Abstract
This descriptive cross-sectional study was conducted to explore the status of professionalism regarding knowledge, attitude and practice among intern doctors of different medical college Hospitals in Bangladesh. Study period was July 2015 – June 2016. Sample size was 300 and convenient sampling technique was adopted. Study was carried out among all Bangladeshi intern doctors of 4 governments and 2 non-governments selected medical college Hospitals of Dhaka and outside Dhaka. Total 300 intern doctors responded to a self-administered questionnaire. Male female ratio was almost 1:1. Concept of professionalism and level of knowledge regarding its various aspects are not satisfactory in large extends. But attitude towards most of the major principles of professionalism are as much as positive like USA and UK physicians. However, regarding honesty with patients, one statement like physicians should disclose all significant medical errors to affected patients and/or guardians, only 36.9% agreed with this. Similarly, only 43% agreed the statement of re-certification examination to maintain professional competence. Regarding attitude and practice of major attributes & responsibilities of professionalism there is no significant difference (p>0.05) between male and female intern doctors working in different medical college hospitals; but regarding practice there is a significant difference (p<0.05) among intern doctors working in government and non-government hospitals. This study recommended that institutional agreement should be on a definition, setting expectations & curriculum framework regarding professionalism to increase scope of teaching & learning in our undergraduate & post-graduate students.

Key Words: Intern Doctors of Bangladesh

Introduction
Professionalism as a word comes from a Latin “profession” which means public declaration. Medical professionalism in any society demands the exhibition of a range of qualities in the patients care, and not just mastery and autonomy. These qualities expressed in a recent London's Royal College definition of professionalism (2005) "a set of values, behaviors and relationships that underpin the trust the public has in doctors". The last two decades have seen a groundswell in the recognition of the importance of medical professionalism, especially in academic settings. A physician charters was published in 2002 and is now endorsed by many professional associations and societies around the world reflecting the growing importance of medical professionalism. There are several possible explanations for this movement, including greater societal interest in medical professionalism, higher expectations for medical professionals, the growing impact of commercialism on health care systems, growing malpractice litigation, and the conflict between altruism and worklife balance among younger generations of medical professionals.

Lynch DC, Surdyk PM & Eiser AR, 2004 Assessing professionalism: a review of the literature dispute that in spite of the fact of assessing professionalism carries many challenges but detecting professionalism is impossible without measurement. The article by Ginsburg et al, 2000 warned that professional behaviors are highly context dependent, and therefore any systematic method of assessing these behaviors must take into account the context in which they take place. Wilkinson and colleagues conducted a systematic review between 2007 and 2008 in order to analyze and categorize the various definitions and evaluation tools of medical professionalism currently available in the literature. They identified more than 30 evaluation tools that could be employed in a wide variety of methods and contexts and found a lack of a universally accepted tool. They categorized the evaluation tools into nine groups based on their respective characteristics. Among the nine categories, they placed the highest emphasis on “assessment of an observed clinical encounter,” based on the perspective that “doing” is placed at a higher level than simply “knowing” with regard to clinical competence.

“KAP” study measures the Knowledge, Attitude and Practices of a community about certain things. It serves as an educational diagnosis of the community. By doing a KAP study among our future doctors we can assess present status and what measures should be taken to improve professionalism as well as to integrate professional development program in the curriculum.
Objectives: To evaluate knowledge, attitude and practice of professionalism among intern doctors of different medical college Hospitals in Bangladesh.

Operational definitions:

Professionalism

The term *Professionalism* embraces a set of attitudes, skills and behaviors, attributes and values which are expected from those to whom society has extended the privilege of being considered a Professional. All definitions of professionalism include 3 essential elements:

1. a physician has mastered a body of knowledge and skills, and this knowledge and training is to be used in the service of others,
2. the expectation that physicians will uphold the highest standards of ethical and professional behavior in all their actions and activities,
3. The practice of medicine involves a compact of trust between patient and doctor a social (moral) contract termed a fiduciary relationship. This contract with society allows us to regulate ourselves, both personally and professionally.\(^{16}\)

Core Values of Professionalism:

Set of professional responsibilities & core values defined in the Physicians' charter on professionalism (Project Medical Professionalism 2002).\(^{11}\)

- Professional competence
- Honesty with patients
- Patients' confidentiality
- Maintaining appropriate relationships with patients
- Improving quality of care
- Just distribution of finite resources
- Scientific knowledge
- Maintain trust by managing conflicts of interest
- Professional responsibilities

Fundamental Principles of Physician's Charter:

1. Principle of primacy of patient welfare
3. Principle of social justice.\(^{14}\)

Difference between Ethics & professionalism

Ethics refers to the guidelines that state the dos and don'ts in a specific context whereas professionalism refers to the specific traits that are expected of a professional. Ethics are usually stated whereas professionalism is cultivated by the individual personally. Professionalism encompasses a variety of dimensions. It is not only polite behavior or else academic competence; on the contrary, it is mixture of a number of qualities that contributes to profession.\(^{15}\)

Professional attitude

A professional attitude could be defined as a predisposition, feeling, emotion, or thought that upholds the ideals of a profession and serves as the basis for professional behavior.\(^{16}\)

Professional practice/behavior/Skills

Professional behavior can also be described as “behavioral professionalism” behaving in a manner to achieve optimal outcomes in professional tasks and interactions.\(^{16}\)

Research methodology

This descriptive cross-sectional study was conducted to explore the status of professionalism regarding knowledge, attitude and practice among intern doctors of different medical college Hospitals in Bangladesh. Study period was July 2015 June 2016. Sample size was 300 and convenient sampling technique was adopted.

Data were collected by an open semi-structured, self-administered questionnaire for KAP (Knowledge, Attitude & Practice) study of professionalism. Two another structured evaluation forms to assess behaviors and skills; a discussion guide containing a series of open ended questions for conversational Focus Group Discussion (FGD) were used to collect suggestions from intern doctors to improve their professionalism. Every research instruments were pretested. Triangulation method was followed. Both qualitative and quantitative assessment of Knowledge were assessed by Open ended semi structured questionnaire, Attitudinal aspect of professionalism were assessed through indirect method using Likert's scale, both Practice & Attitude were assessed via selected response scenarios dividing the responses to Very good , good, moderate, poor and very poor responses with five corresponding rates 5,4,3,2 and 1 respectively. A structured Behavioral skill of professionalism evaluation form were used to evaluate intern's professional behavioral skill through Likert's scale with the volunteer help of respective assistant registrar/ registrar/ Assistant professor (who already directly supervised an intern for at least one week). Another Structured Evaluation form was conducted by patients through Likert's scale. Data were checked and edited after collection, then processed and analyzed by using SPSS computer package. This research was conducted after getting permission from all respective authorities. Here individual confidentiality was fully maintained; only average results were used for further analysis and presentations.

Result

Data were collected from intern doctors working in Dhaka Medical College Hospital(DMCH); Sir Salimullah Medical College Mitford Hospital(SSMCMitford); Saheed Sukhrawardi Medical college hospital(SSMCH) Shere Bangla nagor, Dhaka; Ibrahim Medical College(IMC) BIRDEM Hospital, Dhaka; Chittagong Medical College Hospital(CMCH), Chittagong; East West Medical College Hospital(EWMCH), Tongi, Gazipur during this study period.
Table 01: Showing basic information of respondents

<table>
<thead>
<tr>
<th>Characteristics of respondents</th>
<th>Number of Data(n) &amp; weighted proportion(%) by different instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KAP study n (%)</td>
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<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>149(49.7)</td>
</tr>
<tr>
<td>Female</td>
<td>151(50.3)</td>
</tr>
<tr>
<td><strong>Type of Hospital</strong></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>220(73.3)</td>
</tr>
<tr>
<td>Non-government</td>
<td>80(26.7)</td>
</tr>
<tr>
<td><strong>Name of Hospitals</strong></td>
<td></td>
</tr>
<tr>
<td>DMCH</td>
<td>70(23.3)</td>
</tr>
<tr>
<td>SSMC Mitford Hospital</td>
<td>70(23.3)</td>
</tr>
<tr>
<td>SSMCH</td>
<td>60(20.0)</td>
</tr>
<tr>
<td>CMCH</td>
<td>20(6.7)</td>
</tr>
<tr>
<td>IMC BIRDEM Hospital</td>
<td>56(18.7)</td>
</tr>
<tr>
<td>EWMCH</td>
<td>24(8.0)</td>
</tr>
<tr>
<td>Total(n)</td>
<td>300</td>
</tr>
</tbody>
</table>

1. By self-administered questionnaire: KAP study

![Figure 4.3 Bar diagram showing response regarding ideas of Professionalism (n=300)](image)

One open question was put to describe their ideas about professionalism. Among 300 interns 66.7% (200) responded to this question. As a whole 38.70% (116) responses were somewhat acceptable, 23.0% (46) acceptable response & satisfactory response was only 1% of this question regarding ideas of professionalism.

There were six major questions regarding Knowledge about professionalism. Only 89 interns (29.7%) responded to these questions. Among them only 13.5% responded satisfactorily where 95% CI was 6.4% to 20.6%. Mean score was 2.48±0.49. 70.30 % (211) could not answer major six questions of professionalism.

Chi-square test indicates there is no significant difference (p>0.05) between government and non-government hospitals as well as male female intern doctors regarding knowledge of professionalism.

To assess **Attitude** in different attributes & responsibilities regarding professionalism specific statements were place to comment how much they agreed or disagreed according to Likert's scale. More than 80% of respondents agreed with 6 of 15 statements regarding 12 principles of professional attribute. These are patient’s confidentiality(93.2%), appropriate relations with patients by sympathy(86.6%), improving quality of care(81.6%), Just distribution of finite resources (Equity 91%), commitments to scientific knowledge(91.3%),maintain integrity(84.5%).

Whereas, regarding honesty with patients, one statement like physicians should disclose all significant medical errors to affected patients and/or guardians 36.9% agreed (only 17.9% completely agreed & 19% somewhat agreed) with this.

To assess **attitude & practice** regarding attributes of professionalism various scenarios were present with multiple actions. Respondents were requested to choice best action honesty what he/she used to do or what he/she will do. Responses were score according to Likert's scale & statistics were calculated to find out statues of total population.

**Mean score in attitude & Practice is 4.03±0.37; 95% CI is 3.99 to 4.08.** Highest score of satisfaction (93%) was in practice of patients’ confidentiality & lowest score of satisfaction (33.2%) was in practice of altruism.

**2. By professionalism evaluation form:** (Evaluation of professional behavior skills)

To assess behavioral skills regarding professionalism among intern doctors a professionalism Evaluation form was used & scored according to Likert’s scale (5 steps).Principal evaluators were registrar/assistant registrar /indoor medical officer of different wards with whom intern are very much closely related for at least. Total 27 behavioral skills were evaluated which was categories in to six leading skills. Where all six categories were calculated as a single variable as total behavioral score & its mean was 4.09±0.39, where 95%CI was 4.00 to 4.19. Where male score was 4.08±0.38 & Female score was 4.11 ± 0.40.

**3. Evaluation of Intern Doctors by Patients:**

As a part of multi-source evaluation another evaluation form was used to collect patients’ opinion regarding professional services of our intern doctors. Here patients had an opportunity to state their experiences regarding the services of their intern doctors in addition to structured evaluation. There were about 50 responses were collected. These statements were categories into nine (9) categories.

**4. Focus Group discussion (FGD) among Intern Doctors in different medical college Hospitals:**

There were seven (07) FGD conducted during this study period within four (4) medical college hospitals. Two were government and two were non-government medical college hospitals. Objectives, venue & timetable were informed among selected participants two days before the schedule of FGD. Researcher himself was facilitator. A format of series questions was used to maintain group dynamics. Opinions of participants were recorded as much as possible in their own words, especially key statements. Simultaneously a tape recorder was used to capture all information. Average duration of sessions was 69.17±17.16 minutes. After each FGD notes taking were completed according to preset series of questions. After completed data collection all notes and opinions were compiled against each question to summarize all findings.

**Discussion**

Medical doctors share a common professional standard & responsibility throughout the world although there are enormous difference in culture and health care back ground. However, in many parts of the modern world healthcare services have been much commercialized; which is terrifying to damage professionalism of medical doctors. In these present situations, our future doctors should be prepared to participate in the complex clinical settings as well as they should be highly conceptualized & skilled enough regarding their professionalism.

In this study, one open question was put to describe their ideas about professionalism. Among 300 interns 66.7 % (200) responded to this question. As a whole 38.70 % (116) responses were somewhat acceptable, 23.0% (46) acceptable response & satisfactory response was only 1% of this question regarding ideas of professionalism.

Similarly, in “comparative study on professionalism of fourth coming medical doctors between two private medical colleges in Saver, Bangladesh” by Salam A et.al on 2012-2013 thirty seven percent(37%) students of both GSSVMC( Gono Shastho Somaj Viktik Medical College) and EMC (Enam Medical College) were possessing positive attitude towards professionalism. Rest 63% either did not answer the question “What do you mean by Professionalism?” or they did not understand the issue. This finding is dissimilar with the other studies in other countries. This issue can be interpreted as Bangladeshi medical students are either quite lazy to respond open ended questions or there is a possibility that they are meager in expressing their words, or they are quite shy to express their inner feelings to the teachers.

There were six major questions regarding Knowledge about professionalism. Only 89 interns (29.7%) responded to these questions. Among them only 13.5% responded satisfactorily where 95% CI was 6.4% to 20.6%. Mean score was 2.48±0.49. 70.30 % (211) could not answer major six questions of professionalism. It is quite unsatisfactory. Multiple factors might be involved including less orientation in formal curriculum. Chi-square test indicates there is no significant difference (p>0.05) between government and non-government hospitals as well as male female intern doctors regarding knowledge of professionalism.
Mean score in attitude is 3.98±0.42; 95% CI is 3.92 to 4.03. It represents average attitudes towards principles of professionalism are almost positive among our intern doctors in Bangladesh.

J Chen et al, 2011 done a pilot study among 390 physicians in two tertiary hospitals of China between May and July 2011. More than 90% of physicians agreed (somewhat agree or completely agree) with 9 of the 13 normative statements about 9 principles. The agreement stayed above 80% for all the statements. 

Eric G. et al, on 2003-2004 conducted a national survey using a stratified random sample (sample size was 3504) among practicing physician of USA. More than 90% of physicians agreed with 8 of the 12 normative statements regarding professionalism posed in the survey. Agreement fell below 80% only for the question about periodic recertification. Similar normative statements were also used in present study.

In present study, some clinical scenarios were used to evaluate practice related with attitude towards professionalism. Practice is not always consistent with attitudes. Mean score in Practice is 4.03±0.37; 95% CI is 3.99 to 4.08. Mean score in attitude is 3.98±0.42; 95% CI is 3.92 to 4.03. It indicates attitude and practice of professionalism very much consistent in our future doctors.

However, attitudes are only one of many determinants of behavior. Therefore, to advocate professionalism through various ways such as medical education, media propagandas, and academic conference may have positive effect on the physicians' attitudes, and consequently on their behaviors. However, other systems will need to regulate behaviors more directly.

Y Tsugawa et al, 2010 had done a multicenter study in Japan from 2009-2010, by using P-MEX format containing 24 items to be evaluated. A total of 837 P-MEX forms were completed and collected for 165 residents and fellows. The mean average score on all 837 forms was 3.25(0.44), identical to that of the original study conducted at McGill University. Evaluations by multiple evaluators increase its reliability. But due to single evaluator for individual's skill evaluation mean score was a bit more (4.09±0.39) in this study. In open comments during evaluation by patients; only 04% expressed their extreme anger & disheartened regarding services of intern doctors.

In Focus Group discussion (FGD) among Intern Doctors in different medical college Hospitals following barriers and promoters were expressed by intern doctors to be 'their professional best'.

<table>
<thead>
<tr>
<th>Barriers:</th>
<th>Barriers:</th>
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<tbody>
<tr>
<td>Less experience due to late clinical attachment.</td>
<td>Proper guiding, Senior should be follower</td>
</tr>
<tr>
<td>Educational problem, like coordination with clinical practice.</td>
<td>Dedication of all staff</td>
</tr>
<tr>
<td>Less availability of seniors, Cooperation with consultant, Senior junior interaction</td>
<td>Security</td>
</tr>
<tr>
<td>Illiteracy &amp; less compliance of our patient.</td>
<td></td>
</tr>
<tr>
<td>Work load more but less Salary scale, Food supply/facility less, long working hour, Lack of resting facility</td>
<td>Good communication</td>
</tr>
<tr>
<td>Family problem, Security for female doctor</td>
<td>Limited admission, Maintain bed &amp; patient ratio, working time.</td>
</tr>
<tr>
<td>Influence of some staff on different parts of whole system, Priority to other staff, Less relation with other staff, Blame on doctors but some other staff are involved in various type of corruption &amp; miss behavior from nurses</td>
<td>Self-assessment, Peer evaluation</td>
</tr>
<tr>
<td>Lack of skilled referral system, OT &amp; Lab. facilities</td>
<td>Monthly assessment from records, marking system in certificate,</td>
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<td>Uncontrolled visiting hours persons.</td>
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<tr>
<td>Lack of accountability form administrator.</td>
<td>Salary increase, Intern organization</td>
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<td>Program to change behavior of patient,</td>
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<td></td>
<td>Proper lab &amp; Administration,</td>
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</tbody>
</table>

**Conclusion**

This study was a both qualitative and quantitative study to determine the current status as well as further improvement of professionalism among intern doctors in different medical college hospitals in Bangladesh. Triangulation methods of data collection created an environment to refresh their knowledge, attitude & behaviors regarding professionalism among our future doctors.

From this study it is concluded that concept of professionalism and level of knowledge regarding its various aspects are not satisfactory in large extends. But attitude towards most of the major principles of professionalism are as much as positive like USA and UK physicians. Regarding attitude and practice of major attributes & responsibilities of professionalism there is no significant difference (p>0.05) between male and female intern doctors working in different medical college hospitals; but regarding practice there is a significant difference (p<0.05) among intern doctors working in government and non-government hospitals. P-MEX evaluation format is very much consistent to practice in our situations and multiple evaluators will increase its reliability. There were no significant differences (p>0.05) in satisfaction regarding services when patient in private or...
government hospitals; male or female; any type of bed free/with rent/cabin. In FGD; interns pointed out various factors those are influencing them in professional lapse. By minimizing these exiting lapses best professionalism might be ensured among intern doctors working in different medical colleges hospitals.

**Recommendations**

1. There should be an institutional agreement on a definition, setting expectations & curriculum framework development regarding professionalism.

2. Scope of teaching & learning in our undergraduate & post-graduate curriculum should be revised. Topics of professionalism should be iterative revisited (in spiral form).

3. Hidden curriculum should be regulated in regular monitoring. Role model should be established.

4. Regular formative assessment as well as summative in some extend should be included.

5. CME & CPD program should be arranged regularly. Different professional body may arrange a survey on professionalism within own territory in regular basis.

**References**


20. Jing Chen, Juan Xu, Chunmei Zhang, Xinqia Fu. Medical professionalism among clinical physicians in two tertiary hospitals, China; *Social Science & Medicine* 96 (2013) 290-296
