ORIGINAL ARTICLE

Association of Depression with Cognitive Functions and Quality of Life in Elderly Population

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ABSTRACT

Objective: Population of the world is rapidly aging and facing different physical, social and mental issues that obviously affect their quality of life. This study aimed to determine the association of depression with cognitive functions and quality of life in elderly population.

Methodology: It was cross a sectional study in which data was collected from 100 participants of both genders from elderly population. Their age range was 60 to 80 years. Elderly residents of District Rajanpur were surveyed by using Urdu version of standardized tools like Beck Depression Inventory (BDI) scale, World Health Organization-Quality of Life (WHOQOL-BREF) scale and Mini Mental State Examination (MMSE). Pearson correlation test was applied to measure association of depression with cognition and quality of life. The data was statistically analysed by using SPSS version 25.

Results: The results revealed a strong negative correlation between depression and quality of life, r (-.672), P= (.000), and weak positive correlation between depression and cognitive functions, r (.316), P= (.001).

Conclusion: The findings suggested that there exists a strong negative correlation between depression and quality of life and weak positive correlation between depression and cognitive functions.

Keywords: Cognition, Aged, Depression, Quality of Life.

INTRODUCTION

Population of the world is rapidly aging and facing different physical, social and mental issues that obviously affect their life quality. According to the WHO over twenty percent of adults of age 60 years and above suffer from a neurological problem worldwide.(1) Depression during late life is an important health problem worldwide which is firmly related with intellectual capacities and life quality. Due to its devastating consequences and impacts, it is considered as an important public health problem. Late life depression is an under observation problem that reduces the well-being of older adults.(2) Depression is an uncontrollable stress that impacts on emotional health and well-being. Cognitive dysfunction is another critical impairment among elderly which disrupts their quality of life.(3)

Cognitive impairment then refers to unexpected deficits in cognitive domains.(4) Quality of life mostly refers to the daily living activities that represent to people's daily activities of self-care and the ability to perform them.(5) Depression has not only been linked with a higher risk of mortality and morbidity but also with poorer outcome of treatment of disorders and can negatively influence quality of life.(6) Depression is more common among older individuals due to reduced physical and cognitive functioning and its known risk factors are poorer coping abilities, older age, female gender, impaired level of functioning, reduced cognition and physical dreariness.(7)

Life quality is a multidimensional concept which can be defined as the general well-being of individuals and their perception about their position in life according to culture and values, in which they live, their expectations, concerns, standards and goals. The standard quality of health,

comfort and happiness are the things needed for a life of good quality.(8) Depression have many negative effects on health that's why it is one of the leading health problem and seen at increased rate among senior population having many risk factors due to aging.(9)

A major episode of depression that occurs as the first time in old age (usually above 50 or 60 years of age) and depression in elderly that is the result of illness happened earlier in life, both can be termed as late life depression.(10)According to one estimation, depression and cognitive problems both are present in almost 25 percent of elderly population and it doubles approximately every five years after the age of seventy.(11) Some studies had shown that executive functions like planning, initiating, sequencing, organizing and attention also influenced by geriatric depression. (12)

Quality of life is the possible one and effective method to assess the suffering due to depression. But still there is a limited information available about the association between depression and quality of life.(13) Despite the fact that the personal satisfaction stayed a focal point of consideration for a long time yet there are just a couple of studies accessible about the existence nature of the older populace.(14) One of the significant components in personal satisfaction is psychological wellness and gloom is a broad emotional well-being issue among older individuals.(15) There is no acceptable measure of territorial investigations regarding this matter, so there is a need that more examinations ought to be held.(16) Along these lines, in the current study we determine the association of depression with cognitive functions and quality of life in elderly.(17) The number of elderly people is

increasing rapidly and there are few studies on this subject in our country.(18)

METHODOLOGY

In order to have a comprehensive understanding and to determine the association of depression with cognitive functions and quality of life among elderly, a cross sectional survey was conducted among senior citizens of district Rajanpur. A sample size of 100 participants was taken. Inclusion criteria were elderly people with age range 60 to 80 years of both genders who must be resident of district Rajanpur. Elderly people with any severe physical disability, medical illness or unwilling to give consent were excluded.

Informed consent form for the study was given to participants who met the inclusion and exclusion criteria. Urdu versions of three outcome measure were administered including; Mini Mental State Examination (MMSE) for assessment of cognitive level, Beck Depression Inventory (BDI) Scale for assessment of depression levels and World Health Organization Quality of Life Instrument (WHOQOL-BREF). After the tool administration data was statistically analyzed with SPSS 25. Pearson correlation was used to assess association of depression with cognition and quality of life.

RESULTS

The results (Table-I) showed that out of total (n=100) participants, the 23 % senior citizens participated in this project were male and 77% were females. Mean age of participants was 68.01 with standard deviation 7.22. Mean value of height of participants was 61.57 with standard deviation 3.83. The weight was calculated in (Kg) with mean and S.D was 62.78+- 13.71. The Results of (Table-II) showed correlation between depression and quality of life. Pearson correlation was applied. There seen strong negative correlation between depression and quality of life, r(-.672), P=(.000). Findings of (Table-III) showed correlation between depression and cognitive function. There seen weak positive relationship between depression and cognitive functions, r(.316), P=(.001)

Table-1: Summary of demographics of participants

		Frequency (N)	Percent%	Mean	Standard deviation	Maximum	Minimum
Gender	Male	23	23	1.77	0.42	2	1
	Female	77	77				
Age (years)	60-65	46	46	68.01	7.22	80	60
	66-70	25	25				
	71-75	7	7				
	76-80	22	22				
Height (inches)		100	100	61.57	3.83	72	55
Weight (kg)		100	100	62.78	13.71	89	43

Table 2: Correlation between Depression and Quality of life

		Beck Depression Inventory (BDI)	World Health Organization Quality of Life (WHOQOL-BREF)
Beck Depression Inventory (BDI)	Pearson Correlation	1	-.672[**]
	Sig. (2-tailed)		.000
	N	100	100
World Health Organization Quality of Life (WHOQOL-BREF)	Pearson Correlation	-.672[**]	1
	Sig. (2-tailed)	.000	
	N	100	100

Correlation is significant at the 0.01 level (2-tailed).

Table 3: Correlation between Depression and Cognitive functions

		Beck Depression Inventory (BDI)	Mini Mental State Examination (MMSE)
Beck Depression Inventory (BDI)	Pearson Correlation	1	.316[**]
	Sig. (2-tailed)		.001
	N	100	100
Mini Mental State Examination (MMSE)	Pearson Correlation	.316[**]	1
	Sig. (2-tailed)	.001	
	N	100	100

Correlation is significant at the 0.01 level (2-tailed).

DISCUSSION

Felix S. Hussenoeder et al., (2020) who took a shot to have a more critical look on sorrow and personal satisfaction in mature age. They utilized an agent test of the German populace (n=805) and one of the people determined to have misery (n=106) to think about personal satisfaction utilizing the WHOQOL-BREF and WHOQOL-OLD. Similar results were observed in current study. Examination

demonstrated that people determined to have misery shown lower personal satisfaction concerning WHOQOL-BREF measurements, physical wellbeing, mental, social connections and worldwide personal satisfaction and as to WHOQOL-OLD-features tangible capacities, past, present and future exercises and social support.(19). The results of present research in a way are similar to the research conducted by Ling Kong et al., (2019) who took a shot at social help as a middle person among misery and personal satisfaction in Chinese people group among more seasoned grown-ups with persistent infection. Information were gathered from 387 more seasoned grown-ups matured 60 or above. The outcome indicated that social help was adversely connected with melancholy and decidedly connected with physical and states of mind.(20)

Batallio et al., (2018) analyzed the novel connection between uneasiness, gloom and capacities in people with constant states of being. The discoveries demonstrated that downturn was all the more emphatically connected with fulfillment with social jobs and physical capacity than was tension.(21) Our present research also showed the similar results. Similarity was observed to the research conducted by Olivia R Cambridge et al., (2018) who depicted the clinical connection between intellectual hindrance and psychosocial working in significant burdensome problems. The outcome indicated that shortfalls in a few intellectual spaces foresee handicap in personal satisfaction and social, word related and worldwide working.(22)

The results of present research are somewhat similar to the work of Christopher Akosile et al., (2018) examined about gloom, useful inability and personal satisfaction among Nigerian more seasoned grown-ups. This cross sectional survey included 206 more established grown-ups with mean age 69. Results indicated that huge relationship existed between misery scores and personal satisfaction.(23)

CONCLUSION

The study concluded that there exists a strong negative correlation between depression and quality of life and weak positive correlation between depression and cognitive functions.

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