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Effectiveness Of Counselling In Managing Depression Among The Elderly Diabetic Patients

Leena, S. T
Loyola College of Social Sciences, Thiruvananthapuram

Raju, S
University of Kerala, Kariavattom campus.

The study aims to find out the effectiveness of counselling in reducing depression among the elderly who suffer from diabetes. Diabetes is a chronic disease which affects the health and psychological state of a person. In the present investigation 30 diabetic patients are studied. 15 patients were given counselling as an intervention to manage depression. Another 15 participants were kept as control group not exposing to psychological intervention. The study result shows significant difference in level of depression before and after intervention, between control group and experimental group. The materials used are a personal data schedule, DASS 21, and MMSE. ANCOVA is used for the analysis of data. The study portrays that counselling is effective in managing depression among diabetic patients.

Keywords: Depression, Counselling, Diabetes Mellitus.

Diabetes mellitus is a common problem in older adults. Approximately 20% of individuals over 65 years of age have diabetes mellitus and almost half of these individuals have not been diagnosed. The relationship between diabetes and depression is not clearly studied yet. The rigors of managing diabetes can be stressful and lead to the symptoms of depression. Diabetes related health problems can worsen depression among the elderly patients. To control diabetes, it is essential to improve metabolic control, fitness level and manage weight which inturn improve the sense of wellbeing and quality of life. People with diabetes have greater risk of depression than people without diabetes, depression among diabetes patients are characterized by loss of pleasure, change in sleep patterns, change in appetite, trouble concentrating, loss of energy, nervousness, guilt, morning sadness and suicidal thoughts. Depression is a very real condition and is becoming increasingly common in the general population; approximately one in four people will experience depression some time in their adult life. For people who live with diabetes, this figure is even higher. Up to 50% of people with diabetes are thought to also have a mental illness such as depression or anxiety.

As per the recent studies psycho therapy and various counseling strategies are effective in managing depression, an experienced-trained therapist can help such patients to look at problems and assist them to mobilize their inner resources to cope up with the stressors that result in depression (Pinquart &Sorenson,2001). Baumeister, Hutter and Bengel (2012) studied psychological and pharmacological interventions in patients with diabetes mellitus and depression. The study results that's that psychological interventions have a moderate and clinically significant effect on depression outcomes in diabetes patients. Glycaemic control improved moderately in pharmacological trials while the evidence is inconclusive for psychological interventions.

Objective:

The problem of the present study has been stated as "Effectiveness of counselling in managing depression among the elderly diabetic patients."

Hypothesis

Counselling as an intervention strategy will be effective in reducing depression among the elderly diabetic patients.

Method

Design

Quiz experimental design: Participants were divided into control and experimental groups.

The variable depression was measured before the intervention (counselling). Then intervention was introduced to the experimental group only. After intervention, the variable depression was measured again for both the groups and found the intervention effect.

Participants.

The present study was conducted on 30 elderly diabetic patients whose age range was between 60 -70years. Among them 15 subjects were given counselling as an intervention strategy for a period of 2 months, each session was of one hour per week. The other 15 elderly diabetic patients were treated as control group. The sample was drawn from hospitals of Trivandrum district. The purposive sampling technique was used to draw sample from the population.

Inclusion criteria.

Participants who are interested in counselling and who had a perceived need for counselling services are included in the experimental group. Individuals having cognitive impairment were purposefully excluded from the study.

Instruments.

The following instruments were used for the present study.

A personal data schedule.

DASS-21: The Depression Anxiety Stress Scales 21 (DASS-21) developed by Lovibond, and Lovibond (1995). It is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. Each of the three DASS 21 scales contains seven items, divided into subscales with similar content. The reliabilities of the DASS-21 scales were .88 for depression, .82 for anxiety, .90 for stress, and .93 for the total scale. The validities of the DASS-21 for depression, anxiety and stress subscales were .82, .90 and .93, respectively.

Mini mental status examination (MMSE): The MMSE is effective as a screening tool for cognitive impairment with older, community dwelling, hospitalized and institutionalized adults. Assessment of an older adult's cognitive function is best achieved when it is done routinely, systematically and thoroughly. Since its creation in 1975, the MMSE has been validated and extensively used in both clinical practice and research.

Intervention Strategy.

The 15 members of experimental group were provided with 6 sessions of counselling. The maximum time limit of each counselling session was 1 hour. Counselling was focused on their personal need, psychological need and physical condition. Psychological intervention was not given to the participants of control group.

Statistical technique used

The main statistical technique used in the present study is ANCOVA to compare the means of pre- post depression levels obtained by experimental and control group.

Procedure

The study was conducted in two phases. In the first phase both the groups (control and experimental) were administered psychological tests to assess the level of depression. The Obtained data was analysed to understand the difference between experimental and control group participants on depression. After a gap of 2 weeks, intervention sessions was started to the experimental group alone. Six sessions of counselling was provided to the experimental group. Each counselling session had duration of 1 hour maximum. Again, the scores on depression obtained by experimental and control group participants were compared with the help of statistical technique ANCOVA to see whether there is any significant difference between groups after intervention.

Results and Discussion

The data on pre-post and post-test assessments on depression of participants from control and experimental groups of diabetic patients were collected and calculated the basic descriptive statistics. The details are given in Table 1.

From Table 1, it is seen that for control group, the Arithmetic mean (AM) of pre-test depression score is 7.4 with standard deviation (SD) 2.32 and standard error (SE) 0.60. The 95% confidence interval for the average pre-

Table 1. Descriptive statistics of pre-test and post-test scores on depression of control and experimental groups of diabetic patients.

Depression	Groups	N	AM	SD	SE	LCL	UCL
Pre-test	Control	15	7.4	2.32	0.60	6.11	8.69
	Experiment	15	6.6	1.84	0.48	5.58	7.62
Post-test	Control	15	8.33	2.29	0.59	7.07	9.6
	Experiment	15	5.27	1.62	0.42	4.37	6.17

Table 2. Results of ANOVA of pre-test and post-test scores of control and experimental groups of diabetic patients on depression.

Depression	Source of Variation	SS	Df	MSS	F ratio	p value
Pre-test	Between Groups	4.80	1	4.80	1.09	0.305 ns
	Within Groups	123.20	28	4.40		
	Total	128.00	29			
Post-test	Between Groups	70.53	1	70.53	17.91	0.000***
	Within Groups	110.27	28	3.94		
	Total	180.80	29			

***: significant at 0.1% level (p <0.001)

Table 3. Results of ANCOVA of adjusted post-test scores of control and experimental groups of diabetic patients on depression.

Depression	Source of Variation	SS	Df	MSS	F ratio	p value
Adj.Post-test	Between Groups	41.60	1	41.60	45.24	0.000***
	Within Groups	24.82	27	0.92		
	Total	66.42	28	42.51		

***: significant at 0.1 % level (p < 0.001)

test depression scores ranges from 6.11 to 8.69. For experimental group, the AM of pre-test depression scores is 6.6 with SD 1.84 and SE 0.48. The 95% confidence interval for the average pre-test depression scores ranges from 5.58 to 7.62.

It is seen that for control group the AM of post-test depression scores is 8.33 with SD 2.29 and SE 0.59. The 95% confidence interval for the average post-test depression scores ranges from 7.07 to 96. For experimental group, the AM of post-test depression scores is 5.27 with SD 1.62 and SE 0.42. The 95% confidence interval for the average post-test depression scores ranges from 4.37 to 6.17.

Thus there is an observed difference in average pre-test and post-test and scores on depression of participants in control and experimental groups. These observed mean differences were tested for statistical significance using ANOVA. The results of ANOVA are given in Table 2.

From table 2, it is seen that the calculated F ratio for pre-test scores on depression is 1.09 with $p > 0.05$. The inference is that the groups do not differ significantly in their average pre-test scores on depression. The calculated F ratio for post-test scores on depression is 17.91 with $p < 0.001$. Hence the groups differ significantly in their average post-test scores of depression.

From table 1, it is seen that the pre-test AM of scores on depression in control and experimental groups showed observed differences. Hence the two groups cannot be comparable for their

Table 4. Adjusted post-test mean scores of experimental and control groups of diabetic patients on depression.

Depression	Group	Adj.AM	SE	LCL	UCL
Adj.Post-test	Control	8.00	0.25	7.49	8.51
	Experiment	5.60	0.25	5.09	6.11

final post-test scores on depression, unless the effect due to their initial pre-test scores were eliminated. Hence the technique of ANCOVA has to be adopted. The ANCOVA result is given in Table 3.

From table 3, it is seen that the calculated F ratio for adjusted post-test scores is 45.24 which is statistically significant ($p < 0.001$). The inference is that, the two groups differ significantly in their post-test mean depression scores after the effect due to initial pre-test scores were eliminated. The adjusted post-test means of control and experimental groups are given in Table 4.

From table 4, it is observed that, if the effect due to initial pre-test scores on depression were eliminated, the adjusted post-test mean of control group is 8.00 with SE of 0.25. The 95% confidence interval for adjusted post-test mean of depression scores ranges from 7.49 to 8.51.

The adjusted post-test mean depression scores of experimental group is 5.60 with SE of 0.25. The 95% confidence interval for adjusted post-test mean of depression scores ranges from 5.09 to 6.11.

Hence the adjusted post-test depression scores of experimental group are much lower when compared to the control group.

Depression is an unpleasant situation where one feels oneself as sad, alone and down with emotional turmoil. The results reveal the effectiveness of counselling in the management of depression among the elderly diabetic patients. Many studies have justified the fact that diabetic patients are more prone to depression (Pouwer, 2003). Depression interferes with daily life, affects entire body and health; thereby it reduces quality of life among the elderly diabetic patients.

As per the results given in table 4.3 the control and experimental groups of diabetic patients differ significantly in their post-test mean depression scores. In the post-test analysis, the mean depression scores are much lower for experimental group compared to control group. The results also showed marked decrease in depression level among the clients. That is due to the counselling intervention that was administered. The F ratio and the significance justify the assumption that counselling is effective in managing depression among diabetic patients.

Major Findings.

Counselling as an intervention strategy is effective in reducing depression among the elderly diabetic patients. The results showed that there is significant difference between experimental group and control group after intervention with regard to depression among elderly diabetic patients.

The level of depression reduced significantly, after the introduction of counselling sessions among experimental group when compared to control group. Pre-post comparison of the experimental group also revealed that there is significant difference in depression before and after the introduction of intervention.

Conclusion

From the present study, it can be concluded that counselling has its own implication in dealing with mental health problems among elderly diabetic patients, especially in reducing the level of neurotic traits such as depression. The results showed that the subjects who had undergone psychological counselling showed low level of depression compared to subjects who were not exposed to psychological counselling. And also, the scores of experimental group on pre-test evaluation vary from that of post-test evaluation scores. The experimental group on post-test evaluation showed lower level of depression compared to pre- test evaluation results.

Psychological counselling provides humanistic consideration to the participants and it provides a supportive assistance to the clients which increase psychological wellbeing and provide opportunity to reach their full potential. It helps the participants to deal effectively with depression and other psychological problems. As per the results psychological counselling is a valid strategy to support the geriatric elderly people who suffer from diabetes and associated mental health issue like depression.

Limitation of the Study:

The first limitation of the study is regarding the sample size. The sample size of 30 doesn't represent the entire population of diabetes patients. The generalization of results may not be accurate while considering the sample size. Patients from the age group of 60-70years are only taken for this particular study. Inclusion of subjects from a wide age range will be better for generalizing the results.

The sample has been particularly drawn from Trivandrum district of Kerala. Sample drawing from different districts and states would have been more representative of the population and it could also have helped to find out whether there were any cultural influences over the results.

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Leena, S.T, Faculty, Department of Counselling Psychology, Loyola College of Social Sciences, Tvm

Raju, S, Ph.D., Head of the Department, Department of Psychology, University of Kerala, Kariavattom campus.