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EXPLORING THE CORRELATION BETWEEN DEPRESSION AND QUALITY OF LIFE IN OLDER ADULTS

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ABSTRACT

Depression is a prevalent and incapacitating condition that diminishes quality of life (QOL) and increases the risk of mortality in older individuals (60 years of age and older). The relationship between depression or depressive symptoms and quality of life (QOL) has been the subject of increased attention in recent research. However, there is a scarcity of reviews that can assist us in understanding this relationship in older individuals. Given this, we conducted a literature review to ascertain the relationship between depression and quality of life in older individuals.

The organ systems' capacity to maintain homeostasis and reserve capacity, adapt to their surroundings, and mount a stress response is diminished as a result of the inevitable aging of every living object. Low energy, chronic anguish, discouragement, and a lack of interest in activities and self-worth are characteristic of depression, a common mental problem and medical illness. The concept of quality of life encompasses an individual's perception of their level of contentment and enjoyment in life, as well as their perception of their role in relation to the culture and value systems in which they reside, and their expectations, beliefs, and concerns regarding their physical health.

Materials and methodology- For this study, 45 participants were approached. The study was conducted using MMSE in older adults living in residential areas of Lucknow and 45 responses were collected. Spearman's correlation test was performed to find correlation between Depression and Quality of Life.

RESULT- Result showed that there is positive correlation between GDS and SF-12 Mental while there is negative correlation between GDS and SF-12 Physical.

CONCLUSION- There is moderate to high correlation between depression and quality of life in geriatric population.

Keywords: Aging, Cognition, Cross-Sectional Studies, Depression, Depressive Disorder, Epidemiologic Studies, Psychogeriatric Hospital, Quality of Life, Depression

1. INTRODUCTION

At present, geriatric patients are defined as individuals who are 65 years of age or older. The organ systems' capacity to maintain homeostasis and reserve capacity, adapt to their surroundings, and mount a stress response is diminished as a result of the inevitable aging of every living object. It is a natural process in which the body's predetermined capacity is reduced as a result of a variety of physiological alterations that are starkly differentiated based on environmental factors. The process of aging is characterized by the progressive degeneration of the body's tissues and organ systems. Genetics, diet, exercise, and exposure to microorganisms, pollutants, and ionizing radiation are the primary determinants of it. Three According to a study, the birth and mortality rates that were so pronounced in the 20th century are expected

to persist, with a projected increase to 24 million by 2030. As per the World Health Organization (WHO) statistics, the global population of senior adults is anticipated to surpass 600 million by 2050, with a projected rise to 2 billion.

Three categories of the elderly can be identified: the young old, who are 65 to 75 years old and have minimal to no disability; the middle old, who are 75 to 85 years old and have chronic disease; and the old, who are over 85 years old. Old age is considered one of the primary factors that affects mental health, as it is a period of transition during which an individual must address issues that affect their mental and social well-being, in addition to physical aging. The prevalence of mental and behavioral disorders generally tends to increase with age, as a result of normal brain aging, declining physical health, and cerebral disease. Depression is the mental disorder that has the most significant impact on elderly individuals, as it results in a decrease in their quality of life and a greater reliance on others. If depression is not addressed, it can have severe clinical and social consequences on the lives of the elderly.

A prevalent mental disorder and medical condition, depression is defined by feelings of hopelessness, discouragement, low self-esteem, diminished energy, and loss of interest in activities. Typically, these symptoms are accompanied by body pains, appetite suppression, weight loss, and difficulty sleeping. Depression is characterized by the Differentiated from typical mood fluctuations by the severity of the condition, its symptoms, and the duration of its existence.

It is also crucial to bear in mind that both functional disability and depressive symptoms are dynamic, progressive processes that are frequently associated with the consequences of underlying chronic diseases that coexist with aging. In addition to a higher risk of disability in several areas of functioning and a lower quality of life, depressive symptoms and disorders contribute to emotional and physical suffering, which in turn increases the risk of mortality in the elderly. In addition to being a natural physiological process, aging is also a significant factor in the reduction of life quality due to its biological, temporal, social, and psychological components. The high prevalence of chronic diseases and disabilities in the elderly is a contributing factor to a decline in quality of life in comparison to other age groups.

A person's perspective of happiness and contentment with life, as well as their place in it relative to the culture and value systems in which they live and to their expectations, values, and concerns over their physical health, can all be considered factors in determining their quality of life. Studies examining health-related QOL have assessed the fundamental structure of QOL and found that it is made up of a number of elements, including physical function, social and psychological aspects, wellbeing, and awareness of one's own health status. The WHO defines QOL as "an individual's perception of their position in life in relation to their expectations, goals, standards, and concerns, as well as the culture and value systems in which they lived."

The subject's emotional interpretation of the facts and events determines the quality of life. The QOL is said to be becoming more and more recognized as an evaluation that heavily depends on the subjectivity of the individual. We can gauge depression in the senior population using a variety of outcome markers. The Geriatric Depression Scale is a popular tool for the senior population and is one of the easiest to use. The GDS is a 30-item questionnaire with a long form. In 1986, the GDS 15 was created, incorporating questions from the long form that showed the strongest correlation with depressive symptoms in validation studies. The short version took age, education, and complaints into account, with scores between 0 and 4 indicating mild depression and scores between 12 and 15 indicating severe depression.

As far as we are aware, no overview exists of the numerous research conducted throughout the world on the connection between older people's quality of life and depressive symptoms or a depressive disorder. To further our understanding of the connection between depression and quality of life, a review can provide an overview of the quantitative research that has already been done, together with an evaluation of each study's quality. The variety of QOL definitions complicates the research area and may make cross-study comparisons challenging. Additionally, the extensive range of evaluation tools for QOL and depression/depressive symptoms. Low educational status and the presence of chronic disease are associated with lower quality of life and higher levels of depression in older adults. The enhancement of geriatrics' quality of life is largely dependent on efforts to improve these conditions. Therefore, the goal of the current study is to determine whether depression and quality of life in the elderly population are correlated.

2. LITRERATURE REVIEW

Choi and Jun (2009) has studied life regrets and pride among low-income older adults and its relationship with depressive symptoms, current life stressors and coping resources. 213 older adults selected through convenience sampling technique aged between 58 and 95, who lived in low-income neighbourhoods in a large city and in two nearby

small towns in central Texas participated in the study. The average age of the respondents was 74.5 (SD=8.91) years, 75.1% were women and 72.35 were African American or Hispanic. 45.6% had less than high school education and 61.1% had a household income of $15,000 or less. Semi- structured face-to-face interview was used to measure the content, frequency, degree, and causal attribution of regret and content, frequency and degree of pride. Respondents' depressive symptoms were measured using the 15-item Geriatric Depression Scale (GDS, Singh, 2019).

According to **Grove and Sutherland (2017)** a review of literature is a systematic examination of studies conducted to determine what is known and what is unknown about a problem, as well as whether knowledge is ready for application in practice. The goal of a review of literature, according to **Cronin and Coughlan (2008)** a review of literature is to provide a comprehensive background for understanding current knowledge and highlighting the significance of new research.

3. CAUSES OF STRESS IN ELDERLY

Li et al. (2021) performed a study to assess dementia prevalence in Chinese andworldwide populations between 2020 to 2050. The model predicted 16.25 million (95 percent confidence interval 11.55–21.18) dementia patients in China in 2020. By 2050, this figure would nearly triple to 48.98 million (38.02–61.73). In the use of data analysis, simulations, and modelling it has been found that if the rate of dementia was reduced by 10 percent every 10 years from 2020 until 2050, as a result of interventions and prevention, the number of people suffering from dementia would decrease by 11.96 million in 2050. This study concluded that the Chinese population with dementia is huge and growing fast. Interventions that work effectively can dramatically reduce the number of people suffering from dementia.

4. MATERIALS AND METHODOLOGY

A correlational inquiry was conducted in conjunction with a practical sample technique to study the target demographic, which comprised the older population. Over the course of three months, the study was carried out in Lucknow's residential areas, with a sample size consisting of forty-five individuals. The sample size for the experiment was calculated using G-power 3.1.9.2, with an effect size of 0.59 and α= 0.04. With an estimated sample size of 45 and a dropout probability of 18%, the total sample size was 84. The study's inclusion criteria were being between the ages of 62 and 82, male or female, and willing to participate. Subjects with an MMSE score of 17 or higher were also included.

Outcome Measure:

GDS – 15

The Geriatric Depression Scale is a 15-item scale (GDS-15), which is a shortform of GDS- 30 and is used as a way to screen, diagnose and evaluate depression in older adults. This version of GDS is interviewer- administered scale, which is time constrained and has good psychometric properties and wide acceptance in the scientific community. Out of the fifteen items, 5 indicated the presence of depression when answered negatively, while the remaining 10 items indicated depression when answered positively. The scoring is as follows-

0-4: considered normal, depending upon the age, education and complaints.

5-8: mild depression

9-11: moderate depression

12-15: severe depression

SF – 12

The SF-12 is a multipurpose shortform (SF) generic measure of health status. The SF-12 rapidly becoming an instrument of choice for purposes of monitoring the health of both general and specific populations because it is substantially shorter than SF-36.

The 12 items in the SF-12 are a subset of those in SF-36; SF-12 includes one or two items from each of eighth health concepts. Thus, the SF-12 measures eight concepts commonly represented in widely used surveys; physical functioning, role limitations due to physical health problems, bodily pain, general health, vitality (energy/fatigue), social functioning, rolelimitations due to emotional problems, and mental health (psychological distress and psychological well-being).

The SF-12 uses two items each to estimate scores for four of the eight health concepts (physical functioning, role physical, role emotional and mental health).

Scores for the remaining four health concepts (bodily pain, general health, vitality and social functioning) are estimated using one item each SF-12 mental component. The correlation was statistically obtained with p<=0.05.

5. STATISTICAL ANALYSIS

The statistical analysis was performed using SPSS version 20. Descriptive statistics were carried out for MMSE, GDS, SF-12 (physical and Mental component). Correlation between depression and Quality of Life was evaluated. Spearman's correlation test was performed to identify relationship between depression and quality of life. The level of significance was kept at p<=0.05.

6. RESULT

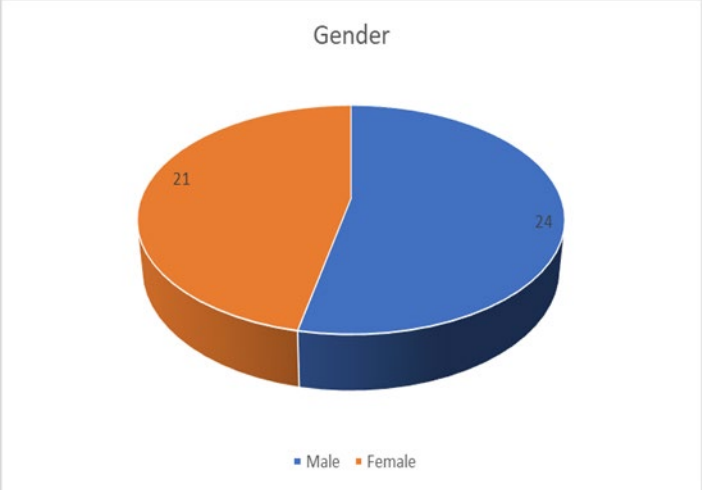

Table 1: Correlation between GDS and SF-PHYSICAL

Correlations			
		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	45
			.0562
	Sig (2-tailed)		.00 0
	N	**45**	**45**
VAR00002	Pearson Correlation	-	1
		45	
		.056	
	Sig (2-tailed)	.00	
		0	
	N	**45**	**45**
. **Correlation is significant at the 0.01 level (2-tailed).			

Table 2: Correlation between GDS and SF-MENTAL

Correlations			
		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	-.452
			**
	Sig (2-tailed)		.00 0
	N	**45**	**45**
VAR00002	Pearson Correlation	-.452	1

		.	**	
	Sig (2-tailed)		.00	
			0	
	N	**45**		**45**
. Correlation is significant at the 0.01 level (2-tailed).				

The study population comprised of 45 normal, healthy individuals of either sex of 62-82 years of age. The distribution of males 53% and females 47% in the study is illustrated in the pie chart and illustrates Mean ± standard deviation which was 58.612 ± 8.451 of the age of subjects. And ean ± SD which was 27.9 ± 1.457 of MMSE. Mean ± SD which was 6.152

± 4.612 of GDS is illustrated and another mean value of SF12 Physical component which was -38.521 and standard deviation was calculated to be 18.62 and the illustrates mean ± SD which was 22.458 ± 19.632 of SF-12 Mental component. Graph 6.7 represents correlation between GDS and SF- 12 physical component which was a linear negative graph. Graph 6.6 illustrates a linear positive correlation between GDS and SF-12 mental component. The correlation was statistically obtained with p<=0.05.

7. DISCUSSION

The goal of the current study was to determine whether depression and quality of life were correlated in older persons who lived in residential neighborhoods. In older persons, depression is a moderating factor of quality of life. The quality of life was higher in the elderly without depressive symptoms than in those with mild, moderate, or severe symptoms. Seniors are more likely to experience depression due to a variety of psychosocial factors, including loneliness, low social and family support, dependency, lack of family love and care, inadequate time spent with children, stressful life events, perceived poor health, lower levels of spirituality, and a higher use of emotion-based coping. The dietary and lifestyle aspects associated with depression imply that elderly people should be encouraged to take up regular exercise, refrain from using drugs or alcohol, follow a regular diet, and engage in activities to keep themselves engaged. Singh and Gupta (2006) found a fairly significant correlation (r=.599, p<.001) between depression and self-evaluation of health state.

The literature that is currently available from India indicates that a notably high frequency of depression exists among the older population. Research from India supports studies from other nations that indicate depression in older adults with medical conditions is linked to increased levels of impairment, dysfunction, low quality of life, and unfavorable outcomes.

In their study, Chyong-Fang Chang et al. found that physical discomfort and despair were related to elders engaging in health-promoting behaviors. The high number of older individuals experiencing bodily discomfort (48.5%) and the high percentage of older persons living alone (22.2%) may be the causes of this phenomena. Their overall health promotion performance and social participation were restricted due to a lack of social support and physical discomfort. In older persons, lower geriatric depression scores are often correlated with higher scores for health-promoting behaviors. There were significant relationships discovered between the functional disability dimensions and depression.

The current study demonstrated a negative link between depression and the physical component of the SF-12 and a positive correlation between depression and the mental component. This suggests that when depression gets worse, there will be an affectionate mental component that may indicate a decline in quality of life. Conversely, when depression gets worse, there is a drop in physical activity, which may also have a negative impact on health. Singh (2014) also discovered reduced quality of life (QoL) in a subset of elderly individuals primarily reliant on physical function (especially in the physical health component). Our current investigation is supported by this literature.

A prior study found that a decrease in the daily execution of health-promoting behaviors may have a detrimental impact on quality of life. This is in line with research showing a higher incidence of sad mood in persons who did not practice healthy behaviors and showed signs of ill health. In contrast to individuals who regularly engaged in social activities, older adults who participated in fewer social activities had a higher likelihood of depression. In older persons, lower geriatric depression scores are often correlated with higher scores for health-promoting behaviors. Depression has been documented as a common issue that may significantly impact the quality of life for the aged population.

8. LIMITATIONS OF STUDY

The study's limited sample size is one of its limitations. This study only looks at depression in older persons in relation to physical and mental health issues; possibly in the future, it should look at the risk factors that are related to it. Since we employed a practical sample technique, it was not possible for the impacted population to grow excessively. Only Lucknow's residential neighborhoods were included in the study.

9. CONCLUSION

The study's findings imply that depression may contribute to a decline in the elderly population's quality of life. This relationship has substantial implications for improving the quality of life for the elderly population, as depression has a major impact that includes severe morbidity, functional decline, hospitalization, and costs associated with health and social services. Gaining a deeper comprehension of the risk factor could aid in lowering depression, preserving independence, and improving an individual's general health. As a result, it will aid in raising older individuals' quality of life.

CONFLICT OF INTERESTS

None.

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