatological patients including the patients that will be participating in this research and will not introduce risk to the participant. These individual patients are selected through systematic random method.

You are selected to be one of the participants in the study. I would like to ask you questions which will be filled on questionnaire that takes your time. No harm is imposed to you except the time you commit for interview but some of the question may look too personal but it is helpful for the study. In addition, there is no payment for participation even though the result of the study may benefit as a citizen. Participation in this study is voluntary, you have the right to refuse or with draw from the study at any time for any reason without penalty. However, your honest answers to these questions are important since it provide relevant information. Your name and other personal identity will not be used, and hence the information we will collect from you will completely be kept confidential and will not be disclosed to any third person other than the people participating in this study

Appendix B: Informed consent sheet

I have been briefly informed about the study and I clearly understood the objective. Since it

Does not affect me, I agreed to take part in the study. Consequently, I here approve my consent to take part in the study as an interviewee/ to participate in the study with my signature.

Agreed to participate sign and proceed to interview

Not agreed to participate

thank the respondent and end the interview

Name of the interviewer_____ Sign. _____ Date _____

Name of the supervisor _____.Sign. _____ Date_____

Thank you for your willingness to participate

Persons to contact: If you have any question, you can contact the investigator at the following address and you may ask at any time you want.

Name: kidist gezahegn: Mobile +251972872242

email kidistgezahegn2021@gmail.com

Appendix C: Questionnaire (English version) **Code No._____**

Questionnaire on: Assessment of depression and associated factors among adult with chronic skin disease attending at tertiary Hospital, in Addis Ababa, Ethiopia, 2023

Section1: Sociodemographic information: This Part oftheStudyisconcernedwithyourbackgroundinformation.Pleasefillintheblankandcirclethechoiceon applicabletothe participant.

Q.NO	Questionnaire	Answer
101	How old are you?	Age in yrs.___
102	1Wheredoyoulive	1.Rural 2.urban
103	Sex	1.Male2.Female
104	What is your religion	1.Muslim 2. Orthodox 3.Protestant 4.Others--------
105	What is your marital status?	1.Single 2.Married 3.Divorced4.Widowed 5.Separated
106	What is your educational level?	1.Unable to read and write 2.Primary education(1-8) 3.Secondary and preparatory(9-12) 4.College degree and above
107	What is your job?	1. Government employ 2. Non-Government employed 3. Daily worker 4. Merchant5.Farmer6. Housewife 7.Student8.Others----
108	How much is your family‘ saverage Monthly income by ETB?	_____ETB

Section2:Depressionscale(PHQ-9)

No	Overthelast2 weeks, how often have you been bothered by any of the following problems?(Use—✓‖ to indicate your answer)	Not at all(0-1dayper 2weeks)	Lesstha n7 days(2-6days per2w eeks)	Greate r than7 days(7 - 11dayspe r 2 weeks)	Nearly everyd ay(12-14daysp er 2 weeks)	Answer
201	Little interest or pleasure in doing things	0	1	2	3	
202	Feeling down,depressed,or hopeless	0	1	2	3	

203	Trouble falling or staying asleep,or sleeping Too much	0	1	2	3	
204	Feeling tired or having little energy	0	1	2	3	
205	Poor appetite or overeating	0	1	2	3	
206	Feeling bad about yourself or that you are a Failure or have let yourself or your family down	0	1	2	3	
207	Trouble concentrating on things, such as Reading the newspaper or watching television	0	1	2	3	
208	Moving or speaking so slowly that other people could have noticed? Or the opposite— beings of idgetyor restless that you have been moving Around a lot more than usual	0	1	2	3	
209	Thoughts that you would be better off dead or Of hurting yourself in someway	0	1	2	3	
Total						

Section3:Clinical Factors Questioners :.

No.	Question	Answers
301	have you ever diagnosed with mental illness before the onset of the skin disease	1. Yes 2. no
302	Age during onset of illness?	----------inyear/Months
303	How much is the duration of the illness?	----------years/months
304	Is there any known comorbid chronic medical illness?	1. Yes 2.No
305	How many kinds of medication you used?	1.One2.>one
306	Is there any one in the known mental illness inyour family?	1.No 2. Yes

Section 4: body image disturbance questions

No.	Questions	1	2	3	4	5
401	Are you concern about the appearance of your skin?	No	Yes			
402	If you are at least somewhat concerned, dotheseconcernsmentalpreoccupationwiththeappearanceofyour skin?	Not at allpreoccupyed	Somewhat preoccupied	Moderatelypreoccupied	Verypre-occupied	Extremelypre-occupied
403	Hasyour―skinproblem‖ oftencausedyoua lotofemotionaldistressover?Howmuch?	Nodistress	Mild, and nottoodisturbing	Moderateanddisturbingbutstillmanageable	Severe, and verydisturbing	Extreme, anddisabling
404	Hasyourskinproblemcausedyouimpairment in social, occupational, or otherimportantareasoffunctioning? Howmuch?	Nolimitation	Mildinterferencebut overallperformance notimpaired	Moderate, definiteinterference, butstillmanageable	Severe, causessubstantialimpairment	Extreme,incapacitating

405	Hasyourskinproblemsignificantly interferedwithyoursociallife?	Never	Occasionally	Moderatelyo ften	Often	Veryoften
406	Has your skin problem significantlyinterferedwithyourschoolwo rk,yourjob,oryourabilitytofunctioninyour role)? How much?	Never	Occasionally	Moderatelyo ften	Often	Veryoften
407	Doyoueveravoidthingsbecauseofyour skinproblem?Howoften?	Never	Occasionally	Moderatelyo ften	Often	Veryoften

Section5:Dermatologicalqualityof lifescale10itemquestionnaire The aim of this questionnaire is to measure how much your skin problem has affected your life over thelast week. Pleasecircle oneappropriateanswerforeach question

NO.	Questions	Respon se				
		Not relevant(0)	Notat all(0)	Alittle (1)	Alot (2)	Very much(3)
501	Over thelast week,how itchy,sore,painful or stinging as your Skin been?	___				
502	Over the lastweek, how embarrassed or self-conscious have you Been because of your skin?	___				
503	Over the lastweek,how much has your skin interfered with you Going shopping or looking after your home or garden?					
504	Over the lastweek,how much has your skin influenced theclothes You wear?					
505	Over thelast week, how much has your skin affected any socialor Leisure activities?					
506	Over thelast week,how much has your skin made it difficult for You to do any sport?					
507	Over the lastweek,has you rskin prevented you from working or studying?	No	_____	_____	_____	Yes
	If—No‖,over the lastweek how much has your skin been a Problem at work o rstudying?	___				___
508	Over the lastweek,how much has your skin created problems With your partner or any of your close friends or relatives?					
509	Over the lastweek, how much has your skin caused any sexual difficulties?					
510	Over the last week,how much of aproblem has the treatment for Your skin been,for example by making your home messy,or by taking uptime?					

Section6:PerceivedStigmaQuestionnaire

No.	Questions	Notatall (0)	Sometimes (1)	Veryoften (2)	Always (3)
601	Others are not attracted to me due to my skin disease?				
602	I think that others stare at my skin disease?				

603	Others feel uncomfortable touching me dueto my skin disease?				
604	Other people think that my skin diseaseis contagious?				
605	Other people avoid me due to my skin disease?				
606	Other people sometimes make annoying comments about my skin disease?				

Section7:SocialSupport OSSS-3: This Part Contains three items Regarding Your Experience of Social Support and Related Issues.Pleasecircleon the response that is applicable to participants.

Code	Item	Alternative response/coding
Q.701	How many people are you so close to that you can count on them if you have great personal problems?	A.NoneB.1-2 C.3-5 D.5and above
Q.702	How much interest and concern do people show in what you do?	A Very little B. Little C. Uncertain D. Some E. Alot
Q. 703	How easy is it to get practical help from neighbors If you should need it?	A. Very difficult B. Difficult C. Possible D. Easy E. Very easy

Section 8: Substance Use Assessment: By reviewing participants‘ behavior about the substance in last three month Please putA(√)

901.Inyourlife,whichoft he following substanceshaveyouever used?(NON-MEDICALUSE ONLY)		yes	No
901.1	Cigarette		
901.2	Alcoholic ‘s beverages(beer, wine, etc.)		
901.3	Khat		
901.4	Others		

902.Inthepastthreemonths,whichofthe followingubstances haveyoueverused? (NON-MEDICAL EONLY)		Yes	No
902.1	Cigarette		
902.2	Alcoholic‘sbeverages(beer,wine,etc.)		
902.3	Khat		
902.4	Others		

Appendix D participant information and consent form (Amharic version)

ርምር/ጥናትማብራሪያ፣የስምምነትመግለጫናማረጋገጫቅጽ(የአማርኛቅጅ)

ሀ/የተሳታፊውመረጃቅጽ

ሰላም፤ እኔ ---------- እባላለሁ ።ሥርበሰደደ የቆዳ በሽታ ታማሚ ከሆኑ ሰዎች መካከል የድብርት(ድባቴ)ሁኔታእናተዛማጅነትባላቸውጉዳዮችዙሪያለማወቅበተዘጋጀጥናትላይመረጃሰብሳቢነኝ።ጥናቱየ ሚከናወነው ከዚህ ጥናትየሚወጣው ውጤት በመንግስት ፣ በቆዳ ህክምና ባለሙያዎች እና

በጤና መኮንኖች ተጨማሪ የህክምና ስልቶችን ለመንደፍ ፣ምክንያታዊ ውሳኔያቸውን ለመወሰንና የሚደርሰውን ተፅእኖ ለመቀነስ ነው ። ጥናቱ በዚህ ጥናት ውስጥ የሚሳተፉ ሀሙማንንጨምሮየቆዳበሽታህመምተኞችንተጠቃሚለማድረግየታሰበሲሆንለተሳታፊውአደጋን አያስከትልም።መጠይቁለማጠናቀቅ ቢበዛ 25ደቂቃዎች ያስፈልገዋል። እነዚህ ግለሰባዊ ታካሚዎች በስልታዊ የዘፈቀደ ዘዴ የተመረጡ ናቸው ።ተሳትፎዎሙሉበሙሉበፈቃደኝነትነው፣ለመሳተፍፍላጎትካላሳዩቅጣትአይኖርበዎትም፤ሆኖም ግን,ከእርስዎየሚመነጨዉ መረጃ ለእኛ አስፈላጊ ሆኖ ሰላገኘነው በጥናቱ ውስጥ እንደሚሳተፉ ተስፋ እናደርጋለን። የእርስዎ ስም እና ሌሎችየግል ማንነት ጥቅም ላይ አይውልም፤ እናም ከእርስዎ የምንሰበስበው መረጃ ሙሉ በሙሉ በሚስጢር እንጠበቃል እና ለሌላሶስተኛወገንአይነገርም።

<u>ለ. የፈቃደኝነትማረጋገጫቅጽ</u>

ስለጥናቱበአጭሩተነግሮኝዓላማውንበግልጽተረድቻለሁ።የግልሕይወትየማይጎዳስለሆነ፣በ ጥናቱውስጥለመሳተፍተስማምቻለሁ።ስለሆነም፣በቃለመጠይቁ/በጥያቄውውስጥለመሳ ተፍፈቃዴንእዚህበፊርማየአፀድቃለሁ።

መ[ ]ለመሳተፍተስማምቷል ፈረምእናለቃለ-መጠይቅይቀጥሉ
[ ]ለመሳተፍአልተስማማም

ተጠሪውንአመስግነውቃለመጠይቁንአጠናቅቀዋልየቃለመ

ጠይቅአድራጊውስም____ፊርማቀን

የተቆጣጣሪውስም_____ፊርማቀን

ለመሳተፍፈቃደኛስለሆኑእናመሰግናለንእኛንሊጠይቁንለሚፈልጓቸውማናቸውምጥያቄዎች፣ከዚህበታችያለውንየማሳወቂያአድራ ሻመጠቀምይችላሉ።የመጠይቁንማንኛውንምክፍልካልተረዱጥያቄዎችንመጠየቅይችላሉ።

ስም:ስልክ

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Appendix E የአማርኛመጠይቅ(የእንግሊዝኛቅጅ)

ክፍል1፡-የማህበራዊአኗኗርመረጃዎች:መመሪያ፡-ቀጥሎያሉትመጠይቆች

የተሳታፊውንየግልሁኔታየተመለከቱናቸው፤ተሳታፊውበሚመለከተውቦታላይየ(ሃ)

ምልክትያድርጉ፡፡

ተ.ቁ	መጠይቅ	መል ስ	
101	እድሜዎስንትነው?	ዕድሜበአመት	
102	የትነውየሚኖሩት?	1. ገጠር 2.ከተማ	
103	ፆታ	1.ወንድ 2. ሴት	
104	ሃይማኖትህምንድንነው?	1. ሙስሊም2.ኦርቶዶክስ	3.ፕሮቴስታንት4. ሌሎች--------
105	የጋብቻሁኔታዎምንድነው?	1.ያላገባ 2.ባለትዳር	3.አግብቶ/ታየፈታች4.የትዳርአጋሩ/ሯየሞተችበት/ባት 5. የትዳርአጋረወጋርተለያይተውየሚኖሩ
106	የትምህርትዎደረጃምንያህልነው?	1. ማንበብእናመጻፍየማይችል 2.የመጀመሪያደረጃትምህርት(1-8የተማረ)	3.ሁለተኛደረጃናመሰናዶት/ት(9-12የተማሩ) 4. የኮሌጅዲግሪእናከዚያበላይ
107	ስራህ/ሽምንድንነው?	1.አርሶ-አደር2.የቤት-እመቤት 3.ነጋደ	4. ተቀጣሪ5.ተማሪ 6.ሌላስራይጥቀሱ-----
108	የቤተሰብዎወርሃዊገቢስንትነው?	_____በብር	

ክፍል2፡የታካሚድባቴ(ድበርት) መጠይቅ(በፒኤችኪዉ-9)

መመሪያለመረጃሰብሳቢ፡ላለፉት2ሳምንታትከነዚህከምዘረዘራቸውችግሮችወሰጥ፣በየትኞቹተቸግረውነበር?ብለህጠይቅ/ቂናለተሳታፊውደጋግመህ/ሽአንብብለት

ተ.ቁ	ጥያቄዎች ባለፉት2ሳምንታትውስጥበሚከተሉትማናቸውምችግሮችስንትጊዜተቸግረዋል?	በጭራሽ(0-1ቀንበ2ሳምንት)	ከ7 ቀናት ያነሰ(2-6 ቀናትበ2ሳምንት)	ከ7 ቀናትበላይ (7-11 ቀናትበ2ሳምንት)	ከሞላጎደል በየቀኑ(12-14 ቀናትበ2ሳምንት)	
201	የእለትተእለትተግባረወንለማከናወን(ለመሰራት)ያለወትተነሳሽነት ወይምፍላጎትበጣምቀንሶነበርን?	0	1	2	3	
202	የመከፋት፣የመደበትወይምተስፋየመቁረጥስሜትይሰማወትነበርን?	0	1	2	3	
203	እንቅልፍለመዉሰድወይምበእንቅልፍለመቆየትመቸገርወይምብዙ መተኛትነበር?	0	1	2	3	
204	የመድከምወይምአቅምየማነስስሜትይሰማወትነበር?	0	1	2	3	
205	የምግብፍላጎትማጣትወይምከተለመደውበላይብዙመመገብነበር?	0	1	2	3	
206	ስለራስመጥፎስሜትመሰማትወይምእንደጥፋተኛመቁጠርወይም ቤተሰቤንአሳፈርኩብለውአስበውነበር?	0	1	2	3	

207	በሚሰሩትስራላይትኩረትለማድረግመቸገርነበር?ለምሳሌ ከሰወች ጋርሲጫወቱትትኩረትሰጥቶለማዳመጥመቸገር	0	1	2	3	
208	ለሌችሰዎችእስከሚያስታዉቅድረስበእንቅስቃሴወይምበን ግግር በጣምቀስብለውወይምበተቃራኒውመቁነጥነጥወይምእ ረፍትማጣትከተለመደዉጪመዞርነበር?	0	1	2	3	
209	ብሞትይሻላልብሎማሰብወይምእራስወንለመጉዳትአሰበ ው ያውቃሉን?	0	1	2	3	

ማሳሰቢየ፣ተሳታፊወለዓኛውጥያቄአንድወይምከዛበላይመልስከሰጠወደያውኑወደሳይካትሪባለሙያይላኩት

ክፍል3፤የህመምሁኔታጥያቄዎች

መመሪያለመረጃሰብሳቢ፡ይህየመጠይቁክፍልከተሳታፍውየቆዳህመምጋርተያያዥነትያላቸውመረጃዎችን የሚጠይቁናቸው፤ትክክለኛውንምለሽበተቀመጠውክፍትቦታአጭርመልስያስቀምጡ።በተጨማሪየተሳታፊ ዎችንሰነድይጠቀሙ።

ተ.ቁ	መጠይቅ	መለሽ
301		
302	ህመሙሲጀምሮትእድሜዎትስንትነበር?	_____በወር/በአመት
303	ህመሙለምንያክልጊዜቆይቶበወታል?	_____በወር/በአመት
304	በህክምናየተረጋገጠሌላህመምአለብወትን?	1.አዉ 2.የለም
305	አዎከሆነመልሰወምንዓይነትበሽታነው?	ይጥቀሱ----------
306	ስንትዓይነትመድሃኒትይጠቀማሉ?	1. አንድ2. ከአንድበላይ
307	በቤተሰብዎውስጥየታወቀየድብርትህመምያለበትሰውአለን?	1. 2.አዉ የለም

ክፍል4፤በቆዳበሽታምክንያትየሰውነትምስልመረበሽንየሚጠይቅመጠይቅ(BIDQ)

።።ይህየተሻሻለውባለሰባትመጠይቅስለአካላዊገጽታስጋቶችንለመገምገምየሚያስቺልመጠይቆችንይዝዋል።።እባክዎንእያንዳንዱ ንጥያቄበጥንቃቄለተሳታፊወያንብቡእናተክክለኛውንመልስያክብቡ።።

ተ. ቁ	ጥያቄዎች	ምላሽ				
		1	2	3	4	5
401	ስለቆዳዎገጽታይጨነቃሉን?	አይ	አዎ			
402	ቢያንስበተወሰነደረጃየሚጨነቁከሆነእነዚህስ ጋቶች አእምሮወ ስለቆዳ ገጽታዎ በሀሳብእንድዋጡአድርጎዎታልን?	በጭራሽአላደ ረገኝም	በትንሹአ ድርጎኛል	በመጠኑአድርጎኛል	በጣምአድ ርጎኛል	እጅግበጣምአድ ርጎኛል
403	የእርስዎ—የቆዳችግር። ብዙየስሜትመጨነቅ ፈጥሮበዎታልን?	ጭንቀትአልፈ ጠረብም	መጠነኛና በጣምየሚረብሽ	መካከለኛ እናየሚረብሽ ግንመቆጣጠር እችላለሁ	ከባድ፣እናበ ጣም የሚረብሽ	እጅግበጣም ናስራ የማያሰራ

404	የቆዳችግርዎበማህበራዊ፣በስራወይምበሌሎችአስፈላጊየሥራመስኮችላይ እንዳይሳተፉ አድርጎዎታልን?	አላደረገኝም	መለስተኛ ጣልቃገብነት አለ ግንአጠቃላይከስራ አልከለከለኝም	መካከለኛናየተወሰነይረብሸኛልግን አሁንምመቆጣጠር እችላለሁ	ከባድና ከፍተኛጉዳትአስከትሎብኛል	እጅግበጣም ፣አቅመቢስ አድርጎኛል
405	የቆዳችግርዎበማህበራዊኑሮዎላይከፍተኛጣልቃ ይገባበወታልን?	በጭራሽ	አልፎአልፎ	በመጠኑብዙጊዜ	ብዙጊዜ	በተደጋጋሚ
406	የቆዳችግርዎበትምህርት፣በሥራዎወይምበእርስዎ ሚናውስጥየመሥራትችሎታዎላይጣልቃ ይገባበወታልን)?	በጭራሽ	አልፎአልፎ	በመጠኑብዙጊዜ	ብዙጊዜ	በተደጋጋሚ
407	በቆዳችግርዎምክንያትነገሮችንይርቃሉን?	በጭራሽ	አልፎአልፎ	በመጠኑብዙጊዜ	ብዙጊዜ	በተደጋጋሚ

ክፍል-5የቆዳችግርዎበሕይወትዎላይያለውንሁኔታየተመለከቱ10መጠይቆች

መረጃሰብሳቢእባክዎንተሳታፊውከሚያሳያቸወምልክቶችአንዱሳጥንላይምልክት

NO.	ጥያቄዎች	Respons e				
		አግባብነት የለውም(0)	በፍፁም(0)	ትንሽ (1)	ብዙ (2)	እጅግ በጣም(3)
501	ባለፈውሳምንትውስጥበቆዳዎ፣እንደማሳከክ፣የህመምወይምንክሻስሜ ትነበርን?	—				
502	ባለፈውሳምንትውስጥእንደማፈርወይምራስንማዳመጥበቆዳህሀመም ዎ ምክንያትተፈጥሮብዎታልን?	—				
503	ባለፈውሳምንትውስጥገበያለመሄድወይምቤትዎንወይምየአትክልትስፍራዎን ለመጠበቅቆዳዎምንያህልረብሾወታል?					
504	ባለፈውሳምንትቆዳዎበሚለብሷቸውልብሶችላይምንያህልተጽዕኖአሳድሯል?					
505	ባለፈውሳምንትቆዳዎበማንኛውምማህበራዊወይምመዝናኛእንቅስቃሴዎችላይ ምንያህልተጽዕኖአሳድሯል?					
506	ባለፈውሳምንትውስጥቆዳዎምንያህልስፖርትእንዳይሰሩአስቸግሮዎታልን?					
507	ባለፈውሳምንትቆዳዎመሥራትወይምማጥናትእንዳይቸሉከልክሎዎታልን?	አልከለከለኝም	——	——	——	አወከልክሎኛል
	—ካልሆነ‖ባለፈውሳምንትቆዳዎበሥራወይምበትምህርትላይምንያህልችግር ነበረው?	—				—
508	ባለፈውሳምንትቆዳዎከባለቤተዎወይምከማንኛውምየቅርብጓደኞችዎወይም ዘመድዎጋርምንያህልችግሮችንፈጥሯል?					
509	ባለፈውሳምንትቆዳዎምንያህልየወሲብችግርፈጥሯልን?					
510	ባለፈውሳምንትውስጥለቆዳዎየሚደረገውሕክምናምንያህልችግርፈጥሩዋል ለምሳሌቤትዎንብጥብጥበማድረግወይምጊዜበመውሰድ?					

ክፍል6-የመገለልስሜትንበተመለከተ፡

ቀጥሎያሉትመጠይቆችበተሳታፊውህመምክንያትየመገለልስሜትንለመጠየቅየተዘጋጁናቸው።በመሆኑምተሳታፊውበሚለውደረጃላይየ(ν)ምልክትያስቀምጡ።

ተ.ቁ	መጠይቅ	በጭራሽ አይደለም(0)	አንዳንድ ጊዜ(1)	በጣምብዙ ጊዜ(2)	ሁልጊዜ(3)
601	ሌሎችበቆዳቤበሽታምክንያትወደእኔአይቀርቡኝም?				
602	ሌሎችበቆዳቤበሽታላይትኩርብለውያዩኝይመስለኛል?				
603	ሌሎችበቆዳቤበሽታምክንያትእኔንሲነኩኝምቾትአይሰማቸውም?				
604	ሌሎችሰዎችየቆዳበሽታቤተላላፊነውብለውያስባሉ?				
605	ሌሎችሰዎችበቆዳበሽታቤምክንያትራቁኝ?				
606	ሌሎችሰዎችአንዳንድጊዜስለቆዳበሽታቤየሚያናድዱአስተያየቶችንይሰጣሉ?				

ክፍል7:ማህበራዊድጋፍበተመለከተ

መመሪያ:ይህየመጠይቅክፍል3ጥያቄዎችያሉትሲሆንተሳታፊውከማህበረሰቡናከቤተሰቡየሚያገኙትንድጋፍናተዛማጅጉዳዮችይዳስሳል።እባክዎትንከተሰጡትአማራጮዎችውስጥተሳታፊውንበሚገልፀዉታላይይክበቡ?

ተ.ቁ	መጠይቅ	ምላሽ				
		1	2	3	4	5
701	በጣምየሚቀርቦትናበከባድየግልችግርጊዜየ ሚደርሱሉትስንትሰዎችይሆናሉ?	የሉም	1ወይም 2	ከ3– 5	ከ5 በላይ	-----
702	በሚያከናውኗቸዉተግባራትሰዎችምንያህልትኩረት ናፍላጎትያሳያሉ?	ምንምፍላጎት ናትኩረት	ትንሽ ፍላጎትና ትኩረት	አላውቅ ም	መጠነኛ ፍላጎትና ትኩረት	በጣም ብዙፍላጎ ትና ትኩረት
703	እርዳታየግድበሚያስፈልግዎጊዜከጎረቤትዎያንንእርዳ ታማግኘትምንያህልቀላልነው?	በጣምአስ ቸጋሪ	አስቸጋሪ	የሚቻል	ቀላል	በጣምቀላል

ክፍል8:ግላዊባህሪንበተመለከተ

ቀጥሎያሉትጥያቄዎችግላዊየእፅአጠቃዋቀምንይመለከታሉ።ተሳታፊውንበባለፉትሶስትወራትውስጥ የነበረውንየዕፅተጠቃሚነትእንድያስታውስበማድረግበሚመለከተውቦታላይየ(v)ምልክትያድርጉ።ለሁሉም ተጠቅሜአላውቅምከሆንመጠይ902ይለፉ።

901.ከሚከተሉትውስጥበህይወትዘመንዎየትኛውንንጥረነገርተጠቅመዋል?(Non-medicaluseonly)		አዎ(0)	አላውቅም(1)
901.1	የትምባሆምርቶች/ሺሻ፤ሲጋራ፤የሚታኝክትመባሆ		
901.2	የአልኮልመጠጦች/ጠላ፣ጠጅ፣አረቄ፣ቢራ፣ወይን፣ወዘተ		
901.3	ጫት		
901.4	ሌሎች		
902.ባለፉትሶስትወራትውስጥየሚከተሉትንንጥረነገሮችየትኛውንተጠቅመውያውቃሉ?		አዎ(0)	አላውቅም(1)
902.1	ሲጋራ		
902.2	የአልኮልመጠጦች/ጠላ፣ጠጅ፣አረቄ፣ቢራ፣ወይን፣ወዘተ		
902.3	ጫት		
903.4	ሌሎች		

ጨርሰናልእናመሰግናለ