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Interest and Career Planning in Health Economics among the Public Health Students of Purbanchal University, Nepal.

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Abstract

Health Economics applies economic principles to the health sector and is a popular area in Public Health. Interest among students in Health Economics is growing. Currently, there are 10 (Universities and health academics) offering Public Health programs (Master or Bachelor of Both). Among them, Purbanchal University (PU) is the second university in Nepal to offer a Bachelor of Public Health (BPH) program since 2001, followed by Tribhuvan University in 1986. Health economics is one of the subjects taught in public health programs. A cross-sectional descriptive study aimed to explore the interest and career planning of Health Economics among public health students at PU School of Health Sciences (PUSHS), a constituent college of PU. A purposive sampling method was adopted, and the study site was selected for the researcher's feasibility. For the quantitative study, a total of 64 students in the final year of BPH and Master of Public health (MPH) were enrolled in the study. Similarly, for a qualitative study, five students who already passed out MPH and completed their health economics course were enrolled. More than two-thirds of students didn't study economics in their school-level curriculum and had inadequate backgrounds foundations in economics, but most of the students showed their interest and career planning in health economics. The majority of the students highlighted the usefulness of health economics for shaping the healthcare system of the country. The study has mixed levels of the status of interest and career planning in Health Economics among public health students of PU. The study suggests further research to be carried out to explore the role and necessity of Health economics in

public health programs in a proper and organized way through universities and academic institutions.

Keywords: Health Economics, Economics, Career Planning

Introduction

Purbanchal University (PU) was the second university of Nepal to offer Bachelor of Public Health (BPH) program since 2001 followed by Tribhuvan University in 1986 (Subedi et al., 2016). Currently, there are 5 universities (Tribhuvan University, Purbanchal University, Pokhara University, Kathmandu University, and Rajarshree Janak University) and 5 autonomous health academies (BP Koirala Institute of Health Sciences, Madhesh Institute of Health Sciences, Madan Bhandari Academy of health sciences, Karnali Academy of Health Sciences and Patan Academy of Health Sciences) conducting Public health academic programs (BPH or MPH or Both) in different parts of Nepal.

According to the World Health Organization (WHO), Health is multifactorial and it is affected by many determinants. Health and Economics are the two most important and interrelated fields. Health economists are enriched with the skills and knowledge of how healthcare markets are organized and how investing in people's health can benefit society. It emphasizes identifying the best ways to utilize the resources to take care of the sick and helps to promote the overall health of the people. Tentatively defined, health economics is an area of study whose subject matter is the optimum use of resources for the care of the sick and the promotion of health. Its task is to appraise the efficiency of the organization of health services and to suggest ways of improving this organization. Promotion of health patently involves more than services of the health professions such as food, housing, recreation, and clothing, but, although they contribute importantly to health and wellness, they must be excluded from the scope of health economic studies. While the scope of health economics may be delimited in this way, account must be taken of the competing uses of scarce resources, the impact of economic levels and economic growth on the status of health, and the need for health services (Mushkin, 1958).

Students switch careers for various reasons, like seeking more meaningful work, pursuing long-held dreams, or adapting to job loss. This article gives tips on evaluating current career satisfaction, understanding motivations for change, and considering financial implications. It also discusses self-assessment for career suitability, covering values, skills, and interests, with additional sources for guidance (Mullins, 2009). And Now, Health

economics is now one of the filed in which public health students can develop their career.

Health economics as a behavioral science and as input into health policy and health services research. Research related to economics and health is interdependent and can result in an impact on population health(Fuchs, 2000).

Health Care resources are limited and Economics is about getting better value from the deployment of scarce resources. Since the mid-1960s economists in many countries have been seeking their attention to health services and have considered the economic aspects of different options in the financing, planning, and management of health care. Given the current interest, the time seems to be right to assess the contribution of the analysis carried out so far and to introduce doctors to some of these ideas (Mooney & Drummond, 1982).

The COVID-19 global pandemic gives great lessons to the global community and all available vaccination options for COVID-19 are very effective. Some may even be more effective than others and may also have different health and economic profiles. The methodology to measure the benefits of vaccination programs especially when they have herd immunity as a goal is currently being debated. Health economists, around the world, greatly contributed to developing the idea about resource generation in COVID-19 Vaccine production(Schulenburg, 2021).

In Health economics, there are many ideas, which provide the proper ideas of decision-making in health care. (Kernick, 2003) And how as primary decision-makers within the system, healthcare professionals with the help of health economics can make decisions in the best interest of their patients while making efficient use of limited resources. It is our responsibility as healthcare professionals to combine medical expense with economic proficiency to help actualize the overall vision of our health systems of delivering equitable, high-quality, safe, efficient, accessible, and cost-effective services(Karki, 2018).

In this context, health economics is the area of public health to be understood and for the time being the nature, contents and the student's interest should be studied to enhance the competencies of curriculum towards health economics.

Methods

Following Institutional Review Committee (IRC) approval, the cross-sectional

study was carried out in the Final semester students of Bachelor of Public Health and Master of Public Health in Purbanchal University School of Health Sciences (PUSHS) which was established in 2012 AD offering courses in Bachelor in Public Health (BPH) and Master of Public Health (MPH) courses Public Health along with Nursing, Pharmacy, and Laboratory Science discipline. It is located at Sundarharaicha Municipality, Morang District and Koshi Province of Nepal.

The purposive sampling method was adopted and the study site was selected for the researcher's feasibility. The quantitative study was conducted among the 64 students and qualitative information was taken from the five students who already completed their Health Economics courses in Both Bachelor of Public Health and Master of Public Health Programs.

For the quantitative study, self-administered questionnaires were constructed. The study tool was prepared based on available and relevant literature. Answerability and Difficulty in understanding the given question were noted and the tool was modified according to the feedback obtained from the pre-testing. any question was noted during. The validity of the questionnaires was checked by peer review and through subject experts. Informed consent was obtained from the respondents before data collection. The collected data was analyzed and descriptive statistics like frequency and percentage were calculated. Qualitative information was gathered and discussed with available literature.

Results and Discussions

During the study, the curriculum of Both Bachelor of Public Health and Master of Public Health was reviewed. Health Economics was found to be included in the curriculum of BPH and MPH of PU. Only final year students of Bachelor of Public Health (BPH) & Master of Public Health (MPH) with Health Service Management specialization were considered for the study because the health economics course was kept in the curriculum of this course respectively in the sixth and third semesters. Table .1 Shows that the BPH Curriculum of PU was launched in 2001 and subsequently revised in 2012 and 2019. Currently, the Health economics subject is kept as a separate subject in BPH and MPH curriculum of PU. In BPH Program, initially, the contents of health economics were included in a combined subject named public health administration and health Economics. In 2012, BPH curriculum was revised and the separate subject named as 'Health Economics and Financing' was kept in the semester for a total of 4 credits. The

latest, revision of BPH curriculum was done in 2019, which renamed the curriculum as 'Public Health Economics and Financing'. In, MPH Program, the curriculum was launched in 2016, which also kept health economics as a separate subject which was named 'Public Health Economics and financing'. Currently, in PU, both BPH and MPH health economics were 80% final and 20% internal assessment with 100 full marks.

Table 1: Status of Health Economics in curriculum of BPH and MPH at PU

Level	Curriculum Status	Nomenclature of subject	Subject weightage
BPH	2001 (Initiated)	Public health administration and health Economics	Health Economics includes a combined subject of 40 hours (Theory)
	2012 (First Revision)	Health Economics and Financing	4 credit hours (Theor= 3 credit hours & Practical = 1 credit hours)
	2019 (Second Revision)	Public Health Economics and Financing	3 credit hours
MPH	2016 9 (Initiated)	Public health economics and Financing	3 credit hours
	2014 (First Revision in process)	Public health economics and Financing	3 credit hours

Table 2: Distribution of Participants in the study

Level of Study	Number of students
Bachelor of Public Health	52
Master of Public Health	12
Total	64

Table 2, showed that altogether 64 students participated in the study. Among them, 52 students were from BPH Program and 12 students from MPH programs who already completed their health economics subject during the course. students participated in the study. The BPH students who already completed the sixth semester, in which the health economics course was included, and currently studied in the final year (7th and 8th

semesters) were enrolled in the study similarly 12 students of MPH who already completed their health economics subject were also enrolled in the study.

SN	Variables		Number	Percentage
1.	Studied Economics in School level Curriculum	Yes	20	32.25
		No	44	68.75
2.	Perception About Health Economics Subject	Interesting	40	62.50
		Not Interesting	24	37.50
3.	Usefulness of Health Economics	Useful in Health System	59	92.19
		Not Useful in Health System	5	7.81
4.	Develop further Caren in Health Planning	Yes	35	54.69
		No	20	31.25
		Not Known Yet	5	7.81
		No Want to say anything	4	6.25
5.	Opinion about health Economics	Difficult to understand and study	38	59.38
		Easy to understand and study	15	23.44
		Neutral	11	17.19
6.	Confident of Health Economics study	Not confident	19	29.69
		Confident	25	39.06
		Very Confident	20	31.25
7.	Most Interesting Topics in Health Economics	Cost	10	15.63
		Demand and Supply	15	23.44
		Economic Evaluation	8	12.50
		Health Financing	17	26.56
		Budgeting	10	15.63
		All topics	4	6.25
8	Most Bothering Topics in Health Economics	Cost	9	14.06
		Demand and Supply	15	23.44
		Economic Evaluation	10	15.63
		Health Financing	16	25.00
		Budgeting	12	18.75
		All topics	2	3.13

Table 3, shows the status of different variables of interest and career planning

of Health economics in the enrolled students. The questionnaires were based on single-response self-administered questions. More than two-thirds of the students didn't study economics during their school education. Regarding Perception About Health Economics Subject, majority of the participants said that health economics was interesting to study. Most of the respondents (92.19%), responded that health economics was a useful course and was applicable for public health students. The majority of the students wished to develop their career in health economics and nearly one-third of students didn't want to develop their career in health economics and the remaining students didn't decide yet or cannot say anything. Students were interested and desired to develop their career in health economics but in contrast, the majority of the students said that health economics was a difficult subject to understand and study this might be due to the possibility of future opportunities of the courses. Similarly, the confidentiality of students towards studying health economics was also asked, a higher number of students said that they were confident about studying health economics. Students were also asked about interesting topics within health economics, and the responses were found mixed answers.

These data provide the basic information about perceptions, opinions, and preferences regarding the study of health economics among the study group. It showed both positive and negative sentiments, as well as areas of interest and concern within the field. The majority of respondents didn't study economics in their school-level curriculum. A study conducted by Subedi et al, Educational Satisfaction of Public Health Undergraduates: A cross-sectional study in Nepal, although, didn't separately discuss Health Economics but the study focused on the need for intervention in curriculum structure & contains, teaching methodology, teaching-learning materials, admission and examination procedure (Subedi et al., 2016). So, in the case of health economics also, the further studies should be explored to find out the real situation.

Regarding the perception of health economics, a majority of the students the usefulness of health economics and their interest in the subject matter, and the study findings are similar to Wendel et.al which said that the concerns and interest are increasing in health economics(Wendel et al., 2017)2nd Edition provides an evidence-based framework to help practitioners comprehend the changes already underway in our nation's healthcare system. It presents important economic facts and explains the economic concepts needed to understand the implications of these facts. It also summarizes the results of recent empirical studies on access, cost, and quality problems in today's

healthcare system. The material is presented in two sections. Section 1 focuses on the healthcare access, cost and quality issues that create pressures for change in health policy. The first edition was completed just as the Patient Protection and Affordable Care Act (PPACA). However, a notable minority find it uninteresting, suggesting potential challenges in engaging certain individuals with the topic. Although students were found, the interest of students in studying health economics might be affected by various factors which was not a part of this study, and the majority acknowledge its importance, highlighting its relevance in shaping healthcare policies and practices and thus which was similar types of suggestions for the BPH students which stated that to be carried out to explore the perception of health professional on viewing climate change in terms of health risks and involving health professionals in solving the climate change issues to prevent (Mahato et al., 2014). But the suggestion might be useful for health economics too because there is no sufficient literature about health economics and public health academic programs in the Nepalese context.

Regarding career planning, a majority of the students expressed their desire to develop further careers in health economics. However, some respondents are unsure or unwilling to disclose their intentions regarding these thoughts and opinions. Overall, the data highlighted the complexity and importance of health economics in public health decision-making highlighted both the opportunities and challenges associated with studying and applying economic principles in the context of healthcare systems, reflecting the diverse perspectives within the surveyed population. There is no similar literature available in Google Scholar, however, a study conducted by the affiliates of Auckland University of Technology showed that the number of students was rising the economics in advanced level studies (Webber & Mearman, 2012).

For qualitative research, five students, who already passed out the health economics course, in MPH programs were asked about their views regarding interest and career planning in Health economics. The verbatims are given below:

"Health Economics is a practically applicable course, we can apply principles and theories in the planning information about interest and career planning, organizing and implementing the public health services so it is necessary to study".

"Health Economics is an important and useful course for a public health professional, its in-depth knowledge and real-world scenario should be known for efficient and effective

conduction of programs, and exposure from various experts and economists is required for the expansion of vision towards health economics and financing"

"I want to become a health economist, but don't have sufficient information about where the course is studied and how to get admission in Health economics course. Can I get the proper job after completing the course?"

"I am confused about how to many health economics in Nepal, and what way I can make my career in it, I read health economics but did not understand in what way it will be applicable in the health system of Nepal".

A qualitative study showed that the students were interested in health economics but they were confused about the further courses which was not available in Nepal and one of the studies suggested that faculties were adequate in subjects like health economics and other public health issues. (Mahat et al., 2013). So, such issues should be addressed to show the clear way out in the health economics subjects.

One of the literatures said Health Economics is an essential course for public health professionals and studying health economics gives the detailed ideas necessary for efficient program management. Aspirants of health economists need guidance on where to study and how to get into Health Economics programs. Understanding public health funding and its impacts on welfare, global finance, population flows, and trade is essential. (Carande-Kulis et al., 2007)protecting the public's health is one of the most conspicuous. The government provides goods and services such as registration of births and deaths, public health surveillance of disease and injury, outbreak investigations, research and education, health insurance for the poor and elderly, enforcement of laws and regulations, evaluation of health promotion programs, and assurance of a competent healthy workforce. In the past, economics in public health has almost exclusively focused on efficiency of programs through the use of cost-effectiveness or net present value measures clustered under the rubric of "economic evaluation." Efficiency measures are useful at the programmatic level. However, lack of full employment and market failures including public goods and the impact of consumers and producers actions not reflected in the markets (externalities. So, it's very crucial to understand the health economics in public health and the appropriate measures that were taken in our Nepalese context.

Conclusions

The study has mixed levels of status regarding interest and career planning in Health Economics among public health students of PU. There is no doubt, that health economics is useful for public health students, who are assumed to be the future planners and policymakers in the health system. The study found that the majority of students felt difficulty in understanding and had an inadequate foundation of knowledge of economics at the school level, despite that students were interested in developing their careers in health economics. The better understanding of Health economics among public health students fosters their skills and knowledge which help to strengthen the public health system. Health economics is the essential area of public health that is required for the proper opportunities of education and learning through universities and academic institutions. Inadequate opportunities in education, lack of information, and separate courses are areas to be explored. The study also focused the separate courses on Health economics at the university level. The study suggests further research to be carried out to explore the role and necessities of Health economics in public health programs in proper and organized way through the university and academic institutions.

Limitations of study

This study has several limitations as it is a cross-sectional study based on general perceptions and purposively selected sample size, the findings may not be generalized outside the study population.

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