

Medical Students' Experiences with Professional Patients in Egypt

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ABSTRACT: This article explores a specific kind of student–patient interaction in Egypt. It demonstrates how the increasing need for patients in medical schools and the shift to a neoliberal economy have generated a population of 'bioavailable' professional patients who find meaning in their diseases and sell knowledge about them in medical schools. The encounter with these patients causes tensions and has its high financial costs for the students; yet, some perceive it as a solution to the shortcomings of the medical system. Furthermore, students view professional patients as a cooperative group who possess extensive medical knowledge and relate to their bodies differently compared to 'ordinary' patients. The encounter highlights the inadequacies pertinent to medical education in this system and shows that the rhetoric of patient-centred training, a common model around the world, can lead to inverted power relations and imbalances in the student–patient encounter.

KEYWORDS: biovalue, clinical assessments, expert patient, medical education, patient-centred training, Professional patients, student–patient encounter

Introduction

The student–patient encounter as part of clinical teaching is an integral part of today's medical education. It is crucial for gaining the needed experience to work with patients and to enhance medical knowledge and communication skills of medical students (Atkinson 1997; Becker et al. 1992; Luke 2003; Sinclair 1997). In general, students' encounter with patients takes place in various settings in medical schools: in clinical rounds, in situations requiring students' involvement in patient care and during end-of-year assessment exams.

This article explores the micropolitics of a specific kind of student–patient interaction during the end-of-year examinations in the realm of learning medicine in Egypt. It focuses on medical students' experiences with what I call hereafter 'professional patients'. My use of the term 'professional patient' is distinct from paid surrogate patients provided with a script of a

particular illness by a medical training programme as a means to teach students how to conduct a differential diagnosis or a medical exam. In the case I am describing, 'professional patients' with an actual health problem are paid by individual students in return for their cooperation and the knowledge they provide during assessment situations. They are not officially hired by medical schools to teach students as is the case in countries like the U.S.A. However, they are unofficially tolerated by medical educators and allowed access to the different hospital wards.

After the 1952 coup, the military regime led by Nasser (1954–1970) instituted socialist policies and provided welfare services, including healthcare, employment, housing and education to the population (Ayubi 2001). Subsequent governments reversed these policies as a result of growing debts and rising costs. Still, Egypt provides universal healthcare. The quality of services provided in public hospitals, however, has deteriorated drastically in comparison to services of-



ferred in private hospitals. Medical schools still provide universal services to the population after paying a nominal fee.¹

In this regard, I argue that the shift to a neoliberal economy in Egypt has led to the abdication of the state from its responsibilities toward its citizens such as providing jobs, sound education, housing programmes, healthcare and so on. Given the context, the effects of this shift on the lives of the poor were drastic by placing economic burdens on them. To overcome poverty and to provide for their families, some patients take advantage of a situation which has arisen where medical students require the assistance of patients to gain practical knowledge about health conditions they have only read about in books. Patients find that knowledge of their disease and cooperation with medical students has biovalue that can be exchanged for cash payments contributing to their economic survival. Under such conditions, the rhetoric of patient-centred medical training, a model of best practice in medical schools around the world today, is inverted. It is the patient not the doctor who is able to negotiate patient-centred care and on their own terms. Patients who lack resources are in one sense empowered by their ability to trade illness knowledge, but they paradoxically have an incentive to remain ill enough to be able to continue to extract financial resources from students.

This article is based on research that was conducted among medical students enrolled in the clinical level² in al-Qasr al-Aini medical school in Cairo. The larger study was conducted over twelve months in 2004–2005 followed by several short visits of fieldwork until 2013. It focused on students' experiences and their changing perceptions of medicine while going through the hurdles of their studies. The research reveals how students' experiences are entangled in processes of corruption, state policies and experiences of poverty and marginalisation. For the data collection, the research employed various methodological techniques, including participant observation, interviews with open-ended questions as well as the analysis of media representations and websites created and maintained by the students.

The Professional Patient Phenomenon and Economic Scarcities in Egypt

Over the past few decades, Egyptian society has undergone major transformations, which have disrupted many aspects of daily life, one of which has been the introduction of economic restructuring, coupled with

growing corruption and inadequate provision of services by the government. Those most severely affected have had to rely on a variety of survival strategies to overcome social pressures and economic hardship (Abdalla 2007; Ali 2002). Some have turned to the informal economy; others have sought solutions in the medical arena by taking advantage of the medical system to make quick money. One example of this is the sale of blood and organs, especially kidneys, which has flourished over the past few years (Abdel Aaty and Zalat 2009; Abdel Salam 2010; al-Masry al-Youm 2008; Hamdy 2012). In a similar vein, disease appeared to be the solution for some patients who, recognising the biovalue of their condition, decline medical intervention and instead orbit around medical schools and other informal private teaching centres³ to take advantage of their afflictions by becoming experts in their particular condition and informally marketing knowledge about it for training and examination purposes. Together, they form an organised group of 'professional patients'.

Within medical schools, with their overcrowded classes coupled with the absence of formal mechanisms for providing patients whom medical students can interview and examine, professional patients appear to be the answer especially in situations that require direct interaction with patients, such as the end-of-year exams. This setting shows an implicit agreement between medical personnel and professional patients, which guarantees access to particular disease conditions and creates an environment to assess the performance of students. Such activities reveal a situation in which disease has gained an economic value in itself and has become, for certain groups, a primary source of income, leading to the commodification of diseased bodies and knowledge about them.

Contextualising the Professional-patient Phenomenon

In Egypt, biomedicine was introduced during the early years of the nineteenth century as part of a large modernisation project during the reign of Muhammad Ali⁴ (Abdel-Karim 1938; Early 1993; Fahmy 2002, 2004; Hajji 1991; Kuhnke 1992; Sonbol 1991; Williams 1939). In 1827, the first medical school was established in Cairo with the support of European medical professionals who fled Europe during the Napoleonic wars and resorted to Egypt as refugees (Gran 1999). Ever since the establishment of the first medical school, patient-centred training grew drastically. Ini-

tially, patients were procured from the newly established modern army (Fahmy 2004; Kuhnke 1992; Sonbol 1991). Later, the medical school made its services available to the larger population, a situation which allowed for providing clinical training to medical students next to the bedside. Since this moment, Egypt experienced rapid developments in the medical field and a growing medicalisation within the society, especially during the last half of the twentieth century, a development which was intimately connected to Egypt's long experience with Western colonial medicine influenced by the British occupation 1882–1952 (Inhorn 1994; Sonbol 1991).

In recent years, biomedicine has increasingly become a frame of reference to a variety of health challenges in Egypt, as elsewhere. However, it has also become a major site of taking advantage of human bodies, especially among the poor and the disfranchised (Sharp 2007). The systematic ways of human trafficking as part of the growing global economy in bodies and organs is one example in which the body is being taken advantage of in the realm of biomedicine (Comaroff and Comaroff 1999; Scheper-Hughes 1996). Furthermore, the past few decades have witnessed heightened concerns about new developments in the field of biomedicine and emergent medical technologies, which have altered ways in which the body is being perceived, manipulated and used. In this context, the development of biomedicine created a need for the use and abuse of bodies, organs and tissues not only for training purposes – dissection, demonstration and research (Hogle 1999) – but also for profit and to generate incomes for daily survival. For instance, issues such as organ donation, selling and transplantation have received significant attention and debates over the past few decades. Paid surrogacy and the exploitation of female bodies and uteri, which were rendered objects for sale or rent (Petchesky 1995), became the focal point of various anthropological studies and raised many ethical dilemmas (cf. Gostin 1990; Ketchum 1989; Ragoné 1996).

Within this context, the biomedical industry has emerged to provide an informal solution to economic scarcity through the commodification of body parts, as well as the production of disease and disability identities. In the case of India, Cohen (1999, 2007) shows how the increase in organ transplants and the development of technologies around them have generated a population of 'bioavailable' bodies: potential donors whose engagement in the transplantation industry is determined by poverty and political vulnerability. Similarly, Rajan (2008) and Bruun (2010), in their respective research in India and Zambia, show

how the political economy of medical trials shapes participants' daily realities, especially the unemployed and the poor who are transformed into 'experimental subjectivities'. Hoffman (2007, 2011) in his research in war zones in Sierra Leone and Liberia, illustrates how violence produces disabled bodies who reject attempts at rehabilitation in order to remain eligible for charity and international donations. In a similar vein, Açıksöz's study in Turkey (2012) demonstrates how the identities of disabled veterans of the Turkish army are shaped around their disability. He shows that violence, in this case, is not simply destructive; rather, it produces new subjectivities and productive disabilities, allowing this group to experience new modes of masculinity, empowerment and agency. In this regard, disability or illness opens up opportunities for economic advantage. Hence, recent research shows that there are growing expansions in the political economy of medical trials leading to the emergence of bioavailable bodies that are turned into experimental subjects, which opens the door for new fashions of utilising the body in the realm of biomedicine (Dilger 2011; Fisher 2005, 2009; Nguyen 2007, 2010; Petryna 2002; Rajan 2008). This implies that medicine and medical technologies have increasingly become entwined to the commodification of bodies and bodily parts.

In this regard, a different but to a large extent similar type of commodification is taking place in contemporary Egypt entailing the marketing of one's disease experience as having biovalue. Professional patients sell knowledge related to their disease conditions to students next to the bedside. This emergent fashion of extracting economic benefits from disease produces identities which are conditioned to biological dysfunction and availing bodies and ailments for medical investigation and demonstration. In this case, the biological condition of disease becomes the prerequisite for participation in medical schools. It provides conditions in which citizens who suffer from the violences of the global economy and social impotence become active, not in the sense of embodying demands in front of the state to have access to resources (Petryna 2002; Rose and Novas 2007) but rather by informally securing resources and acquiring funds passively, negotiated on the basis of biological terms. The value professional patients find in their biological dysfunction leads them to utilise their afflictions to maximise economic gains and to minimise marginality and disempowerment in society. Yet, these goals are achieved not only by taking advantage of one's biological condition. They go beyond that by exploiting state institutions and taking advantage of fellow citizens.

But this has not come from a vacuum. There are reasons that have led to the flourishing of the professional-patients phenomenon. For instance, the low economic incentives connected to faculty positions in state universities compel professors to seek supplements to their salaries in private practices and in informal channels such as teaching in private centres, which eventually render their university teaching positions a secondary concern. Overcrowded classes⁵ are another factor that do not allow students to work with patients and leave them observers in clinical rounds. The poor conditions in hospitals and the deteriorating quality of the services provided to ordinary patients are other factors that have left them uncooperative with the students.

In these circumstances, the presence of professional patients who dictate the answers of exam questions remedies the students' lack of hands-on experience. Furthermore, it has caused medical students to become docile partners in this encounter who have to submit to the demands of the patients by paying their fees to have access to their bodies and knowledge connected to their diseases. Other research in the West has shown that this encounter takes an interrogative and confessional form where patients have to tell students about their condition. Students have to list signs, symptoms and differential diagnosis (Atkinson 1997; Becker et al. 1992; Sinclair 1997) in hierarchical scenarios where they are considered to be the dominant actors. Conversely, the encounter with professional patients in Cairo contrasts this model and highlights a situation in which professional patients seem to be in control of the encounter and their cooperation with individual students is strongly tied to the financial resources they extract from them.

These experiences lead to ambiguity among the students. On one hand, they participate in school activities that require working in the hospital and dealing with patients. On the other, this encounter brings to shore their ambiguous status and their liminal position, 'betwixt and between' (Turner 1967), which becomes vivid when dealing with professional patients. In this peculiar encounter, both patients and students are aware of the dynamics of the situation. The position of the students in Cairo is challenged and their status as 'students' in need of patient cooperation dominates the scene and overweighs their performance as 'medical professionals'. Due to this ambiguity, the encounter with professional patients becomes characterised by fear, tension and anxiety and leads students to describe it using metaphors borrowed from the theatre. They view the encounter as a 'soap opera', in which the student plays only a secondary role and the successful student is the one who masters

his role and acts well, or as explained by Mohsen, a sixth-year student:

In fact, you stand there in front of the patient and feel how little you are in this game, you feel like wanting to disappear into your coat, especially when the bargaining starts about how much you have to pay. In these moments, I question the importance and the value of what I learn since patients dictate to me what I have to do: how to examine them, where to touch them, and tell me the kind of questions the examiner is going to ask.

Medical Students and the Encounter with 'Disease Experts'

During the course of my fieldwork, I regularly visited al-Qasr al-Aini medical school where I had the opportunity to observe the presence of the professional patients in the medical school setting. Usually referred to as 'chronics', the professional patients play a vital role in the learning experience of students. Teachers rely on them in various situations, one of which is testing students' clinical knowledge next to the bedside. The assessment period attracts a wide range of professional patients to give students the opportunity to take part in the testing encounter. During this period, the professional patients flood the wards of medical schools to secure a bed in the relevant medical specialty to make their bodies and diseases available for assessing students' clinical knowledge.

According to the conversations I had with the students in al-Qasr al-Aini, the professional patients are perceived as 'unreliable' and do not allow students to examine their bodies or easily share information on their diseases: signs, symptoms and disease history. Concealing disease information is strategically geared toward pressuring the students to pay a fee, which may vary from one student to another based on the patient's evaluation of the student's economic means. Upon receiving the agreed-upon fee, patients dictate to the students the needed information to pass exams: symptoms of their diseases, diagnosis, treatment and sometimes the needed intervention such as surgeries, medications or any required tests.

The encounter with disease experts is usually characterised by tension, struggle and power. Students explain that instead of concentrating on medical matters, they have to deal with erratic patient demands and pay exaggerated fees, which are sometimes beyond the economic means of many students. Amir, a sixth-year medical student, describes this encounter in an end-of-year examination setting:

They know everything about their diseases ... Sometimes they are even better informed than doctors in the way they describe their case. They memorise it all in English [the official language of instruction in medical schools in Egypt] and if you pay them, they will give you all details related to their disease. If you do not pay, they might not tell you anything or they might provide you with symptoms of a different disease and consequently, you fail the exam when you go and report the case to the professor ... We recommend that one should be careful with expensive items [golden items]. It happened several times, especially with female students, that patients showed interest in a watch or a necklace and of course you cannot say 'no' because you know the consequences.

Failure to pay the professional patients' fees can jeopardise students' future prospects. Hamed, a sixth-year student illustrates: 'The difference in grades we achieve in the end is based on how much we pay and the information we get from the patients'. Karim, another sixth-year student illustrates that it is not the student, but the patient, who plays the leading part in the clinical examination encounter. He also highlights the critical consequences this relationship can entail:⁶

They tell you exactly where you have to place the stethoscope and the kind of sounds you will hear. They clarify this all in English, in medical terms, and you end up having a 'sheet' in your hands dictated to you by the patient ... The shock is when you meet the examiner, who asks you to read the sheet, and you realise that the accuracy of the information you got depends, by far, on how much you have paid. Sometimes you discover that you are talking about a totally different disease, only because the patient was unhappy with the money paid and provided you with the symptoms, diagnosis and medications of a totally different disease.

The encounter between these patients and the medical students can be described as an encounter between 'experts'. The patients have access to extensive knowledge related to their particular disease condition accumulated over years, and consequently are well enough informed and competent in the area of their disease to challenge and mislead the students. For their part, the students, suffering from overcrowded classes and lacking access to patients, have gathered specialised theoretical knowledge from books,⁷ but do not have the necessary clinical experience that allows them to question or challenge information bestowed on them by the patients. Indeed, the student-patient encounter in such a scenario can become a complex situation that requires of students to develop tools to overcome the pressures induced by this encounter.

Dealing with the Professional-patients Phenomenon

My observations in medical school and analysis of websites⁸ run by the students show that professional patients are a dominant topic of conversation among the students. The encounter with them triggers strong feelings of anxiety and uncertainty. Students respond to this predicament by developing strategies that render their encounter with professional patients less stressful and somehow manageable. For instance, students share information about the patients and warn each other about certain patients, whom they describe as 'uncooperative', 'greedy' and 'troublemakers'. The Internet provides a space for individual students to report on the test setting and share information on their encounter with different professional patients whom they come across as part of their exams and on other patients who happen to be in the same ward. The dissemination of information about the patients' diseases allows other fellow students to prepare for the encounter in order to maintain a level of control. In these circumstances, knowing the diagnosis of individual patients is pivotal for most students, especially in cases when patients attempt to blackmail or mislead them. Prior knowledge of the patients' diseases gives the students the means and the power to control the encounter and reduce pressure caused by the professional patients. In this regard, Nader, a sixth-year student explains: 'There is an important rule here: know the diagnosis, because if you know the diagnosis you can make up the sheet'.

The previous quotation highlights the complexity of the encounter with the professional patients, which forces the students to prepare themselves for the encounter by accumulating knowledge about the patients that enable them to make up the sheet when they fail to solicit information directly from them. This reaction from the students and the strategies they follow to circumvent conflicts with professional patients underline a silent resistance to the professional patients and their domination of the student-patient encounter.

Within this context, the failure of the medical school to create and provide students with situations where they can interact and work with patients forces some departments to attempt to integrate the professional patients. This is particularly evident in situations when the medical school itself is pressured to accommodate the professional patients' needs especially when certain disease conditions are needed for examination purposes. For instance, students illustrate that they are frequently reminded by faculty as-

sistants to be 'considerate' when dealing with these patients, and to pay their fee, which is their sole source of income. They are also told that patients will be 'cooperative', but they also have to be 'generous'. Additionally, in order to reduce the anxiety and the power struggle involved in this encounter, some departments informally collect patients' fees beforehand – an attempt geared primarily toward depersonalising the money transaction procedure, limiting the fees to a certain sum and taming the power and control of the patients. This measure is also taken to increase patient cooperation, provide the students with some ease to concentrate on the clinical procedure and not on negotiating fees and unrelated matters. Nonetheless, the dilemma remains unresolved. Students reported that they are forced to pay more once they come into contact with professional patients. Nader, for example, said: 'Of course each detail has its price. Some departments collect thirty pounds from us, a fee that covers the patients' availability in the hospital. But then patients frankly tell you: "If you want more details, then you have to pay more"'.

Therefore, the cooperative behaviour of the students with each other reflects on their docile position and their struggle to remedy the ills of learning medicine by adopting strategies that enable them to pass exams, the ultimate goal of many. Upon graduation, they receive certificates that permit them officially to practice and learn medicine on the bodies of the poor, who then will have to pay the 'price' for the medical services received.

Nonetheless, there are also students who find some positive attributes in the presence of the professional patients in the medical school. They also view them as poor with limited economic means and deserving to be financially supported for the services they provide.

Advantages of the Professional Patients

The negative attributes linked to the professional patients as a source of anxiety and insecurity do not render them unpopular among students. Aware of the shortcomings of the medical school and its failure in providing them with hands-on experience with patients, some students observe that the services provided by professional patients have more advantages than disadvantages. One of the major advantages is the informal knowledge⁹ of the professional patients about their disease condition, compared to 'ordinary' patients. Furthermore, some students view the availability of professional patients, especially in the infor-

mal private centres, as a good opportunity to come in contact with different clinical cases when dealing with rare or complicated diseases.

These positive attributes linked to the professional patients become even more significant in light of the poor services and conditions in the hospitals, which render 'ordinary' patients uncooperative. Students report that the option of integrating 'ordinary' patients in the testing session cannot be less problematic than dealing with professional patients since, when recognising that they are dealing with students, they do not allow them to examine their bodies or even talk to them. Samy, a sixth-year student talking about such encounters, explains:

They simply get frustrated because of people coming every now and then trying to examine them. When they know that you are a student, they do not allow you to touch them or let you examine them. In contrast, the professional patients, yes – you have to pay them, but they have no problem to expose their bodies and let you touch and examine them, they just got used to it. You should see them in the private centres when they stand there and everyone passing by touches and examines them.

Nonetheless, students believe that ordinary patients, if well taken care of, would become a challenge to professional patients at the medical school, and they might turn out to be more cooperative and kind to students. Magdy, a fifth-year student says:

When you know how these patients are dealt with, you can understand their attitude. They come here, from all over the country, searching for help and end up being treated like animals. Some of them have to sleep on the floor and others have to wait for weeks and sometimes for months to get an x-ray taken. Others even die before being operated on, and after the operation they are left with minimal care and then they have to buy medications on their own ... I think these patients would not mind having students examine them if they were shown some respect and provided with the kind of healthcare that they look for ... Instead they leave them on the balcony during the examination period to make beds available for the chronic patients ... And speaking for many students, I would not mind giving these patients some money to help them. They are the ones who are in dire financial need and they deserve [to receive support] more than the chronic patients who exploit the students.

This statement highlights some of the ills of the medical school system in the Egyptian health system. It illustrates how both patients and students are abandoned by the state and left alone in their struggle to

receive better health and educational services respectively. It also supports the students' argument that they are pressured to concentrate on certain cases that they will encounter in their exams. This is mainly because of the strong reliance on professional patients in the medical setting, which leads students to focus and anticipate the kinds of diseases they will be tested on based on the availability of the professional patients. This, in turn, leaves no space for critical thinking and memory emerges to be the tool that guarantees good grades and successful exam results.

Conclusion

The introduction of biomedicine to Egypt in the early nineteenth century was part of a large project of rationalisation that aimed at introducing order and the creation of a modern citizenry through instituting modern programmes of education and health. The project's goal was to alter the whole society and to introduce changes to various aspects of life (Mitchell 1989). Accordingly, the medical school and other state institutions came to being to represent models of modern state systems of power, which, similar to its counterparts in Europe (cf. Foucault 1994) became a state instrument to subject the bodies of the population to new modes of modern institutionalised discipline and to introduce order to society for which formal training and qualifications of professionals were required.

By taking this background into consideration and reflecting on contemporary developments in medical schools in Egypt, namely the prevalence of the professional patient phenomenon, it is evident that this ambitious project of state modernisation is incomplete, because the final products, whether future doctors or patients, are not as the system envisioned or desired them to be. Therefore, these developments in Egypt share two kinds of histories. One history is official and geared towards the modernisation of society and the establishment of modern state institutions that require healthy disciplined citizens for their function. The second kind of history represents the daily realities of the population and their struggles for survival in the face of soaring corruption, growing globalised economy and social pressures. History one represents the institutional existence of medical schools furnished with all that a modern medical institution requires, namely students, professors, buildings, classes, curriculum, hospitals and laboratories equipped with modern medical technologies. History two, however, represents the diffi-

cult experiences of citizens and their daily struggle to receive the promised services, whether they were students fighting to learn or patients seeking sound healthcare.

In this article, I have drawn attention to medical students' experiences with professional patients in contemporary Egypt and their exchange of knowledge about their diseases as a form of biovalue. Patient-centred training is promoted as a model for learning medicine in Egypt. I have shown that this model has been inverted in a context of health austerity. Patients negotiate the terms of their encounter with students by taking advantage of their diseased bodies to extract financial resources. This situation exists because of the state's shift to a neoliberal economy in which both medical education and healthcare for the population have been shortchanged. Impoverished patients exchange the only commodity they possess, their bodies and disease experience, in what has become a medical education marketplace.

This article speaks to the deteriorating living conditions among the poor in Egypt as well as the inadequacy of practical medical training. Students feel they are being betrayed by an education system that does not respond to their learning needs. Professors, to supplement their low salaries, cater to paying students in informal centres, work in private hospitals and attend to their private patients. Having had minimal access to patients within a curricular setting and because of lack of hands-on experience, students have no other recourse in the end of the year but to find professional patients and pay for experiential first-hand knowledge of diseases to pass their exams. The medical school permits this exchange, but in so doing creates a healthcare setting riddled with uncertainties, ambiguities and feelings of mistrust between students and patients. This is hardly an ideal setting to learn doctor-patient relations, how to establish trust, win respect and practice altruism, which is an essential tenet of medical practice. In these circumstances, the medical school has become just another marketplace guided by neoliberal principles promoting free enterprise at the expense of social welfare. It has also become a site of empowerment and disempowerment, providing meaning to disease situations, which are otherwise considered challenging socially and economically and stripping meaning from the medical tradition that has long been characterised with respect, altruism and a prerequisite for social and economic capitals.

In this article, I draw on the multiple layers of chronic mistrust and uncertainty pertaining to the encounter with professional patients. I show how they

are produced by the state, or, more accurately, by the absence of it, adopted and reproduced by state institutions and strongly reflected on in the behaviours of students and patients alike.

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Notes

1. In recent years, new sections were added to medical school hospitals where patients pay for the services provided and expect better quality of care.
2. The medical course is distributed over six years. The first three are pre-clinical and the last are clinical requiring student involvement in patient care.
3. The deteriorating quality of teaching in medical schools has led to the mushrooming of informal private centres, an unregulated parallel system, where professors provide classes outside of the medical school premises. The private centres provide situations to interact with patients and examine their bodies, for which professional patients are hired.
4. Muhammad Ali was an Albanian mercenary who seized power in 1805 and ruled Egypt until his death in 1848.
5. The number of enrolled students exceeds 1,100 in a single year. In Egypt there are eighteen functioning state-run medical schools and two private ones. Students in state universities pay a nominal tuition fee.
6. Students are supposed to carry out oral interviews with patients, take notes, what they call the 'sheet', and report their findings to their professors orally by answering the questions related to patient conditions.
7. The absence of opportunities to work with patients leads students to focus on book learning by gaining theoretical knowledge, but at the same time they lack hands-on experience usually acquired next to the bedside.
8. Examples of websites that I closely followed are: www.medadteam.org and www.sciencesway.net
9. The informal knowledge professional patients have about their diseases is gathered through constant exposure to medical personnel in different medical settings. Brokers and senior-fellow patients also provide coaching and support to members and help them to gain knowledge about their diseases to be able to market them in medical schools.

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