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"A study to assess the effectiveness of planned teaching programme (PTP) on knowledge regarding typhoid fever among B. Ed. students of selected B. Ed. College at Jaipur city, Rajasthan"

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Abstract - Typhoid fever is an important cause of morbidity and mortality in many developing countries, with an estimated 33 million cases worldwide. Typhoid fever is endemic in all parts of India and still constitutes a significant health hazard. **Objective-** 1.To determines effectiveness of planned teaching programme regarding typhoid fever by comparing pre and post-test knowledge scores. 2. To find out the association between the knowledge with their selected demographic variables. **Methodology-** an evaluative approach was found appropriate with "one group pre test – post test design. The study was conducted Tilak teacher training college, Jaipur. 60 samples were selected with help of Non-probability purposive sampling technique. The final study was conducted with structured interview questionnaire at Chomu, Jaipur, Rajapark, Jaipur, Murlipura Jaipur.from 15/06/2019to 08/08/2019. **Result-** The mean of pre test score is 15 whereas the mean of post test score is 26 with 11 mean difference. The median of pre test score is 15 and the mean of post test score is 26 with 11 median differences. The SD of pre test is ±1.80 whereas SD of post test is ±0.89. The planned teaching programme (PTP) regarding typhoid fever is effective to improve the knowledge of students regarding typhoid fever. **Conclusion-** planned teaching programme **was** improve the knowledge of B. Ed. students regarding typhoid fever

Key word- assess, effectiveness, planned teaching programme, knowledge, typhoid fever, B. Ed. students,

Introduction-

Fever is defined as an elevation of body temperature in response to any pathological stimulus. American college of Emergency Physicians has published a clinical policy on febrile illness in children that chooses a rectal temperature of ≥38◦c (100.4°F) as the most widely used definition of fever.[1]

Typhoid fever is a life threatening systemic infection occurring in lesser-developed areas of the world and continues to be a major public health problem. Typhoid fever occurs in all parts of world where water supplies and sanitation are sub standard. Typhoid fever is endemic in India health survey conducted by the central ministry of health in the community development areas indicated a morbidity rate varying from 102-221/100000 population in different part of the country.[2]

Salmonella Typhi lives only in humans. Persons with Typhoid Fever carry the bacteria in their blood stream and intestinal tract. In addition, a small number of persons, called carriers,

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recover from typhoid fever but continue to carry the bacteria. Both ill person and carriers shed Salmonella Typhi in their faeces (stool). About 5 percent of people infected with S. Typhi become lifelong carriers, releasing the germ in their stool for years, which can spread the disease. Typhoid fever in a serious and potentially fatal bacterial infection.[3]

Typhoid fever is an important cause of morbidity and mortality in many developing countries, with an estimated 33 million cases worldwide. In Asia, the mean incidence of enteric fever is estimated to be 900 per, 1,00,000 people per annum. Typhoid fever is endemic in all parts of India and still constitutes a significant health hazard. The resistance of Salmonella enteric subspecies enterica serove Typhi (S. Typhi) to chloramphenicol was first reported in India from Kerala, where a substantial outbreak took place in 1972. Since then multidrug-resistant strains of S. Typhi have escalated into a worldwide problem. The steadily increasing multidrug resistance in S. Typhi strains in a cause of grave concern in India, where such strains are endemic in many parts.[4]

Typhoid fever is transmitted via the fecal oral route or urine. This may take place directly through solid hands, contaminated with faeces or urine of cases or carrier or indirectly by ingestion of contaminated water, milk, food or through flies. Typhoid fever is a systematic clinical syndrome by certain salmonella organism. It encompasses produced by certain salmonella typhi, and Para typhoid fever is caused by salmonella Para typhi.[5]

NEED OF THE STUDY

Typhoid, Malaria and Dengue fever are among the most endemic and epidemic diseases in the tropics. They are common causes for fever in day to day practice. Though caused by different agents, they have similar clinical presentation. Etiological diagnosis is important in the management of these diseases. These diseases are associated with population density, urbanization, endemicity and mobility all favoring the disease spread.

With the availability of rapid diagnostic tests for serodiagnosis of these infections, it has been observed that patients' samples frequently show seropositivity for two or more infections posing challenges in clinical diagnosis and treatment.[6]

Typhoid fever is a very common infectious disease in the tropics. As we all know infecting organisms are emerging day by day through various adaptations and changes which lead to a burden on global socio-economic, environmental and ecological factors let alone or community medicine.[7]

The incidence mode of transmission and consequences of typhoid fever differs significantly in developed and developing countries. The incidence has decreased markedly in developed countries. In the United States about 400 cases of enteric fever are reported each year giving an annual incidence of less than 0.2%, 1,00,000 which is similar to that in western, Europe and Japan.[7]

Typhoid fever is a systemic infection caused by Salmonella enterica serotype Typhi (S. Typhi). The disease remains an important public health problem in developing countries. In

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2000, it was estimated that over 2.16 million episodes of typhoid occurred worldwide, resulting in 216 000 deaths, and that more than 90% of this morbidity and mortality occurred in Asia. Although improved water quality and sanitation constitute ultimate solutions to this problem, vaccination in high-risk areas is a potential control strategy recommended by WHO for the short-to-intermediate term.[8]

Typhoid fever is endemic in India. Health survey conducted by the central ministry of health in the community development areas indicated a morbidity rate varying from 102 to 2219 per 1,00,000 population in different parts of the country. In a prospective study in India, the incidence of typhoid fever was estimated to be 110 and 75 per 100000 children among male and female respectively. A limited study in an urgban slum area one percent of children up to 17 years of age sufer from typhoid fever every year. Statistics for the showed on an average more than 3,00,00 cases of typhoid fever each year. Reported data shows same picture with 3,29,499 cases and 672 deaths, In Tamil Nadu 11520 cases affected with typhoid fever.[9]

According to Indonesia Demographic and Health Survey report prevalence of typhoid fever in children under five years of age was 26% and According to Maldives Health Information Report, the incidence of typhoid fever is the second highest cause of morbidity with 11510 cases reported throughout 2001. Infections or fever from unknown origin accounted for up to 50% of the deaths among the children under five years.[10]

A study conducted on a total of 592 hospitalized children clinically suspected as typhoid fever were screened, of which 221 (37.3%) were positive for salmonella typhi starains isolated, 204 (92.3%) cases were multi drug resistant enteric fever. A study conducted in Madhya Pradesh, reported that nearly 25 million children are born in India every year of which almost 2.7 million die before attaining the age of five years. Out of the major causes of death was fever.[11]

STATEMENT OF THE PROBLEM

"A study to assess the effectiveness of planned teaching programme (PTP) on knowledge regarding typhoid fever among B. Ed. students of selected B. Ed. College at Jaipur city, Rajasthan"

OBJECTIVES

1. To assess the knowledge regarding typhoid fever among B. Ed. Students by pre test.
2. To assess the knowledge regarding typhoid fever among B. Ed. Students by post test.
3. To determine effectiveness of planned teaching programme regarding typhoid fever by comparing pre and post-test knowledge scores.
4. To find out the association between the knowledge with their selected demographic variables.

HYPOTHESIS

- **H_1:** There will be significant association between mean pre test knowledge score and mean post test knowledge score of B. Ed. Students regarding typhoid fever.

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- **H_2:** There will be a significant association between the level of pretest knowledge score regarding typhoid fever with their selected demographic variables.

REVIEW OF LITERATURE

Grace Akello and Ria Ries (2017) was conducted a study on to assess the Primary school children's perspectives on common diseases they experience and medicines used in Uganda. Rapid appraisal approaches using semi-questionnaire with 80 children aged 8-15 years were used in data collection. Children have named and ranked malaria, typhoid, diarrhea, skin fungal infections, flu are the most frequently experienced disease. The symptoms children recognized in case of illness were high body temperature, vomiting, headache, weakness, appetite loss and diarrhea. Children were either given medicines by the school nurse or they self-medicated using pharmaceuticals obtained from the clinics, drug shop, pharmacies and other unspecified indigenous medicines from their home and markets. This study concludes that the health care needs and priorities of children in primary school are infectious disease and more educational programmes are needed to increase awareness regarding common infectious diseases.[12]

Lopez-Velez R. Bayas JM. (2016) was conducted a cross-sectional survey to evaluate travel health knowledge, attitudes and practices on vaccination among Spanish travelers. A questionnaire was administered to 1206 Spanish citizens traveling to high risk areas. Travelers were asked about their attitudes about vaccines whether they had received either or both on this or previous trips. 58% of travelers were males and the mean age was 38 years. 36% were traveling to tropical areas for the first time. The mean time preparing the trip was 39 days; 73 % looked for information a mean of 19 days in advance and 54% were advised n traveler's clinics. 55% received no travel vaccines. A total of 48.1% of tourists and 30.1% of business travelers were vaccinated ($p<0.00006$). The most frequently administered vaccine was typhoid vaccine 32%. It concluded that more than half if travelers to risk areas received no vaccinations before the trip and they didn't look for prior information.[13]

Khan SJ., Anjum Q. Khan NU. (2015) was conducted a study to determine the level of awareness about five common diseases namely: Tuberculosis, typhoid, Hepatitis B and C and HIV/AIDS among college students of Karachi from three selected colleges. A large number of students (71%) knew that typhoid spread by eating contaminated food and drinking infected water. A large number of (92%) mentioned television as their main source of information. The level of awareness of the young educated females about the modes of spread of typhoid is low. This study emphasizes the effectiveness of health education campaign regarding common infectious diseases, especially in young girls.[14]

Beggett HC, Graham S. (2015) was conducted a cross sectional study to assess knowledge and compliance with pre-travel health recommendations among US residents travelling to India to visit friends and relatives: A self administered questionnaire were used among 1574, eligible travelers, 1302 (83%) participated; 60% were male and median age was 37.85% were of south Asian/Indian ethnicity and 76% reported VFR as the primary reason for travel. More than 90% of VFRs had at least a college education and only 6% financial barriers as reasons

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for not obtaining travel health services. VFRs were less likely than non-VFR travelers to seek pre-travel health advice, to be protected against typhoid fever. However, when stratified by ethnicity, travelers of south Asian ethnicity were less likely than other travelers to adhere to pre-travel health recommendations. It concluded that VFR status was associated with pre-travel health practices that leave travelers at risk for important infectious diseases.[15]

RESEARCH APPROACH

In view of the nature of the problem selected for the study, an evaluative approach was found appropriate. Evaluation research is an applied form of research that involves finding out how well a programme, procedure or policy is working. Its goal is to assess or evaluate the success of a programme.[53]

RESEARCH DESIGN

The research design selected for the present study was Pre –experimental "one group pre test – post test design. Keeping in the view the objectives of the study, the investigator, assess the knowledge regarding typhoid fever among B.Ed. students before administration of the planned teaching programme (PTP) (by pre-test score). After pre-test, planned teaching programme (PTP) was administered to the same group and was then after ten days again assess the knowledge regarding typhoid fever among B.Ed. students (by post-test score) on the 10^{th} day.

The design can be represented as:

$$O_1—X—O_2$$

- O_1: Knowledge regarding typhoid fever among B.Ed. students before administration of the planned teaching programme (PTP).
- X: planned teaching programme (PTP).
- O_2: Knowledge regarding typhoid fever among B.Ed. students after administration of the planned teaching programme (PTP).

INDEPENDENT VARIABLE

In present study it refers to the planned teaching programme (PTP) regarding typhoid fever.

DEPENDENT VARIABLE

In the present study it refers to the knowledge of B.Ed. students regarding typhoid fever.

DEMOGRAPHIC VARIABLES

Demographic variables selected for this study are gender, religion, type of family, eligibility education for the B.Ed., monthly family income, utilization of health services, previous knowledge.

SETTING OF THE STUDY

Setting refers to the area where the study is conducted. Qualitative researchers deliberately strive to study their phenomenon in a variety of natural context.[53]

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The study was conducted Tilak teacher training college, Jaipur.

The criteria for selecting the setting were:

- The availability of subjects.
- Feasibility of conducting the study.
- Familiarity of the investigator with the setting.
- Administrative approval and expected cooperation for the study.

POPULATION

In the present study the population consists of B.Ed. students studying in Tilak teacher training college, Jaipur.[53]

SAMPLE

The present study was conducted among 60 B.Ed. students who are studying in Tilak teacher training college, Jaipur.

SAMPLING TECHNIQUE

Non-probability purposive sampling technique was used to select 60 B.Ed. students studying in Tilak teacher training college, Jaipur as the sample for the present study.

SAMPLE SIZE

Sample size of total 60 B.Ed. students studying in Tilak teacher training college, Jaipur.

DATA COLLECTION

The final study was conducted at Chomu, Jaipur, Rajapark, Jaipur, Murlipura Jaipur.from 15/06/2019to 08/08/2019. On the first day, samples were given a pre-test. The group was informed about the structured teaching programme. The post-test was given to the group on the 15th day after an introduction brief.

EFFECTIVENESS OF PLANNED TEACHING PROGRAMME

There was 60 B.Ed. students are taken for the study. Each of them had to answer 30 questions. Their pre and post-test correct answers were recorded and the mean, mean percentage, mean difference, standard deviation, standard deviation percentage, standard deviation difference of the test scores and value of 'z' test were obtained as below:

Table No. 1 Area wise Mean, mean percentage and standard deviation standard deviation percentage of pre test score

S. NO.	AREA	MAXIMUM SCORE	MEAN	MEAN %	SD	SD%
1.	Knowledge regarding Typhoid fever	6	3.23	53.83%	1.116	1.86%

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2.	Transmission, signs and symptoms	9	4.18	40.44%	0.846	1.41%
3.	Investigations and treatment	4	1.93	48.25%	0.793	1.32%
4.	Supportive therapy	7	3.6	51.42%	0.879	1.465%
5.	Prevention	4	2.05	51.25%	0.668	1.11%

Table 1 reveals area wise ma, mean percentage, SD, and SD percentage of pre test. The structured knowledge questionnaire categorized into 5. Parts I have maximum score is 6; part – II have maximum score is 9; part – III have maximum score 4; part IV have maximum score 7 and part – V have maximum score is 4. The mean of part – I is 3.23 with mean percentage 5.38% and SD is 1.116 with SD percentage 1.86%. The mean of part – II is 4.18 with mean percentage 6.96% and SD is 0.846 with SD percentage 1.41%. The mean of part – III is 1.93 with mean percentage 3.21% and SD is 0.793 with SD percentage is 1.32%. The mean of part IV is 3.6 with mean percentage 6% and SD is 0.879 with SD percentage is 1.46%. The mean of part V is 2.05 with mean percentage 3.41% and SD of 0.668 with SD percentage is 1.11%.

Table No. 2 Area wise Mean, mean percentage and standard deviation standard deviation percentage of post test score

S. NO.	AREA	MAXIMUM SCORE	MEAN	MEAN %	SD	SD%
1.	Knowledge regarding Typhoid fever	6	5.43	90.5%	0.587	0.97%
2.	Transmission, signs and symptoms	9	7.55	83.88%	0.617	1.02%
3.	Investigations and treatment	4	3.71	92.75%	0.55	0.91%
4.	Supportive therapy	7	5.53	79%	0.618	1.03%
5.	Prevention	4	3.76	94%	0.495	0.82%

Table 2 reveals area wise ma, mean percentage, SD, and SD percentage of post test. The structured knowledge questionnaire categorized into 5. Parts I have maximum score is 6; part – II have maximum score is 9; part – III have maximum score 4; part IV have maximum score 7 and part – V have maximum score is 4. The mean of part – I is 5.43 with mean percentage 9.05% and SD is 0.587 with SD percentage 097%. The mean of part – II is 7.55

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with mean percentage 12.58% and SD is 0.617 with SD percentage 1.02%. The mean of part – III is 3.71 with mean percentage 6.18% and SD is 0.55 with SD percentage is 0.91%. The mean of part IV is 5.53 with mean percentage 9.21% and SD is 0.618 with SD percentage is 1.03%. The mean of part V is 3.76 with mean percentage 6.26% and SD of 0.495 with SD percentage is 0.82%.

Table No. 3: Comparison of pre test score and post test score of B.Ed. students

KNOWLEDGE TEST	MEAN	MEAN DIFFERENCE	MEDIAN	MEDIAN DIFFERENCE	SD	DF	'Z' TEST
Pre test	15	11	15	11	±1.80	59	51.08
Post test	26		26		±0.89		

Table no. 3 is showing that the mean of pre test score is 15 whereas the mean of post test score is 26 with 11 mean difference. The median of pre test score is 15 and the mean of post test score is 26 with 11 median differences. The SD of pre test is ±1.80 whereas SD of post test is ±0.89.

The calculated value of 'z' is 51.08 at the 0.05 level of significance and the tabulated value of 'z' is 2.94 at the 0.05 level of significance on 59 degree of freedom.

The calculated value is higher than the tabulated value so we can say that the planned teaching programme regarding typhoid fever which was administered to the B.Ed. students can enhance the knowledge of B.Ed. students, it means that the planned teaching programme (PTP) regarding typhoid fever is effective to improve the knowledge of students regarding typhoid fever.

It mean that the research hypothesis H_1 i.e. there will be relationship between pre test score and post test score can represent as that after administration of planned teaching programme the knowledge score increased.

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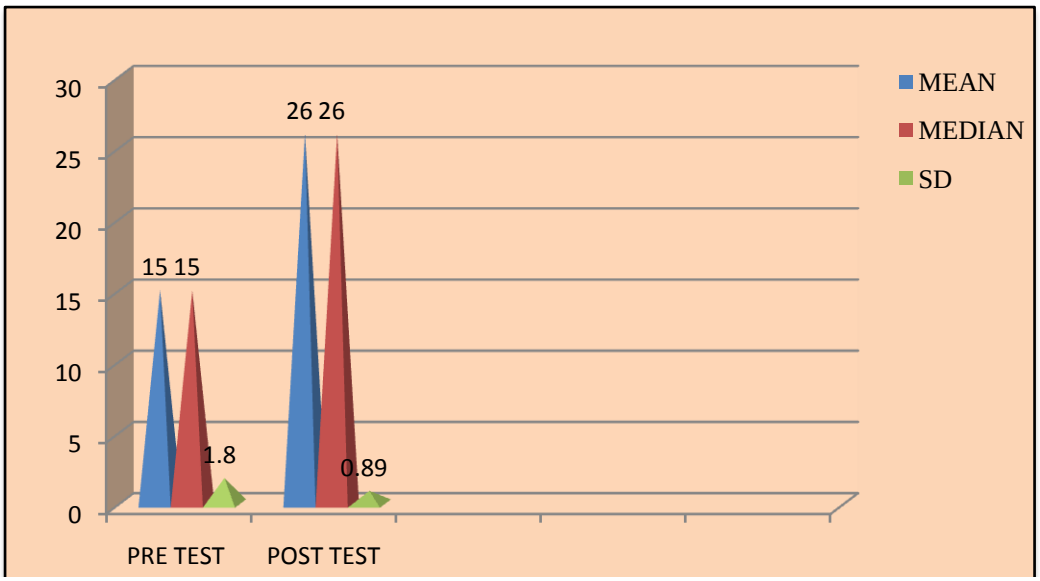

Figure 1: Pyramid diagram show the mean median & S.D. of pre test & post test score of the students

RECOMMENDATIONS

The following recommendations were drawn based on the findings of the study:

1. A similar study can be replicated on a samples with different demographic variables
2. A similar study can be conducted by descriptive approach, often serves to generate hypothesis for future research.
3. A similar study can be conducted use of different research design.
4. A similar study can be conducted by taking samples from two different settings like nursing school and colleges, office, nursing homes, others clinical facilities etc.
5. A similar study can be conducted on a large sample may help to draw more definite conclusions and make generalization.

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