IJNH Innovational Journal of Nursing and Healthcare (IJNH)

www.ijnursing.com

Research Article

To assess the effectiveness of planned teaching programme on epidemiological research at MTIN, Changa, India

Jayesh Patidar
Manikaka Topawala Institute of Nursing Charusat, Changa, Gujarat, India.

Abstract

Epidemiology is the study and analysis of the patterns, causes, and effects of health and disease conditions in defined populations.
Aim: To assess the knowledge about epidemiological research of faculty and Post graduate Nursing students before teaching. The knowledge about epidemiological research of faculty and post graduate nursing students after teaching, and the knowledge about epidemiological research of faculty and Post graduate Nursing students before and after teaching.
Method: In this research work quasi experimental design was implemented. Design was employed pre and post test study. In this study population of nursing institute teaching faculty and Post graduate Nursing student was characterized. There are 47 sample of Teaching faculty and Post graduate nursing students of MTIN, Changa, India.
Result: The majority (59%) of teaching faculty and Post graduate Nursing student in pre test were having average knowledge score (4-7) and 21% of teacher's faculty and Post graduate Nursing student having poor knowledge. Only 19% of faculty and Post graduate nursing student good knowledge. Apart from this the majority (70.21%) of teaching faculty and Post graduate Nursing student in post test were having good knowledge score (8–10) and 29.78% of teachers faculty and Post graduate Nursing student having average knowledge and 0% of faculty and Post graduate Nursing student poor knowledge.
Conclusion: the study it is finalizing that the teaching on epidemiological research was useful and effective for nursing teachers and post graduate faculty.

Keyword: Epidemiology, Teaching programme, Quasi Experimental design, Pre test, Post test.

***Corresponding author: Mr. Jayesh Patidar,** Asst. Professor, Manikaka Topawala Institute of Nursing, CHARUSAT, Changa, Gujrat, India. Email: jayeshpatidar.nur@charusat.ac.in

1. Introduction

Epidemiology is the study and analysis of the patterns, causes, and effects of health and disease conditions in defined populations. It is the cornerstone of public health, and shapes policy decisions and evidence-based practice by identifying risk factors for disease and targets for preventive healthcare. Epidemiologist's help with study design, collection, and statistical analysis of data, amend interpretation and dissemination of results. Epidemiology has helped develop methodology used in clinical research, public health studies, and, to a lesser extent, basic research in the biological sciences [1]. Epidemiologists employ a range of study designs from the observational to experimental and generally categorized as descriptive, analytic (aiming to further examine known associations or hypothesized relationships), and experimental (a term often equated with clinical or community trials of treatments and other interventions). In observational studies, nature is allowed to "take its course" as epidemiologists observe from the sidelines. Conversely, in experimental studies, the epidemiologist is the one in control of all of the factors entering a certain case study. Epidemiological studies are aimed, where possible, at revealing unbiased relationships between exposures such as alcohol or smoking, biological agents, stress, or chemicals to mortality or morbidity. The identification of causal relationships between these exposures and outcomes is an important aspect of epidemiology. Modern epidemiologists use informatics as a tool. Observational studies have two components, descriptive and analytical. Descriptive observations pertain to the "who, what, where and when of health-related state occurrence". However, analytical observations deal more with the 'how' of a health-related event. Experimental epidemiology contains three case types: randomized controlled trials (often

used for new medicine or drug testing), field trials (conducted on those at a high risk of conducting a disease), and community trials (research on social originating diseases) [2]. A healthy childhood is the foundation for a healthy adult life. Habits formed in childhood have a long term impact on health and well being. In order to keep a child in good health, parents and significant others should help their children in cultivating healthy habits towards optimal health [3]. The common health related problems encountered during the formative years are gastro intestinal infections, respiratory ailments, obesity etc. Among these the obesity is a global concern due to its potential risk for highest rise in non- communicable diseases like diabetes mellitus, Ischemic heart disease and other cardiac conditions in later part of life As per the estimates there are more than 300 million obese people throughout the worldwide Childhood obesity has reached epidemic proportions in 21st century, with rising rates in both the developed and developing world, for which prevention of childhood obesity is now a global priority. This reflects the fact that during the past two decades rates of obesity have escalated sharply in both developed and developing Countries [4].

Following are the types of Epidemiological Study Designs:

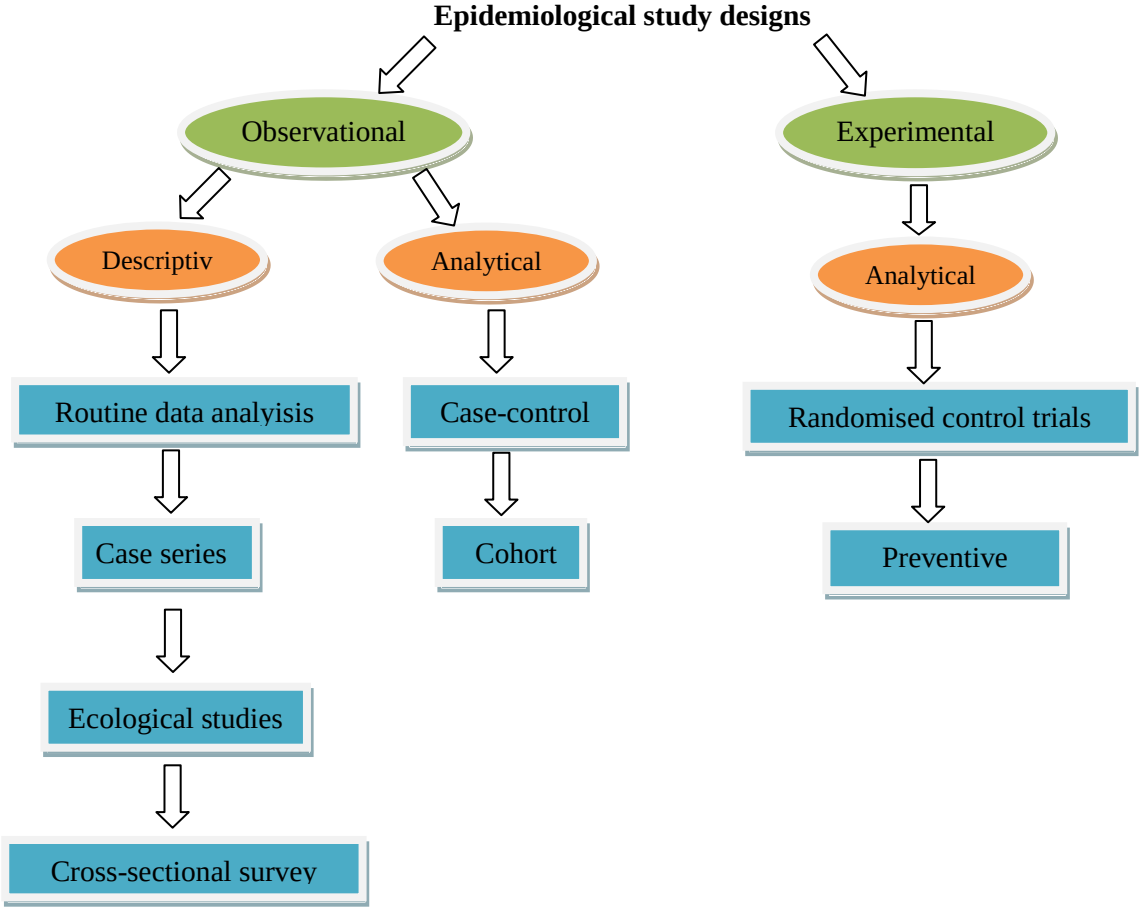

Fig 1 Epidemiological Study Designs

Objectives:

1. To assess the knowledge about epidemiological research of faculty and Post graduate Nursing students before teaching.
2. To assess the knowledge about epidemiological research of faculty and Post graduate Nursing students after teaching.
3. To compare the knowledge about epidemiological research of faculty and Post graduate Nursing students before and after teaching.

Criteria:

Inclusion Criteria: The study is limited to those faculty and Post graduate nursing students who are willing to participate in the study.
Exclusion Criteria: The study is limited to those faculty and Post graduate nursing students who are not willing to participate in the study.

Hypothesis:

HO: There will be no significant difference in the knowledge between pre test and post test scores among the faculty and Post graduate Nursing students elicited by structured questionnaire.

H1: There will be significant difference in the knowledge between pre test and post test scores among the faculty and Post graduate Nursing students elicited by structured questionnaire.

Assumptions: The faculty and Post graduate Nursing students may have some knowledge about epidemiological research.

2. Methodology and design:

In this research work Quasi Experimental design was implemented. Design was employed pre and post test study. In this study population of nursing institute teaching faculty and Post graduate Nursing student was characterized. There are 47 sample of Teaching faculty and Post graduate nursing students of MTIN, Changa, India. In this study convenient sampling was used [5-7] Data collection: The Knowledge Questionnaire was prepared which is related to epidemiological research. The data was directly collected in the form of Questionnaire from Teaching faculty and Post graduate nursing students before teaching start as a pre test and also collected data immediate after teaching in the form of Post test. Total no of Questionnaire was 10, which was based on objective style.

Data Analysis: A Simple descriptive statistics technique was used for comparison the knowledge score between pre test and post test.

Scale: Total no of questionnaire 10. Each correct question gets one mark.

The level of knowledge has been classified as:

Table No 1: Level knowledge of epidemiological research

Sr. No.	Score	Level
1	0-3	Poor
2	4-7	Average
3	8-10	Good
Total Score	10	-

3. Results

Study findings:

The collected data is tabulated, analyzed, organized and presented under the following headings.

Section I

Table No 2: Analysis of data related to knowledge scores before teaching

Overall knowledge Score	Pre Test Frequency	Percentage
0- 3 (Poor)	10	21.27 %
4–7 (Average)	28	59.57 %
8 – 10 (Good)	09	19.14 %

The above Table 2 shows that the majority (59%) of teaching faculty and Post graduate Nursing student in pre test were having average knowledge score (4-7) and 21% of teacher's faculty and Post graduate Nursing student having poor knowledge. Only 19% of faculty and Post graduate nursing student good knowledge.

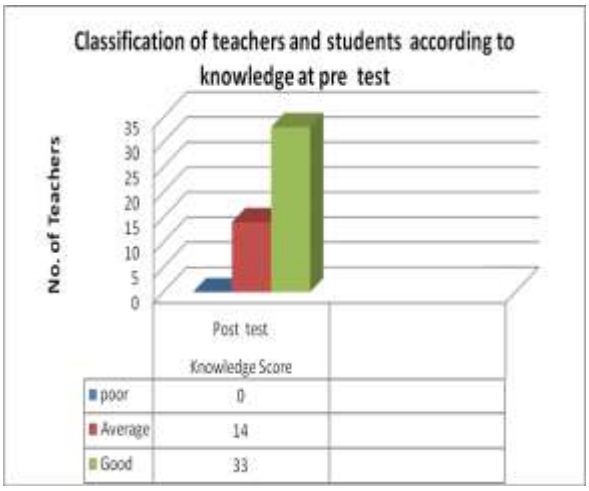

Figure 2: Bar diagram showing pre test knowledge score in faculty and Post graduate Nursing student

Section II

Table No 3: Analysis of data related to knowledge scores after teaching

Overall knowledge Score	Pre Test Frequency	Percentage
0- 3 (Poor)	0	0 %
4–7 (Average)	14	29.78 %
8 – 10 (Good)	33	70.21 %

The above Table 3 shows that the majority (70.21%) of teaching faculty and Post graduate Nursing student in

post test were having good knowledge score (8–10) and 29.78% of teachers faculty and Post graduate Nursing student having average knowledge and 0% of faculty and Post graduate Nursing student poor knowledge.

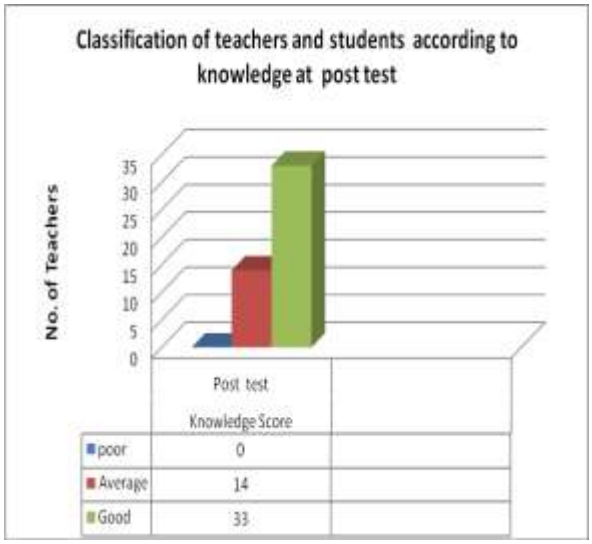

Figure 3: Bar diagram showing post test knowledge score in faculty and Post graduate Nursing student

Section III

It includes analysis of data related to compare pre-test and post-test knowledge of faculty and Post graduate nursing students.

Table No 4: Analysis of data related to compare pre test and post test knowledge of faculty and Post graduate nursing students

Over all Knowledge Score	Pre test		Post test	
	Frequency	%	Frequency	%
0- 3 (Poor)	10	21.27	0	0
4–7 (Average)	28	59.57	14	29.78
8 – 10 (Good)	09	19.14	33	70.21

The above Table 4 shows that the majority (59.57%) of teachers and students in pre test were having average knowledge score (4-7), where as in post test majority (70.21%) of the teachers and students have a good knowledge score (8-10).

The knowledge scores of the samples show a marked increase as seen in the post-test, which indicates that the teaching on epidemiological research is effective in increasing the knowledge of the teachers and post graduate nursing students of MTIN, Changa.

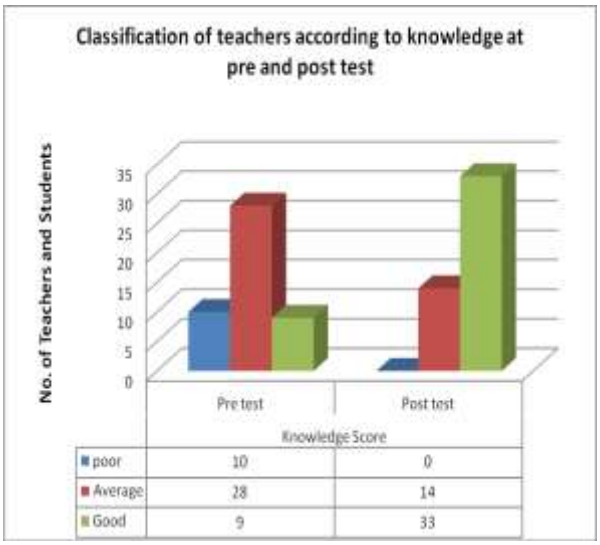

Figure No 4: Bar diagram showing classification of teachers according to knowledge at pre and post test

4. Discussion

The majority (59%) of teaching faculty and Post graduate Nursing student in pre test were having average knowledge score (4-7) and 21% of teacher's faculty and Post graduate Nursing student having poor knowledge. Only 19% of faculty and Post graduate nursing student good knowledge. Apart from this the majority (70.21%) of teaching faculty and Post graduate Nursing student in post test were having good knowledge score (8–10) and 29.78% of teachers faculty and Post graduate Nursing student having average knowledge and 0% of faculty and Post graduate Nursing student poor knowledge. [8-10]. On the basis of these results; the knowledge scores of the samples show a marked increase as seen in the post-test, which indicates that the teaching on epidemiological research is effective in increasing the knowledge of the teachers and post graduate nursing students of MTIN, Changa, India.

Conclusion

To assess the effectiveness of planned teaching programme on Epidemiological Research at MTIN, Changa was successfully done. The knowledge scores of the samples show a marked increase as seen in the post-test, which indicates that the teaching on epidemiological research is effective in increasing the knowledge of the teachers and post graduate nursing students of MTIN, Changa, India. At the end of the study it is finalizing that the teaching on

epidemiological research was useful and effective for nursing teachers and post graduate faculty.

Reference

1. Miquel Porta (2014). A Dictionary of Epidemiology (6th ed.). New York: Oxford University Press. ISBN 978-0-19-997673-7. Retrieved 16 July 2014
2. Principles of Epidemiology." Key Concepts in Public Health. London: Sage UK, 2009. Credo Reference. 1 August 2011. Web. 30 September 2012
3. Mohanty B. The prevalence of overweight and obesity in school going children of Pondicherry Sato Y. Practical aspect of exercise therapy for obesity 2005;48 (2):59 - 63.
4. Salmon J, Booth ML, Phongsavan P, Murphy N, Timperio A. Promoting physical activity participation among children and adolescents. Epidemiologic Reviews 2007;29:144 – 59
5. Bergman R. Nursing research for nursing practice. An international perspective. London: Chapman and Hall; 1990.
6. Knapp TR. Qualitative nursing research. London: Sage Publication; 1998.
7. Treece EW, Treece BW. Elements of research in nursing. St. Louis: C. V. Mosby Company; 1986.
8. Dr. Jinu K Rajan, Effectiveness of Planned Teaching Programme Regarding Importance of Exercise in Prevention of Obesity among Children." e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 5, Issue 2 Ver. 2 (Mar. - Apr. 2016), PP 01-17
9. Baecke, Jos AH, Jan Burema, and J. E. Frijters. "A short questionnaire for the measurement of habitual physical activity in epidemiological studies." The American journal of clinical nutrition 36.5 (1982): 936-942.
10. Finucane, Mariel M., et al. "National, regional, and global trends in body-mass index since 1980: systematic analysis of health examination surveys and epidemiological studies with 960 country-years and 9· 1 million participants." The Lancet 377.9765 (2011): 557-567.