## DWINDLING PROFESSIONALISM IN MEDICINE TECHNOLOGY—A FRIEND OR A FOE

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In this era of intense and rapid technological advancement and globalization, health care professionals (HCPs) are expected to work more professionally and deliver more passionately and successfully. Amongst all the professions that involve human contact, health care delivery, due to its inherent need of rapid decision-making skills involving serious health related, financial and social issues, is one of the most stressful professions in the world. The advent of computers in early sixties followed by the internet (world-wide web, www) and information technology (IT) in 1989<sup>1</sup>, have completely revolutionized the way the world in general and healthcare system in particular operate now-a-days. In this context, not only IT has proved its worth by providing a vast bank of digital knowledge/information and electronic medical record of the patients but has also made its retrieval and processing incredibly easy that can be searched, accessed and analyzed just by a click. Moreover, the processing speed of the computers is touching astronomical heights with each passing year. Because of this combination of the availability of massively stored digital data, lightening processing speed and the power of analysing this data through powerful softwares like SPSS, medical research is achieving cosmic dimensions.

However, with booming social media sites since 2004 onwards that have grown in numbers by leaps and bounds<sup>2</sup> (currently more than 60 social media sites are on the net), the tendency to use the net, in general and by our youth in particular for non-educational and entertainment purposes is on the rise. This tendency is so addicting and non-productive that it is unfolding the dark side of "the net" and unfortunately the dreams of the English scientist, Tim Berners-Lee who invented the World Wide Web in 1989<sup>1</sup> to make it a tool of fast com-

munication and education, seems to be shattering. Now it has become a medium of entertainment rather than education. This burgeoning virtual world has sucked evervone in the fathomless depth and vastness of 'the net' and health care professionals (HCPs) are no exception. It is a common observation that the professionalism and clinical skills of the doctors are decaying fast over the past one or two decades to an extremely and disappointingly low level (the period since the world is getting digitally socialized). It seems as if this digitalization and mechanization is taking away the most cherished attribute of the mankind; "the humanity" out of the human beings. This phenomenon has affected HCPs on various fronts, starting right from their workplace (institutional) level, followed by their personal and lastly at the level of the society. Let us analyse, starting from the institutional level.

With the "computerization" of the institutions and by connecting different departments of a hospital through intra-netting and the availability of softwares like hospital information & management system (HIMS), picture archiving & communication system (PACS) and digital imaging and communication in medicine (DICOM), fast inter departmental communication was desired. There is no doubt that it has successfully achieved its primary function of fast and almost "paper-less communication"; however, to the disappointment of many, as far as patient care is concerned, HIMS has not helped at all in grooming the clinical skills and professionalism in young doctors. Rather, it seems to have engaged the doctors, who are responsible to enter the data (mostly residents), to the extent that most of the times they remain glued to their workstations and thus find little time to spend time with their patients that leads to less

professional grooming and probably less job satisfaction<sup>3</sup>. This mechanization of the system might also affect the mental-emotional health of the doctors with rapid burn-out due to immense workplace stress. HIMS, on the other hand, has enabled computer tasks to be carried out from a number of locations and by a variety of personnel and therefore more tasks can be completed to provide services to more and more clients by a given number of employees4. It has also served another good purpose of designing policies after analysing the collected data like need assessment, allocation of funds and manpower requirements etc. However, it may not be cynical to say that, albeit this digitalization of the institutions may have served the purpose well for the administration but I am afraid it has done little in grooming the clinical skills and professionalism in young doctors.

As enunciated above, it is unfortunate to acknowledge that remaining "online" most of the times, engaged in non-professional social media surfing consumes a lot of precious time of the HCPs. The latter has entangled the minds of our youth in this vicious "net"; leading to sheer wastage of precious time, apathy toward their primary duties and an irresponsible attitude towards their profession. Consequently, they don't find time to interact with their patients and unfortunately they make up this deficiency in time by totally relying on labs, sonographic and radiological investigations to make a diagnosis<sup>5</sup>. This attitude of the doctors has changed the way medicine is being practiced in the present day world. Omni-availability of high-tech diagnostic facilities and their affordability by the general public due to relatively low cost have contributed to this mechanization to diagnose and manage patients rather than using one's own clinical acumen. This transition has not only commercialized our profession but has also definitely tarnished the image of the doctors as professionals in the eyes of the public.

One major factor that can be held responsible for this changing paradigm of medical practice is "lack of clinical skills" and professionalism. Doctors who are lacking in clinical skills are the ones who cannot take an adequate medical history, perform a reliable physical examination and critically interpret the information they gather to formulate a differential diagnosis<sup>6</sup>. They cannot lay down a sound management plan and when questioned, have little reasoning power and are unable to communicate professionally. Besides, the world is also witnessing a fundamental change in the health care delivery system that puts more emphasis on outpatient or community based management rather than hospital based treatment as in-patients7. Under these circumstances the present day doctor has to be well trained with sound professional attitude, enabling them to practice safe and ethical medicine in the community.

It is a well-known fact that a detailed history and meticulously performed clinical examination may enable a doctor to make a diagnosis or at least formulate a narrow differential diagnosis at almost 90% of the times. However, due to shortage of time (due to the reasons mentioned above), gaps in the theoretical knowledge about the diseases and lack of clinical skills; our doctors, most of the times based only on chief complaints, order an array of investigations even before touching the patient. For instance, a "lazy" or an "incompetent" doctor may end up ordering ECG, echocardiogram, chest X-ray and even may be stress testing in anyone complaining of chest pain even before taking a detailed history or even before putting the stethoscope on the precordium8. This shows total lack of interest, professionalism and devotion towards their patients on the part of the doctors. Doctors should remember that most of the times the patients are in fact in pursuit of attention, consolation and hope given by their physicians. They want their attending physicians to be attentive, patient listener, kind hearted and focused. Treating patients does not always mean writing a prescription; it entails developing a humane relationship with them so that they can comfortably trust and develop a bond with their doctors. However, it would be too naïve and ironical if we put all the blame on the young generation for this apathy and psychomotor inertia.

If we focus our attention on teaching and training at undergraduate and postgraduate levels, we find that teaching and training is also moving fast from traditional way of imparting extensive theoretical knowledge passively to a relatively new system of integrated or modular medical teaching and learning of clinical skills9. The former system was based on lectures and seminars while the latter consists of interactive sessions and self-dedicated learning to acquire clinical skills through problem-based learning. The latter change has again, in turn, been sparked by the rapid growth of technology leading to dramatic changes in the teaching and learning tools in the field of medical sciences. As modular system involves computer aid self-directed and mostly problem based learning; this system demands quite an extensive involvement of the students in the learning process. However, there is a pitfall in this system; modular system may actually lead the students to study selective topics rather than covering the whole syllabus, thus depriving most of them, a chance of acquiring in depth medical knowledge at undergraduate level. In my opinion, rather than giving up the old system altogether, there should have been a horizontal integration between the different department of basic sciences<sup>10</sup>; so that the same topic was being taught at the same time in various departments e.g. in anatomy, physiology, pharmacology and pathology. Based on educational experts' opinion many western universities are readopting the traditional curriculum in preclinical practices since it

has more potential to equip the students with necessary theoretical knowledge that can be used for vertical integration between the basic and clinical sciences in later years. Lastly, role modelling or mentoring at the level of the teachers is declining fast as well. Most of the young teachers have actually grown in this high-tech scenario and therefore cannot be blamed for what and how they teach their students. The senior and seasoned physicians at the top level either hold some administrative position (busy in meetings), remain busy in research work or in attending conferences; therefore do not come in contact with their residents too often<sup>11</sup>. The solution to this problem lies in the hands of teachers mostly at the undergraduate level. Once clinical subjects are taught to the medical students in 3rd or 4th year of their medical college, more and more time and emphasis should be given to the bedside manners and clinical methods and the importance of personal contact with the patient should be highlighted<sup>12,13</sup>. As medical students, because of "digital socialization", lack of time compels most of them to look for short-cuts to fulfil their primary duty of learning by resorting to not only studying selective topics but also reading smaller books rather than studying standard reference text books. Consequently, we find big lacunae in their core knowledge of medicine when they join us as house officers or residents. In my opinion it is mandatory for all residents to study reference text books cover-to-cover without leaving any gaps or loopholes in their knowledge.

Experts all over the world are trying to fill this gap of dwindling clinical skills by establishing Clinical Skills laboratories (CSLs). Considering ethical issues in subjecting live patients to train the students and postgraduate residents (especially learning invasive or semi-invasive skills) and the rapid growth in technology in simulation systems and availability of dynamic mannequins; CSLs have emerged as a solution to this problem in almost all the medical institutions all over the world<sup>14,15</sup>. They are educational facilities that provide necessary equipment in the form of mannequins, dummies and computer assisted simulation systems where students and health care professionals receive adequate training under supervision and mentorship of trained professionals in a stress-free environment to learn and practice their clinical and procedural skills before they can be applied on real patients<sup>16</sup>. It is a place where the students feel comfortable learning and practicing their skills; a place where one is allowed to make and learn from his/her mistakes. The CSLs offer all HCPs the opportunity to acquire clinical, communication and ethical skills which will play an essential role in building their professionalism<sup>17</sup>. In the present day environment and dynamics of professional ethics and evidence based medicine, CSL plays a vital role in continuous medical education (CME) and continuous professional development (CPD) of health care professionals<sup>18</sup>.

Lastly, in the present era of digitalization and by virtue of the availability of numerous search engines; it has become exceedingly easy for general public, to get online and have an access to any information they desire, including health related issues. Increasing availability of medical information on the net for non-technical or lay-people has armed (rather dis-armed) them with increasing (but dangerous) medical knowledge with least comprehension or understanding<sup>19</sup>.

Unfortunately, most of our educated lot definitely gets on-line to ascertain the nature of their illness by searching the net by entering their symptoms as key words and almost 100% of the times, because of the lack of background medical knowledge, end up getting panicky rather than getting informed. Now-a-days, while consulting a doctor, patients come prepared and equipped with reasonable knowledge about their diseases to the extent that they even sometimes interfere in the decision making regarding their management in the process of health care delivery; though rarely, even providing valuable clues for novel health care solutions<sup>20</sup>. In a way it might be a positive step because it fosters their autonomy by complementing the information provided by healthcare professionals and can lead to patient empowerment<sup>21</sup>. However, this situation is quite demanding and tricky for the doctors who cannot afford to be in an embarrassing situation because of the lack of knowledge and being nonprofessional while dealing with such well-informed patients in the society. Therefore, for the practicing doctors, the onus of remaining up to date and highly professional is much more than ever as compared to a digital-free world of the past. Now the doctors have to keep themselves abreast with the recent knowledge to face the barrage of questions that a patient, their relatives or a media personnel may throw on them during consultation or in the public.

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