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Effectiveness of intervention package on knowledge and attitude regarding functional needs and quality of life of elderly patients with psychiatric illness, among nursing interns

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Abstract:

OBJECTIVE: To develop and assess the effectiveness of the intervention package on knowledge and attitude regarding meeting the functional needs and improving the quality of life of elderly patients with psychiatric illness, among nursing interns.

MATERIALS AND METHODS: The study was carried out among 60 nursing interns of a tertiary government mental health setting. After the pretest, the educational intervention package on functional needs and quality of life of elderly patients with psychiatric illness was administered to the study group in four sessions. Posttest data collection was performed using the same questionnaires after 2 weeks after the last session.

RESULTS: There was a statistically significant improvement in the knowledge and attitude of nursing students following the sessions of the intervention package. Pretest data showed that there is a positive correlation between the knowledge and attitude of study subjects. Overall knowledge has significantly improved after attending the intervention program ($Z = 6.701$, $P < 0.001$). Moreover, the overall attitude level has significantly improved after attending the intervention program ($Z = 6.741$, $P < 0.001$).

CONCLUSION: The educational intervention package on functional needs and quality of life of elderly patients with psychiatric illness was effective in improving the knowledge and attitude regarding functional needs and quality of life of elderly patients with psychiatric illness, among nursing interns. Similar packages may be incorporated into the nursing curriculum in training future nurses for their better practice in this area.

Keywords:

Attitude, elderly, functional needs, intervention package, knowledge, mental illness, quality of life

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Introduction

Ageing is a multidimensional process involving social well-being, psychological well-being, physical health, spirituality and transcendence, and environment and economic security.^[1,2] The current global demographic trend shows an increasing proportion of older persons in

the population, leading to population aging globally. In 2020, the number of people aged 60 years and older outnumbered children younger than 5 years, and by 2050, 80% of older people will be living in low- and middle-income countries.^[3] A longitudinal aging study in India (LASI 2020) reported a national prevalence of depression (8.3%), depressive symptoms (30%), and cognitive

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impairment (9.6%) for the age group of 60–64 years.^[4] According to Alzheimer's and Related Disorders Society of India 2018, an estimated 4.4 million people are living with dementia as of 2015. This number is projected to double by 2030 to 7.6 million with a huge cost to the community and the government.^[5]

Becoming older is a gradual process that ushers in some decline in physical, physiological, intellectual, cognitive, emotional, and social aspects,^[2] and behavioral and psychological symptoms are prevalent in the cognitively impaired older population.^[6] So, mental health and well-being are as important in older age as at any other time of life,^[7] but mental health conditions in older adults are often undiagnosed or underdiagnosed.^[8]

Older people may experience life stressors such as a significant ongoing loss in capacities and a decline in functional ability life.^[7] Along with that, hospitalization has been identified as a potential risk factor for anxiety or depression in elderly patients,^[9] and studies found that cognitive decline more than doubles after a hospital stay.^[10] Thus, the mental health problems of the elderly increased with hospitalization and higher risk for adverse physiological consequences during acute illness, including impairment in functional status,^[11] which leads to a high level of dependency on functional needs, and cognitive impairments can adversely affect their quality of life as well. Functional needs in this study is the assistance required by the Elderly Patients With Psychiatric Illness (EPWPI) with the functional decline—the inability to perform usual activities of daily living due to weakness, reduced muscle strength, reduced exercise capacity occurs due to deconditioning and acute illness during hospitalization,^[12] and to perform daily living activities (physical, mental, and social) to maintain functional status as independent as possible in society and to lead a quality life.

The decreased attention toward the functional needs on the part of the caring nurse can adversely affect the quality of life of EPWPI, which is a subjective feeling of those patients toward their independence, satisfaction, and dignity, toward their life, according to their physical, mental, and social abilities.^[13] The quality of life of EPWPI deserves more attention since they are more prone to functional decline and need assistance with multiple domains of function.^[14] Here is the art of a nurse who cares for older people to understand and identify their psychiatric and psychological problems in their incipient stage.^[15]

According to Indian culture and economical condition, most of the Indian elderly are residing in the community, but the trend of long-term care facilities is also increasing in India.^[16] These emerging changes demand more

workforces to care for this population. Nurses are the most needed workforce in any healthcare facility, including responding to an aging population that has more complex and intense medical needs and the need to bridge medical and health care with the social factors that influence people's health and well-being.^[17]

While the number of geriatric patients who require nursing services is rising, there is a decline in the number of nurses who are interested in working with the elderly.^[18] Thus, the attitude of nurses toward the elderly is much significant considering the growing demands of nurses who are ready to work in geriatric settings. The geriatric care setting, which is specialized in psychiatric and psychological problems, also demands a dedicated workforce with adequate knowledge and a positive attitude to care for this challenging population. There is a critical urgency to educate healthcare providers to meet the needs of the aging population and address geropsychiatric workforce shortages.^[19] Nurses are well suited for this role; however, inherent biases against the geropsychiatric population present a barrier that is the bias against both the elderly and persons with mental illness, bias against psychiatric nursing and geriatric nursing, and bias against the importance of mental health care.^[19] The major strategies to combat these biases are curriculum integration and increased exposure.^[19]

The future need for more elderly-focused healthcare facilities including both physical health and mental health and long-term care facilities requires a greater number of nurses working in a geriatric setting. Since the student nurses are the future workforce, the author felt the importance to train them to get a future nurse generation with good knowledge and attitude about the care of EPWPI.

All healthcare professionals, including nurses, receive insufficient geropsychiatric and mental health training and preparation. This fact can negatively affect individuals and families experiencing geropsychiatric and mental health issues^[20] Though geriatric nursing has been covered in BSc Nursing curricula prescribed by Indian Nursing Council (INC), it is not comprehensive to cover and focus on mental health issues of the geriatric population and practical training in geriatric nursing is not comprehensive and in mental health nursing curricula.^[21] Moreover, the geropsychiatric nursing part is not covered.^[21]

The setting in which the study was conducted is a benchmark institution for mental health care in India, where nursing students are getting comprehensive training about the care of mentally ill patients of all age groups. The author of this article decided to assess the knowledge and attitude of nursing students of

this institution on meeting the functional needs and improving the quality of life of EPWPI and to develop an IP on functional needs and quality of life of EPWPI and administer among nursing interns to assess its effectiveness on their knowledge and attitude on this topic. Specific outcomes were used to evaluate the effectiveness of this IP.

Materials and Methods

Study design and setting

This study adopted a preexperimental (one group pretest–posttest) design, and it was conducted among interns of tertiary care government mental health in Bangalore, India.

Study participants and sampling

The whole batch of sixty nursing interns was recruited by the convenience sampling method.

Data collection tool and technique

At baseline, information was obtained about the participants' sociodemographics, and a Knowledge Assessment Questionnaire (KAQ) was developed to assess participants' knowledge about functional needs and the quality of life of EPWPI. The KAQ consists of 27 multiple-choice questions, with each correct answer given a score of 1. Thus, the maximum possible score was 27, with increasing scores reflecting better knowledge of the participants. An Attitude Assessment Scale (AAS) also was developed to assess the participant's attitudes toward the topic of study. The AAS comprises a 5-point Likert scale with 19 statements ranging from strongly disagree to strongly agree. The appropriate response is given 5 points. Thus, the total score ranges from 19 to 95, with increasing scores reflecting a favorable attitude toward the topic under study. The items in both the KAQ and the AAS were included based on the review of literature, general interactions with the students, and consultations with experts working in the area. After the initial drafts of the tools were developed, they were content validated by experts who included psychiatrists, psychiatric social workers, and clinical psychologists working in geriatric psychiatry.

Reliability was established using the split-half method ($n = 18$). A total of 27 items of the KAQ were divided into two parts consisting of 14 items and 13 items, respectively. Cronbach's alpha value was 0.995 for both parts. The correlation between the two parts of the knowledge questionnaire was also assessed, and it was 0.69. The Guttman split-half coefficient was also checked and found as 0.82. A total of 19 items of the AAS were divided into two parts consisting of 10 items and 9 items, respectively, and Cronbach's alpha is checked, and the value was 0.989 and 0.985, respectively. The correlation

between the two parts of the attitude questionnaire was also assessed and found as 0.869. In addition, the Guttman split-half coefficient was found as 0.898.

Ethical consideration

The study was approved by the Institute Ethics Committee (Ref No: NIMH/DO/IEC (BEH.Sc.DIV)/2016 Dated: 26/04/2017). Consenting participants were informed in detail about the pre-assessment, administration of IP, and post-assessment. Participants were then administered written informed consent.

Procedure

The educational intervention package was developed by the researcher through an extensive search of books, journals, and articles and in consultation with experts in this field on topic meeting the functional needs and improving the quality of life of elderly patients with psychiatric illness. The content validity of the module is ensured by incorporating the eight expert's opinions from various disciplines regarding conceptual clarity, relevance, appropriateness, and comprehensibility of intervention package. The feasibility of the intervention package was ensured after the pilot study.

The Intervention Package (IP) was administered in four 90 minutes sessions over four consecutive days. The IP focused on introducing a concept of improving the quality of life of EPWPI by meeting their functional needs. The causes of functional decline factors influencing functional status and how a nurse can assess the functional status of such patients and ways to meet the functional needs and improve the quality of life of EPWPI were the components of IP. All the sessions were administered by the first author, who is a registered nurse, with PowerPoint, video display, etc., In these interactive sessions, participants were encouraged to discuss, clarify, and participate actively.

Post-intervention assessments were conducted at 2 weeks following the last session of the IP, to assess its effectiveness on participants' knowledge and attitude about functional needs and quality of life of EPWPI.

Data analysis

The analysis of data was performed by the objective of the study. Descriptive statistics such as mean, standard deviation, frequency, and percentage was used to analyze sociodemographic data, pretest, and posttest level of knowledge and attitude. The normality of the data was checked using the Shapiro–Wilk test. The Wilcoxon signed-rank test was used to assess the effectiveness of the intervention package on knowledge and attitude scores, and the correlation between knowledge and attitude was assessed with Spearman's rho coefficient. Analyses were conducted using IBM SPSS (version 22.0).

Results

Description of the sample

Among 60 participants, the majority (55%) was 22 years old. All participants were females, 65% of the study participants were Christians, and 46.66% were from a rural background. The annual family income of the majority (45%) of subjects was ranging from 1 Lac to 2 Lac. The nuclear type of family was common (81.66%). The majority of study subjects' fathers was employed (86.66%), whereas nearly half of the student's mothers were not working [Tables 1 and 2].

Level of knowledge and attitude of study subjects about functional needs and quality of life of EPWPI

The mean score for overall baseline knowledge was 10.90 with standard deviation (SD) of 1.89, whereas the same in the post-intervention was 23.32 with SD of 0.972. The baseline and post-intervention mean attitude scores of subjects were 41.32 (SD 5.14) and 84.86 (SD 1.65), respectively. This showed a more positive attitude compared with the pretest mean score.

Comparison of pre- and post-intervention scores on the knowledge and attitude questionnaire

Table 3 describes that the overall knowledge has significantly improved after attending the intervention program Improvement in score was observed in each domain of the knowledge questionnaire ($Z = -6.70$, $P < 0.001$). [Figure 1].

Table 4 reflects that the overall attitude level has significantly improved after attending the intervention program ($Z = 6.741$, $P < 0.001$).

Overall knowledge has significantly improved after attending the intervention program. ($Z = 6.70$, $P < 0.001$). The overall attitude level has significantly improved

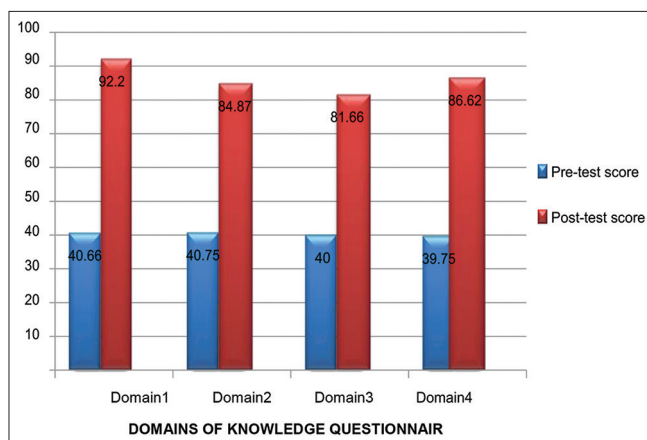


Figure 1: Bar diagram representing the comparison of pretest and posttest knowledge scores

after attending the intervention program ($Z = 6.74$, $P < 0.001$).

Correlation between knowledge and attitude of the participants following the IP

There is a significant relationship between knowledge and attitude ($\rho=0.794$, $P < 0.001$), as knowledge increases attitude also improved.

Discussion

The study provides preliminary findings on the effectiveness of an IP in improving the knowledge regarding how to improve the quality of life of elderly patients with psychiatric illness by meeting their functional needs and creating a positive attitude toward meeting these functional needs of this group of patients, among nursing interns of a tertiary government mental health setting in Bangalore.

The intervention was divided into four sessions and presented with PowerPoint, videos, active discussions, enactment of situations. The administration of this IP successfully improved the knowledge and attitude of nursing interns compared with what they received from their regular curricula.

The findings also showed that an increase in the participants' knowledge scores following the IP was

Table 1: Distribution of study sample based on the personal profile (n=60)

Personal profile	Frequency	Percentage (%)
Age	21 years	45
	22 years	55
Gender	Male	0
	Female	100
Religion	Hindu	26.66
	Christian	65
	Muslim	8.33
Domicile	Urban	31.66
	Semi-urban	21.66
	Rural	46.66

Table 2: Distribution of study sample based on the family profile (n=60)

Family profile	Frequency	Percentage (%)
Annual family income	<1 Lac	33.33
	1-2 Lac	45
	>2 Lac	21.66
Family type	Nuclear	81.66
	Joint	35
Occupation of father	Employed	86.66
	Unemployed	13.33
Occupation of mother	Employed	51.66
	Unemployed	48.33

Table 3: Assessment of change in knowledge level between pretest and posttest (n=60)

Knowledge domains	Pretest score Median (range)	Posttest Score Median (range)	Test statistic	P
Concept of functional needs and quality of life of elderly patients with psychiatric illness	2.00 (0,3)	4.0 (3,5)	-6.70	<0.001
Functional decline causes in elderly patients with psychiatric illness	5.00 (2,8)	9.00 (7,11)	-6.74	<0.001
Functional status of elderly patients with psychiatric illness: influencing factors and assessment	1.0 (0,3)	2.00 (1,3)	-5.94	<0.001
Ways to meet the functional needs and improve the quality of life of elderly patients with psychiatric illness	3.00 (0,6)	6.00 (5,8)	-6.70	<0.001
Overall score	10.5 (8,18)	25.00 (21,26)	-6.701	<0.001

Table 4: Assessment of change in attitude level between pretest and posttest (n=60)

Pre-test score Median (range)	Posttest score Median (range)	Test statistic	P
41.00 (31,60)	85.00 (80,90)	-6.741	<0.001

associated with a more favorable attitude toward meeting the functional needs of EPWPI, which can presumably improve their future nursing practice (although this was not assessed in this study).

With regard to the pretest level of knowledge of nursing students, the mean score for overall knowledge of 10.90 (SD ± 1.89) showed less knowledge level compared with the posttest knowledge level of 23.32 (SD ± 0.97). This was in line with the findings from other studies that nurses lack a knowledge base about the elderly.^[22] The knowledge deficit significantly influences registered nurses' practice and older patients' quality of care.^[23] For making a future-generation nurse with good clinical skill, we need to have an idea about the current level of knowledge of the students about the topic under discussion. Since the study subjects are nursing interns who are immediate future nurses, their knowledge level of geriatric nursing has much importance.

The result of this study showed that the subjects had pre-intervention level attitude scores of 41.316 ± 5.137 (43.48%). According to the scale developed by the researcher, the finding interprets that those subjects had a comparatively less positive attitude toward the functional needs and quality of life of elderly patients with psychiatric illness, which has been reported

by some previous studies.^[24,25] Not only can knowledge make changes in practice but a good attitude is also required for it. Hence, the better ways to improve the knowledge and attitude of future nurses are to be identified, and the researcher here developed an IP that was found statistically useful.

Limitation and recommendation

The entire study was conducted by a single researcher, including the development of tool and IP. This might have caused bias, which can be a limitation of the study. The researcher has tried maximum to reduce this bias by self-filling out the questionnaire by participants and maintaining the anonymity of the participants.

Conclusion

In conclusion, the IP improved the participants' knowledge regarding how to improve the quality of life of EPWPI by meeting their functional needs and created a favorable attitude toward meeting their functional needs. The findings are, however, limited in their generalizability as the study is among a small sample, the sample is only from one setting, there was no control group, and the follow-up of outcomes was short. In this study, we have seen that the knowledge and attitude improve immediately after the training program, but the challenges in ensuring retention of this knowledge and attitude are to be assessed in future studies, which will be useful for the practical implementation of the study result.

Also, the study did not assess whether improved knowledge and favorable attitude can be useful in their professional life, but this initiative can be better tried in future nursing curricula by giving much more importance to gerontological-oriented psychiatric nursing care.

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Conflicts of interest

There are no conflicts of interest.

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