ORIGINAL ARTICLE

Knowledge of Nurses on the Management of Dengue Fever In Tertiary care Hospitals of Lahore and Rawalpindi

Kamran Munawar, Mansoor Ghani

Author`s Affiliation

*Charge Nurse, CCU, PIMS
Assistant professor, Biochemistry,
UHS, Lahore*

Author`s Contribution

*[1]Conception, synthesis, planning of research and manuscript writing,
[1]Data Analysis and collect the data
[2] Conception, Review of study*

Address of Correspondence
*Kamran Munawar
mscnkamran@gmail.com*

ABSTRACT

Objective: Assess the knowledge among nurses regarding the management of dengue fever working in tertiary care hospitals of Lahore and Rawalpindi.

Study Duration: The study was completed in 2015 from March to Oct.

Methodology: The proposed study design for this study is cross sectional descriptive study design. A sample of 280 staff nurses working in tertiary care hospitals were selected from Lahore and Rawalpindi hospitals by using method of non-probability convenient sampling. Data was collected by self-administered questionnaire. The data was analysed by SPSS version 20 and Microsoft Excel. Data was represented in the form of figures, tables, graphs, statistical association was found by using Chi-Square test among level of knowledge and demographic variables.

Results: The results indicate that a major proportion of staff nurses 227 (76%) were having poor level of knowledge as they scored less than 50% of scores on knowledge based questions and only 4% were found with excellent knowledge according to arbitrary scale.

Conclusion: The findings of study suggest that there is an inadequate knowledge of diploma nurses working in great strength in tertiary care hospitals of Lahore and Rawalpindi and there is a need to build a proper educational training programme for diploma nurses

Key Words: dengue fever, dengue hemorrhagic fever, knowledge

Introduction

Dengue virus is one of the prolific health issues throughout the world, especially in the Southeast Asian region. The prevalence of dengue has grown intensely around the world in recent decades and the World Health Organization [1, 2] has estimated that every year around 50 million people contract this disease worldwide. Over 2.5 billion people – over 40% of the world population – are now at risk from dengue. One estimate of WHO has put the number of annual dengue infections between 50 – 100 mil. [1, 10]

The actual magnitude of the disease's effect is rather difficult to measure due to a number of reasons like; inadequate disease monitoring, non-reporting by the public and misdiagnosis by the health professionals.[2,3]   It

is a generalization now that this disease is a global concern. Asia with the largest population on the planet has much more grappling to do with the disease as well. Approximately 3/4 of the population that deals with the disease lives in Asia. [3 6 9]

The Dengue is caused by mosquito bite which has specific features of distinctiveness in terms of clinical presentation.[5,6] Pakistan is one of the majority effected countries of the world where this disease occurring pattern is cyclic in nature and has played havoc. [4 ,9] Many affected by this virus undergo medical treatment in tertiary care hospitals, where they are taken care of by medical professionals. To have a sound knowledge of the presentation of the disease, and its occurrence pattern is

the mainstay of the management and prevention of this disease.[1 4 5]

Pakistan being a developing country faces limitation of resources and poor socio-economic conditions. As a result, the natural calamities in the form of earthquakes, rains and floods pose serious challenges to this country's development.[5,8] To worsen the situation man-made hazards like terrorism, political turmoil, socio-cultural instability, fragile laws, industrial accidents, building collapses, major transport accidents and law and order scenario further make situations more complex and difficult for the people of Pakistan. [6, 8] consequently priorities are mixed up hence optimum allocation of resources is seriously compromised. [8]

The health sector of the country is no exception to the overall degradation of the systems. Resultantly, health of general public faces a number of hazards, predominant among them are pathological disorders such as; hepatitis, cholera, typhoid, tuberculosis, water borne and vector born epidemics.[2 5 10] The factors responsible for deteriorating situation of health are overcrowding, poor sanitation, unsafe drinking water and high illiteracy rate. All this not only jeopardize the well-being of current generation but also threatens to victimize the future generations. To combat this situation we need trained nurses as well as professionals. [5, 8]

Nurses along with the doctors serve as the first-line health care providers for dengue virus infection diagnosis, notification, and treatment.[9] The knowledge among nurses regarding dengue disease improve the management and outcome of disease.[10] A patient has to go through a number of the therapeutic stages when he/she gets into a hospital such as various medical procedures, diagnostic variables, drugs administration, dos and don'ts of recovery process.[9 10] Nurses are one of the major sources, from whom patients and their attendants expect to receive reliable and professional advice – it calls for sound knowledge on part of medical professionals. [9, 11]

Methodology

The study was quantitative, non-experimental and descriptive. It was carried out after the recommendations of ethical review board of University of Health Sciences Lahore. The population of the study comprised of 280 nursing staff of seven big hospitals in Lahore and Rawalpindi. Four of the chosen hospitals were in Lahore and three in Rawalpindi. These cities were selected because they were the worst hit cities of Pakistan during dengue endemic years.

Hospitals in Lahore:
1)   Ganga Ram Hospital Lahore
2)   Jinnah Hospital Lahore
3)   Sheikh Zaid Hospital Lahore
4)   Services Hospital Lahore

Hospitals in Rawalpindi:
5)   Benazir Bhutto Hospital Rawalpindi
6)   District Headquarters (DHQ) Hospital Rawalpindi
7)   Holy Family Hospital Rawalpindi

Prior to committing to actual data collection from the designated target group the validity of the study instrument was checked. Twenty-eight people making 10% of the target group were initially selected to conduct a pilot study. Non-probability convenient sampling technique was used for consenting volunteers for this purpose. The data obtained was run through SPSS version 20, applying Cronbach's alpha for its reliability. Reliability analysis for our questionnaire shows 0.668. Which is acceptable for our study.

Statistical Analysis

Descriptive statistics were used for analysis and Microsoft Excel and SPSS Software version IBM-20 were incorporated. After analysis, the data was presented in the form of figures, tables, frequencies and percentages. Frequencies were computed for categorical variables. Multiple comparisons were made according to specified variables by using chi-square test. A P-value ≤ 0.05 was considered as statistically significant.

Results

The result was carried out in sections

Section-A refers to general characteristics (demographics) which include age, educational status, experience and institutions. There is an equal no of distribution of participant from seven hospitals of Lahore and Rawalpindi. With the frequency of 40 and percentage of 14.3 form each hospital.

Section-B refers to the knowledge level of nurses working in tertiary care hospitals of Lahore and Rawalpindi.

280 nurses of the government hospitals gave their inputs in the questionnaire. From this number 65% of the nurses
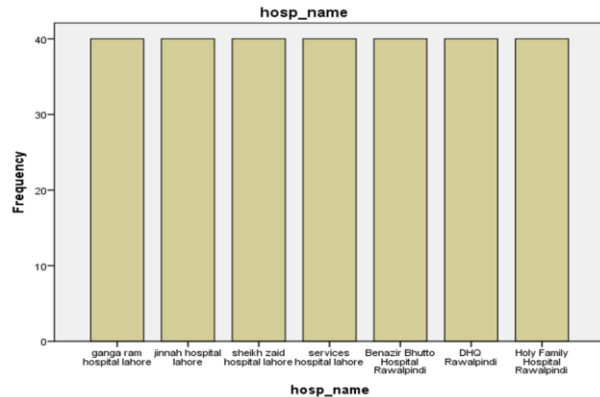
showed insufficient level of understanding of the epidemic disease. This poor understanding and knowledge is also reflected in their practice and working in real time. The next narrower section on the pyramid of dengue
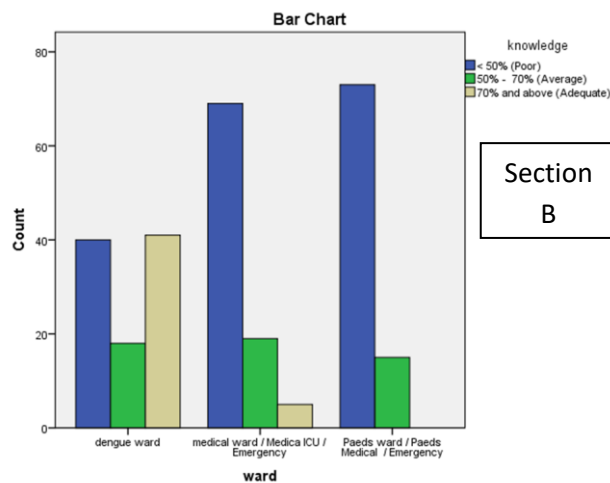
knowledge is 52 (18.6 per cent) nurses that were able to demonstrate modest or average amount of knowledge in

the range between 50 – 70 per cent. On top of the knowledge pyramid were 46 respondent nurses that showed their understanding and knowledge on dengue that was 70 per cent and more.

Section-C refer to different comparison made with knowledge and demographic variables using chi-square test

Discussion

Knowledge based practice by health care professionals has always produced a remarkable result in terms of health promotion of the common people. It is distinctly evident by performance of many health care departments of the developed countries where the prime focus is on research and continue professional development with ultimate goal is to provide maximum benefits to the community, which is the main purpose of any health sector. [11, 15, 16] The objective of this study was to know the knowledge of nurses on the management of dengue. The vivid picture that one can constitute from the result section, is that almost out of the 280 nurses that took part in the study 182 nurses had knowledge less than 50%. Whereas 52 of the respondents' knowledge score was 60% and only 46 nurses were able to prove that they possessed adequate knowledge (70%) about dengue fever.

It is surprising that considerable number of respondents of the questionnaire found it difficult to even identify the exact vector. Perhaps they confused it with Anopheles mosquito that has similar life cycle pattern and mode of
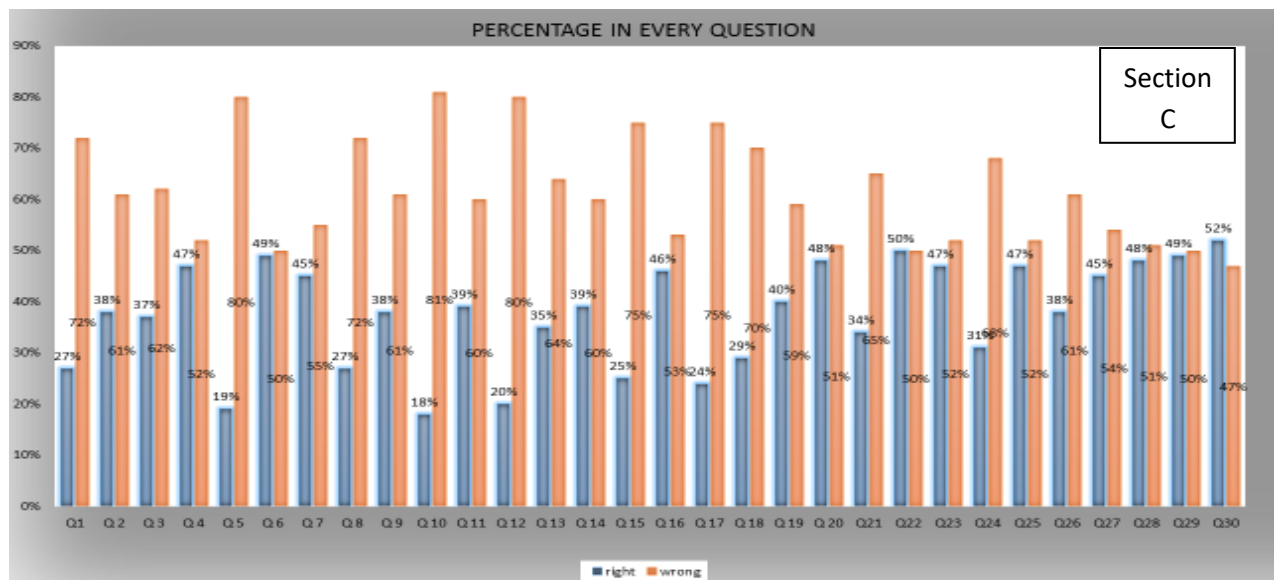
spread of disease. The overlapping of knowledge could also be attributed to large scale prevalence of malaria in the region as well. Somehow, significant percentage of target population did not possess sound knowledge of the disease. A good number of respondents thought dengue to be contagious; however, they were not sure about its spread from one person to another the results of the current study are in congruence with similar such studies from the developing countries of the world.[11 16 17 21]

One important finding of the study is that those nurses who had an experience to work in wards with dengue patients or had come in contact with either dengue patients or their attendants showed remarkable degree of clarity and understanding of the topic. Perhaps it is to do with the practical aspect of their learning that such healthcare professionals are able to gain insights and working knowledge that strengthens their nursing practice. [15, 20]

Work load is enormous in teaching hospitals due to more number of patients with limited number of nurses available. Facility of libraries equipped with latest books and learning aid is not common. Remuneration and incentives for nursing staff are also not attractive as compared to other sectors of economy.[17 ,18 ,20, 21]

In order for nurses to give proper medical care to dengue patients and facilitating their families in coping better with situation; the nurses need to be trained thoroughly.[17] Their skills and knowledge should be at par with demanding situation. As sound knowledge, definitely is one of the key factor that fill many gaps of practical work and it is the best way to manage dengue and provide cost effective, quality care to the patient and community.[21]

Conclusion

The finding of the study concludes from the result that, majority of nurses working in tertiary care hospitals of the northern Punjab are having inadequate knowledge regarding the management of dengue fever. Lack of essential knowhow of the disease acts as a fundamental loophole in the management of the disease at so many levels that most often spread of disease subsides due to weather and climatic improvement of situation rather than

effective disease management by medical personnel and preventive measures by state authorities.

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