



Knowledge, attitude and practice among medical students related to Pharmacovigilance

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ABSTRACT

Science of systematic and structured detection and monitoring of adverse drug reactions (ADRs) or any drug related problem is commonly known as pharmacovigilance. It a very old process but still fighting for its existence, while playing an important role in new drug development. This all is due to the lack of awareness about pharmacovigilance. This study was conducted to evaluate the knowledge, attitude and practices about the pharmacovigilance in medical students in medical colleges of Lucknow, UP, India.

Key-Words: knowledge, attitude, practices, pharmacovigilance, ADRs



INTRODUCTION

Pharmacovigilance is science of systematic and structured detection and monitoring of adverse drug reactions (ADRs) or any drug related problem. Though since eighties pharmacovigilance is in existence in India, but not only India, whole world suffers from underreporting of the adverse drug reactions due lack of awareness and proper training among the medical professionals. Medical students play most important role in health care system/organization/institute and at the same time Pharmacovigilance is also a most importance process in detection of the problems generated by the drugs known as adverse drug reactions [1]. This unawareness leads to delay in the detection of adverse drug reactions, an important cause of mortality and morbidity worldwide. WHO defines adverse drug reactions (ADR) as “a response to a drug which is noxious and unintended and which occurs at doses normally used in man for the prophylaxis, diagnosis or therapy of disease or for the modification of physiological function”. So pharmacovigilance is an integral and essential part of patient care. ADRs are classified into six types (with mnemonics): dose-related (Augmented), non-dose-related (Bizarre), doserelated and time-related (Chronic), time-related (Delayed), withdrawal (End of use), and failure of therapy (Failure) [2].

ADRs being a complex issue, it requires special and immediate attention. ADRs can be monitored by many methods, among them voluntary or spontaneous reporting is commonly practiced with many advantages such as in terms of money and easy to operate. Every country has been recommended to set up their own

Pharmacovigilance Program because of variation in drug response, individual prescribing habits, drug regulatory systems, and availability of drugs, etc. The Uppsala Monitoring Centre (UMC, WHO), Sweden is maintaining the international database of ADR reports from several national centers of different countries. Although, India is one of the participating in the program, its contribution to UMC database is very little. The program lacks continuity and suffers from underreporting of ADRs by the health care professionals, the reason for which may be meager funds, lack of trained staff and lack of awareness about detection, communication and spontaneous monitoring of ADRs [3].

To make Pharmacovigilance Program a success and improve reporting rate, it is important to improve the knowledge, attitude, and practice (KAP) of the healthcare professionals specially the medical students regarding ADR reporting and Pharmacovigilance and best time to do so is probably during undergraduate and postgraduate training of the doctors [4]. Therefore, this study was planned to evaluate the baseline knowledge of the medical students about Pharmacovigilance.

MATERIALS AND METHODS

Study design and settings: A questionnaire survey was conducted in Medical Colleges of Lucknow, UP, India.

Source of data: The required information for the study was obtained from all the available Medical Students (medical and dental).

Study period: The study was conducted for a period of 4 months from June 2015 to September 2015.

Ethical approval: The ethical approval was obtained from the ethical committee before the commencement of study.

Selection criteria: All the available medical students i.e. medical and dental who gave their informed consent and who were working at the hospital during the study period were included in the study. The medical students who did not respond were excluded from the study.

Sample size: A total of 500 subjects including 250 medical and 250 dental students participated in the study.

The details of the questionnaire are as follows.

a. **Knowledge related questions:** The assessment of participant's knowledge of pharmacovigilance.

b. **Attitude related questions:** The assessment of participant's attitudes towards pharmacovigilance.

c. **Practice related questions:** The assessment of participant's practice on ADR reporting included.

RESULT AND DISCUSSION

Total 500 medical students participated in the study and provided the questionnaire for the answers of the questionnaire. All questionnaires were collected from the medical student for the analytical part.

Assessment of pharmacovigilance related knowledge

While assessing the knowledge of the medical students on pharmacovigilance, it was found that

72% of medical students (360 out of 500) gave response about to prior knowledge about the pharmacovigilance, safety of the drug, ADR reporting, and awareness regarding the existence of pharmacovigilance program of India.

Assessment of pharmacovigilance related attitude

While assessing the pharmacovigilance related attitude of the medical students it was found that a total of 80% medical students (400 out of 500) agreed that reporting of ADR is necessary.

Assessment of pharmacovigilance related practices

On assessing the Pharmacovigilance related practices it was found that only 60% medical students (300 out of 500) have experienced ADRs in patient during their practice.

There is lot of studies available on the same topic from all around the world showing various results. Although studies were showing different results but with about same conclusion focusing on the programs promoting to the pharmacovigilance [1-8].

CONCLUSION

Our results indicated that majority of the medical students were poor in knowledge and attitude about pharmacovigilance with a huge gap between the ADR experienced and ADR reported. So it is advised as a conclusion of the study that not only medical students but all the healthcare professionals should be trained properly about the pharmacovigilance as well as the ADRs by conducting the educational programme.

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