Undergraduate Medical Education in Underdeveloped Countries: The Case of Pakistan

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The type of medical education of a country is closely linked with its system of health care. Any health care system, with its own peculiarities, requires a certain type of doctor who can function effectively in the given environment. The same is the case with underdeveloped capitalist countries, such as Pakistan, where a skewed, elitist, curative model of health care exists. In Pakistan, where the literacy levels in the native tongue are very low, medicine is taught in English, and nearly all prescribed textbooks are written in and for the West. Conditions specific to Pakistan, such as the degree of cheating in exams, the time lost due to closure, and the level of debate concerning the medical system may find their parallel in other UDCs. Since it is the social and economic forces, which in the final analysis, determine the system of health care and medical education, one cannot expect any significant improvement within the existing class structure. (Reprinted from *Social Sci. Med.* Vol. 25, No.8)

THE historical evolution of most underdeveloped countries (UDCs) has resulted in a pattern of medical and health care which is, to a great extent, modelled on that found in developed countries (DCs). A salient feature of this type of health care is that it is essentially curative in nature. However, as the degree of social and economic development in UDCs still lags behind that in the DCs, the resulting model of health care is of a peculiar and distorted kind, and is in most cases, not as successful as that found in DCs [1-8].

The main feature that has evolved from this (curative care) type of health structure is the dominant role of the doctor in administering medical care. The preferable pyramidal structure for health personnel, where there should be more auxiliary health workers assisting each doctor, is in most UDCs, inverted [5, p 18]. These doctors have thus become the 'frontline' health workers, whether they function at urban hospital or district level. The role a doctor performs in any society is determined by the system of health and medical care in the country, which in turn is largely determined by the socio-economic formation prevalent there. Furthermore, the model of medical education, the process through which doctors are produced, is tied in very closely with the model of health care in that country and with the demands and perceived needs of the people or their ruler. If the model of health care in a capitalist UDC is one which is urban-based, hospital and curative care oriented and determined by the workings of the market mechanism resulting in a small minority of the population having any feasible access to the system, the doctor will go through a number of years of medical school so as to be able to work effectively in such an environment.

In socialist oriented countries, attempts will be made to make the doctor's role radically different and to involve him in social and community oriented health projects. This, however, is easier said than done, and a mere desire is not a sufficient condition to fulfill such political tasks. Given the fact that the medical education system before social change in these UDCs was one governed by the old socio-economic formation, the new socio-economic formation may not be able to bring in a new radical programme for medical education overnight. Clearly, the superstructure and its parts will take much longer to change than will the base. Nevertheless, a revolution in society will have its affects on the health system, which, as experience from the world in the last 40 years shows, will be greatly improved and expanded. For example, almost all socialist countries have made impressive gains in the health status of their people, thanks to the programmes of basic nutrition, housing, sanitation, water and education which now reach a majority of the population. Thus, physicians in these societies will be *aided* by the expanded health infrastructure in their attempts to eradicate disease. This advantage is clearly lacking in capitalist UDCs.

Furthermore, there is a difference in the position of doctors in the health system's matrix in capitalist and socialist UDCs. In capitalist UDCs, the doctor *(and thus medical education)* plays a more dominant role since supporting health infrastructure are lacking. In socialist oriented UDCs, other factors in the health matrix begin to play an increasing role. That is not to belittle the role of doctors and the importance of medical education in socialist oriented UDCs. Experience from these countries shows that by realising the importance of the role of doctors, concerted efforts are made to change the medical curriculum and to produce doctors oriented to the needs of the local environment. However, as has been argued above, the results may take time to bear fruit, as remnants of the old system may cause hindrances.

This paper will examine the issues relating to medical education in UDCs. After a brief overview of UDCs in general, we will turn to the particular case of Pakistan, a post-colonial state, and critically evaluate the system of medicine and medical education in this country. The final section will deal with the possibility of reform in medical education.

Health Care and Medical Education in UDC's[1]

A great deal of literature exists which deals with the model of health care in UDCs [1-22]. Most of these authors have limited their analysis directly to the model of health care, and have only indirectly approached the question of medical education. However, as we have argued, the two are very closely related.

Most of the present UDCs were, at one time colonies of the western nations. Their economic and social systems have been greatly influenced by the colonialists and despite their 'independence' they still follow closely norms and regulations left behind by their masters.

When the colonialists first took over, the overall society and economy of these countries were transformed, and the medical and health facilities were brought in line with the changing 'super-structure'. The colonial administrators required a model of health care which would cure the ills of their own people, their military and their bureaucrats. They thus set about 'importing' medicine from their home country and actively built up this 'western' type of health care, usually at the expense of the indigenous system which had existed earlier. As a select few of the locals were incorporated into the closed circles of the colonialists, a new elite was formed. Members of this small clique were also able to afford some of the luxuries brought by the westerners, one of which was the access to western medical care. When the colonisers left the foreign lands, the local elite had been so 'westernised' that they emulated their masters in practically all fields [1, 7].

The pattern of health care that has evolved in most of the capitalist UDCs is one based on curative care, and the workings of the socio-economic and political systems are such that health care has come to cater essentially for the rich and the elite [2, 8]. This model of health care has a predominantly urban bias in the distribution of facilities, and thus the majority of the population, usually rural, are denied the right to have access to health care [15]. And, it is not all the urbanites who have access to health care. Since medical and health care is sold like any other commodity in the market, most of the urban poor cannot afford the escalating costs of medical care either. In underdeveloped capitalist countries, we have argued that the socio-economic system, with its resulting class structure is largely responsible for this type of urban based elitist model of health care [8]. This model, along with a general low priority given to health care and disease elimination is responsible for the very high communicable disease pattern in these countries. However, there are a few UDCs which have at least made sincere attempts to solve the problems of their people.

The cases of China, Cuba, and Nicaragua are worth citing. In all these countries, there has been an improvement in the health status of the population. The infant and child mortality rate have fallen, facilities have come to be more equitably distributed, health services are free etc. [23, 27]. Mozambique too, is following a similar path and indications show that the health status of her population is also improving [28]. What is important to point out here is that these countries have not only had a change of government, *but there has been a substantial transformation in their economic structure.* They have gone from a non socialist mode of production (form of the economy) to a socialist one, where the distribution of power and resources rests with the people and their true representatives. The people have collectively been able to decide what is best for them and have taken action for their own betterment and welfare without having to confront a hostile ruling class. This importance of the change in the mode of production has been emphasised by Navarro as he argues, "abundant empirical evidence exists to show that the most important changes in the health of the underdeveloped countries' populations during the last 20 years have occured in revolutionary Socialist underdeveloped countries via changes in their economic, political and social structures, independently of and outside the health care sector" [11, p. 169].

In underdeveloped capitalist countries, for the functioning of the inequitable and elitist model of health care, the medical college has provided just the right graduate: a doctor who can function within the norms as defined by that society. Just as the economy of a UDC is closely tied in with the larger movements of the international economy, and is dependent on the developed countries, so too is its system of health care. Similarly, the medical college is linked closely with the pattern of medical education in the dominant (often ex-colonial) country. This is despite the fact that the real needs of the UDCs, as defined by their disease patterns and limited resources, are different from the DCs.

Even in Tanzania after the Arusha Declaration, the curriculum in the medical schools 'mimicked' that of the West with a content which is clearly unsuitable to the needs of the local environment. A major factor which determines the need to achieve an 'international' standard is the faculty. This desire for acceptance by university authorities in the West, forces them to adopt western concepts of 'academic standards'. The result is that "much of the curriculum is thus objectively being determined from outside the country" [16, p 47; also see 6,8]

Gish [14], Gish and Godfrey [19] and Horn [18] have shown how this type of western-oriented medical education results in a 'brain drain' of professionals to the developed countries. Gish and Godfrey argue that due to inequities in the functioning of the market, medical care is also skewed in a manner which suits the rich. The prospective doctor goes through an institution "whose 'standards' are generated by New York and London and are mostly unrelated to the problems and possibilities of UDCs" [19, p 6]. The reason for this is that the bourgeoi-

sie, who controls most of the resources in a country, requires the latest and best in medical care and thus try to produce 'comparable' doctors at home [2]. This internationalisation of doctors only helps the developed countries. The migrating doctors subsidise these countries as they do not have to go through the expensive process of producing their own doctors, while the social cost of producing them is borne by the poorer UDCs.

Not only does this internationalisation assist migration, but by maintaining foreign standards, severe internal distortions also arise. Since medical students are taught their craft in hospital settings, as is done in the West, they often fail to interact with 'communities', both urban and rural and thus remain ignorant of the social causes of disease. Since the disease patterns in UDCs are quite different from those in DCs, the way to deal with them must also be different. Medicine taught in the hospital setting is often not sufficient to deal with the complexities of disease in UDCs. The unfortunate outcome of this type of medical education is a hospital-oriented doctor who has been taught to function in urban settings with the help of modern and sophisticated technology. With such technologies and facilities lacking in rural areas, a large number of doctors would choose not to go there, thereby denying the right of the rural population to have access to doctors. With the concentration of doctors and facilities in urban areas, the limited finances of the health budget are spent here, where only a minority of the population lives [8,20-22].

A factor closely linked to the functioning of urban based doctors having a primarily curative approach, is the prescribing of drugs in great abundance. Since medical care, as it is practised, is linked with the doling out of medicine, this type of doctor and health care model also contributes in supporting the drug industry. The drug industry in most UDCs is foreign owned and acts as a further link in the exploitation of the UDCs by the West [29, 30].

Another important aspect of medical education has been lucidly examined by Banerji [1, 6, 7]. He says that in the course of their medical education, the students "who mostly belong to the upper classes, get further alienated from the masses of the people" [7, p. 33]. The colonial character of the health services, affecting medical education, also played its role in "shaping the value system and the social outlook of the Indian physicians" [1, p. 1334]. This class based alienation makes them further dysfunctional in the UDC, especially in the rural areas and urban slums, where due to their class position, they are often not able to relate to the poor. The doctor thus produced cater primarily to the elite of their country, or then, go off to the West or the oil-rich countries where they feel more at home professionally (and often even socially)[2][21].

This 'western' model of health care and medical education has been uncritically adopted by most UDCs. Thus the case study presented below, although specific to Pakistan, will clearly echo the situtation prevalent in other UDCs.

Case of Pakistan

Up to 1947, what are now India and Pakistan, were one country ruled by the British. Any history that they had until that time, was broadly the same, albeit, regionally specific in character. In the field of health services too, this is largely true with the exception that what is now Pakistan, had a greater influence of Muslim and Arab culture than did present-day India.

Debabar Banerji is a leading authority in the field of social aspects of medicine in the sub-continent. He has written extensively on the historical evolution of medical and health facilities in India and has shown how British imperialism imposed its values on Indian society and trampled on the indigenous health system that had existed until then. The colonialists developed their own system of health care (the 'western' system) and recruited a select few of the local elite to take over the entire political and administrative system after they left in 1947 [1, 6-8].

The resulting medical and health services system inherited by Pakistan is one which is modelled on the West (in particular Britain), being primarily hospital-oriented and based in cities. More than 90% of health facilities are in urban areas and the disparity shows no sign of improving [8]. The medical colleges in the country centre around this hospital-based approach to health care and look towards New York and London for guidance and inspiration.

There are at present 17 medical colleges in the country[3] with an annual intake exceeding 4300 students (there are at present more than 22,000 students enrolled). Two of these are exclusively for women while all the others are co-educational. There has been a great increase in the number of medical colleges in the last decade mainly due to the populist rhetoric of the Bhutto Government— in 1971 there were only seven medical colleges in the country. Some of these colleges were set up purely on political expediency, in cities which lacked even supporting infrastructure (eg Nawabshah, and Larkana—Bhutto's home town). Due to excess production, the present government has not only put a stop to the increase in the number of medical colleges, but has also decided not to increase the admission capacity of the existing colleges. *Ad-hoc* and anarchic policies, usually short-term, appear quite regularly, and despite weighty five-year and annual plans, there is seldom, if any, planning at all.

The curriculae of all the medical colleges in the country are identical and the colleges come under the aegis of the Pakistan Medical and Dental Council (PMDC). This body, apart from regulating and streamlining medical education, also looks at the ethical aspects of medical practice

Table 1: Allocation of Teaching Hours to Various Subjects in Medical Colleges in Pakistan

Serial Number	Subject and year	Total number of hours	Percent	When examined
Years I and II:				
1.	Anatomy with histology	800	24.5	1st professional
2.	Bio-chemistry	200	6.2	1st professional
3.	Physiology	600	18.5	1st professional
4.	Human relations, sociology, community orientation, medical ethics	100	—	—
5.	Pakistan studies and islamic ideology	100	3.1	1st professional
Year III :				
6.	Pharmacology including therapeutics	300	9.2	2nd professional
7.	General pathology (microbiology parasitology)	300	—	3rd professional
8.	Forensic medicine and toxicology	60	1.8	2nd professional
Years IV and V :				
9.	Community medicine (IV year)	100	6.2[1]	3rd[1] professional
10.	Medicine including applied physiology	145	4.8[2]	Final[5]
11.	Surgery including applied anatomy	145	5.1[3]	Final[3]
12.	Orthopaedic surgery	20	—	—
13.	Obstetrics and gynaecology	80	2.5	Final
14.	Paediatrics	50	1.5	—
15.	Opthalmology	30	0.9	Final
16.	E.N.T.	30	0.9	Final
17.	VD and skin	10	—	—
18.	Pathology (general and special) and microbiology and parasitology (IV year)	100	12.3[4]	3rd professional
19.	Clinico-pathological conference, orientation, etc.	80	2.5	—
	Total	3250	100.00	

[1] Includes no. 4. [2] Includes no. 17. [3] Includes no. 12. [4] Includes no. 7. [5] Includes no. 14 and no. 17.
Source : (31)

and acts as a control on malpractices. The body consists of senior professionals in bureaucratic positions and the principals of all the colleges.. For all practical purposes, the PMDC does little work that is of any profound significance to the system of medical education. However, it does exercise some control over the curriculum of the medical colleges and determines the courses to be studied. The last major change occurred in 1975, when the PMDC laid down the present curriculum for the MBBS degree. Since then some insignificant changes have been made, notably in the shifting of the subject of community medicine from one year to another. Another recent change is the introduction of Pakistan Studies and Islamiat (Religious Studies) in the first year of medical school [31].

Education in a Medical College

A student enters medical college after 12 years of schooling, the last four of which have already determined the choice of the student (or in most cases, his parents') towards medicine. However, a miniscule proportion of those who in their ninth year of school opted for medicine eventually get to medical college. Further, admission to medical school is not limited to merit, as a quota system exists which permits some second class students to enter.[4] Thus competition from an early age is fierce, and only those who excel, or have the right connections, or right regional or social backgrounds, are admitted.

The medical degree, MBBS, is spread over five years with four professional exams. Years one and two constitute the course work for the first professional exam, with a professional exam each year for the remaining three years (see Table 1). Clinical teaching starts from the third year, where students are supposed to spend 2 or 3 hours a day for a period of nine months with one month per ward. The third year group is taught how to examine patients but is not given lectures on diseases and is largely selftaught. Attendance to the wards is compulsory, as it is to classes, but as the group gets larger because of bigger intake, it gets more unmanageable and as learning by the bedside gets more difficult, more and more students stay away. Eventually only the core group of bright and eager ones remain, while the ones with lesser competence who need more attention stay away.

Community medicine is rarely given much importance

in UDCs, and Pakistan is no exception (see Table1). Previously, there used to be 'field trips' in the subject which took students to see sewerage plants, rural health centers, and other such institutions. Even then, community medicine had a 'curative' institution bias. Rarely did the students interact with a 'community', whether urban or rural, and often these trips were considered 'fun trips' and 'outings'. Now this procedure has been replaced by discussions and seminar groups for a period of one month each year. Thus, the discussions by the alienated students relates to 'communities' of which they have no first-hand knowledge. Due to a lack of training in the social sciences, they are also unable to see the social mechanisms at work in the environment. Even the patients that come to the wards are usually from urban backgrounds, so exposure to rural disease patterns is totally lacking [20, 21].

Further, the students are not taught in detail about common diseases such as typhoid and malnutrition, but instead, surgery, pathology, etc are emphasised. The students are advised to specialise in subjects which offer lucrative returns. A post-graduate in community medicine may be more qualified to deal with diseases in a poor rural community, but he would indeed have a hand-to-mouth existence. There is no social value attached to community medicine in this society and little or no demonstration effect exists. Thus, for students to reject community medicine and specialise in neurosurgery is sad, but nevertheless, understandable.

Lending facilities in the college libraries are poor and so students have to buy most of their books. Nearly all books are written by western authors and thus are fairly expensive, although now most of them are printed in Pakistan, or published in the Far East. In the first year a student is required to buy the greatest number of books which are also the most expensive. 'Gray's Anatomy' alone costs close to Rs. 700 and the bare minimum cost for books in the first year comes close to Rs. 1700. If a student wishes to purchase medical 'atlases', he must spend a great deal more. Further, the desire for 'latest' books means that since editions change very fast and the material changes as well, students cannot usually work with second-hand books from their senior colleagues. By the end of the final year, the students have spent between five to seven thousand rupees for their very basic books and if they want a few more necessary texts, they must spend further Rs. 3000-4000. The costs in many individual cases can be substantial.[5]

At the end of the five years in medical college (which in Pakistan due to 'disruptions' usually extends to seven),[6] the students are supposed to do a 'House Job' (internship) for a period of one year. Six months are spent as a junior, while the other six are spent as senior house officer in the same or another speciality. Again, the opportunity to work in a certain ward is based on merit, with about 30-40 doctors per ward. Of these only a few are paid, while the rest must be honorary.

The basic issue with which we start our criticism of the model of medical education is that of language. The medium of instruction in all medical colleges in Pakistan, is English; Pakistan, like India, is a country with different nationalities and cultures, each region having its own corresponding language. Although the official languages are English and Urdu, the entire population cannot speak Urdu, leave alone English. The regional languages have preference over the official ones, especially in the interior of all the four provinces. Further, only 26 percent of the population is literate (in any language). Thus, of those 26 percent one can presume that very few would be able to read and write English. Even fewer would have English as a mother tongue. Moreover, although medical education is in English, schooling can be in any regional or national language. A student may speak his mother tongue at home, he may use another language for primary and secondary education, and yet a third for professional education. That means that although a student has spent 12 years of school life in a language other than English, he or she will be confronted with a 'foreign' language once he enters medical college. This foreign medium of education means that very few students from per-medical schools will actually be able to learn much in medical colleges. This preference for English shows a bias towards the elite and westernised urban based minority who are accustomed to English in their homes and educational institutions. Members of this elite, apart from being able to learn more, and with much more ease, claim the best house jobs, followed by the most lucrative job offers. Thus, discrimination on a class basis is reinforced through the medium of instruction in medical colleges. Further, if medicine were taught in either the regional or national language, the international mobility of doctors would fall dramatically. This is a situation which the elite, whether doctors or laymen, will not readily accept [21].

The problem of language is not restricted to the lecture halls alone. Students have to take histories from patients, if not in the mother tongue of the patient, then in the local or regional language. A student who does not even know the names of the most basic diseases in the national language, will have substantial difficulty in finding out what is bothering the patient. There will be very little communication between the two, if at all. Langauge, however, is only a minor barrier compared to the cultural barrier that exists between the patient and doctor. In most post-colonial societies, a separate 'culture' exists for the elite, and even a mastery of the language will not necessarily close the cultural gap between the two [21].

The books that are used in medical colleges in Pakistan are in most cases written by foreign authors—mostly American and British.[7] These books cater, primarily, to a western audience in medical schools in developed countries. They are written in, and for, a specific socio-eco-

nomic culture and environment dealing with a particular health and disease pattern. The fact that they are used in UDCs without any changes, causes a few problems. Since the authors have the DC student in mind, quite naturally they talk more of diseases found in the West than in Pakistan or other UDCs. The main diseases in Pakistan which are caused by infections and are communicable have more or less been wiped out in the West. Further, a great number of diseases in UDCs have their roots in social and economic conditions which are far removed from the hygienic western hospitals in the countries of the authors. Thus, some diseases which are very common in Pakistan, such as typhoid and diptheria would be treated as 'interesting and rare' cases in the West, and would not be given the importance they deserve in the texts.

The average size of a class in medical colleges exceeds 250 students— in some colleges it is more than 400.[8] With such an unfavourable student-teacher ratio, it becomes very difficult to learn anything in class. Further, the audio-visual facilities that exist in all medical colleges are very poor, and thus most of the students are in effect, not participating in the learning process.

One important factor which upholds the existing system of education is the role of the teachers. With very few exceptions, all are foreign qualified. In fact, it is very helpful for teachers to be foreign qualified if they intend to rise to the post of professor.[9] These tutors lead their students through the course they went through— first education in Pakistan, followed by essential foreign training to learn the latest teachniques. These students if they come back, either end up in large hospitals in the city or else attempt to go and settle abroad where lucrative jobs await them.[10]

The irony of the medical education system is that with 4000 new graduates a year, not all can be absorbed in the existing health system. This leaves many unemployed, and the numbers keep on increasing at a very fast rate indeed. This expanding cumulative unemployment arises despite the fact that very few people in rural areas have access to doctors who tend to converge in the more lucrative urban areas. The medical education system has taught the doctor to deal with sophisticated equipment and modern technology. In a rural area he is completely lost without his tools. Further, the disease pattern is also different, and he may find that unless he is aware of rural sociology, politics and economics, or is a native of the rural areas, he will not be able to function effectively [8, 13, p. 217, 20].

The examination system in medical colleges acts as a major contributor to the poor quality of doctors produced. With the emphasis on essay-type exams held at the end of the year, with journal work and orals (viva-voce) playing a small part, irregularities are quite widespread.

It is not possible to assess exactly the amount of cheating, but one can, on casual observation, clearly see that it is quite significant. One observer quoting medical students, wrote in a local newspaper: "there was a question on typhoid ... we ignore small items. We prepare diseases which have complex, lengthy treatment so we could fill up pages. Typhoid has a simple treatment. Nobody bothered to study it. We strongly protested (to the invigilator) and cheated, of course" [32]. (This happens where every third day, six or seven cases of typhoid turn up in the wards). It is estimated that as many as 90 per cent of the students cheat. Cheating is not only limited to written exams, the oral exams, which should be a safeguard against cheating, are also subject to unfair means. There is a case where a student got a distinction in a subject by giving his tutor a diamond. Other students have been known to arrange for foreign trips for their teachers, while still others have paid for the petrol of their teacher's car for the whole year. Cheating in educational institutions of all types, at all stages is epidemic, yet few active measures are taken to deal with the problem.[11]

There is an anomaly which is probably unique to Pakistan. Some medical colleges in the country, although functioning under the PMDC regulations are not recognised. The degrees of the Chandka Medical College, set up in 1972, are as yet not acceptable to the post-graduate medical centres of the country. Two other colleges which have been functioning for a number of years have only recently been recognised. This essentially means that a student may complete five years of medical school and yet be legally unable to practice medicine.[12]

The present government of Pakistan has repeatedly played the nationalism and religion 'cards' as a means to extend its rule in the country. It has thus introduced the subjects. Pakistan Studies and Islamiat, in the curriculum of medical colleges. In fact, of all subjects taught in the first year they are probably the most important. If a student fails in either of the two he or she will not be allowed to reappear in the subject and will be declared failed in *all* subjects. Apart from the argument that religious studies have nothing to do with medicine, the level of instruction in these two subjects is similar to that of intermediate (class XI and XII), and is thus a repetition of the previous years. However, in this case, they not only add to the burden of work, but with so much importance granted to them, cause unnecessary anxiety.

Although the problems mentioned above may be specific to Pakistan, many UDCs can find some similarities. However, the level of debate concerning reforms in the medical system in this country, is of a very poor standard compared to other UDCs, such as India.

Since health care itself is not considered an important priority of the government—the health sector gets only 0.6 percent of GNP—any issues related to problems within the health system receive even less attention. Very little research is done in Pakistan which deals with problems related to medical education. Nevertheless, a few

government publications do exist which indicate the attitude of the doctors and concerned bureaucrats. However, since they echo the elitiest bias in medical thought, the recommendations if followed, can prove quite disastrous to the welfare of the masses of the country.

A commission set up in 1960 (33), to study the medical and health sector came up with some recommendations dealing with medical education. Some salient points of the report are worth noting.

The report recommended that "since children of medical practitioners will have seen at first hand what will be expected of them by the community, therefore a bias towards the children of medically qualified parents (in the case of admission to medical college) should be exercised" (33, p. 46). Such an attitude is reflective of the medical lobby which wishes to perpetuate its own hold on the profession. The prominent professors and physicians who control the health system wish their offspring to enjoy the fruits which they have tasted. The class nature of medical professionals is thus further re-inforced. (21).

This is evidenced by another recommendations which accepts the fact that many students' "knowledge of English is insufficient for them to profit from their course of studies" (33, p. 56). Rather than suggest a conversion to the mother tongue of the students, the writers of the report urge the teachers in medical schools to give their students "practice in speaking, reading and writing English" (33, p.56). The elite, who are fluent in English and need no 'practice', would nevertheless have an upper hand in the system.

The elitist bias is further revealed by the fact that the report gives only four lines out of 20 pages to community medicine. This is so because the elite amongst the doctors are the last who will need to see a rural community or an urban slum, since most of their clients will be well-to-do urbanites. Thus even if they were taught community medicine, they would have little opportunity to put it to practice.

The western-orientation of medical education in this country is further reinforced by the recommendations of the report. It suggests that the more 'enterprising' men and women who can make the 'necessary arrangements' should complete their training in the United States or Britain. In fact, another report goes even further.

Ahmed (34), argues, that not only should the physician training programme maintain international standards of quality, but since the cost of producing medical personnel is low, the world price is high, "the setting is ideal for developing an export market" (34, p 12). The object of medical education, according to the author is to "produce a graduate within our resources who is accepted internationally" (34, p. 13). (The report was funded and published by the Public Health Association of Pakistan!)

There exists little consciousness about social issues in this country, either at the political/bureaucratic level, or at the mass level. Further, with a dictatorship at the helm of government, any semblance of debate and dialogue if it gets underway, is heavily biased in favour of the existing status-quo. The media is totally controlled by the government, where inhabitants of the country are given their daily dose of 'newspeak'. With such an atmosphere existing within the social conditions of the country (lacking any significant opposition), any reforms that take place will be similar to those mentioned above. They will be totally cut off from social reality and will at best be only 'cosmetic'. Thus, to await reforms from the ruling class to suit the masses, is both native, and unrealistic. As long as 'things are in control'. and the status-quo remains stable, the government have no need to cater to anyone but to those whose interest it serves.

Possibility of Reforms

As the title of this section suggests, we will deal with recommendations for reform in the medical education system in UDCs. We will essentially deal with the suggestions put forward by Gish and Godfrey (19). We feel that their recommendations are indeed ideal and if followed through would result in an excellent system of medical education and health care which would fit the requirements of UDCs almost perfectly. As we proceed to show, however, their recommendations are good only on paper and as they have ignored the social and political forces active in UDCs, cannot be implemented in capitalist underdeveloped countries very easily.[13]

Gish and Godfrey start their paper with a critique of neo-classical reforms rejecting the framework on which they are based. Their alternative framework accepts an international market for professional skills into which UDCs are well-integrated. Their suggestion is a withdrawal from the market, essentially arising from a changed focus in educational policy which should deal with internal needs rather than external markets. They have presented some specific recommendations to which we now turn. (Their paper deals primarily with UDC commonwealth governments.)

The authors have given 11 different recommendations for UDCs which are summarised as follows: (i) an end to use of British qualifications; (ii) no more foreign professional examinations in UDCs and an end to advertisement and recruitment by developed countries; (iii) disaffiliation from western-dominated international professional associations; (iv) permission for students to go abroad only on 'relevant' courses. (v) the development of local courses and qualifications which are more suitable to local needs and thus less acceptable to the western employers— a 'de-internationalisation' of doctors and medical education; (vi) regional cooperation for higher education; (vii) the use of the national languages as the medium of instruction. (viii) improved rewards and job content; (ix) various controls to dissuade overseas study; (x) rejection of various, other

(outside the health sector) interests; and (xi) the restriction of the output of doctors in UDCs to the number that can be absorbed at home (19, pp 8-10).

Let us now proceed to examine each of their recommendations. Firstly, an end to British qualifications must take place not only at medical college level, but also at school level. At present the vast chain of 'O' and 'A' level schools all over the commonwealth offers the elite the opportunity to acquire British education while sitting at home. They have a great deal to lose by denying themselves this privilege and one sees no reason why they should give this up. Again, the author's second point: although Pakistan has ended the sitting of foreign professional exams in the country, those with money can easily fly to London or San Fransisco and take the relevant exams there.

Recommendation (v) requires substantial changes in the model of health care. Of course, UDCs should have locally specific courses so that they can function in the local environment, but again, as has been argued above in the way the class system exists, the rich want a certain type of doctor who is well acquainted with the latest and best techniques in major hospitals in the East, and not in the poor areas at home. It is quite clear that the doctor produced in UDCs favours and belongs to certain class, and this class, in all essence, determines the type of doctor to be produced and supports the 'international' curriculum (1,2,8,21).

Instruction in the national language, as we have shown above, also chips away the advantage of the elite for whom English has become a mother tongue. By introducing the national language (which is itself controversial, say in India), members of the lower classes will have access to the domain of the elite, again a hard-won privilege which they will not give up easily. Further, UDC governments can if they wish, discourage overseas study, but if a monetary mechanism is used, the rich can over-ride it. It seems doubtful that any other means will be used, especially since the children of the elite are the ones who are most likely to go abroad. Even local production cannot really be restricted, as the burgeoning middle classes will clamour for their rights as well.

Essentially, the above discussion looks at the relationship of the elite (the dominant class/classes) with the government. We argue that the dominant class has substantial control on the government and on the distribution of health resources in a country (2). Further, in the absence of any significant challenge or opposition, we see no reason why the ruling class should carry out policies to hurt its own interests. This is mainly what Gish and Godfrey have recommended—the government working for the 'masses' at the expense of the elite. This is clearly a problem in underdeveloped capitalist countries. However, in countries where there has been significant social change and mass participation and genuine democracy has resulted in the control of the people of their own destinies, these reforms are possible. Mosambique is an example of a country in which such change has occurred and it has carried out some of the reforms recommended by Gish and Godfrey. They have 'de-internationalised' their doctors, teaching them more about their own country than about the colonial nations. This has resulted in a more socially conscious, 'new' doctor, required by and suitable to the needs of Mozambique (28, 35).

We have analysed the issues involved in the model of medical education in UDCs, and have treated Pakistan as a case study. The factors that come out most clearly are that medical education is a reflection, in the final analysis, of the socio-political structure in the country.

The present form of medical education in capitalist UDCs is elitist in nature and is a major impediment to an equitable distribution of health care. This type of medical education, often in a 'foreign' language, favours the dominant classes and produces a doctor who works best in an urban-hospital setting either in the home country or in the West. Such a doctor is heavily incapacitated in rural settings, as he has not been trained in line with the needs of the country.

The case of Pakistan is peculiar in some cases, but in most of the broader issues concerning medical education, she is like other dependent UDCs. A lack of clear planning and the interests of those in power have often determined the path of medical care and the growth of medical educational institutions. The system of medical education is an important factor in the health care package and thus requires a restructuring to suit the true needs of the people. Clearly, mere rhetoric on the part of the government will fail to achieve this aim. What is essentially needed is a change at the political and economic level which will in turn affect the health care system and the system of medical education, and will thus determine new priorities. In a new society, a people-oriented package is to be devised, in which a newly designed medical education programme should play an important role alongside other ingredients of the health matrix.

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Notes

1. Our discussion is stricted to underdeveloped capitalist countries and we have purposely ignored developed countries. It is true that in advanced capitalist countries health care is fairly well distributed and accesssible to all, but this is a different issue, and we believe that comparisons between DCs and UDCs (whether capitalist or not) are quite irrelevant and out of context.

2. It must be emphasised that it is not doctors who are at fault, but the class system by which they are produced and in which they function.

3. Of the 17 colleges, all but one are government owned. The Aga Khan University is the only private University in the country and is linked closely with McMasters, McGill and Harvard Universities. It however also follows PMDC regulations, but has the 'advantage, of not only foreign trained personnel, but expatriates on their faculty.

4. Each college has its own 'quota system'. A certain percentage of seats are given on merit, while the others are re-

served for the children of: Military personnel, ex-service men, employees of the Education Department; and for students who have done well in extra-curricular activities and for students of underprivileged areas (these are usually termed 'rural' seats).

5 Ussi=Rs. 17/- annual per capita income in Pakistan is $335.

6 The colleges, due to local (college) or national politics and disturbances, are closed for many weeks each year adding up to a minimum of two years in a medical students college life.

7 About four of the 20 'essential' books are written by Pakistani authors. There is an unfortunate twist to this, in that the few books written by Pakistan authors are unfortunately of extremely poor quality, but are nevertheless, made compulsory if the author happens to be teaching the course.

8 The Army Medical Collge in Rawalpindi run on very disciplinary (military) lines, admits only 100 students a year. Liaquat Medical College in Hyderabad admits 447.

9 Of the 19 full professors at the Army Medical College, only three were not foreign qualified. The three are professors in the relatively less important subject of forensic medicine, biochemistry and physiology.

10 As many as 50 percent of doctors produced in Pakistan are abroad.

11 The author on a visitor to medical college found every student sitting in the corridors diligently working away. On no previous visit had the author seen students so busy. On enquiry it was revealed that each and every one was making notes to pass on to students in the examination hall.

12 The PMDC reiterates its claim that the level of teaching at these colleges is not up to 'standard' and thus their doctors are not 'properly' qualified.

13 Although Gish and Godfrey's recommendations are meant to reduce the exodus of physicians from UDCs, we feel that since it is the education system which causes the migration in the first place, their recommendations need to be discussed as they are extremely cogent and worthwhile.

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