Depression and Functional Status among Elderly People Residing In Old Age Homes, Devghat, Nepal

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Abstract: Depression is a common public health issue with the increasing life expectancy worldwide and it is associated with morbidity as well as disability among the elderly. It has been shown a considerable increase in the numbers of older people in the world population both developed and developing countries. These populations are thought to be more prone to suffer from depression. A descriptive cross sectional study was conducted to assess depression and functional status among elderly people residing in different old age homes (Samaj Kalyan Kendra Briddhashram, Rotary Karunalaya, and Galeshwor Ashram) Devghat, Nepal. Total 105 elderly people were selected with enumerative sampling technique. Face to face interview method was adopted with 'Katz Index of Independence in Activities of Daily Living' to assess functional status and 'Yesavage Geriatric Depression Scale' (GDS) to assess depression status. Data was collected during the period of 15 Jun, 2019 to 24, August, 2019. Data were analyzed by using descriptive and inferential statistics. Among 105 elderly, 54.3% were <80 years of age, 52.4% were male, 87.6% were married and only 11.4% were literate, 62.9% were living at centers for ≥ 3 years and 41.9% elderly were brought to centers by other people of society. It was found that 55.2% elderly had depression according to GDS (15), among which 50.40% had mild and 4.80% had moderate level of depression; and 21% had moderate functional impairments. In conclusion, larger number of elderly residing at old age home is also an alarming situation for upcoming life of elderly. It indicates need of immediate interventions to prevent deteriorating the quality of life.

Key words: Depression, Elderly, Functional status, Old age home

Date of Submission: 09-09-2019

Date of Acceptance: 25-09-2019

I. Introduction

Ageing, that begins at conception and ends at death, is a process of growing older with the flow of time in one's life. It is a normal process, which is associated with physical, social and psychological changes. Ageing is a progressive development in the life span is a marker of life's journey towards growth and maturity. The Senior Citizens Acts define the Senior Citizens as "people who are 60 years and above". According to the 2011 census of Nepal, there were 12, 78,880 elderly over 65 years old inhabitants, which constitute 4.4 percent of the total population in the country. Life expectancy in Nepal has increased from approximately 27 years in 1951 to 66.16 years in 201 [1]. There has been a considerable increase in the numbers of older people in the world population of both developed and developing countries. The increasing elderly populations are prone to depression and it is more prevalent among elderly, who have chronic physical illness, poor social support, loneliness, and functional disability [2]. Depression is a common public health issue with the increasing life expectancy worldwide and it is associated with morbidity as well as disability among the elderly [3]. Ageing is an inevitable developmental phenomenon bringing a number of changes in the physical, psychological, hormonal and social conditions of individuals. Old age has been viewed as problematic period of one's life and this view is correct in the sense that the aged become increasingly dependent on other people. During this critical phase of life they may become victims of various mental problems. One of the commonest psychiatric disorders among the elderly people is depression [4].

Depression is associated with gender (female), marital status (divorced or separated), low socioeconomic status, poor social support, and a recent adverse and unexpected event. Depression in older adults tends to arise from a loss of self-esteem and may be related to life situations, such as retirement or loss of a spouse or partner. Problems such as physical complaints, insomnia, lethargy, agitation, weight loss, decreased memory, and inability to concentrate are common. Late-life depression often co-occurs with medical conditions, such as heart disease, stroke, diabetes, and cancer [5]. Depression is common in the elderly and is a major public health problem. It is the fourth most common disturbance of mood experienced by elderly. It is a pathological

mood disturbance characterized by feelings, attitudes and beliefs the person has about self and his environment, such as pessimism, hopelessness helplessness, low self esteem and a guilt feeling [7]. It is a worldwide common public health issue with the increasing life expectancy and it is associated with morbidity as well as disability among the elderly. The study conducted in Briddashram (old age home) showed that the prevalence of depression was 57.8%, among them 46.7% had mild, 8.9% had moderate and 2.2% had severe depression. A statistically significant correlation was found between feelings of depression and age, sex, previous family type, ethnicity, feeling of loneliness and instrumental activities of daily living [8].

The study 'Prevalence of depression among elderly people living in old age home in the capital city Kathmandu' showed that, 47.33% of population had depression. Among the depressed population, 70.42% had mild depression and 29.58% had severe depression. There was significant association between the prevalence of depression and history of physical illness [9]. The study 'Prevalence of Depression among elderly living in old age homes of Kathmandu Valley and its association with Socio-demographic variants' showed that, 47.3% of population had depression among which 34.0% had mild depression and 13.3% had severe depression. There was significant association between the prevalence of depression and 13.3% had severe depression. There was significant association between the prevalence of depression and health problems, satisfaction with old age home, loneliness, social support and functional disability [2]. Depression causes confusion and exacerbates dementia. It reduces a person's incentive to care for him, and lowers his energy level. Untreated depression could cause irreversible brain damage and could lead to suicide. It is one of the most common emotional and psychological disorders found in the elderly and affects relational problems. Later life depression can have serious repercussions in increasing mortality and disability, health care utilization and longer hospital stays, yet 63% older adults with a mental health disorder experience an unmet need for mental health service. Deteriorating health, a sense of isolation and hopelessness and difficulty adjusting to new life leads to depression and which in turn leads to suicide [10].

II. Materials and Methods

A descriptive cross sectional study design was adapted to assess depression and functional status among elderly people residing at old age homes, Devghat, Nepal, after getting ethical clearance from CMC-IRC. Total 105 respondents from three geriatric homes (Samaj Kalyan Kendra Briddhashram-34, Rotary Karunalaya-27, and Galeshwor Ashram-44), were selected by enumerative sampling technique. Face to face interview was done with standard tool; 'Katz Index of Independence in Activities of Daily Living' [22] for assessing functional status and 'Yesavage Geriatric Depression Scale' (GDS) [22] was used to assess depression of elderly. Data was collected from 15 Jun, 2019 to 24, August, 2019. Data entered in EPI data 3.1 and IBM SPSS version and analyzed by using descriptive and inferential statistics.

*	n=10	5
Variables	Frequency	Percentage
Age in Yrs.		
<80	57	54.3
≥80	48	45.7
Sex		
Male	55	52.4
Female	50	47.6
Marital status		
Married	92	87.6
Unmarried	14	12.4
Educational status		
Illiterate	93	88.6
Literate	12	11.4
Previous residence		
Province 1	7	6.7
Province 2	5	4.7
Province 3	48	45.7
Province 4	38	36.2
Province 5	7	6.7
Residential center		
Devghat Samajkalyan Briddhashram	35	33.3
Rotary Karunalaya	27	25.7
Galeshwor Ashram (NRN)	43	41.0
Length of stay		
<3years	39	37.1
≥ 3 years	66	62.9
Joining center		
Willingly	37	35.2
Sent by family member	24	22.9
Brought by other people	44	41.9

III. Results

Table 1: Respondents' Socio-demographic Information

Table 1 shows that out of 105, higher percentage of respondents falls under <80 years of age, numbers of male were high; most of them were married, and least number of elderly were literate. Among three residential centers, higher percentages of elderly residing at Galeshwor Ashram (NRN), maximum number of elderly were from province-3. Higher percentages of elderly were living in center for \geq 3 years, and majority had been brought to centers by other people of the society, and second higher numbers of elderly joined willingly.

			n=105			
Activities	Independent		Dependent			
	Frequency	Percentage	Frequency	Percentage		
Bathing	97	92.38	8	7.61		
Dressing	98	93.33	7	6.66		
Toileting	105	100.0	0	0.00		
Transferring	78	74.28	27	25.71		
Continence	93	88.57	12	11.42		
Feeding	99	94.28	6	5.71		

Table 2: Respondents'	Functional Status	(Activities	of Daily Living)
			n - 105

Table 2 shows the functional status, among six ADLs; about 26% elderly were dependent on transferring the goods/things but all were independent on the toileting activities. Only least numbers of elderly were dependent on rest of other functions.

	n=105		
Level of functional status	Frequency	Percentage	
Full function	83	79.0	
Moderate Impairment	22	21.0	
Total	105	100.00	

Table 3 showed 21% elderly had moderately impaired functional status.

	n=105		
Status of depression	Frequency	Percentage	
Normal (0-4)	47	44.76	
Depressed (5-15)	58	55.23	
Total	105	100.00	

Table 4 showed 55% elderly were depressed and about 44% were in normal status.

Table 5: Respondents' Level of Depression

	n=105		
Level of depression	Frequency	Percentage	
Normal (0-4)	47	44.80	
Mild depression (5-8)	53	50.40	
Moderate depression (9-11)	5	4.80	
Total	105	100.00	

Table 5 revealed that among 58 depressed elderly, 50.40% had mild and only 4.80% had moderate depression.

Table 6: Association between Respondents' Level of Functional Status and Socio-demographic Variables

n=105

Variables	Level of Functional Status		χ^2	p-value
	Normal	Impaired		
	n (%)	n (%)		
Age (in Years)				
<80	54 (94.70)	3(5.30)	18.531	< 0.001
≥ 80	29(60.40)	19(39.60)		
Sex				
Male	43(78.20)	12(21.80)	.052	.819
Female	40(80)	10(20.0)		
Marital status				
Married	74(80.40)	18(19.60)	.863	.353
Unmarried	9(69.20)	4(30.80)		
Educational status				
Illiterate	75(45.20)	51(54.80)	1.254	.263
Literate	5(41.70)	7(58.30)		
Length of stay				
<3years	30(76.90)	9(23.10)	.169	.681
≥3years	53(80.30)	13(19.70)		
Joining center				
Willingly	20(54.10)	17(45.99)	.017	.992
Sent by family	11(45.80)	13(54.20)		
members				
Brought by others	16(36.40)	28(63.60)		

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Level of Significance at

The table 6 showed there is no significant association between socio-demographic variables and functional status.

Variables	Landaf	J	χ^2	
Variables		Level of depression		p-value
	Normal	Depression		
	n (%)	n (%)		
Age (in Years)				
<80	28 (49.1)	29(50.9)	.959	.327
≥80	19(39.6)	29(60.4)		
Sex				
Male	25(45.5%)	30(54.5%)	.022	.881
Female	22(44%)	28(56.0%)		
Marital status				
Married	41(44.60)	51(55.40)	.012	.914
Unmarried	6(46.20)	7(53.80)		
Education				
Illiterate	42(45.20)	51(54.80)	.052	.819
Literate	5(41.70)	7(58.30)		
Length of stay				
<3 years	22(56.40)	17(43.60)	3.405	.065
≥3years	25(37.90)	41(62.10)		

Table 7: Association between Respondents' Level of Depression and Socio-demographic Variables

Level of Significance at <0.05

Table 7 showed that there is no any significant association between socio-demographic variables with depression.

IV. Discussion

This study revealed that the maximum number of elderly we conducted this study fell under the age group of <80 years (n=63, 60%). Among them, most were married (n=91, 86.7%) as well as uneducated (n=93, 88.6%). Several studies conducted previously [2, 3, 7, 9, 11-13] on the matter also suggested similar outcomes. With this particular study, the majority of the respondents were also male (n=55, 52.4%). Similar result was found on a study performed by Shweta & Kumar [17], A study on level of depression among elderly residing in an old age home in Hyderabad, Telangana. However, contradicting this, various other researches [2, 3, 9, 13] showcased a different conclusion where the majority of the residents living in elderly homes were females (65.5%, 66.5%, 56.34%, 76.6%). During this, we also found that most of the residents we interacted with were brought into the homes by other members of their society, while others [3, 14] have come up with a contrasting conclusion of them admitting themselves willingly. While exploring, we also realized that maximum number of residents (n=38, 36%) have been residing in the elderly home for more than 3 years as of now. This result was inconsistent with the study by Amaya, Khande, Gururaj & Udapi [19] revealed the majority (60%) of the elderly stayed in old age home for 1-2 years. A study [2] conducted in Kathmandu valley of Nepal however showed 61.1% had been staying in the old age home for 1-5 years. Another conclusion we came up with was that majority (45.7%) of respondents previously resided in province-3 and now 41% are staying at Galeshwor Ashram (NRN). During this time, we also observed the prevalence of depression measured through GDS among elderly residing at old age homes was 55.23%, among which 50.40% mild and 4.80% was moderate depression. A similar kind of study [7] conducted in Nepal showcased that the prevalence of depression was 57.8%; among them 46.7% had mild, 8.9% had moderate and 2.2% had severe depression. A previous study [15,] also found almost the same prevalence of depression which was 53.2%. However, two other studies [2, 9] differentiate with their findings which reported 47.3% presence of depression. Several studies [12, 13, 16, 3, 17, 18] has resulted in the conclusion of the widespread commonness of depression from 69% to 94%, which is considered quite high. In the same studies, level of depression reported differently in which mild depression was 24% to 70%, and severe depression was found to be 4.5% to 64%. This study further assessed that there is no significant association between depression with selected demographic variables. Another study conducted in India [19] reported a similar conclusion. Similarly, we also analyzed that 21% of elderly people had moderately impaired functional status related to Daily Living Activities. Among the ADLs tasks, transferring (74%) was found to be the most difficult task to perform. Bathing, dressing, and feeding were reviewed to be less frequent in dependency, and also no significant association between demographic variables and functional dependency was found. A study of Sharma, Parashar, Mazta [20] observed among the ADL tasks, bathing was found to be the most difficult task for the older persons to perform. Dressing, transferring, toileting and eating were found to be less frequent in dependency. A study conducted by Susheela, Valsaraj, Savitha [21] reported the partial functional impairment was found among twenty (3.3%) study participants, in which one (0.2%) participant was totally dependent. The study also acknowledged an association between partial functional impairment and demographic variables.

V. Conclusion

Suffering from mild depression among larger number of elderly people residing at old age homes is also an alarming situation for upcoming life of elderly. It indicates need of immediate interventions to prevent spoil the quality of life.

Acknowledgment

Researchers are very grateful to Chitwan Medical College-Institutional Research Committee for approval to conduct this research. The researchers' sincere gratitude and love to extend heartfelt thanks to Ms. Alisha Joshi, and Ms. Dr. Rosy Shrestha for their immense support to complete our study.

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Bedantakala Thulung. "Depression and Functional Status among Elderly People Residing In Old Age Homes, Devghat, Nepal" .IOSR Journal of Nursing and Health Science (IOSR-JNHS), vol. 8, no.05, 2019, pp. 36-41.
