JRMDS

Comparison of Emotional Intelligence in Elderly Subjects With/Without Dementia in Belagavi City: A Cross Sectional Study

Radhika Damani*, Sanjiv Kumar

KLE Academy of Higher Education and Research, Nehru Nagar, Belagavi, India

ABSTRACT

Background: Dementia is characterized as a clinical syndrome which shows progressive deterioration and impairment in the activities of daily living. It has been said that at present around 36 million people around the globe suffer from dementia. Dementia is said to have various complications which can lead to alterations in the patient's mood, emotional ability and quality of life (QOL). Its proven that more than about 50% of the patients who suffer from dementia show one or more depressive symptom such as sadness, anxiety, irritation, agitation, retardation, sleep problems, less social interaction and decrease in their interests. Emotional intelligence (EI) is the capability of the individual to understand and manage people and act accordingly in human relationships. Empathy is one of the most important components in the structure of EI. It has been said that individuals with greater levels of EI have a greater ability to express emotions.

Objectives: To evaluate the difference of Emotional Intelligence in the elderly subjects with/without dementia in Belagavi city.

Methods and Materials: 100 subjects were recruited in the study. They were divided into two groups, one group consisted of subjects with dementia and another without dementia, using the Blessed Dementia Rating scale. Geriatric depression scale and the Assessing emotions scale were used as the outcome measures in the study. The values were obtained and analysed.

Results: SPSS version 23 was used in statistical analysis. Demographic data in relation to outcome measure was also analysed. The non-parametric independent t test was used as both the groups were unmatched. The values obtained from the GDS and the AES were analysed and then compared.

Conclusion: The result obtained in the present study showed that there is a significant difference in the emotional intelligence in subjects with or without dementia. It can be concluded that subjects with dementia had a higher level of depression and a lower level of emotional intelligence.

Key words: Emotional intelligence, Stroke, Dementia

Corresponding author: Radhika Damani

e-mail✉: damaniradhika116@gmail.com

INTRODUCTION

It has been proven that patients with Dementia of the Alzheimer's type have a defect in the ability to recognize facial cues as well as emotional cues and distinguish between them and thus it leads to issues with such patients to process emotions [1]. Patients suffering from dementia not only show physical symptoms but also symptoms related to mental health. The frontotemporal lobe dementia (FTD) is said to be a neurodegenerative disorder. It shows behavioural changes like personality change, behavioural disturbance, etc. Patients who present with FTD show positive results in impairment of emotional processing [2]. Dementia is characterized as a clinical syndrome which shows progressive deterioration and impairment in the activities of daily living. It has been said that by the year 2050 the rate of people with dementia will rise up to 115.4 million and that the number will double in every twenty years [3].

Dementia significantly reduces the survival rate of an individual. It has been proven that the end of life care given and received by the patients suffering from dementia is very poor, thus Advanced Care Planning (ACP) was taken into consideration by many countries overseas.

It has a various number of programs which help in establishing communication and the patient's involvement about his current and future life decisions [4]. Dementia is said to have various complications which can lead to alterations in the patient's mood, emotional ability and quality of life (QOL). There are different symptoms which are associated with dementia. Depression and apathy are the most prevalent symptoms in dementia, although their association is complex. Its proven that more than about 50% of the patients who suffer from dementia show one or more depressive symptom such as sadness, anxiety, irritation, agitation, retardation, sleep problems, less social interaction and decrease in their interests [5].

Emotional intelligence (EI) is the capability of the individual to understand and manage people and act accordingly in human relationships. It is the person's ability to understand the intensions, motivations and the desires of other individuals and work effectively with others. It is to understand oneself, work effectively considering one's desires, fears, and capacities and thus regulates one's own life. EI has two types' 1–Trait EI and 2–Ability EI. Trait EI deals with emotions related to self-perception which is measured by the help of self-report. Ability EI deals with emotions related to cognitive abilities which are measured using maximum performance tests [6]. EI has various components like understanding emotions and perceiving the same. It has been said that individuals with greater levels of EI have a greater ability to express emotions.

It is necessary to study about the emotional issues and misbalances an individual with dementia suffers with because the patient himself will be too confused to understand his/her state. When this is done in the early stages of dementia it becomes significantly easier to help the patient and to provide him/her with the needed intervention. As patients suffering with dementia tend to forget things and get confused easily they develop a tendency to get depressed and upset. These symptoms are not only due to what the patient is suffering from within but he/she also tends to get depressed and anxious due to the problems they feel they create for their care givers. It is necessary to study about the emotional intelligence of such patients and help them receive the necessary help in the earliest duration possible [7].

MATERIALS AND METHODOLOGY

This was an observational study with non–probability sampling design. The duration of the study was one year. Ethical clearance was obtained from the Institutional Ethical Committee. After finding the suitability as per the inclusion criteria subjects were selected to participate in the study. 121 participants were assessed for the eligibility in the study. 100 individuals were enrolled in the study based on the following inclusion and exclusion criteria. Informed consent form was obtained from all the participants before commencing the intervention.

Inclusion criteria were as follows: (i) Subjects with age ≥ 60 years, (ii) Individuals with dementia (score on the blessed dementia scale ≥ 4) and without dementia (iii) Individuals who are able to read, understand and write. The subjects were recruited from the community and old age homes. This was an observational study with an open ended sample size.

Exclusion criteria were as follows: (i) No other neurological condition, (ii) Severe cognitive impairment, (iii) Subjects residing outside Belagavi

Outcome measure: Geriatric Depression Scale: GDS is a 30-item questionnaire with possible answer of yes/no. This questionnaire can be filled in a weekly interval. The GDS is a valid and reliable tool to measure the level of depression in the geriatric possible. It can rate the individual as normal, mildly depressed and severely depressed. This scale is considered simple to administer without occupying a lot of the therapist's as well as the patient's time [8].

The assessing emotions scale: This is a 33 item questionnaire which helps in assessing the ability of the individual to identify, understand, harness and regulate emotions both in themselves and in others. The items are rated from 1–5 (1–Strongly disagree and 5–Strongly agree) with a total score of 165. Higher the score, higher is the value of emotional intelligence [9].

Procedure: The study consisted of 100 subjects. 47 females and 53 males who were assessed for dementia using the Blessed Dementia Scale. Subjects were assessed for the level of depression they were suffering from using the

Geriatric Depression Scale which can be used in the primary stages of dementia. After these subjects were divided into two groups, Group A consisted of subjects with dementia and Group B consisted of subjects without dementia. Then each subject's emotional intelligence was assessed using The Assessing Emotions Scale questionnaire. The subjects were made to understand the questionnaire completely in the language they found easy. Once the subjects were done filling the questionnaire the data collected was compared to find out the level of difference of EI between both the groups. These outcome measures were subjective and were dependent on the individual's mood, behavior and emotional balance.

STATISTICAL ANALYSIS

Demographic data was explained using mean, standard deviation and percentage. Statistical analysis was done using statistical package of social science (SPSS) version 23. The non – parametric Independent t–test was used to check the difference in emotional intelligence between both the groups. The level of significance for the entire test was set at 0.05.

RESULTS

The study included 100 subjects, 47 females and 53 males which showed that the number of males

the study included was higher. Demographic data was analysed (Table 1) Both the groups did not differ significantly by height (158.12 ± 7.80 *vs.* 159.16 ± 9.74, p=0.556), weight (66.95 ± 8.36 *vs.* 66.38 ± 5.54, p=0.700) and BMI (26.79 ± 2.98 *vs.* 26.36 ± 3.20, p =0.494) The mean age of subjects without dementia was 67.31 ± 4.78 and the mean age of subjects with dementia was 73.45 ± 6.65 which shows that there was significant difference with regards to age in both the groups.

Analysis of the Blessed Dementia Scale evaluates the subjects for dementia using the blessed dementia scale. The scores of both groups significantly varied (2.76 ± 1.14 *vs.* 14.02 ± 6.12, p=0.001). The scores of geriatric depression scale were significantly different in both the groups with higher depression seen in group of subjects with dementia (16.98 ± 3.47 *vs.* 22.41 ±2.79, p=0.001). Similar result was seen in Assessing Emotions Scale where higher scores indicate better emotional intelligence. The scores varied significantly in both the group (115.62 ± 18.51 *vs.* 80.03 ± 11.82, p=0.001) (Table 2). The level of depression was significantly high in subjects with dementia whereas the subjects without dementia had better EI.

DISCUSSION

The present study was designed to compare the

Table 1: Demographic statistics of age, height, weight, BMI and gender.

Variable	Group	Mean	SD	t–value	p-value
Age	Without dementia	67.31	4.78	5.372	0.001*
	With dementia	73.45	6.65		
Height	Without dementia	158.12	7.8	0.59	0.556
	With dementia	159.16	9.74		
Weight	Without dementia	66.95	8.36	0.387	0.7
	With dementia	66.38	5.54		
BMI	Without dementia	26.79	2.98	0.687	0.494
	With dementia	26.36	3.2		
Variable		Group	Number		
Gender	Males	Without dementia	21		
		With dementia	26		
	Females	Without dementia	21		
		With dementia	32		

Table 2: Analysis of blessed dementia scale, geriatric depression scale and assessing emotions scale.

Variable	Group	Mean	SD	t–value	p -value
Blessed Dementia Scale	Without dementia	2.76	1.14	11.755	0.001*
	With dementia	14.02	6.12		
GDS	Without dementia	16.98	3.47	8.384	0.001*
	With dementia	22.41	2.79		
AES	Without dementia	115.62	18.51		0.001*
	With dementia	80.03	11.82		

difference in the values of emotional intelligence in subjects with subacute stroke with or without dementia. The dementia rating scale was used to divide the subjects into two groups based on their dementia level. The Geriatric Depression scale and the Assessing Emotions scale were used to rate the level of depression in the subjects and understand their emotional variations. The GDS and AES values showed statistical significance.

The study showed no significant difference between height, weight, BMI and gender. There was a significant difference between the groups with regards to age. This showed that comparatively subjects with increasing age show changes related to dementia sooner.

Seignourel et al. conducted a study which spoke about anxiety in dementia. The study suggested that the level of anxiety is much greater in patients with vascular dementia than Alzheimer's. It also suggested that the level of anxiety decreases with an increase in the stage of dementia [10]. The present study also concluded that patients with dementia show higher level of depression when compared to patients without dementia. Depression plays a significant role in affecting the quality of life of the patient. It lowers their self-esteem, moral and also de-motivates them. This can have a drastic effect on their emotions.

Allender et al. conducted a study where he evaluated the capacity of evaluating emotional cues and cognitive functioning in patients with dementia. He made two groups; the groups of patients with Dementia type of Alzheimer's and the other control group. Both the groups were made to identify emotional cues in a form of intervention. The study resulted that subjects in the first group were comparatively poor in identifying emotional cues as to that of the second group [1]. The present study concluded that subjects with dementia had a lower level of EI which states that their coping mechanism related to emotions is lower when compared to subjects without dementia. As the subjects were sub-acute stroke patients who were also diagnosed with depression, in our opinion this can cause changes in the level of their EI scores. Subjects with dementia have a poor EI score when compared to the ones without dementia.

A study was conducted by Da Silva et al. to assess the probability of developing dementia in the subjects associated with affective disorders. This was a systematic review in which many studies were taken into consideration. Maximum number of studies showed that subjects who suffered from depression have a higher risk of developing dementia. The study concluded that depression acts as a prodrome as well as a risk factor for the development of dementia [11]. The present study showed that the subjects from both the groups had depression but the level of depression in subjects with dementia was significantly higher when compared with subjects without dementia.

Patients suffering from dementia not only face issues with their memory but the problem also starts associating with their emotions. They start feeling burdensome on the care takers and are depressed with life. Emotional intelligence is where the person can co-relate his/her emotions, understand, manage and thus decide how he/she needs to act in the society. This is a very subjective matter and the level of EI keeps on changing according to the subject's mood or his/her feelings.

The advantages of doing this study was to understand the difference between the similar age group but with or without a particular problem. This can help the subjects understand their emotional capabilities and the triggers. This in turn can help them deal with their problems and emotional misbalance with a new perspective.

The limitation of this study was that the scales are subjective and the mood in which the subject fills the questionnaire also varies from time to time. Thus this can also give us results of the current situation only.

CONCLUSION

The result obtained in the present study showed that there is a significant difference in the emotional intelligence in sub-acute stroke patients with or without dementia. It can be concluded that subjects with dementia had a higher level of depression and a lower level of emotional intelligence. Thus having a disease which can further deteriorate your physical, mental and social capability can have a greater effect on the level of emotional intelligence.

CONFLICT OF INTEREST

None.

ETHICAL APPROVAL

Was obtained from IEC of KAHER Institute of Physiotherapy, Belagavi.

REFERENCES

1. Allender J, Kaszniak AW. Processing of emotional cues in patients with dementia of the Alzheimer's type. Int J Neurosci 1989; 46:147-55.

2. Balconi M, Cotelli M, Brambilla M, et al. Understanding emotions in front temporal dementia: The explicit and implicit emotional cue mismatch. J Alzheimer's Disease 2015; 46:211-225.

3. Prince M, Bryce R, Albanese E, et al. The global prevalence of dementia: a systematic review and metaanalysis. Alzheimer's Dementia 2013; 9:63-75.

4. Dening KH, Jones L, Sampson EL. Advance care planning for people with dementia: a review. International Psychogeriatrics 2011; 23:1535-1551.

5. Gottfries CG, Karlsson IN, Nyth AL. Treatment of depression in elderly patients with and without dementia disorders. Int Clin Psychopharmacol 1992.

6. Petrides KV. Ability and trait emotional intelligence. Am Psychol Assoc 2011.

7. Schutte NS, Malouff JM, Bobik C, et al. Emotional intelligence and interpersonal relations. J Social Psychol 2001; 141:523-536.

8. Yesavage JA, Brink TL, Rose TL, et al. Development and validation of a geriatric depression screening scale: A preliminary report. J Psychiatr Res 1982; 17:37-49.

9. Schutte NS, Malouff JM, Bhullar N. The assessing emotions scale. In Assessing emotional intelligence. Springer 2009; 119-134.

10. Seignourel PJ, Kunik ME, Snow L, et al. Anxiety in dementia: A critical review. Clin Psychol 2008; 28:1071-1082.

11. Da Silva J, Goncalves-Pereira M, Xavier M, et al. Affective disorders and risk of developing dementia: Systematic review. Br J Psychiatr 2013; 202:177-186.