



Lacunae in diploma pharmacy education in Nepal and its consequences on healthcare delivery

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ABSTRACT

Diploma in Pharmacy is a three year program (previously introduced as a year and six months in 1972 in Tribhuvan University) in Nepal to assure safe and effective use of medicines to general public. There has been a substantial increase in the diploma pharmacy colleges and at present producing about 1000 diplomas every year. Lack of well-trained faculty members and infrastructure, exposure, incorporation of practical education and high turnover of faculty members in the diploma in Pharmacy education program are the common lacunae observed in the country. Such lacunae have led to lack of information among diplomas and they are not available to do counseling, provide value added service and good quality pharmacy services with which they could gain professional respect and positive attitude from patients and be an important partner of healthcare system.

Keywords: Diploma in pharmacy, healthcare, lacunae, Nepal, pharmacy services.



INTRODUCTION

Nepal is a south Asian landlocked country with China on the north and India on all other sides. About 80% of the population lives in rural areas. The health care in Nepal is provided through zonal and district hospitals in the urban areas and health posts and health centres in rural areas. Nepal lacks sufficient healthcare providers to provide health care facilities in the rural areas. The country witnesses a high number of deaths due to health related events like malnutrition, communicable diseases, infections etc. ^[1] Introduction of Intermediate in Pharmacy (later introduced as Diploma in Pharmacy) program to assure safe and effective use of medicines was the first step in the field of pharmacy education in Nepal. The existing system of providing pharmacy services by the non-qualified people and failure of the diplomas to contribute much on healthcare delivery are the reasons for the need of study like this. This study is aimed in providing the outline of pharmacy education in Nepal, lacunae in diploma pharmacy education and the consequences of lacunae on healthcare delivery.

METHODS

Various literatures including articles and websites related to pharmacy education were consulted in outlining the pharmacy education in Nepal, information about Diploma in Pharmacy (D. Pharm) education and the various lacunae under it and the various consequences that these lacunae can create on healthcare delivery.

Pharmacy education in Nepal: The intermediate in Pharmacy (similar to D. Pharm) education in Nepal commenced in 1972 at Institute of Medicine (IOM), as eighteen months program. IOM is an institution under Tribhuvan University which produces manpower in the healthcare areas for the country. Those who complete a minimum of 10 years of schooling education are qualified to get enrolled in the program. Presently run D. Pharm program is a three years of study along with practical training in a pharmaceutical industry and hospital pharmacy. Those who complete a minimum of 10 years of schooling education qualify to involve in the program. Since then, there

was Bachelor in Pharmacy (B.Pharm) programmes run by Kathmandu University, Tribhuvan University, Pokhara University and Purbanchal University. Kathmandu University was the pioneer institution to start Master in Pharmacy (M. Pharm) in 1998 and subsequently Doctor of Pharmacy (PharmD) - Post Baccalaureate in 2010. PharmD - Post Baccalaureate is a three year course for Bachelor in Pharmacy graduates. M. Pharm was started in Pokhara University in 2005 but it could run only a single batch and launched again in 2011, with specializations in clinical pharmacy and natural product chemistry. [2] National Drug Policy (NDP) 1995 stated that pharmacy activities are to be provided by pharmacy manpower. IOM was the only institution providing intermediate in pharmacy education until 2005 after which Council of Technical Education and Vocational Training (CTEVT) established its first college to provide the equivalent education i.e. D. Pharm. CTEVT was an autonomous body, which aimed in providing technical and skilful pharmacy resources to the nation which is having 29 colleges at present throughout the country. [3]

RESULTS

D. Pharm is a technical program which has gained popularity among certain groups of people. People choose D. Pharm program for easy employment and because of affordable fees of the program. Self employment and expectations for better opportunities are the other reasons why people prefer this program. Some people are found choosing the program so that they can start their own business and own the pharmacy. Those who already have a retail pharmacy prefer the course for the namesake as DDA (Department of Drug Administration), the drug regulatory authority body of the country has made a regulation that every retail pharmacy shops should have a professional who holds a minimum qualification of D. Pharm.

DISCUSSION

Diploma education and its lacunae: The existing diploma education of Nepal has some lacunae which are mentioned below:

Lack of infrastructure: The governing body of D. Pharm education, i.e. Nepal Pharmacy Council has stated the minimum requirement that every D. Pharm college should have at least 6 faculty members (minimum three bachelor in pharmacy graduates) in health science. In a resource constraint country like Nepal, infrastructure is not enough to impart sufficient practical knowledge to the students wherein they lack sufficient number of laboratories and equipments.

Lack of well trained faculty members: In Nepal, where the institution doesn't meet the minimum number of faculty members, there are very few well-trained faculty members. Those who are well trained either leave the country or are found working in the bigger institutions.

High turnover of faculty members: Most of the qualified and well trained faculty members are seen leaving the countries and others are seen working in bigger institutions where they seek more opportunities. So, there is frequent turnover of faculty members. Another reason for this is very few faculty members are appointed as full time and most of them are seen working as part-time in various such colleges.

Education as a commodity: The diploma colleges are moving in a way of fashion and glamour but they are not concerned about the professional quality of diplomas in healthcare settings. [4] The total fee they charge is also variable ranging from US\$ 2580-4125 which signifies that education and knowledge has become a commodity.

Student training: The curriculum designed for the D. Pharm program however covers most of the areas that a diploma should know but the students lack behind in many of the areas. During the course period, they are posted in hospital pharmacy settings for a duration of two weeks which is very less than neighboring country India. In India, a diploma student needs to complete about 500 hours of practical training within a period of three months either in hospital or community pharmacy settings. [5]

Skill development: The important things the D. Pharm diplomas, also called pharmacy assistant, lack is the practical knowledge to work independently in hospital and community settings. Students usually opt for D. Pharm as their second or third option after they do not get enrolled in an institution or university for the program which was their first option. The students who complete secondary education get enrolled in D. Pharm education in Nepal. This is different than that of India where students gets enrolled in D. Pharm after finishing their higher secondary education. [5] This lack of maturity may be the reason why the diplomas lack sufficient professional responsibility and attitude towards providing better service to general public.

Exposure to hospital and community pharmacy: There are very few hospital and community pharmacy settings in the country where the diploma students can get exposure as a part of their practical education. Wherever properly maintained, the duration of their exposure in those pharmacies is not sufficient enough to gain all the information about pharmacy related services.

Consequences to the healthcare system

The lacunae present in the diploma education have affected the proper delivery of healthcare services. Some of the consequences are listed below:

Poor pharmacy services: Delivery of poor quality pharmacy services due to the lack of quality staff and adequate infrastructure is currently being witnessed by the country.^[6] The country is producing more number of diplomas which ultimately leads to less employment leading to mushrooming of pharmacy assistants. This can lead to unethical practice and cut throat competition between them. They can then start examining patients which can then lead to problems like giving discounts, providing poor quality and expensive medicines etc.

Lack of professional respect: The pharmacy assistants are not able to get professional respect from patients as their knowledge to the subject matter is not of that much standard to meet the requirement to provide unbiased and current information on medicine use.

Failure to provide drug information: Diplomas should be knowledgeable about the dose, frequency, duration and use of the drug. They also need to know the activity of the drug and pharmacodynamics and let the patients know about it. This is the reason they are not able to provide drug related information to the patients.

Lack of counseling: Lack of good communication skills, improper interaction with patients, poor knowledge is one of the reasons why they are not able to counsel the patients.

Pathetic state of community pharmacy: There are people who consider D. Pharm education as only the means or the tool for opening the pharmacy rather than providing better pharmacy services. Those people are seen involved much in money

making jobs rather than providing quality services.^[7]

Failure to provide the value added service: The diplomas should be prepared and committed to provide best information about the use of medications to improve the patient's quality of life. They are not able to gain professional value from management. So, the management is not convinced to allocate adequate people to provide the pharmacy services. Their presence or absence is not seen to bring any change in the existing system. The lack of significant contributions from these diplomas for the better healthcare may be one of the reasons that the pay scale of the pharmacy assistant working in healthcare settings is low compared to other similarly qualified professionals like nurses, laboratory technicians.

CONCLUSION

Diploma in Pharmacy is a growing program among the people who seek easy employment, more opportunities, who want to start their own pharmacy even for namesake. Lack of infrastructure, well trained faculty members, student training, skill development and exposure to hospital and community settings are the lacunae observed in diploma pharmacy education. Had these diplomas taken initiatives to contribute in drug use in community health settings, there could have been less number of drug related issues. If the government makes the strict policy for running the retail pharmacies by a professional with a minimum qualification of D. Pharm, the demand of pharmacy assistants will still be high. But, the main concern is the quality of the pharmacy diplomas working in different settings.

Table 1: Chronology of events showing evolution of pharmacy education in Nepal

YEAR	PROGRAM STARTED	INSTITUTION
1972	Diploma in Pharmacy	Tribhuvan University
1994	Bachelor in Pharmacy	Kathmandu University
2000	Bachelor in Pharmacy	Tribhuvan University
2000	Master in Pharmacy	Kathmandu University
2003	Bachelor in Pharmacy	Pokhara University
2004	Doctor of Philosophy in Pharmacy	Kathmandu University
2005	Diploma in Pharmacy	Council of Technical Education and Vocational Training
2005	Master in Pharmacy	Pokhara University
2010	Doctor of Pharmacy (Post-Baccalaureate)	Kathmandu University
2011*	Master in Pharmacy	Pokhara University

* Relaunched (The program was run before, stopped and then again restarted)

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