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### NARAYANA COLLEGE OF NURSING

CHINTHAREDDYPALEM:: NELLORE - 524 003, A.P.

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#### DEPARTMENT OF NURSING RESEARCH

Ref No: ACD/WS/CIR-04

Date: 16-01-2018

#### CIRCULAR

This is to inform you that Department of Nursing Research is planned to organize a Work shop on "SAMPLE SIZE CALCULATION" at Seminar Hall, 22/1/2018 from 9am-5pm. All are expected to participate and get empowered with current updates.

Principal NARAYANA COLLEGE OF NURSING Chinthareddypalem, NELLORE - 524 003.

Copy to

**NAAC** Coordinator Head's of all Department

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# WORKSHOP ON SAMPLE SIZE CALCULATION

Date:22-1-2018 PROGRAM SCHEDULE

| Time           | Agenda  | Speakers  |  |
|----------------|---|---|--|
| 09:00-09:15am  | Pre Test  | All Participants  |  |
| 09:15- 09:20am | Prayer Song   | I Year M.Sc (N) Students  |  |
| 09:20-09:25am  | Welcome Song I Year M.Sc (N) Stude  |   |  |
| 09:25-09:30 am | Welcome Speech  Mrs. K. Kantha.Head of th Department of Nursing Re                        |   |  |
| 09:25-09:30 am | Lamp lighting Dignitaries   |   |  |
| 09:30-09:40 am | Introduction  | Dr. Indira .A, Principal,   |  |
| 09:40-09:55am  | Estimating sample size with Absolute relative precision.                                  | Mrs. Latha A, Prof, Head of the<br>Department of Medical surgical<br>Nursing  |  |
| 09:55-10:25am  | Estimating sample size with relative precision.   | Mrs, B. Vanaja kumari, Prof Head<br>of the Department of Nursing<br>Education |  |
| 10:25-10:55am  | Estimating sample size using simple random sampling                                       | Dr. Rajeswari H Head of the<br>Department of Psychiatric Nursing              |  |
| 10:55-11:15am  | REFRESHMENTS  |   |  |
| 11:15-11: 40am | Estimating sample size for the difference between two proportions with absolute precision | Ms. Revathi, Assoc.Prof, Department of Obstetrics and Gynecological Nursing   |  |
| 11:40-12:00pm  | Estimating sample size for the difference between two proportions with standard error.    | B. Madhavilatha Assoc.Prof, Department of Medical and Surgical Nursing        |  |
| 12:00-12:30pm  | sample size for the two population proportions with one -tail test                        | G.Ramya, Head of the Department of Pediatric Nursing                          |  |
| 12:30-01:00pm  | sample size for the two population proportions with two -tail test                        | Ms. Elizabeth Jasmine, Head of the Department of Nursing Foundation           |  |
| 01:00-02:00pm  | LUNCH   |   |  |
| 02:10-03:30pm  | Sample size calculation   | Ms. Radha Saini, Fellow UICC,<br>Geneva                                       |  |
| 03:30-04:00pm  | Post Test   | All Participants  |  |
| 04:00-04:25pm  | Certificate Distribution Presenters   |   |  |
| 04:26-04:40pm  | Vote Thanks   | M.Sc(N) II yr student Student   |  |
| 04:40-04:50pm  | National Anthem   |   |  |



A Solve PRINCIPAL

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#### WORKSHOP ON SAMPLE SIZE CALCULATION

DATE: 22-01-2018

#### REPORT

First of all, The Nursing Research Department on behalf of NARAYANA COLLEGE OF NURSING, thank Ms. Radha Saini, Fellow UICC, Geneva, for being as a resource person for "WORKSHOP ON SAMPLE SIZE CALCULATION", really we all are in debated to Ms. Radha Saini, Fellow UICC, Geneva, for lending us this encouragement and giving us the opportunity for proving our selves.

The program was attended by all eminent faculties from Narayana Medical, We thank Dr. Indira.A, Principal, Narayana College of Nursing, for conducting this workshop.

Pretest was conducted to 42 participants for 15 min. The workshop was started with the prayer song by I Year Msc(N) students, followed by welcome song, Mrs K.Kantha Assoc.prof, Head of the Department of Nursing Research Department welcome the gathering.

The Guest of Honor Ms Radha Saini, Organizing chairperson, Dr.Indira.A & other dignitaries lightened the tradition lamp, followed by thunderous applause by the participants.



Fig -1 Lamp lighting by Dignitaries

Dr. Indira.A Principal, has given brief introduction regarding about workshop on Sample size calculation. Mrs.LATHA . A M.Sc (N) PROF, explained about estimating

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sample size with absolute relative precision ,Mrs.B. VANAJA KUMARI, M.SC(N), PROF, explained about estimating sample size with relative precision.

#### Estimating Sample Size Relative Precision

The term Relative precision refers to estimation of population parameter to within a defined percentage of the population parameter itself. This is described as 'Estimating P to within "E" of P'.

#### Formula

 $n = Z^2$ . P.  $(1-p)/(e. p)^2$ 



Mrs. H Rajeswari.Prof, vice principal, presented on estimating sample size with using simple random sampling. Ms. Revathi, M. Sc (N), presented about estimating sample size for the difference between two proportions with absolute precision.

At 12:00 to 12;30pm Ms.G.Ramya ,M.Sc(N) Head of the Department of Pediatric nursing, presented about sample size for the two population proportions with one –tail test.

At 12:30 to 1:00pm Ms. Elizabeth Jasmine, M. Sc(N), Head of the Department of nursing foundation explained about sample size for the two population proportions with two-tail test,

Post lunch from 2:00pm to 3:30 pm The Guest Of Honour Ms Radha Saini, Fellow UICC, Geneva, given the lecture for an hour on sample size calculation. She emphasized on the Sample size determination is the act of choosing the number of observations or replicates to include in a statistical sample. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. In practice, the sample size used in a study is determined based on the expense of data collection, and the need to have sufficient statistical power. In complicated studies there may be several different sample sizes involved in the study. For example, in a stratified survey there would be different sample sizes for each stratum. In a census, data are collected on the entire population, hence the sample size is equal to the population size.



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In experimental design, where a study may be divided into different treatment groups, this may be different sample sizes for each group.

Pretest and post-test knowledge questionnaire are distributed. Data is collected and analyzed. The following scoring key is used to analyze the data.

**OVERALL ANALYSIS:** 

#### DISTRIBUTION OF LEVEL OF KNOWLEDGE

Table: 1 frequency and percentage distribution of knowledge in pretest and post test.

N = 42

|       | PRE TEST  |            | POST-TEST |            |
|-------|-----------|------------|-----------|------------|
| GRADE | FREQUENCY | PERCENTAGE | FREQUENCY | PERCENTAGE |
|       | (F)       | (%)        | (F)       | (%)        |
| A+    | 0         | 0          | 16        | 39.4.      |
| A     | 3         | 5.3        | 20        | 45.9       |
| B+    | 13        | 31.7       | 6         | 14.7       |
| В     | 12        | 31         | 0         | 0          |
| С     | 9         | 20         | 0         | 0          |
| D     | 5         | 12.0       | 0         | 0          |
| TOTAL | 42        | 100        | 42        | 100        |

With regard to the level of knowledge on sample size calculation among participants, the pretest results shows that 3(5.3) scored "A" grade, 13 (31.7%) participants scored "B+" grade, 12 (31%) participants scored "B" grade, 8 (20%)scored "C", D grade scored 5(12%) and no participants scored A+. While in the post test, the knowledge level improved as 16(39.4%)participants scored "A+" grade, 20 (45.9%) scored "A" grade, and 6 (14.7%) of participants scored "B+" grade, and there was no participants in B, C and D grades. The results indicate that participants level of knowledge on sample size calculation has increased and participants has benefited from the programme.

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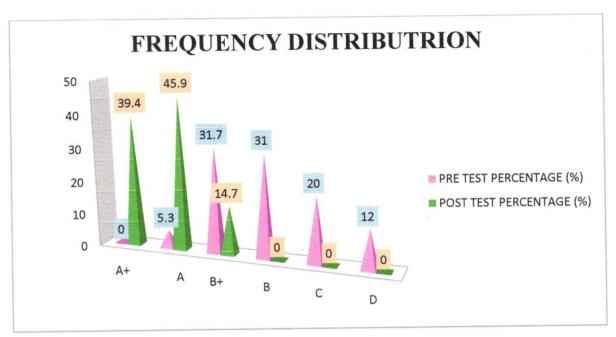


FIG: 4 Frequency distribution of knowledge in pretest and post test.

Table no: 2: Frequency and percentage distribution of feedback analysis among participants N = 42

| DESCRIPTION | PARTICIPANTS  |                |  |  |
|-------------|---------------|----------------|--|--|
|             | FREQUENCY (F) | PERCENTAGE (%) |  |  |
| EXCELLENT   | 21            | 47.9           |  |  |
| VERY GOOD   | 16            | 40.4           |  |  |
| GOOD        | 5             | 11.7           |  |  |
| AVERAGE     | 0             | 0              |  |  |
| POOR        | 0             | 0              |  |  |
| TOTAL       | 42            | 100            |  |  |

The above table depicts that 48% of participants opted that the workshop was excellent and 41% of delegates chosen that it was very good very few people only given that it was good by this feedback we can say that the workshop was successful.

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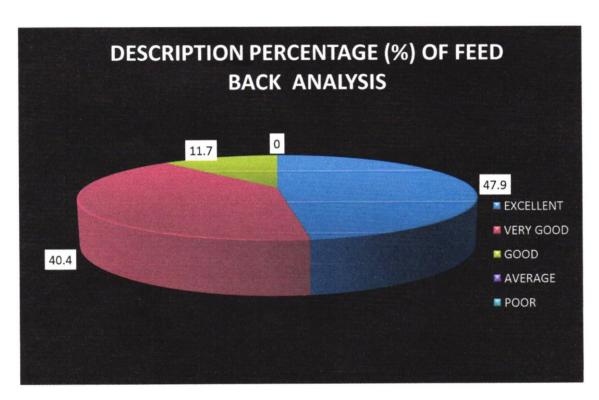


FIG no. 4: Percentage distribution of feed back analysis among participants



Fig-5 Involving the delegates by speakers effective talk

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At the end of all the above speeches Dr.Indira.A, Principal, summarized the whole topic and involved the audience too in bringing up their view points during the discussion and distributed the certificates to all the speakers.

At the end the program Post test was conducted followed by vote of thanks given by MS. Divya vani MSc,(N)II year, and the program end with National anthem.

CONCLUSION: The Workshop was very effective because there was a significant increase of knowledge in post test compare to pretest.

Organizing secretary

Head of the Nursing Research Department

Narayana College of Nursing

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