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# Content analysis of the official curriculum of undergraduate degree in Iran's medical sciences universities from the perspective of social health: A qualitative study

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## Abstract:

**BACKGROUND:** Social health is considered as an important part of good health both individually and socially. The purpose of this study was to examine the content of the official medical sciences curriculum in undergraduate degrees from a social health perspective.

**MATERIALS AND METHODS:** This qualitative content analysis study was conducted in 2019 at the Isfahan University of Medical Sciences using a deductive approach based on Hsieh and Shannon's directed content analysis. For this purpose, official curricula in the fields of Public Health, Occupational Health, Environmental Health, Nursing, Midwifery, Nutrition Sciences, and Health Services Management were analyzed using MAXQDA 12.

**RESULTS:** The results showed that a total of 136 codes related to the components of social health were identified in the topics of undergraduate medical sciences majors. Most to least relevant topics belonged to the fields of Public Health (61 codes), Midwifery (22 codes), Nursing (16 codes), Occupational Health (12 codes), Environmental Health and Nutrition Sciences (each 10 codes), and Health Services Management (5 codes), respectively. Among the components of social health, only the component related to access to insurance and health services was mentioned in all seven disciplines. However, the components of poverty and inequality were only included in three disciplines (Public Health, Nursing, Midwifery).

**CONCLUSION:** Regarding insufficient focus on social health in curricula, revision of educational curricula is suggested from the perspective of social health, particularly in areas such as poverty and inequality, unemployment, population, violence, and gender discrimination.

## Keywords:

Curriculum, Iran, qualitative research, social health

## Introduction

Human society is facing significant economic and social growth in the present era, so educational systems must educate their young learners so that they can make successful use of their knowledge and skills.<sup>[1]</sup> The key objective of medical science education is to educate practitioners who are in a position to provide their

clients with a range of vulnerabilities and health issues in a changing society.<sup>[2]</sup> Optimal education is focused on providing appropriate opportunities for learners to develop awareness, skills, and attitudes in the form of specific competencies. Such training sessions should be delivered in a way that eventually contributes to the success of the professional practices of the learners in society. Achieving these

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objectives requires a framework and quality of evidence training. Clearly, the existence of these opportunities in universities' curricula should be pursued.<sup>[3]</sup>

Curriculum is defined as decisions and efforts to plan and provide a set of learning opportunities and will therefore include the subject or educational content, process, or method of teaching and assessment.<sup>[4]</sup> Evidence has shown that the medical perspective affects overall health less than other factors, such as the social structure in which we live.<sup>[5,6]</sup> In other words, opportunities for well-being have wider scope in today's world, and considerable attention has been paid to nonmedical determinants. Each of these determinants, either on their own or by affecting each other, has a serious impact on the health status of the communities. Less attention seems to be paid to the root causes of diseases and health inequalities in different groups of society,<sup>[7]</sup> and this is important in university curricula, especially in medical science.

The World Health Organization defines health as complete physical, mental, and social well-being, not just the absence of illness or disability, and according to this definition, social health is considered as an individual aspect of health, although much less than both physical and mental health is discussed.<sup>[8]</sup> It is noteworthy that there is another social health perspective, in which social health is considered a healthy society. In this context, a healthy society is where all have equal opportunities, and everyone has access to the goods and services required for full prosperity as a citizen.<sup>[9]</sup>

Empirically, the concept of social health is against social anomaly and alienation in sociology.<sup>[10]</sup> Numerous factors and causes have a role to play in causing social harm, the existence of social anomalies, and social health problems. Some of these factors are: economic status (poverty), inflation, inequality and prejudice, educational level, lack of social security, decreased social support, and social capital. The role of poverty in endangering social health is amongst these factors.<sup>[11]</sup>

Given the numerous research on social health that has been carried out in some countries, several unclear issues still exist. Among other things, social health has many indicators and dimensions that vary in different cultures and circumstances, and in some countries, some indicators are more important. As a consequence, social health provides various objective definitions and interpretations depending on the conditions of each society.

Various studies have identified indicators for social health, such as the Mirungoff Social Health Index<sup>[12]</sup> and the Ontario Safe Communities Coalition.<sup>[13]</sup> In Iran, Amini Rarani *et al.*, based on studies, call a

healthy society as a society in which educational and insurance rates are increased, poverty levels are reduced, unemployment and crime are reduced, and population levels are controlled.<sup>[14]</sup>

Research have studied the impact of teaching components of social health on community well-being. Humphrey *et al.*,<sup>[15]</sup> examined the impact of the Academic Curriculum of Alternative Thinking Strategies (PATHS) on the emotional well-being of students, the findings showed a substantial change in the mental and social well-being of students.

O'Brien *et al.* examined the impact of social health training on medical students' learning and long-term desire for social factors affecting health. Their research found that students reported higher rates of consensus on social determinants and use them to apply successfully in community-based projects. In the qualitative phase of the study, students found that studying medical concepts from a social determinant perspective was more successful than traditional medical models.<sup>[16]</sup>

A study in Iran<sup>[17]</sup> also categorized the barriers and strategies of the social response curriculum in medical education into eight categories: curriculum structure and late exposure of students to community health problems, insufficiency of the curriculum with the needs of the population and greater commitment of the curriculum to theoretical and clinical education, the domination of the quantitative model and consequently disregard for important measures of accountable medicine are among these barriers. It seems that medical education could not meet the social needs, particularly the social health needs of different social groups. It seems that medical education could not meet the health needs of different social groups in terms of social aspects.

Specific shortcomings have contributed to the fact that social health aspects are not adequately included in the curricula of medical science, including lack of written instructional materials with ample empirical data on the influence of social determinants on the prevalence of illnesses, lack of clarity about the role and responsibility of health-care professionals in relation to social factors.<sup>[18]</sup>

It seems that the inclusion of components of social health in the curricula can be related to the duty of graduates in providing comprehensive healthcare (physical, mental and social) to clients and various social groups.

Nevertheless, that the proportion of social factors in health in various studies has been estimated between 50% and 75%,<sup>[19]</sup> it appears that the views of medicine are dominant and the social aspect of health as the basis for illnesses in students' educational contents, in particular, undergraduate courses are overlooked. In other words,

in the field of medical education, social concepts are less included in medical curricula for reasons such as training based on cellular biomedical model. Today, due to socio-cultural shifts in learner generation on the one hand and the complex, dynamic and socio-environmental nature of various illnesses and diseases, on the other hand, demand for these curricula is more than just social reflections but also a license to participate people in the continuous development of society.<sup>[20]</sup>

In the responsible and justice-oriented education package of the Ministry of Health, Treatment and Medical Education of Iran, assessing the curriculum of all disciplines based on the needs of society, identifying and establishing appropriate motivational approaches for policymakers, professors, students and service providers for addressing social determinants of health is emphasized. It is, therefore, important to determine to what extent the content of the curricula of the different levels of medical sciences, in particular undergraduate level, has been compiled from social health point of view. Accordingly, as the first study, the present study aims at investigating the curriculum of undergraduate medical universities in terms of social health.

## Materials and Methods

A qualitative content analysis study using a deductive approach has been designed to investigate the content of the official curriculum of undergraduate courses in Isfahan University of Medical Sciences from the perspective of social health.

In this study, each of the disciplines' educational curricula was the course analysis unit. The following steps demonstrate how to specify educational fields relating to social health.

### Identifying disciplines related to social health Screening phase

Selection of disciplines related to social health was made during two screening phases. Screening of all undergraduate courses (19 courses) at all Isfahan University of Medical Sciences faculties was identified in the first stage. Around this phase, the research team firstly excluded the disciplines that were not related or had anything to do with the definition of social health (face validity) and eventually listed 14 disciplines related to social health.

For the second screening process, 14 selected disciplines were included in a researcher checklist and 30 interdisciplinary social science, and health professors were asked to score each discipline based on the specified continuum (1–10) according to their relationship with the definition of social health.

### Scoring and selection of disciplines related to social health

At this phase, 22 experts have responded to the checklist. The criterion for selecting the most relevant social health fields was the scores that the experts had assigned to each discipline based on the range between 1 and 10. The total score of the experts for each field was calculated, and based on that average scores obtained, disciplines above the median (median scores of all disciplines) were considered as disciplines related to social health. Finally, at the undergraduate level, seven fields were selected as areas related to social health and entered the next phase of the study (content analysis). In this study, the Kendall's Coefficient of Concordance, as a measure of agreement, among experts was 0.53.

### Qualitative content analysis

Directed content analysis was used to analyze the qualitative content using the components of social health in Iran,<sup>[14]</sup> In the directional approach introduced by Hsieh and Shannon,<sup>[21]</sup> the researcher wants to retest the assumed model, framework, or theory in a new context<sup>[22]</sup> In this study, according to the components of social health in Iran, which was suggested in 2013 by Amini Rarani *et al.*,<sup>[14]</sup> the content of the curriculum of selected disciplines from the perspective of social health was qualitatively analyzed. According to Amini Rarani *et al.* The components of Iran's social health were as follows: lack of poverty and economic inequality, absence of violence and gender discrimination, controlled population growth, education and training, public access to insurance and health services, lack of unemployment.

For this reason, the research team read and checked multiple times each of the topics listed in the curriculum of undergraduate courses. Instead, after discussing and sharing views on issues related to social health components, and finding consensus, each of the established topics was considered as social health codes. All the curricula were entered into the MAXQDA Plus (version 12) for analysis.

## Results

Table 1 lists the codes related to the concept of social health based on studied disciplines at the undergraduate level.

A total of 136 codes were identified under the topic of disciplines related to social health at the undergraduate level. The most relevant to the lowest topics belong to the fields of public health (61 codes), midwifery (22 codes), nursing (16 codes), occupational health (12 codes), environmental health and nutrition sciences (each 10 codes), and management of health services (5 codes), respectively.

**Table 1: Codes related to social health in undergraduate medical sciences**

<b>Codes related to each of social health themes</b>	<b>Themes</b>	<b>Discipline</b>
The relationship between socioeconomic issues and human ecology	Poverty and economic inequality	Public health
Socioeconomic characteristics of the health sector		
The role of economic factors in addiction		
Generalities about the impact of economic factors on puberty issues		
Matching the situation of work, home and community with the disabled and vice versa	Violence and gender discrimination	
Children in need of special care at school, general information about students' mental health and adolescent issues in Iran		
Sexual, psychological, physical and social violence of women - Incidence and prevalence - causes and ways to prevent it		
The role of parents in teaching speech to children	Education/training	
Evaluate patients for new vocational training		
The role of health education in promoting health		
How health education in schools and its importance		
Nutrition education and learning		
How to educate people about their participation in the		
Implementation of proper waste collection methods		
Different methods of nutrition education		
Health behaviours and health education		
Remembering and changing behaviour in health education		
The role of health education at different levels of prevention		
Identify educational needs		
Health counselling		
The role of health education in the prevention of infectious and chronic diseases		
The role of health education in family health programs		
Health education and involving the victims in organizing and solving problems		
Monitoring, evaluating and reviewing the training programs provided by the experts and health workers in the area covered and preparing feedback for the officials		
Evaluate the results of training provided to pregnant women and reproductive health training and health care for children under 5 years and children of school age by providing feedback to improve the level of training		
Survival system and reporting	Access to insurance and health services	
Documents related to vital events, statistics related to health centres		
Explaining cleft palate, lip and time surgeries and the use of orthodontic appliances		
The importance of maternal and child health		
Definition of health and disease-Origin and classification of diseases-definition of pain and its causes-health transition-health image in Iran and the world-genetics and health		
Maternal and child health, adolescent health, puberty and marriage health, elderly health		
Familiarity with PHC and health service delivery systems in Iran		
Comparison of different health systems in the world with the health services supply system in Iran		
Provide a summary of health priorities in different regions of Iran		
Referring to national mental health programs in Iran		
Provision of health services in the private and public sectors, quality of care, implementation of health care systems according to the health, social, economic, cultural and political situation		
Children in need of special care at school, general information about students' mental health and adolescent issues in Iran		
Physically disabled people who need physiotherapy		
A summary of treatment methods for each of the physical and mental disabilities		
Rehabilitation and assistance to the disabled		
Socioeconomic aspects of health services		
Introduction to PHC network: different dimensions of PHC -city health network-health network management organization in Iran		
Caring for pregnant women		
Safety and accidents at work		
Principles and methods of prevention of diseases and accidents at work		
Health service delivery systems in the world		
PHC and service delivery networks		
Mental health programs of the country		

Contd...

**Table 1: Contd...**

<b>Codes related to each of social health themes</b>	<b>Themes</b>	<b>Discipline</b>
Prepregnancy care and services (premarital counselling - premarital tests - education on distance and its impact on maternal and child health)		
Pregnancy care and services (how to file, how to determine the time of delivery, clinical and preclinical examinations, diagnosis of vulnerable pregnancies and their intensive care, how the fetus grows and factors that affect the growth of the fetus) Pregnancy time, pregnancy nutrition and maternal education		
Other vulnerable babies, factors affecting their birth, ways of prevention and care		
Infant health care, in the 1 <sup>st</sup> year of birth, child care		
Supervise how to apply the principles and foundations of PHC as the most appropriate strategy to achieve the goal of health for all		
Noisy jobs, its dangers and ways to prevent it	Unemployment and employment	
The relationship between population changes and ecological changes in relation to human health	Population	
Census		
Documents related to vital events		
Demography and changes in the age pyramid in Iran and the world		
Factors affecting changes in the elderly population in society		
Population genetics		
Positive and negative benevolence of breeding - Genetic counselling, prevention of high-risk Consanguineous marriages and marriages in old age		
Learn programming for believing health and family planning and counselling		
Reproductive health and human rights services, especially for displaced persons and refugees	Violence and gender discrimination	Midwifery
Social deviations (poverty, crime, violence, etc.)		
Violence and abuse against women and other family members		
Social harm to women, children and family members		
Gender		
Sexual deviations		
Vulnerable social groups including street women, female prisoners, addicts, fugitives		
Domestic violence, child abuse and its types, infanticide		
Neonatal AIDS		
Education and counselling in sexual dysfunction	Education/training	
Equity in health	Access to insurance and health services	
Health systems in the world and Iran		
An overview of PHC and MCH services and the role of midwives in it		
Providing reproductive health services in crises and disasters		
Child-friendly hospital		
Reproductive health and occupational health issues	Unemployment and employment	
Occupational health for women		
Health and safety at work		
Counselling in different cases of marriage, family planning	Population	
Prescribe different methods of family planning		
New methods of prevention, evaluation of family planning programs		
General demographics related to health		
The social pattern of the disease by race, ethnicity	Violence and gender discrimination	Health service management
The social pattern of the disease by race, ethnicity	Access to insurance and health services	
Principles of determining the tariff for medical services		
Familiarity with the health care network system, referral system and family physician		
Examining the different levels of health service supply		
Management and demographic issues	Population	
Economic factors affecting health	Poverty and economic inequality	Nutrition science
Health and communication education	Education/training	
Health security strategies		
History and structure of the PHC network in the world and in Iran		
Current nutrition programs in the health care system in Iran		
Nutrition of special and vulnerable groups		

Contd...

**Table 1: Contd...**

<b>Codes related to each of social health themes</b>	<b>Themes</b>	<b>Discipline</b>
Nutrition in physical and mental disabilities	Access to insurance and health services	
Occupational health	Unemployment and employment	
Familiarity with national and international principles and standards of staff health and safety, environment and equipment		
Population and pattern of diseases	Population	
Fundamentals of health education: definition and philosophy, principles and importance of health education	Education/training	Occupational health
Communicate effectively in health education		
Educational technology: Definition and importance of educational technology		
Systematic training models		
Successful world interventions to combat malnutrition	Access to insurance and health services	
Nutritional support program for vulnerable groups in Iran and the world		
Job motivation	Unemployment and employment	
Job stress and ways to deal with it and job burnout		
Job satisfaction and methods of measuring it		
Career and professional advice and guidance		
The role and position of safety in the workplace		
Familiarity with the principles of employee health monitoring and types of occupational examinations		
Health problems of refugees	Violence and gender discrimination	Environmental health
The role of hospitals in emergencies and its health problems	Access to insurance and health services	
Transformation in the system of providing health services		
Familiarity with the World Health Organization, history and duties		
PHC		
Environmental Health Department of the World Health Organization		
Health indicators		
Methods of population forecasting in the plans	Population	
Human ecology, human relations with the environment, demography and its importance		
Determining and measuring the population, the composition of the population in terms of age, sex and its spread		
Nursing and health economics	Poverty and economic inequality	Nursing
Abuse in the family (child abuse and elder abuse)	Violence and gender discrimination	
Vulnerable families: disability, addiction, divorce		
Work with vulnerable groups		
Violence against women		
Sexual disorders and sexual identity: definition, types, epidemiology, etiology, prevention, treatment and rehabilitation and nursing care based on physical, psychological, social and spiritual needs		
Determinants of health (education, etc.,)	Education/training	
Social evaluation (education review)		
Necessary trainings to promote the emotional connection between mother, baby and family		
PHC	Access to insurance and health services	
Systems providing health services		
Definition, goals, scope of development of maternal and neonatal health nursing activities, health care delivery system, mothers and infants and the factors affecting it, vital indicators in maternal and neonatal health (birth rates, maternal and infant mortality)		
The concept of disability and rehabilitation, definition, principles and philosophy of rehabilitation, rehabilitation and rehabilitation, types of rehabilitation, familiarity with equipment and facilities and their application in solving physical, psychological and social problems		
Social evaluation (employment survey)		
Population movements and demographic indicators	Population	
Aging and geriatrics		

PHC=Primary health care, MCH=Maternal-child health

Among the components of social health, only the component related to access to insurance and health services was mentioned in all seven fields. However, the components of poverty and inequality were mentioned in only three fields (public health, nursing, and midwifery).

The highest to lowest components related to social health were as follows: access to insurance and health services (53 codes), education and training (27 codes), violence and gender discrimination (19 codes), population (18 codes), unemployment and employment (13 codes) and poverty and inequality (6 codes).

## Discussion

The aim of this study was to analyze the content of the undergraduate medical sciences curricula from a social health perspective. The findings generally showed that the definition of social health has the most application in the field of public health, followed by midwifery and nursing. Another remarkable finding was that the least reference to the concept of social health belonged to the field of health services management, as an interdisciplinary and holistic knowledge in the field of health-related management and policy-making (physical, mental, and social).

In the field of public health, where their graduates' main role is in the field of disease prevention, topics relating to education and access to insurance and health services were of the highest frequency. Patient education and community education is suggested as one of the health components.<sup>[23]</sup> Considering the topics related to these components in the context of public health, it can be anticipated that students in this field can play an important role by educating the patient in the areas of physical, mental, and social health in improving the quality of health and in preventing infectious, noncommunicable diseases and social harms.

In general, it can be said that, in comparison with other disciplines, the curriculum for public health has been developed to respond to the social health of the community. Graduates in this field are expected to be able to provide appropriate measures and services related to social health components. Besides, they should take appropriate action to meet and support the social health needs of society.

The positive and admirable point about basic disciplines such as public health, nursing, and midwifery is that students in these disciplines should be familiar with the concepts of social health in the early stages of education because in higher education, this emphasis seems to be somewhat less important. For example, the study of Rezakhani Moghadam *et al.*<sup>[24]</sup> about content analysis of health education dissertations (as one of the trends

in public health) in medical universities has shown that the majority of dissertations in the Master's Degree focus on diseases from a biomedical aspect and focus on social health issues and their determinants in these dissertations was weak.

In relation to the field of nursing and midwifery, our study showed that students in these fields in their educational subjects were less concerned with the themes of unemployment/employment, poverty, and inequality, and because these determinants of social health play a significant role in health (physically, mentally, and socially) before the onset of the disease until after the patient is discharged from the hospital.<sup>[25]</sup> It is necessary to pay more attention to these two determinants in the curriculum of these disciplines.

In this regard, Cohen and Gregory<sup>[26]</sup> in Canada in the field of community health education on the evaluation of a nursing training program based on the approach of social determinants of health concluded that nurses in this field should understand the concepts of social health determinants in the clinical courses of community health. The importance of this issue is doubled due to the nature of direct service of these fields to the community and being in direct contact with people, which can play an important role in meeting the social health needs of people. Therefore, in addition to considering the topics related to social health in the curriculum of nursing and midwifery disciplines, it is expected that appropriate training on the importance of employment and poverty in the health and illness of the people will be provided to students so that they can have a comprehensive and holistic view in fulfilling the social health needs of individuals.

Nutrition sciences and health services management were two disciplines that had the least reference to the concept of social health and its determinants in official curricula. Nutrition sciences is one of the medical sciences disciplines in which graduates play in providing health and nutritional services to different social classes. Nutrition plays a key role in maintaining and promoting health in all physical, mental, and social dimensions, and with the change in epidemiology in the causes of death and disease worldwide, the state of nutrition and eating habits has become more pro-active.<sup>[27]</sup> In line with our study, Falahi *et al.*<sup>[28]</sup> showed that it is better to design practical training and internship activities for some specific courses in the discipline of nutrition to better fit the nutrition curriculum with the social needs of different groups. Owing to the epidemiological transformation of diseases in Iran from infectious to noncommunicable and chronic diseases, the need to pay attention to this problem is doubled, as well as emergence of communicable diseases like COVID-19.

Since the intake of processed foods, fast snacks and poor eating patterns is one of the leading factors to chronic illnesses, paying attention to the social components of a healthy eating style is required in Iranian society.<sup>[29]</sup> Similarly; a wider viewpoint in this area should be implemented in the field of health care management. The scope of education in this discipline should be extended from clinical and hospital management to overall health management (including social and mental well-being).

Another important factor in this regard is the internship curricula in each of these disciplines, which are usually designed to improve the practical skills of working with clients. However, concepts pertaining to social health were less included in the internship curricula of the disciplines and disciplines were basically without content relating to social health. It, therefore, appears that the skills required to provide comprehensive health services to graduates in these disciplines are not appropriate for the needs of different social groups. This finding is in line with the study of Shirjang *et al.*<sup>[30]</sup> In the field of public health, Tabrizi and Azami-Aghdash<sup>[31]</sup> in the field of health services management. In this regard, Hunsberger *et al.*<sup>[32]</sup> concluded that clinical training courses should be designed to provide students with clinical proficiency. This is definitely important for medical sciences graduates as they are expected to have comprehensive knowledge and skills in the health of different social groups.<sup>[33]</sup>

The most important strength of the study was the attempt to study the concept of social health as one of the most important social determinants of health in the curricula of Iranian medical sciences to amend and pay more attention to the social dimensions of health. One weakness of this study is the limitation of attention to the details of the concept and models of social health and its relevance to other social determinants in medical sciences universities.

## Conclusion

In general, it seems in Iran, there is significant neglect regarding social health issues in the medical education curriculum. Therefore, in line with one of the five main axes of the country's 20-year vision in the horizon of 1404 (achieving the first place in science and technology in the region with the characteristics of a healthy Iranian society), attention to social health components in medical sciences curricula can be an important step in accountable education to meet the needs of society. This can be addressed by evaluating the theoretical and practical undergraduate medical science curriculum and incorporating components related to social health, in particular components related to poverty and inequality, unemployment and jobs, community, violence, and

gender discrimination. As a practical recommendation, it is proposed that the incorporation of social health topics in medical science courses should be included in periodic revisions of the curriculum as one of the targets of social accountability of medical sciences education.

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## Conflicts of interest

There are no conflicts of interest.

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