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Knowledge, Attitude And Practice Of Pharmacovigilance Amongst Nursing Students Of Rural Chhattisgarh: A Questionnaire-Based Study.

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ABSTRACT

WHO defined adverse drug reactions (ADRs) as any noxious, unintended and undesired effect of a drug which occurs at doses which are used in humans for prophylaxis, diagnosis or therapy of disease or modification of physiological function. The purpose of this study was to assess the knowledge, attitude and Practice of Pharmacovigilance amongst 2nd year BSc Nursing students. A pre-validated questionnaire was distributed amongst 50 BSc nursing students of second year studying at Government nursing college, Rajnandgaon. The consent of the students was taken prior to the commencement of the study. The responses to questions were as follows Maximum responses were given by the female students of the age group 20 years (66%),78% had Knowledge about what is ADR,57% knew what was pharmacovigilance,97% opined that ADR reporting was important,61% had seen ADR reporting form,61% were trained to report ADR. The existing lacunae can be addressed by by arranging regular CMEs and Workshops on Pharmacovigilance.

Keywords: ADR reporting, Nursing, Knowledge, Attitude, Practice, Chhattisgarh

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INTRODUCTION

Pharmacovigilance is a practice that monitors drug safety in real-world settings and records adverse drug events during the post-marketing phase of a drug's life cycle [1].

The World Health Organization (WHO) defines it as “the science and practices relating to the detection, evaluation, understanding, and prevention of adverse responses to medications or any other medicine-related problems” [2]. Adverse drug Reactions (ADRs) are described as “any response to a medicinal product that is harmful and unintended and that occurs at doses ordinarily utilized in man for prophylaxis, diagnosis of disease, or the modification of physiological function”, by the World Health Organization (WHO). ADRs contribute to drug-related patient morbidity by lengthening hospital stays, adding to the financial burden, and occasionally even resulting in death. They are a frequent and often avoidable reason for hospital admission. Between 0.2% and 41.3% of ADRs resulting in emergency hospitalization occur globally, yet 28.9% of these ADRs are avoidable [3]. A meta-analysis conducted in 2012 revealed that 52% of ADR-related emergency hospitalizations and 45% of ADRs among inpatients might have been avoided [4]. In addition, more than 50% of approved medications had certain side effects that were not known to exist before their approval for clinical use [5]. As a result, ADR detection and monitoring are crucial for patient safety.

Healthcare professionals have a great responsibility of monitoring and voluntarily reporting the ADRs to adverse reaction monitoring centers. Despite making the Pharmacovigilance activity of national importance underreporting of ADR is a common problem throughout the world [6-10].

In India the voluntary reporting of adverse drug reaction has to get momentum as it is around 1% as per one study [11] whereas it is five times more in Canada and the United States of America [12].

The factors responsible for non-reporting or underreporting are of diverse nature and vary from place to place [13, 14]. Many factors contributing to this underreporting, the important ones being, feeling of guilt, fear of litigation and lack of awareness about Pharmacovigilance program.

In the recent years teaching and training of medical graduates and doctors on ADR monitoring and reporting has gained significant boost, while the same has been focused on nurses as well as student nurses. There are several studies to support the fact if we impart quality training to student nurses in their curriculum and due consideration is given in their curriculum it will be very useful in the future days when they become torchbearers in Pharmacovigilance activity. There are many studies which have been conducted to assess the knowledge, attitude and practice of ADRs among doctors [15-19].

Even though pharmacology is a part of the nursing curriculum, they have a limited exposure to Pharmacovigilance in teaching as well as training. To achieve great success, we need to concentrate not only on the present healthcare workers but also focus on future stakeholders.

So, in this study we wish to evaluate the knowledge, attitude and practice amongst nursing students of Chhattisgarh.

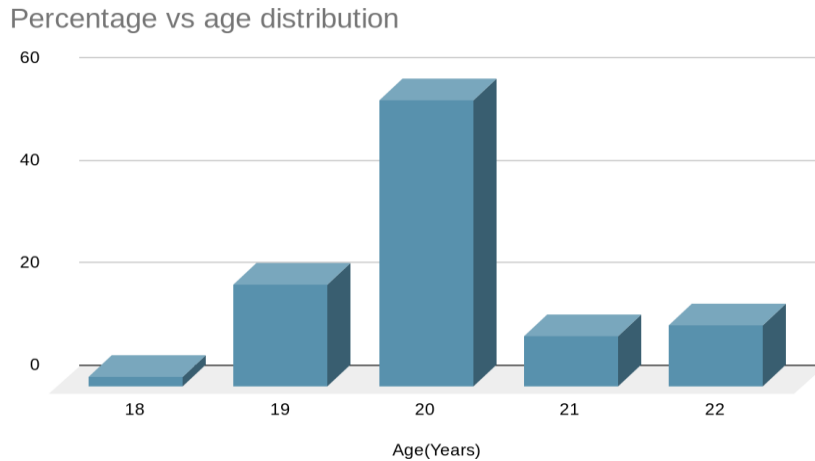
MATERIALS AND METHODS

A pre-validated questionnaire was distributed to the 50 students of government nursing college of Rajnandgaon. A written informed consent was taken prior to the commencement of the study. Students who refused to give the consent were excluded from the study. The questionnaire consisted of demographic details along with knowledge, attitude and practice domain questions. The filled questionnaires were assessed for their completeness and the type of responses regarding ADR reporting. The statistical analysis was done Microsoft excel sheet.

RESULTS

A total of 50 participants were enrolled for the study. The age wise distribution of the students was maximum 66% in the age group of 20 years. The age wise distribution of students is as follows. Figure-1

Figure-1 Age wise distribution of students



Regarding responses to the questionnaire given to the students, the knowledge of ADR and its related questions were as follows. Table-1.

Table 1: Knowledge of ADR and Pharmacovigilance

Question	Yes (%)	No (%)	Don't know (%)
What is ADR?	78	13	9
Have you ever seen any ADR?	12	58	30
Do you know about Pharmacovigilance?	57	39	4
Have you ever reported an ADR?	7	73	20
Do you know where to report ADR?	23	45	32
Is ADR reporting included in your curriculum?	33	18	49

Table 2: Attitude towards ADR reporting and Pharmacovigilance

Question	Yes(%)	No(%)	Don't know (%)
Is ADR reporting important?	97	2	1
Does ADR reporting help increase patient safety?	63	24	13
ADR reporting to be taught to all healthcare providers including nurses?	89	5	6
Do you know where is ADR reporting center located in Chhattisgarh	55	28	17

Table 3: Practice related responses to ADR reporting and Pharmacovigilance

Question	Yes(%)	No(%)	Don't know(%)
Have you seen an patient with ADR?	17	65	18
Have you seen ADR reporting form?	61	28	11
Do you know how to fill an ADR form?	42	43	15
Do you been trained how to report ADR?	61	28	11

DISCUSSION

ADR reporting is a very important and essential component of Pharmacovigilance systems worldwide and is an essential part of safety surveillance of marketed drugs. It is important because drugs are integral part of modern medicine and they help to save countless lives. However, sometimes they are responsible for adverse reactions which range from simple headaches to life-threatening conditions like organ toxicity or even death. Therefore, Pharmacovigilance is a crucial therapeutic discipline for assuring optimal pharmaceutical use and patient safety on a global scale. The objectives of PV include quick detection of adverse drug events, the identification of potential causal links between a medication-related event and a new drug or drug combination, the assessment of these signals to establish causality, clinical relevance, frequency and distribution of ADRs, particularly among population groups. Therefore, healthcare workers should be able to report cases of ADR if they encounter them. Studies have been done previously to evaluate the knowledge, attitude and practice of nursing students in various colleges. Our study focussed on second year nursing students. The students are aware of the terms ADR and Pharmacovigilance as seen in similar studies. There is lack of awareness regarding documentation, As in regards about how to fill ADR form. There is need for enhancement in this aspect of Pharmacovigilance which can be done by regular orientation programs for nursing students. Ekman E, Petersson G et.al [21] reported that nurses in Sweden were aware of their role in reporting but few had actively participated as similarly seen in our study.

The analysis of this data reveals that the practice domain of Pharmacovigilance needs improvement because nurses are lagging in this particular arena which can be improved by powerpoint lectures and also continuing medical education programs, workshops [22].

CONCLUSION

To decrease under-reporting of ADRs, reduce the occurrence of ADR and deliver high quality care to patients, it is essential to provide correct instruction and have sufficient understanding of PV and ADR reporting. The knowledge required to guarantee the safe use of pharmaceuticals is therefore a requirement for all healthcare students to undergo a PV and ADR course as a part of their curricula. The intervention was effective in improving the nursing students' knowledge, attitude towards ADRs and Pharmacovigilance.

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