

Prevalence and Determinants of Depression among Elderly Patients Attending Primary Health Care Center in Makkah Al-Mukarramah, 2021

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Abstract:

Background:

Depression is an important issue that healthcare professionals have to look after. Much research confirms a high prevalence of depression and anxiety among elderly patients . It is estimated that 23.7% of patients with elderly patients have depression additionally, elderly patients are more likely to develop depression (34.5%) compared with patients not on elderly (13.3%) .Regarding the correlation of depression with elderly patients , two cross-sectional studies reported a higher prevalence of depression among elderly patients who reported having no religious beliefs, followed no regular exercise regimen, had sleep disorders, above elderly patients both of those studies agree that there is a significant correlation between the stage of the elderly patients and depression: those with advanced elderly , Its prevalence in primary care varies between 15.3-22%, with global prevalence up to 13% and between 17-46% in Saudi Arabia. Globally, more than 550 million people of all ages suffer from depression. Elderly persons are more vulnerable to depression, while most physicians are aware of this reality. Elderly population with depression is on rise in all community, to

determine the associated risk factors for depressive symptoms among older people KSA attending primary health care center in Makkah .

Aim of the study: Prevalence and Determinants of Depression among elderly patients attending primary health care center in Makkah Al-Mukarramah ,2021

Method:cross sectional study conducted at outpatient clinics who registered in the chronic disease clinic attended primary health care center in Makkah Al-Mukarramah, 2021. Sample population consists number of elderly patients attending in primary health care center . Our total participants were (300) .

Results:There were 300 participants, show that Of the(72.0%) participants have negative depression while (28.0%) have positive depression while is a significant relation between depression were $P\text{-value}=0.001$ and $X^2 57.203$

Conclusion:Depression and anxiety disorders are prevalent among elderly patients our participants were found to have anxiety were found to have depression. Gender was the only categorical variable associated with anxiety. Meanwhile, older age was found to be significantly associated with depression among the participants. Therefore, examination of these patients for mood disorders in order to achieve early diagnosis and management is needed to improve their quality of life .

Keywords: Prevalence, determinants, depression, elderly, patients, primary health care center .

INTRODUCTION:

Background

Depression is a leading cause of disability worldwide and is a major contributor to the overall global burden of disease. It is also one of the most common geriatric psychiatric disorders and a major risk factor for disability and mortality in elderly patients.[1]Even though depression is a common mental health problem in the elderly population, it is undiagnosed in half of the cases.[2] Several studies showed different and inconsistent prevalence rates in the world. Hence, this study aimed to fill the above gap by producing an average prevalence of depression and associated factors in old age.[3]

Also burnout and depression have become a significant mental health concerns .[4] There is a body of evidence showing that upcoming medical health professionals suffer from alarming rates of burnout and depression and that they continue to be affected after graduation and into professional life.[5] Burnout is defined as a psychological condition involving emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment that occurred

among different professionals who work with other people in challenging situations.[6]There was a suggestion that almost half of medical students experienced burnout, one-quarter of them have depression, and many experienced chronic anxieties as well as poor mental quality of life.[7]The elderly people are matured and experienced persons of any community. Their experience, wisdom, and foresight can be useful for development and progress; they are a valuable asset for any nation [8]. Despite their invaluable wisdom and insight, the aging of the world's population is causing extensive economic and socialconsequences globally [9].

In late years, there has been an expanding universal familiarity with medical problems regarding aging populations. Older individuals are regularly seen as lonely, hopeless, and sad. Although numerous old are confronting mounting physical afflictions, mental pressure, social misfortunes, and expanded reliance at the finish of life, most more established individuals are well adjusted emotionally for the majority of their later years.[10] Mood messes in the old age are normal, adversely affect alternative other medical conditions, and may prompt intellectual and practical decline.[11] Geriatric depression in this manner stays a productive region for clinical, translational and fundamental science research. [12]The aging population has increased rapidly over the last decades owing to two significant factors, namely, the reduction in mortality and fertility rates and improved quality of life, leading to an increase in life expectancy worldwide [13–14]. Globally, the number and proportion of people aged 60 years and older in the population are increasing. In 2019, the number of people aged 60 years and older was 1 billion. This number will increase to 1.4 billion by 2030 and 2.1 billion by 2050. By 2050, 80% of all older people will live in lowand middle-income countries [15–13] In Saudi Arabia, there is restricted information regarding commonness of depression among grown-ups. The globe health association evaluated that the quantity of depression issue in Saudi Arabia is around 1,339,976 patients, which speaks to about 6.5% from Saudi population [16]. The prevalence of comorbid depression was seen as a few times higher among patients with diabetes mellitus (DM) when contrasted with non-diabetics .[17] Life expectancy has increased drastically over the previous century, and therefore the world can presently have additional more elderly individual than children.[18]

The extent of the total populace more than sixty years will twofold from about 11% in the year 2000 to 22% by 2050. Indisputably the quantity of individuals matured 60 years or more is required to increment from 605 million to 2 billion over the equivalent period.[19]

Literature Review:

In Saudi Arabia there are few research led to consider depression among older patients as indicated by analyst information, each of these research each of GDS short structure as instrument to asses for depression . An research conducted in Abha city by Eisa Y. Ghazwani et al. in 2013 among four hundred older patients, demonstrated that the assessed commonness of depression among members, paying little mind to depression seriousness, was 63.7% [20]. Another research led likewise in Abha city in 2001 by M An Aboalfotouh et al. among 810 old people, evaluated the prevalence of depression as 17.5% among participant [21]. A third research was led in Riyadh in 2014, by Abdulaziz U. Joury et.al, and was not restricted to Saudi populace including individuals who communicate in Arabic or English matured [22] years or more, indicated that 59% of member were characterized between moderate to extreme depression [23]

While there are measure several instruments accessible to quantify depression, the Geriatric Depression Scale (GDS), first made by Yesavage, et al., has been tried and utilized widely with the more older age population [24]

In another research directed by MulugetaGirma et al . in Ethiopia in 2016 about geriatric depression prevalence among 352 patients . By utilizing GDS-15 the pervasiveness of sadness was 28.5% among participant [25]. Additionally, in study directed in Sudan by S.M. Assil et al. in 2011 about commonness of depression among 300 older patients . The research found the prevalence of depression was 47.5%. Depression was altogether connected with age ($P = 0.002$), level of training ($P = 0.015$), occupant.

In Oman, the reported prevalence of depression among medical students of 24.5% was almost half of ours.10 Locally, a recently published study from Bisha, KSA, showed that the prevalence of depressive symptoms among medical students was 26.8%. [26] Such results emphasize that depression is highly prevalent in this distinct population who might not seek mental health services because of fear of exposure and stigma.

Previous study from Oman found that preclinical students have more depression and anxiety compared to students in the clinical phase. [27]

This pooled prevalence of depression among old age in the world (31.74%; 95% CI 27.90 to 35.59%) was higher than a global systematic review and meta-analysis study on 95,073 elderly populations aged >75 years and 24 articles in which a pooled prevalence of depression was 17.1% (95% CI 9.7 to 26.1%) [28], a global systematic review and meta-analysis study on 41 344 outpatients and 83 articles in which a pooled prevalence of depression was 27.0% (95% CI: 24.0% to 29.0%) [29], WHO reports on mental health of older adults over 60 years old with 7% prevalence of depression in the general older population [30], a Brazilian

systematic review and met analysis study on 15,491 community-dwelling elderly people average age 66.5 to 84.0 years and 17 articles with a pooled prevalence rates of 7.0% for major depression, 26.0% for CSDS (clinically significant depressive symptoms), and 3.3% for dysthymia [31]

Rationale

Many studies have found that older patients are more likely to experience depressive and anxiety symptoms than the other populations studied, as older people are more likely to fall behind on social activities and become socially isolated and depressed. A cross-sectional study conducted in KSA involving 1,047 patients found that advancing age is a predictive factor for a low mental component score along with an increased level of depression and anxiety. Another study confirmed that patients aged >60 years are at higher risk of depression than young patients. In which older age was the only factor found to be associated with chronic diseases.

Aim of the study

To assessment prevalence and determinants of depression among elderly patients attending primary health care center in Makkah Al-Mukarramah ,2021

Objectives

- To assessment the determine and prevalence of depression among elders attending the chronic disease clinic in primary health care center in Makkah Al-Mukarramah, 2021.

Methodology

Study area :

The study has been carried out in Makkah Al-mukarramah is the holy city of every Muslim in the world. It is the main place of the pilgrims to perform Umrah and Hajj. Makkah is a modern city and there is a continuous working to improve the infrastructure of Makkah for the sake of both Makkah citizens and pilgrims. Makkah has many hospitals in addition to King Abdullah Medical city which is tertiary center. Also, it has 85 PHC centers under supervision of Directorate of Health Affairs of Makkah Al-Mukarramah. These centers distributed under 7 health care sectors and each sector contains around 10 – 14 primary health care centers. Three health care sectors inside Makkah Al-Mukarramah city (urban) with 37 primary health care centers underneath and four sectors are outside Makkah (rural) with 48 primary health care centers. The three healthcare sectors inside Makkah Al-Mukarramah are

Al-Ka'akya with 11 primary healthcare centers, with 12 primary healthcare centers and Al-Zahir with 14 primary healthcare centers.

Study population:

Elderly patients (>80 years old or older) attending the chronic disease clinic primary health care center in Makkah Al-Mukarramah, throughout the period of the study and accept to participate in the study.

Study design :

Cross-sectional, descriptive study.

Inclusion criteria:

- All Saudi elderly patients (males and females) attending the chronic disease clinic in primary health care center in Makkah Al-Mukarramah.
- Patients who can write and read in Arabic Language.

Exclusion criteria:

- Patients who refuse to participate in the study
- Persons who have reported severe mental disabilities.

Sample size:

The total number of elderly patients attending the chronic disease clinic primary health care center in one month is 1611. Based on this information sample size was calculated using a website (raosoft.com). The resulted estimated sample size is 300 elderly patients. The confidence interval is 95% and margin of error is 5%. The estimated prevalence used is 50% to calculate maximum sample size.

Sampling technique

Regarding health care center selection, there are three health care sectors inside Makkah Al-Mukarramah which are Al-Ka'akya, Al-Zahir and Al-Adl. By using simple random sample technique (by using randomizer.org), Al-Adl health care sector was selected. There are 12 primary health care centers under health care sector which was enumerated from 1 to 12. Again, by using simple random sample technique the chronic disease clinic in primary health care center was selected (by using randomizer.org website). Regarding patients' selection, the total number visiting the chronic disease clinic in PHC is 1611 per month and the sample size is 300. The data collection period is 30 days (four weeks minus weekends). Every day there are nearly 85 patients attending in the chronic disease clinic in PHC in both section (male and female sections). To collect data from sample size, the researcher needs nearly 18 patients per day to collect desired sample size. The researcher has been selecting every 4th patient to cover the sample size during data collection period .

Data collection tool :

The researcher has been use geriatric depression scale (GDS) which is tool designed first by Yesavage et al., to study the depression among geriatrics. The researcher was use the Arabic version of this tool since there is study conducted to validate the Arabic version. There are two types from this tool the long version with 30 questions and short form with 15 questions. The researcher has been use the short form with the 15 questions. The questionnaire has been having three parts. The first part has been containing questions about socio-demographic data. The second part has been the short-translated form of GDS. The third part has been about possible risk factors .

Data collection technique:

The researcher has been use Arabic version of the questionnaire since the target populations are Saudi elderly. The questionnaire has been distributed to all patients attending the chronic disease clinic in primary health care center during the data collection period (which is 30 days initially). The questionnaire has been distributed equally between male and female section because it is separate departments. The researcher was train 2 nurses in order to optimize the interrater reliability. The researcher has been select the patients in the waiting area and give them the questionnaire in the waiting area in male section then waiting them to complete it and after that I has been collecting it from them while in female section, has been trained nurse was do the same in female waiting area. After that, the researcher was collecting the paper daily from the nurse for data entry and analysis after thanking the participants for their precious time and effort .

Data entry and analysis

Statistical analysis has been performed using SPSS software program (Statistical Package for Social Sciences), version 24.0. Descriptive using listing and frequency and analytic statistics using chi-square test and t-test to analyse the association and the difference between two categorical variables or using other statistical tests if needed. P value less than 0.05 as level of significance.

Pilot Study

A pilot study on 25 participants representing 10% of study sample size (out of study area) has been conducted to explore methodology tool and environment and plan to overcome these problems.

Ethical considerations

- Permission from research committee in the joint program of family medicine in Makkah Al-Mukarramah has been obtained
- Permission from the Makkah joint program of family medicine has been obtained.
- Permission from the Directorate of Health Affairs of the Holy Capital Primary Health Care has beenobtained.
- Permission from administration of public health in Makkah Al-Mukarramah has beenobtained.
- Written consents from all participants in the questionnaire has beenobtained.
- All information will be confidential, and a result has been submitted to the department.

Budget

The research has beenself-funded.

Results

Table 1: Distribution the socio-demographic details of study participants of depression among elderly patients attending to primary health care center (n=300)

	N	%
Age		
60-70	174	58
70-80	54	18
>80	72	24
Gender		
Female	132	44
Male	168	56
Marital status		
Married	114	38
Widow	186	62
Education		
Illiterate	96	32
Primary	126	42
Preparatory	33	11

Secondary	45	15
Clinical variables		
Chronic diseases	246	82
Physical or mental disabilities	159	53
Social problems	210	70
Family history of depression	165	55
Medicines continuously	204	68

There were 300 participants, and the majority age were(58.0%) in (60-70)years. The majority of them were male(56.0%), while female(44.0 %). The most of the participants were widow(62.0%), have education primary education were(42.0%), regarding Clinical variables the majority of participants have Chronic diseases were(82.0%).

Table 2:Distribution of depression in participants .

Depression		
	N	%
Negative	216	72
Positive	84	28
Total	300	100
Chi-square	X²	57.203
	P-value	<0.001*

Table 2 and figure 1 show that Of the(72.0%) participants have negative depression while (28.0%) have positive depression while is a significant relation between depression were P-value=0.001and X² 57.203

Figure 1 Distribution of depression in participants

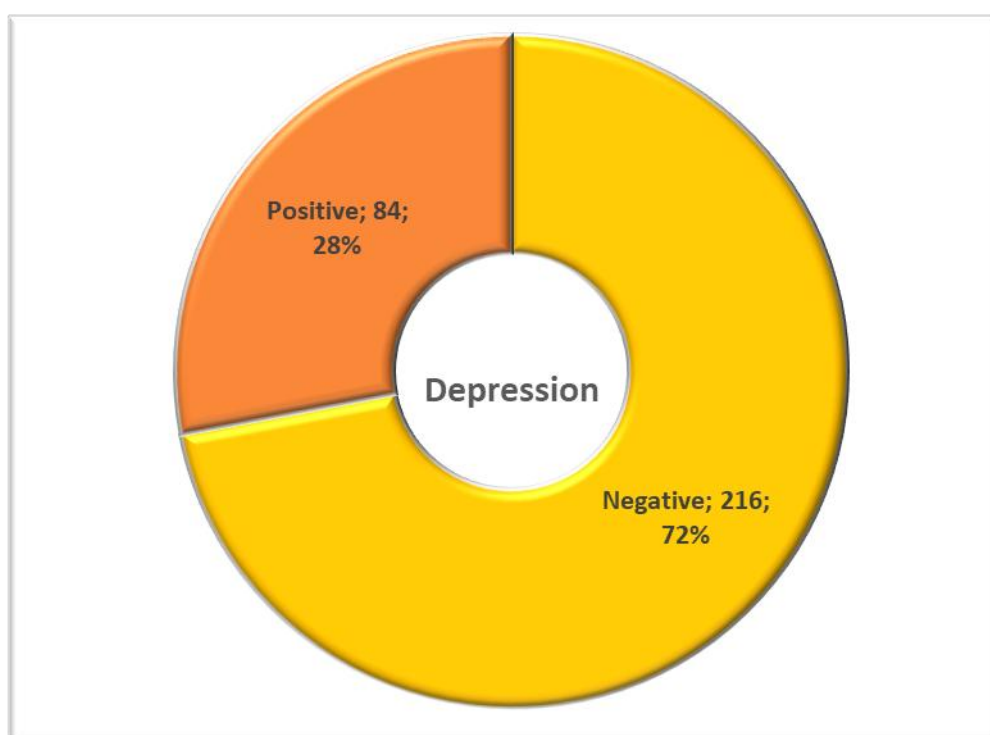


Table 3: Distribution the relation between depression and socio-demographic data(age, Gender , Marital status and education)among elderly patients.

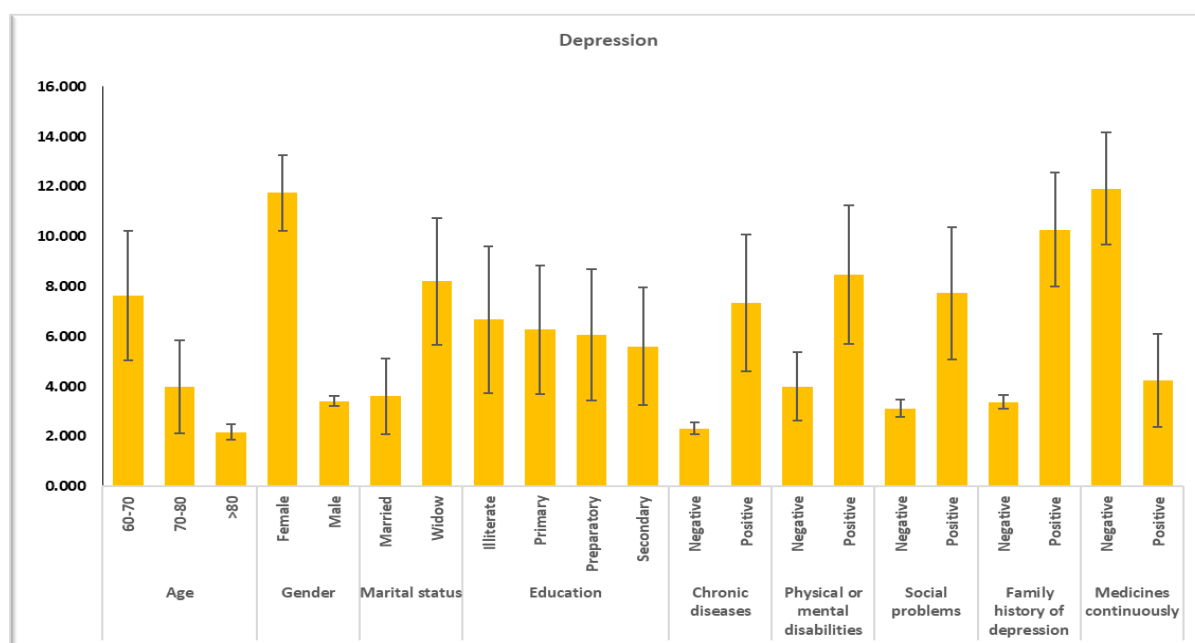
Items		N	Depression	F or T	ANOVA or T-test	
			Mean \pm SD		test value	P-value
Age	60-70	174	7.629 \pm 2.591	F	24.011	<0.001*
	70-80	54	3.982 \pm 1.857			
	>80	72	2.179 \pm 0.321			
Gender	Female	132	11.754 \pm 1.507	T	70.875	<0.001*
	Male	168	3.415 \pm 0.211			
Marital status	Married	114	3.614 \pm 1.512	T	17.526	<0.001*
	Widow	186	8.205 \pm 2.530			
Education	Illiterate	96	6.673 \pm 2.937	F	0.677	0.4211
	Primary	126	6.281 \pm 2.572			
	Preparatory	33	6.079 \pm 2.621			
	Secondary	45	5.612 \pm 2.360			

Chronic diseases	Negative	54	2.325 ± 0.250	t	13.474	<0.001*
	Positive	246	7.349 ± 2.734			
Physical or mental disabilities	Negative	141	3.998 ± 1.360	t	17.452	<0.001*
	Positive	159	8.489 ± 2.774			
Social problems	Negative	90	3.117 ± 0.348	t	16.49	<0.001*
	Positive	210	7.734 ± 2.644			
Family history of depression	Negative	135	3.372 ± 0.271	t	33.712	<0.001*
	Positive	165	10.280 ± 2.292			
Medicines continuously	Negative	96	11.923 ± 2.256	t	31.104	<0.001*
	Positive	204	4.246 ± 1.859			

Table 3 and figure 2 show that is a significant relation between depression and age (increase in aged between 60-70 years by the mean+ SD (7.629±2.591) where F=24.011 and P-value=0.001. Regarding the gender is a significant relation between depression and gender(increase in female gender by the mean+ SD (11.754±1.507) where T=70.875and P-value=0.001. Regarding the Marital status show that is a significant relation between depression and marital status(increase in widow by the mean+ SD (8.205±2.530) where T=17.526 and P-value=0.001. Regarding the education is no significant relation between depression and education(increase in illiterate by the mean+ SD (6.673±2.937)where F=0.677 and P-value=0.549. Regarding the Chronic diseases is a significant relation between depression and Chronic diseases (increase in Positive by the mean+ SD (7.349±2.734)where T=13.474 and P-value=0.001. Regarding the Physical or mental disabilities is a significant relation between depression and Physical or mental disabilities (increase in Positive by the mean+ SD (8.489±2.774) where T=17.452and P-value=0.001. Regarding the Social problems is a significant relation between depression and Social problems (increase in Positive by the mean+ SD (7.734± 2.644)where T= 16.49 and P-value=0.001. Regarding the Family history of depression is a significant relation between depression and Family history of depression (increase in Positive by the mean+ SD (10.280±2.292)where T=33.712 and P-value=0.001.

Regarding the Medicines continuously is a significant relation between depression and Medicines continuously (increase in Negative by the mean+ SD (11.923±2.256)where T=31.104and P-value=0.001

Figure 2 Distribution the relation between depression and socio-demographic data(age, Gender , Marital status and education)among elderly patients.



Discussion

Growth in the average life expectancy of people in the KSA is increasing with 5 percent of the population (1.2 million individuals) classified as being elderly[26]. This indicates that the elderly population in the country is increasing every year, with all the economic and social implications this has. in our study there were 300 participants, and the majority age were(58.0%) in (60-70)years. The majority of them were male(56.0%), while female(44.0 %). The most of the participants were widow(62.0%), have education primary education were(42.0%), regarding Clinical variables the majority of participants have Chronic diseases were(82.0%)..(See table 1)

Ageing is affected by the development of a variety of psychiatric illnesses, the most prevalent among them being depression. The proportion of depression among elderly patients attending chronic disease clinic in primary health care center in Makkah Al-Mukarramah, 2021. Setting in this study was found to be show that Of the(72.0%) participants have negative depression while (28.0%) have positive depression while is a significant relation between depression were P-value=0.001and X2 57.203 (See table 2)

Of the five rural Indian community-based studies, three reported a high prevalence of depression among elderly persons. All these studies used the shorter version of the Geriatric Depression Scale-15 (GDS-15) for diagnosis of depression, which has a high sensitivity but low specificity. Therefore, there is a possibility of overestimating the true prevalence due to high false-positive results.[29] A cross-sectional community-based study conducted by.[31]found among 82 persons aged over 60 years in a rural area of Hooghly district of West Bengal estimated the prevalence of depression as 53.7%[31]. This high prevalence may be explained by a small sample size and the tool (Bengali version of the GDS-15)used to identify depression. [30]. estimated the prevalence of depression as 47% from the rural area of Valadi of TamilNadu.[30] Deshpande et al. conducted a community-based study among elderly persons in six villages in Maval Taluka of Pune, Maharashtra and estimated the prevalence as 41.1%.[31] The high prevalence of depression among elderly persons in the above studies could be due to the use of GDS-15, a screening tool, while we used a diagnostic interview to confirm the diagnosis. On the basis of GDS-30 (screening tool) in our study, the prevalence of depression was 19.2% (95% CI 15.7%–23.4%), which was similar to the estimated prevalence for Indian studies (21.9%) in the meta-analysis done by. [29]as well as the prevalence found in the study conducted by in rural areas of Udupidistrict of Karnataka (21.7%).[29]Relation between depression and socio-demographic data is. A significant relation between depression and age . A significant relation between depression and gender . A significant relation between depression and marital status.(see table 3)

The Saudi culture and traditional social values dictate high respect for and care of the elderly by members of the extended family[24] The association between more privacy and depression can be explained by the tendency of the elderly in the extended family system of Saudi Arabia to associate more privacy with alienation and neglect by other family members. The finding of more depression in the widowed is in keeping with numerous other studies. [31] In the present study, age was a significant predictor for depression in multivariate analysis. This finding differs with other support by other studies reporting no effect of age on depressive symptomatology.[23] Depression was higher among illiterates compared to literates in this study. Similar findings were reported by [23] These observations strengthen the fact that poor educational background is an important risk factor for depression . Though the prevalence of depression decreased with increase in educational level, it was not statistically significant. Similar to The presence of chronic medical illness has been found to increase the risk of depression in studies reported by [26]

Conclusions

Depression is common among elderly persons in. Individuals providing healthcare to elderly persons need to be trained to identify depression and take appropriate action; elderly persons with chronic diseases deserve special attention, there is a need to screen them for depression. Around one third elderly patients attending the primary health care setting were found to be suffering from depression .

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