Research Article

Impact of Community-Based Nursing Intervention on Quality of Life of Elderly

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ABSTRACT

Background: One of the biggest issues facing our generation is how to make health care systems more capable of meeting the needs of the elderly. Even when severely disabled, the majority of elderly individuals want to remain in their homes and hospitals are reducing stay times. As a result, community care has become more important. In almost every country in the world, the proportion of people aged over 60 years is growing faster than any other age group because of increased life expectancy. This demographic change has several implications for public health, especially as older age is a risk factor for many chronic diseases—diseases of long duration and generally slow progression.

Objective: The objectives of the study were to assess the prevailing health conditions among elderly, assess the quality of life of the elderly, and evaluate the impact of community-based nursing intervention on the quality of life of the elderly.

Material and Methods: In this study, a quantitative research approach and Quasi Experimental Non randomized control group research design were used. Non-probability convenience sampling technique was used, and eligible 264 elderly were selected in a 1:1 ratio in the control & experiment group A structured questionnaire was used to assess quality of life.

Results: The calculated t-value of 25.576 and the associated p-value of 0.0001 indicate that the improvement in the quality-of-life score after the intervention is highly significant. The p-value is less than the standard significance level of 0.05 suggesting that the observed change in the quality of life is not due to random chance but is indeed attributed to the community-based nursing intervention.

Conclusion: These findings highlight the importance of community-based nursing intervention in enhancing the overall well-being of the elderly population and provide valuable guidance for healthcare professionals and policymakers in designing targeted interventions and healthcare services to address the specific needs of this vulnerable group.

Keywords: Nursing Intervention, Quality Of Life, Elderly.

INTRODUCTION

Improving the ability of health care systems to respond to the demands of older people is among the greatest challenges of our time. Most elderly people, even with considerable disability, prefer to stay at home[1] and hospitals are shortening lengths of stay. Community care has therefore acquired greater relevance[2].

In almost every country in the world, the proportion of people aged over 60 years is growing faster than any other age group because of increased life expectancy[3].

Chronically ill older adults have complex patterns of health care, frequent hospital readmissions; and often receive poor or inconsistent quality of care. Several leading organizations and experts argue that care coordination emphasizing wellness, prevention, and chronic disease management is a promising means to increase quality[4].

The growing number of individuals aged sixty-five years and older has led to increased recognition of the need for health care reform[5]. As older adults often experience multiple, complex chronic illnesses and functional disabilities, the use of a variety of health services and care providers is required. This makes it difficult to coordinate and integrate care[6] resulting in more negative health outcomes, greater use of emergency and acute

services, and overall higher health care costs[7]. Although older adults are the highest users of the health care system[8], their complex care requirements are not well served by existing models of care.This study aims to measure the outcomes of a longitudinal community-based nursing intervention in improving the quality of life of the elderly.

MATERIAL AND METHODS
In this study, a quantitative research approach and Quasi Experimental Non randomized control group research design were used. Non-probability convenience sampling technique was used, and eligible 264 elderly were selected in a 1:1 ratio in the control and experimental groups. In the present study structured interview schedule will be used. As this process

yields interaction in which the subjects or interviewee gives the selected information verbally in a face-to-face situation. A structured questionnaire was used to assess quality of life.

Sampling Criteria:-
Inclusion Criteria -The study includes:
- Elderly with age group of 60 and above
- Elderly who are interested to participate in the study

Exclusion Criteria- the study excludes:
- Elderly with severe critical illness.
- Elderly who are deaf & dump

RESULTS
Section I - Findings related to Demographic Data of participants

Table: 1- Frequency and Percentage of Socio-Demographic Data
N=60

Sr.no	Socio-Demographic Data	Frequency (f)	Percentage (%)
1	**Age**		
	a. 60 – 65 years	21	35
	b. 65- 70 years	26	43.3
	c. 70 – 75 years	11	18.3
	d. above 75 years	2	3.3
2	**Gender**		
	a. Male	34	56.7
	b. Female	26	43.3
3	**Marital Status**		
	a. Married	43	71.7
	b. Unmarried	3	5
	c. Widow/ Widower	13	21.7
	d. Separated	1	1.7
4	**Type of Family**		
	a. Nuclear	39	65
	b. joint	21	35
5	**Financial Status**		
	a. pension	33	55
	b. self-dependent	8	13.3
	c. dependent on family	19	31.7
6	**Health Problems**		
	a. Diabetes	22	36.7
	b. Hypertension	27	45
	c. Arthritis	9	15
	d. heart disease	2	3.3
7	**Duration Of Health Problems**		

	a. < 1 years	8	13.3
	b. 1 – 5 years	36	60
	c. 6-10 years	16	26.7
8	**Source Of Treatment**		
	a. public health sector (allopathic/ayurvedic/homeopathic)	36	60
	b. private health sector (allopathic/ayurvedic/homeopathic)	24	40
9	**Last Month how Many Times you have Approached Health Centre?**		
	a. once a month	48	80
	b. twice a month	12	20
	c. thrice a month	0	0
10	**Last Month Expenditure on Health**		
	a. < 500 Rs.	30	50
	b. 500- 1000 Rs.	27	45
	c. 1000- 1500 Rs	3	5
11	**What you have Done if you Got any Health Related Emergency Last Month?**		
	a. approached health center	34	56.7
	b. try to manage by own	1	1.7
	c. taken help of family members	25	41.7

Table 1 presents socio-demographic data and health-related information about a particular population. In terms of age distribution 43.3% sample falling between 65 to 70 years, 35% of the sample belong to 60 to 65 years and 3.3% of above 75 years. Regarding gender distribution males accounting to 56.7% of the population, while females 43.3%. The marital status of the population shows that 71.7%, are married and 5% are unmarried, while 21.7% are widows or widowers and Separated individuals make up of 1.7%. When it comes to family type 65% of the population lives in nuclear families and 35% live in joint families. Financial status information reveals that 55% of the population depends on a pension, 13.3% are self-dependent and 31.7% are financially dependent on their family. Health-related data shows that hypertension (45%), diabetes (36.7%), Arthritis (15%), and heart disease (3.3%) affect the population. The duration of health problems varies, with 60% of the population experiencing health issues for 1 to 5 years, while 26.7% have been affected for 6 to 10 years and 13.3% had health problems for less than a year. In terms of healthcare, 60% of the population seeks treatment from the public health sector (allopathic/ayurvedic/homeopathic), while 40% of private health facilities are taken. The data on health center visits in the last month shows that 80% of the population visited a health center once, while 20% visited twice. No one visited a health center more than twice in the last month. Regarding health-related emergencies in the last month, 56.7% of the population approached a health center, while 41.7% sought help from family members. Only 1.7% tried to manage the emergency on their own.

Section II - Findings Related to Prevailing Health Conditions among the Elderly:

Table: 2 - Frequency and Percentage of Prevailing Health Conditions among the Elderly
N=60

Health Problems	Frequency (%)	Duration of health Problems		
		< 1 years	1 – 5 years	6-10 years

Diabetes	22 (36.7%)	3 (13.63%)	13 (59.09%)	6 (27.27%)
Hypertension	27 (45%)	4 (14.81%)	14 (51.85%)	9 (33.34%)
Arthritis	9 (15%)	1(11.11%)	8 (88.89%)	0
Heart disease	2 (3.3%)	0	1(50%)	1(50%)

In terms of health problems, Health-related data shows that hypertension (45%), diabetes (36.7%), Arthritis (15%), and heart disease (3.3%) affect the population.

As per the data presentation, the duration of these health problems reveals interesting patterns. For participants with diabetes, 13.63% have been dealing with the condition for less than a year, while 59.09% have had it for 1 to 5 years, and 27.27% have been managing it for 6 to 10 years. Similarly, for those with hypertension, 14.81% have experienced it for less than a year, 51.85% for 1 to 5 years, and 33.34% for 6 to 10 years. Arthritis, on the other hand, predominantly affects participants for a longer duration, with 11.11% experiencing it for less than a year and a significant majority of 88.89% enduring it for 1 to 10 years. As for heart disease, both cases (50%) have been present for 1 to 10 years.

Section III - Findings Related to the Comparison of Quality of Life Before and after Community-Based Nursing Intervention on Quality of Life of Elderly:

Table: 3.1 - Frequency and Percentage of Prevailing Health Conditions among the Elderly
N=60

	Pre-test		Post- Test	
Quality of Life	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Poor Quality of life: < 43	**0**	**0**	**0**	**0**
Average Quality of life: 43-86	**59**	**98.33%**	**48**	**80%**
Good Quality of life: 87-130	**1**	**1.67%**	**12**	**20%**

Table 3.1 provides data on the quality of life of a group of participants before and after an intervention or treatment. The quality of life is categorized into three levels: "Poor," "Average," and "Good," based on specific score ranges.

In the pre-test assessment, none of the participants had a poor quality of life, 98.33% of the participants fell into the "Average" quality of life range, with scores ranging from 43 to 86. Out of the total participants, 59 were in this category. Additionally, a very small proportion, 1.67%, had a "Good" quality of life with a score range of 87 to 130. Only one participant was classified in this category during the pre-test. After the intervention, the distribution of quality-of-life categories shifted. The percentage of participants in the "Average" category decreased to 80%, with 48 individuals falling into this range. This indicates an improvement in the quality of life for some participants as they moved from the "Average" to the "Good" category. Furthermore, the percentage of participants in the "Good" category increased significantly to 20%, with 12 individuals achieving a higher quality of life after the intervention.

Table: 3.2 Comparison of Pre-Test and Post-Test With Each Domain (Paired T-Test)
N=60

Sr. No.	DOMAIN	Test	Mean	SD	t- value	p-value
1	**PHYSICAL DOMAIN**	**Pre-test**	**13.13**	**1.751**	**14.286**	**0.001**
		Post-test	**19.12**	**3.58**		
2	**PSYCHOLOGICAL DOMAIN**	**Pre-test**	**11.25**	**1.59**	**16.785**	**0.012**
		Post-test	**18.97**	**3.737**		
3	**SOCIO ECONOMICAL DOMAIN**	**Pre-test**	**19.78**	**4.381**	**12.254**	**0.351**
		Post-test	**28.13**	**3.529**		

4	SPIRITUAL DOMAIN	Pre-test	16.48	1.787	9.693	0.034
		Post-test	12.6	3.073		

SD- Standard Deviation

Table 3.2 presents that, in the Physical Domain, the pre-test mean score was 13.13 with a standard deviation of 1.751, while the post-test mean score increased significantly to 19.12 with a standard deviation of 3.58. The calculated t-value was 14.286 with an associated p-value of 0.001, indicating a highly significant improvement in the participants' physical domain after undergoing the intervention or treatment.

In the Socio-Economical Domain, the pre-test mean score was 19.78 with a standard deviation of 4.381. The post-test mean score increased to 28.13 with a standard deviation of 3.529. However, the calculated t-value of 12.254 was associated with a p-value of 0.351, indicating that the change in the socio-economical domain may not be statistically significant. Further investigation may be needed to determine the reason for this non-significant result.

Moving on to the Psychological Domain, the pre-test mean score was 11.25 with a standard deviation of 1.59. After the intervention, the post-test mean score rose notably to 18.97 with a standard deviation of 3.737. The calculated t-value was 16.785, and the corresponding p-value was 0.012, demonstrating a highly significant enhancement in the participants' psychological domain following the intervention.

Finally, in the Spiritual Domain, the pre-test mean score was 16.48 with a standard deviation of 1.787. Surprisingly, the post-test mean score decreased to 12.6 with a standard deviation of 3.073. The calculated t-value was 9.693, and the associated p-value was 0.034, indicating a statistically significant decrease in the participants' spiritual domain after the intervention. This finding may warrant additional exploration to understand why the intervention led to a decline in the spiritual domain.

Table: 3.3 Comparison of Pre-Test and Post- Test with all Domains (Paired T-Test)
N=60

Domain	Test	Mean	SD	t value	p value
All Domains	Pre- test	56.7667	5.90977	25.576	0.0001
	Post- test	82.7	5.83202		

SD- Standard Deviation

Table 3.3 presents the calculated t-value of 25.576 and the associated p-value of 0.0001 indicate that the improvement in the quality-of-life score after the intervention is highly significant. The p-value is less than the standard significance level of 0.05 suggesting that the observed change in the quality of life is not due to random chance but is indeed attributed to the community-based nursing intervention.

CONCLUSION

In conclusion, the study presented valuable insights into the socio-demographic profile, prevalent health conditions, and the impact of a community-based nursing intervention on the quality of life of the elderly population. The nursing intervention proved to be highly effective in improving the quality of life of the elderly participants, with a significant increase in post-test quality of life scores compared to pre-test scores. This positive impact was observed across various domains, including physical and psychological well-being, although the socio-economical domain showed no significant change. These findings highlight the importance of community-based nursing interventions in enhancing the overall well-being of the elderly population and provide valuable guidance for healthcare professionals and policymakers in designing targeted interventions and healthcare services to address the specific needs of this vulnerable group.

DISCLAIMER
Consent and Ethical Approval
The study's ethical clearances, were received form the university's research and ethical committee, and each patient's consent to participate in the study was secured.

Conflict of Interest
The authors have declared that no conflict of interest exists.

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