Assessment of Geriatric Depression among Elderly Peoples Residing at Rural Area of Kheda District, Gujarat.

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Abstract

Background Depression is a major mental health problem, which is yet to be recognized as an important public health challenge. About 322 million people affected with depression worldwide.

Depression among the elderly population in India has been recognized as one of the major public health problems with a prevalence of 8 to 22%. It causes significant suffering and accounts for 5.7% of the years lived with disability, to make matters worse, it has been reported that in many cultures and societies, deteriorating mental status, say it dementia or depression, has been perceived as a part of normal ageing.

Aims and Objectives: The aim of this study is to explore the magnitude and risk factors of depression in elderly people residing in rural area of Gujarat. Objective: 1. To assess the level of depression among elderly people residing at rural area. 2. To find out Significant Association between the level of depression selected demographic variables among elderly people at rural area.

Methodology

Design and Setting: A cross sectional descriptive study design was used. Non probability convenient sampling technique was used to drawn samples. 100 elderly persons were screened. Geriatric depression scale (GDS) was used to assess depressive level. A self-rating questionnaire tool was used to collect data and some socio-demographics and clinical variables. Prior to data collection written setting permission obtain from authority of the village and written consent from was obtained from the participants. Data for study was collected by door to door visit in selected community. Chi square was employed to determine association of collected data. Tool consists of following Section A: Socio-demographic variables. Section B: Geriatric Depression Scale (GDS).

The GDS questions are answered 'yes' or 'no', instead of a five-category response set. This simplicity enables the scale to be used with ill or moderately cognitively impaired individuals. The scale is commonly used as a routine part of a comprehensive geriatric assessment. One point is assigned to each answer and the cumulative score is rated on a scoring grid. The grid sets a range of 0–9 as 'normal', 10–19 as 'mildly depressed', and 20–30 as 'severely depressed.

Results: Results showed that 61% was Male and 39% was Female. The majority of had 71% primary education. Regarding work majority 60% are labor, regarding financial dependency most 62% was independent, 35(35%) dependent. This study reveals that level of depression among geriatric peoples, 51 (51%) peoples had no depression, 33 (33%) having mild depression and 16 (16%) having severe depression level.

Conclusion: It is concluded that nearly 50% of geriatric peoples having no depression and mild depression is more prevalent among elderly in selected rural area of Gujarat. So majority of the elderly peoples were found normal.

1. Introduction

Geriatric depression is a mental and emotional disorder affecting older adults. Geriatric depression scale is used to quantify the severity of depression. Empty nest syndrome (loneliness in elderly is common causative factor for depression) is a factor should be rectified by social skills training.[1] Late onset

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bipolar disorder is rare. Depression is common among elderly.[2] It is a mental health condition that can affect people of all ages. While it is normal to feel down sometimes, if you feel this way for 2 weeks or more, or your mood is affecting your ability to cope with everyday life, you may be experiencing depression.[3] In elderly people, depression mainly affects those with chronic medical illnesses and cognitive impairment, causes suffering, family disruption, and disability, worsens the outcomes of many medical illnesses, and increases mortality.[4]

According to WHO, factors increasing depression risk in older adults include genetic, chronic disease and disability, pain, frustration with limitations in activities of daily living, personality traits (dependent, anxious or avoidant), adverse life events (separation, divorce, bereavement, poverty, social isolation) and lack of adequate social support. Many studies have demonstrated a relationship between depression and various socioeconomic variables such as advanced age, low education, poverty and manual occupation. Thus, an older adult patient suffering from depression often has a combination of psychological, physical and social needs.[5]

More than 1 in 10 older people, and more than 3 in 10 people living in residential aged-care, experience depression. It's important to remember that not all older people become depressed, and just because you are older, you don't need to accept that you will become depressed, or that your depression can't be treated. Technical advances have facilitated the exploration of factors related to geriatric depression and have helped generate novel biological and psychosocial treatment approaches.[6]

Based on UNDESA's 2019 report, the population aged over 65 years old would reach 703million and was predicted to double by 2050, that is, 1.5 billion in which the proportion of older adult is 16%. It means that 1 of 6 people in the world's population is elderly.[7] Depression is one of the most common illnesses worldwide, with more than 264 million people affected. Various studies in the elderly population have estimated the prevalence of depression across India, with results ranging from 6% to 62%. The objectives of this study were to estimate the prevalence of depression among the elderly population using a Geriatric Depression Scale (GDS) and to find out the association between various sociodemographic parameters and depression among elderly people.[8]

Depression or the occurrence of depressive symptomatology is a prominent condition amongst older people, with a significant impact on the well-being and quality of life. Many studies have demonstrated that the prevalence of depressive symptoms increases with age (Kennedy, 1996). Depressive symptoms not only have an important place as indicators of psychological well-being but are also recognized as significant predictors of functional health and longevity.

Longitudinal studies demonstrate that increased depressive symptoms are significantly associated with increased difficulties with activities of daily living (Penninx *et al*., 1998). Community-based data indicate that older persons with major depressive disorders are at increased risk of mortality (Bruce, 1994).[9]

Attention guides thought and behaviour. Information that is attended becomes available to higher-order cognitive processes such as working memory and decision-making. In order to promote wellbeing, it is important that attention selects stimuli associated with rewarding outcomes (Anderson, 2013).[10] Because of its devastating consequences, late life depression is an important public health problem. It is associated with increased risk of morbidity, increased risk of suicide, decreased physical, cognitive and social functioning, and greater self-neglect, all of which are in turn associated with increased mortality.[10]

Objective:

1. To assess the level of depression among elderly people residing at rural area of Kheda district

2. To find out Significant Association between the level of depression selected demographic variables among elderly people at rural area of Kheda, district

2. Methodology

Research Approach:- Quantitative Research approach was used for the current study.

Research Design: - The design of the study Non-Experimental Cross-Sectional Survey Research

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Design was used for the dawn the data from the study participants.

Research Variables: There are two types of variables considered under the study as follows

1. <u>**Research variables:**</u> In present study research variable is the level of depression among old age people.

2. <u>**Demographic variables:**</u> Age, gender, religion, education, marital status, type of family, locality of house, no. of children, frequency of visit of children or relative, hobbies, financial support, Previous occupation, old age pension

Sampling method: - The sample of the study will be selected by using <u>**Non probability convenient sampling technique.**</u> According to inclusive criteria as well as availability of samples.

Study population: - In the present study, the target populations are old age people residing at old age residing at rural area of selected areas of Kheda district".

Study Sample: - Geriatric peoples residing at rural area of selected areas of Kheda district Gujarat".

Study Setting: Pethai village has been selected for the main study setting and data collect from the elderly people.

Sample Size: - 100 geriatric people

SAMPLE CRITERIA

Inclusion criteria

1. Old age people who are aged 60 year and above.

3. Result:

2. Old age people who are willing to participate in the study.

3. Old age people who are available at the time of study.

4. Who are staying alone or separated from family

Exclusion criteria

1. Those who are not present at the time data collection.
2. Those who are seriously ill.
3. Those who are not able to interact (hearing loss and language problems).

Tool for Data Collection

Before data collections from the participants, the investigators has explained the objectives, and process of the entire study and written consent was obtain from each participants.

<u>**Section A:**</u> Socio-demographic variables. The research has prepared demographic profile for the study participants which are more suitable for the study. Researcher has reviewed various related articles and based on that finalized the demographic variables.

<u>**Section B:**</u> Geriatric Depression Scale was used for the data collection tool. GDS scale is standardised tool which was modify by the investigators and validated from the various subjects experts and then used for as a data collation tool in the study.

Setting: The study was conducted in the selected rural area of Kheda District of Gujarat. over a period of 3 months from January 2023 to March 2023. Before data collection prior setting permission has been obtain from the authorities.

TABLE–1: Socio-demographic variables of geriatric peoples residing at rural area of Kheda district Gujarat
N=100

Demographic Variables	Frequency	Percentage
Age In Years		
a) 60- 65 Years	24	24%
b) 66-70 Years	40	40%
c) 71-75 Years	24	24%
d) >75 Years	12	12%
Gender		

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a)	Male	61	61%
b)	Female	39	39%
c)	Transgender		
Religion Status			
a)	Hindu	73	73%
b)	Christian	0	0%
c)	Muslim	27	27%
d)	Others	0	0%
Educational Status			
a)	Primary	71	71%
b)	Secondary	20	20%
c)	Higher Secondary	8	8%
d)	Illiterate	1	1%
Marital Status			
a)	Married	50	50%
b)	Unmarried	1	1%
c)	Divorced	1	1%
d)	Widow/Widower	48	48%
Number Of Child			
a)	One	11	11%
b)	Two	28	28%
c)	More Than Two	56	56%
d)	No Children	5	5%
Previous occupation			
a)	Private	6	6%
b)	Government	6	6%
c)	Labor	60	60%
d)	Farmer	28	28%
Employment status			
a)	Working	48	48%
b)	Non- working	52	52%
Currently staying with			
a)	Son	73	73%
b)	Daughter	12	12%
c)	Separated	8	8%
d)	Any Other relative	7	7%
Healthy Habits			
a)	Reading books,	39	39%
b)	Exercise, Yoga	2	2%
c)	Listening music	10	10%
d)	Chatting in a group	49	49%
Any Bad Habits			
a)	Tobacco chewing	17	17%
b)	Smoking	9	9%
c)	Alcohol	6	6%
d)	No bad habits	68	68%
Do you get Retirement pension			
a)	Yes	14	14%
b)	No	86	86%

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Do you get 1000 Rs. pension Yojana

a) Yes	38	38%
b) No	62	62%

Type of family

a) Joint family	75	75%
b) Nuclear family	16	16%
c) Extended family	9	9%

Disease status

a) Acute illness	25	25%
b) Chronic illness	23	23%
c) No illness	52	52%

Financial dependency

a) Independent	62	62%
b) Dependent	35	35%
c) Partially depended	3	3%

TABLE–2: Distribution of the Geriatric Peoples according to Level the Depression

Level of Depression	Frequency (%)
No Depression	51 (51%)
Mild Depression	33 (33%)
Severe Depression	16 (16%)
Total	**100 (100%)**

The above table 2 shows level of depression among geriatric peoples, 51 (51%) peoples had no depression, 33 (33%) having mild depression and 16 (16%) having severe depression level.
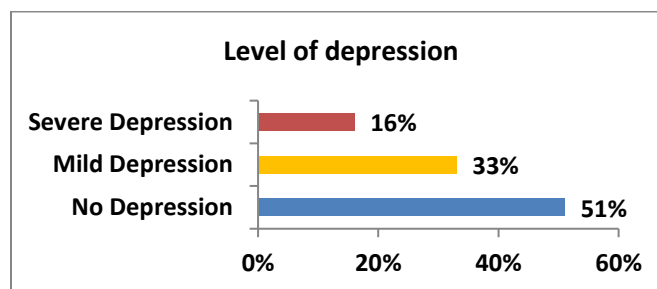
Graph no.1 showing distribution according to level of depression among geriatric peoples

Table-3: Range, Mean, and Standard Deviation of depression among the geriatric peoples residing at rural area of Kheda district

Level of knowledge	Max. score	Range	Mean	SD
Overall	24	23	10.97	6.014

The above table 3 shows depression score range was 1-24, mean score was 10.97, and standard deviation was 6.014

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TABLE–4: Association between the level of depression with selected demographic variables of geriatric peoples.

Demographic Variables	Level of Depression			χ²- Value	P-Value
	Normal	Mild	Severe		
Age Years					
60- 65 Years	14	8	2	**5.049**	P>0.05
66-70 Years	22	12	6	df=6	Sig 0.538
71-75 Years	10	10	4	SN	
>75 Years	5	3	4		
Gender				**3.156**	
Male	27	22	12	df=2	P>0.05
Female	24	11	4	SN	Sig 0.206
Transgender					
Religion				**4.163**	
Hindu	33	25	12	df=2	P>0.05
Christian	0	0	0	SN	Sig 0.125
Muslim	18	5	4		
Others					
Educational Status					
Primary	36	24	11	**4.837**	P>0.05
Secondary	8	7	5	df=6	Sig 0.565
Higher Secondary	6	2	0	SN	
Illiterate	1	0	0		
Marital					
Married	27	17	6	**3.479**	P>0.05
Unmarried	1	0	0	df=6	Sig 0.747
Divorced	1	0	0	SN	
Widow/Wd	22	16	10		
No. Child					
One	7	3	1	**3.516**	P>0.05
Two	12	9	7	df=6	Sig 0.742
More Than Two	29	20	7	SN	
No Children	3	1	1		
occupation					
Private	2	1	3	**12.94**	
Government	4	2	0	**df=6**	**P<0.05**
Labor	27	21	12	**S**	**Sig 0.040**
Farmer	18	9	1		
Employment status				**0.618**	
Working	26	14	8	df=2	P>0.05
Non- working	25	19	8	SN	Sig 0.734
staying with					
Son	39	25	9	**7.375**	
Daughter	4	3	5	df=6	P>0.05
Separated	5	2	1	SN	Sig 0.288
Any relative	3	3	1		
Habits				**13.54**	**P<0.05**
books,.	26	9	4	**df=6**	**Sig 0.037**

Exercise,	2	0	0	S	
Listening	3	6	1		
Chatting group	20	18	11		
Bad Habits					
Tobacco	7	5	5	**6.012**	P>0.05
Smoking	5	2	2	df=6	Sig 0.422
Alcohol	2	2	2	**SN**	
Nobad habits	37	7	7		
Retirement pension				**3.204**	P>0.05
Yes	9	5	0	df=2	Sig 0.018
No	42	28	16	**SN**	
1000 Rs. pension				**3.317**	P>0.05
Yes				df=2	Sig 0.189
No	20	15	3	**SN**	
	31	18	13		
Ty family				**3.382**	P>0.05
Joint family	40	24	11	df=4	Sig 0.496
Nuclear	8	4	4	**SN**	
Extended	3	5	1		
Disease				**13.062**	**P<0.05**
Acute	10	13	2	df=4	**Sig 0.011**
Chronic	12	3	8	**S**	
No illness	29	17	6		
Financial dependency				**15.31**	**P<0.05**
Independent				df=4	**Sig 0.004**
Dependent Partially depended	34	24	4	**S**	
	16	7	12		
	1	2	0		

(Ns)= Not Significant   **(S) = Significant At 0.05 Level**

The table no.3.1 envisages the outcome of chi-square analysis being carried out to bring out the association between the mean difference level of depression among geriatric peoples living at rural area of Kheda district with their selected demographic variables, Age, Religion Status, Educational Status, Marital status, were accounted for determining the association with level of depression.

Out of which Previous Occupation, Any Good Habit, Diseases status and Financial dependency of the demographic variable found significant associated at P value <0.05 with Depression level.

Hence null hypothesis was rejected and research hypothesis was accepted as above mentioned selected demographic variables **its evidence that there is significant difference between level of depression and geriatric people's demographic variables**

4.   Discussion and Conclusion

On the basis of analysis of this study the following conclusion were drawn:

The purpose of the present study is to assess the geriatric depression among rural area of Kheda District.

The study consisted of 100 samples that were selected on the basis of Non probability convenient sampling techniques. Based on the objective the data analysis was done. After the assessing the geriatric depression among old age people score was majority had no depression 51(51%), Mild Depression 33 (33%), Severe Depression 16 (16%). This study is in line with previous studies showing the high prevalence of depression in elderly. Results suggest a proper screening for depression among elderly. The high prevalence of depression observed among older adults emphasize on the need of increased community

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support and availability of health care services for better care of the elderly. There is also an urgent need for greater awareness of depression among family members and community at large. At the same time, it is important to increase community support and create networks for better geriatric care, in accordance with WHO findings.

Conflict of Interest: There is not any conflict of interest between the all authors.

Source of Funding: Self-funding

Ethical Clearance: The study was approved by the institutional ethics committee of Dinsha Patel college of nursing Nadiad, **The ethical approval reference number is DPCN/3rd IEC/2021-22/12** and a formal written permission was gathered from the authority of rural area prior to data collection

Statement of Informed consent: Yes, informed written consent form was taken from the all participants prior to data collection.

Recommendation:

There are various strategies that can be employed to manage geriatric depression in India. Here are a few study recommendations that may help in this regard:

1. Research on cultural factors: Depression is influenced by cultural, social, and economic factors. Therefore, it is essential to understand how cultural norms and beliefs impact the perception and management of depression in older adults. Studies exploring the impact of cultural factors on geriatric depression in India could help develop culturally sensitive interventions.

2. Evaluation of current interventions: There are several interventions available to manage geriatric depression in India, including psychotherapy, pharmacotherapy, and electroconvulsive therapy (ECT). However, there is limited research on the effectiveness of these interventions in older adults in India. A study evaluating the efficacy of these interventions in the Indian context could help identify the most effective treatment options.

3. Identification of risk factors: Identifying the risk factors associated with geriatric depression in India is crucial in developing effective prevention strategies. A study identifying the demographic, social, and environmental risk factors associated with geriatric depression in India could help in developing targeted interventions.

4. Evaluation of caregiver interventions: Caregivers play a crucial role in managing depression in older adults. Studies evaluating the effectiveness of caregiver interventions in managing geriatric depression in India could help identify strategies that could be implemented to support caregivers.

5. Use of technology: Technology can be used to deliver interventions for geriatric depression in India. For example, telepsychiatry can be used to deliver psychotherapy to older adults who have difficulty accessing mental health services. A study evaluating the feasibility and effectiveness of technology-based interventions for geriatric depression in India could help identify innovative approaches to managing depression in older adults.

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