A study to assess the knowledge on Assessment of balance in elderly among III[RD] year B.Sc.(N) students in Narayana College of Nursing, Nellore A.P.

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Abstract: A comprehensive clinical assessment of balance is important for both diagnostic and therapeutic reasons in clinical practice. Balance disorders can have serious consequences for physical function as well as social function falls and immobility to avoid falls are associated with significant morbidity, trauma inactivity and depression. **OBJECTIVES:** To assess the level of knowledge regarding assessment of balance in elderly among nursing students. To find out the association between the level of knowledge regarding assessment of balance in elderly among nursing students with their selected socio demographic variables **METHODOLOGY:**.100 participants was selected by using non probability convenience sampling techniques The socio demographic data was collected and the structured questionnaire was used to collect the data .The data was analyzed by using descriptive and inferential statistics based on the objectives of the study. **RESULTS:** Level of knowledge regarding on balance on elderly people among III rd year b.sc.(n) students, 6(6%) had A^+, 8(8%) had A, 31(31%) had B^+, 27(27%) had B, 18(18%) had C and 10(10%) had D grade of knowledge**. KEYWORDS: Knowledge, Balance , Elderly, Nursing student.**

Introduction: One third to one half of the population over age 65 reports some difficulties with balance or ambulation. Patients with neurological or musculo skeletal disorders are even more likely to have balance problems that affect their safe mobility. The complexity of control of balance results in many different types of balance problems that need systemic clinical assessment for effective treatment.

Balance is achieved by the complex integration and coordination of multiple body systems including the vestibular, visual, auditory, motor and higher level premotor systems. Information from sensory system is interpreted in the central nervous system based on an internal body schema, an appropriate response is formulated, and the postural. Muscle synergies are activated to perform the appropriate head, eye, trunk and limb movements to maintain posture.

Maintaining balance encompasses the acts of maintaining, achieving or restoring the body center of mass relative to the base of support, or more generally, within the limits of stability. The functional goals of the balance system includes, maintenance of

a specific postural alignment, such as sitting and standing, facilitation of voluntary movement, such as the movement transitions between postures.

Reactions that recover equilibrium to external disturbances such as a trip, slip or push. It is important to remember that intact balance control is required not only to maintain postural related activities during daily life, such as standing while performing manual tasks, rising from a chair, walking and turning. Disorders of balance can be of the result of pathologies, such as neurological disease, sensory deficits or muscle weakness. The postural control system can also be affected by aging reaching an optimum in early adult life and deteriorating from approximately the age of 50 onwards.

A comprehensive clinical assessment of balance is important for both diagnostic and therapeutic reasons in clinical practice. Balance disorders can have serious consequences for physical function as well as social function falls and immobility to avoid falls are associated with significant morbidity, trauma inactivity and depression. For these reasons, the impact of balance disorders is enormous, both for affected individuals and for society at larger.

Background of the Study:

Now a days, falls are one of the largest public health problems among elderly people due to the high morbidity, mortality and costs for the family and society (stevens $ OIS on 2000). The main risk factors for falls in this population are related to functional limitations, history of falls, increasing age (stevens $ OISon 2000, Newton 1995), muscle weakness, use of psychotropic drugs, environmental risks. (stevens $ OIS on 2000, Newton 1995, Gregy al 2000).

Researchers have reported that elderly women have a higher propensity for falls because of less than body mass and muscle strength, a higher prevalence of chronic degeneration diseases and exposure to domestic activities.

Every year in the united states (Fuller 2000), 30% of non institutionalized elderly people suffer falls. Approximately 5% of these cause fracture specially in the hips (perracinis Ramos 2002) in the united states, the annual cost of treating hip fractures among elderly people caused by falls is 10 billion dollars (carter et al 2001).

Thus, it is recognized in the literature the physical activity practiced throughout life can diminish bone and muscle loss and reduce the risk of fractures by up to 6% (olson 2000, Gregg et al 2000). In addition physical activity promotes increased, muscle strength, aerobic conditioning flexibility and balance, and reduces the risk of falls and improves quality of life (Barnett et al 2003, Gregg et al 2000).

Statement of the Problem:

A study to assess the knowledge on Assessment of balance in elderly among III rd year B.Sc. (N) students of Narayana college of nursing, Nellore A.P.

Objectives:

- To assess the level of knowledge regarding assessment of balance in elderly among nursing students.
- To find out the association between the level of knowledge regarding assessment of balance in elderly among nursing students with their selected socio demographic variables.

Operational Definitions:

Assessment: Evaluate or estimate the nature, ability or quality to judge the level of knowledge on III year B.Sc (N) students.

Knowledge: It refers to information and skill acquired through experience regarding assessment of balance in elderly among III year B.Sc (N) students.

Elderly: It refers to the most developed countries have accepted the chronological age of 65 years and above.

Nursing students: It refers to the nursing students of III year B.Sc (N).

Materials and Methods:

Research Approach: Quantitative research approach

Research Design: Cross sectional descriptive research design.

Setting of the Study: The study was conducted in Narayana College of Nursing, Nellore A.

Population:

Target population: The target population for the study includes all nursing students.

Accessible Population: The accessible population includes the Nursing students studying in Narayana College of Nursing, Nellore.

Sample: The sample for the present study includes the III Year B.Sc (N) Nursing students.

Sampling Technique: Non probability convenience sampling technique was adopted to select samples.

Sample Size: The sample size for the present study was 100 Nursing students who fulfils the inclusion criteria.

Criteria for Sampling:

Inclusion Criteria: The nursing students who are

- Willing to participate the study.
- Present at the time of data collection.

Exclusion Criteria: The nursing students

- Who are sick at the time of data collection.

Variables of the Study:

Research variables: The knowledge regarding Assessment of balance in elderly among Nursing students.

Demographic variables: The socio demographic variables includes age, Source of information and attended any CNE programme.

Description of Tool:

Part - A: It deals with socio demographic data of III year B.Sc (N) students. It includes age, source of information and attended any CNE programme.

Part - B: This consist of 25 items of structured questionnaire to assess the knowledge regarding Assessment of balance in elderly among III Year Nursing students in Narayana College of Nursing, Nellore.

Score Interpretation: The structured questionnaire consist of 25 questions, each correct answer was awarded 'one' mark and each wrong answer was awarded 'zero' mark.

Grade	Percentage	Score
A+	91-100%	20-22
A	81-90%	18-19
B+	71-80%	16-174
B	61-70%	14-15
C	50-60%	11-13
D	<50%	<11

Data Collection Procedure:

The data collection procedure carried out after obtaining Permission from the Institutional Ethics Committee, principal, Narayana college of Nursing Nellore. Investigator introduced herself and explained the nature and purpose of the study to participants. Confidentiality of the information was assured by

taking informed consent from the participants .100 participants was selected by using non probability convenience sampling technique who fulfilled the inclusion criteria. The data collected by administering the two parts of the tool. The investigator distributed the tool for filling the socio demographic data and the structured questionnaire which consists of various items related to Assessment balance in elderly. It took 15-20 minutes for the participant to fill the data. The total two week duration required by the investigator to get the required number of study participants. Then the collected data was coded, tabulated and organized for statistical analysis. Further the data was analyzed by using descriptive and inferential statistics based on the objectives of the study.

Results and Discussion:

Table No.-1: Frequency and Percentage distribution of III[rd] year B.Sc.(N) students based on age in years.

(N=100)

Age	Frequency	Percentage
a. 19-20 years	48	48
b. 21-22 years	51	51
c. 23-24 years	1	1
Total	**100**	**100**

Table - 1: Illustrates that the age of III[rd] year B.Sc.(N) students 48(48%) are between the age group of 19-20 years 51(51%) are between the age group of 21-22 years and 1(1%) are between the age group of 23-24 years.

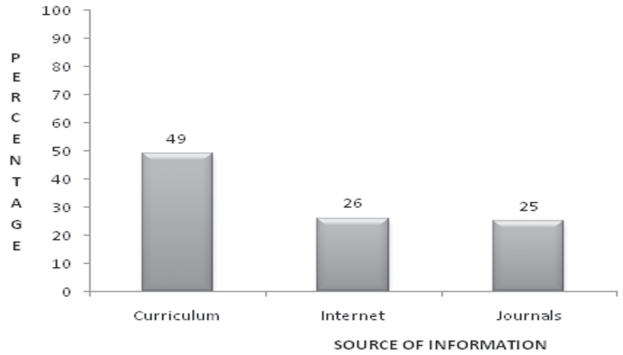

Fig.No.1: Percentage distribution of III[rd] year B.Sc(N) students based on Sources of Information

Table-2: Frequency and percentage distribution based on the level of knowledge on balance on elderly people among IIIrd year B.Sc.(N) students.

Category	Frequency	Percentage
A+	6	6
A	8	8
B+	31	31
B	27	27
C	18	18
D	10	10
Total	**100**	**100**

Table-2: Reveals that level of knowledge regarding on balance on elderly people among IIIrd year b.sc.(n) students, 6(6%) had A^+, 8(8%) had A, 31(31%) had B^+, 27(27%) had B, 18(18%) had C and 10(10%) had D grade of knowledge.

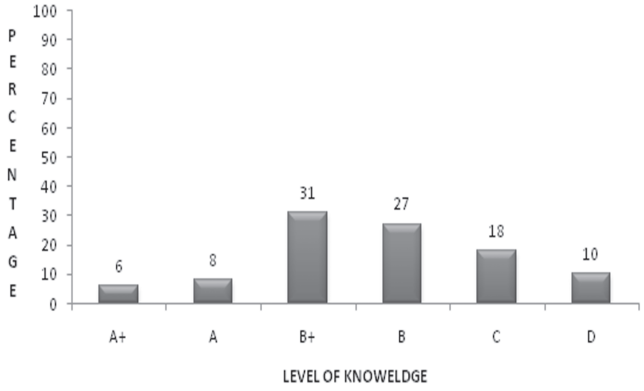

Fig.No-2: Percentage distribution of III[rd] year B.Sc.(N) students based on level of knowledge on balance of elderly .

Table-3: Mean and Standard deviation of level of knowledge regarding assessment of balance in elderly **(N=100)**

Category	Mean	SD
Knowledge regarding assessment of balance in elderly	35.51	19.945

Table - 3: shows that the level of knowledge regarding assessment of balance in elderly among IIIrd year B.Sc. (N) student that mean value was 35.51 with standard deviation was 19.945

Table-4: Association between the level of knowledge regarding assessment balance in elderly among III[rd] year B.Sc (N) students with selected demographic variables.

There was no significant association between the level of the knowledge regarding assessment of balance in elderly among III[rd] year B.Sc (N) students with their selected socio demographic variables such as age in years, source of information attended any CNE program.

S. No	Demographic Variables	A		B+		B		C		D		Chi-Square
		F	%	F	%	F	%	F	%	F	%	
1	**Age**											C=10.793 T=21.0 Df=12 P=0.50 NS
	19-20 years	2	2	9	9	10	10	19	19	8	8	
	21-22 years	-	-	10	10	20	20	7	7	14	14	
	23-24 years	-	-	-	-	1	1	-	-	-	-	
2	**Source of information**											C=25.619 T=21.0 Df=12 P=0.50 NS
	Curriculum	-	-	20	20	14	14	-	-	15	15	
	Text Book	1	1	15	15	-	-	-	-	10	10	
	Journals	-	-	10	10	-	-	15	15	-	-	
	Internet	-	-	-	-	-	-	-	-	-	-	
3	**Attended any CNE programme**											C=3.478 T=9.49 Df=4 P=0.50 NS
	Yes	-	-	20	20	30	30	1	1	-	-	
	No	-	-	30	30	10	10	-	-	9	9	

Conclusion: It is the study concluded that majority of the III year B.Sc Nursing students had B+ grade [71 to 80%] knowledge regarding assessment of balance in elderly .Age and sources of information had significant association with the level of knowledge. More opportunities to be given to all nursing students to gain knowledge, skills and practice to assess the balance and equilibrium of elderly , clinical practice, attending seminars, workshops and conferences on geriatrics.

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