

ARTICLE INFO

Received: 04-08-2020

Accepted: 10-04-2021

Online: 30-06-2021

Developing a Professionalism Education Framework at the Institutional Level with Multidisciplinary Consensus

Chew Fei Sow¹, Chandratilake MN², Nadarajah VD³¹*Clinical Skills and Simulation Centre, International Medical University, Kuala Lumpur, MALAYSIA*²*Department of Medical Education, Faculty of Medicine, University of Kelaniya, SRI LANKA*³*Education and Institutional Development, International Medical University, Kuala Lumpur, MALAYSIA*

To cite this article: Sow CF, Chandratilake MN, Nadarajah VD. Developing a professionalism education framework at the institutional level with multidisciplinary consensus. *Education in Medicine Journal*. 2021;13(2):25–40. <https://doi.org/10.21315/eimj2021.13.2.3>

To link to this article: <https://doi.org/10.21315/eimj2021.13.2.3>

ABSTRACT

The varying opinions in defining professionalism have constrained teaching, learning and assessing professionalism in the medical curriculum. The literature shows that professionalism is sensitive to cultural, socio-economic factors with subtle differences between healthcare professions from various disciplines. Therefore, in conceptualising professionalism, there is a need to develop a professionalism framework at an institutional level for the basis of transparency and consistency in teaching, learning and assessment of professionalism. While institutions can adopt various methods to understand professionalism within their sociocultural context, they need to be aware that prioritisation of professionalism attributes may change over time due to changes in the social environment. Using the consensus meeting approach, we describe a defining framework that aligns with our institution's core values and the respective health professions programme educational outcome with the flexibility to include/exclude and define/redefine professionalism attributes. Flexibility is the key difference in this framework, which is different from other frameworks in the literature.

Keywords: *Flexible, Professionalism, Framework, Multidisciplinary consensus*

CORRESPONDING AUTHOR

Chew Fei Sow, Clinical Skills and Simulation Centre, International Medical University, 126 Jalan Jalil Perkasa, Bukit Jalil, 57000 Kuala Lumpur, Malaysia

Email: chewfei_sow@imu.edu.my

INTRODUCTION

Regulatory bodies worldwide have recommended that professionalism be an explicit component of both undergraduate and postgraduate curricula of health professions. However, literature illustrates a considerable difference of opinion as to what defines professionalism in the context

of medicine and medical education. This is complicated with conceptual overlaps that exist between professionalism, humanism, personal and professional development (1). Due to the indeterminate nature of these definitions, attempts to develop teaching methods and assess professionalism were likely constrained. Furthermore, professionalism is sensitive to cultural

and socioeconomic factors. There are regional similarities and dissimilarities in the understanding of professionalism, most of which can be explained by cultural differences in line with the theories of cultural dimensions and cultural values (2). The disparity in understanding professionalism extends beyond teaching and assessment and can be confusing even to students. The students find intercultural professionalism dilemmas between Western medicine and the Asian culture, particularly in family relations, local policy, end-of-life care, traditional medicine, gender relations, cultural beliefs and practices, and languages (3–4). The cultural and socio-economic influence in understanding professionalism may severely impact graduates who work in different environments from where they were initially trained. International medical graduates tend to face fitness to practice issues more frequently than local graduates with regard to communication skills and cultural competence (5–6). The differences in expectations between physicians and patients may lead to patient dissatisfaction.

Furthermore, there can be differences between healthcare professions from various disciplines in conceptualising professionalism. Hence, it is useful to conceptualise professionalism at an institutional level to help identify both the common areas and profession-based differences, which can, in turn, be used to develop a professionalism framework at an institutional level. This framework can be used as the basis of teaching, learning and assessment of professionalism more insightfully and with consistency.

Various approaches to formulating an institutional, professionalism framework have been adopted. The most popular is creating a blueprint from a literature review by thematic analysis either in the Western context (7–9) or a non-Western context (10). Although this method allows easy accessibility from the rich literature data, it is not contextualised to institutional needs or values, leading to the less desirable impacts as emphasised above. Another

concern of using this methodology may be the discipline specificity; they are defined for medicine (11), pharmacy (12) and dentistry (13), instead of being institutionally focussed. The Ottawa 2010 Recommendation (14) for the assessment of professionalism, used a discourse analysis approach and categorised three key discourses about professionalism: as an individual, interpersonal, or societal-institutional phenomenon. Under the societal-institutional phenomenon, they recommended characterising societal expectations through dialogue and meaningful input from stakeholders and measuring the degree to which the profession meets these expectations in terms of clear societal institution outcomes. Based on the social constructivism theory, some authors use the nominal group technique to formulate a professionalism framework (15–16). As this technique gained consensus from all stakeholders (within an institution, across disciplines, or even across the different regions), it gives an equal opportunity to present the stakeholders' views. All views have equal weightage, and the process for everyone to list all their ideas for discussion avoids problems associated with traditional group meetings. This technique is culturally contextualised and is more acceptable in any specific institution. Analysis of the data collected allows the institution to build a framework based on prioritising attributes of professionalism warranted in that institution. For example, Ho et al. (15) demonstrated that Taiwan National University prioritises integrity, ethics, communication and clinical competency as their core pillar in their institutional framework for professionalism. This theoretical framework is built on sound theory, defensible and accepted by regulatory bodies. However, the prioritisation of professionalism attributes may change over time due to changes in the social movement (17). For example, due to this current COVID-19 pandemic, some institutions may switch their prioritisation of professional attributes and emphasise more on relevant attributes such as the ability

to deal with uncertainty or plagiarism for those institutions converting their teaching-learning to a completely online learning mode.

The International Medical University adopts eight generic outcome domains in all its programmes: (a) Application of basic sciences in the practice of the profession and psychomotor skills; (b) Family and community issues in healthcare; (c) Disease prevention and health promotion; (d) Communications skills; (e) Critical thinking; (f) Problem-solving and research; (g) Self-directed life-long learning with skills in information and resource management; and (h) Professionalism, ethics and personal development. Different programmes have developed specific outcomes on professionalism under domain eight, and there may be overlap with other domains. However, issues related to conceptualisation's inconsistency and incongruity caused difficulties in teaching-learning and assessment. Therefore, the need for a common professionalism educational framework was strongly felt.

It is evident in the literature that different countries and institutions have adopted different methods to understand professionalism within their sociocultural context. The common focus on all attempts was to develop an overarching conceptual framework more than individual attributes using consensus as the basis. The framework needs to suit the institutional context considering a combination of sociocultural factors, national and international values, multiculturalism, applicability to multiple health professions, language, education level, religion and attitude towards certain behaviours (18).

We describe here a defining framework, using the consensus meeting approach, which aligns with our institution's core values and educational outcome with the flexibility to include/exclude and define/redefine professionalism attributes. Here the "essential attributes" were defined as attributes that should be given priority

in professionalism education based on the discipline of practice, e.g., medicine, dentistry, pharmacy and health science. This article aims to share our experience with those who seek institutional development of a professionalism framework for health professionals. This framework stands out from those in the literature in its flexibility to include/exclude and define/redefine professionalism attributes.

METHODS

The context in the International Medical University is unique in several ways. There are multiple schools in health professions education, namely, medicine, dentistry, pharmacy and health sciences. The staff and students' cultural background is diverse, where both Malaysian and non-Malaysian individuals are present in appreciable numbers. The students in certain degree programmes have the option of completing part of their overseas programme by enrolling in partner schools. Therefore, a multi-stage consensus approach is deemed appropriate and was adopted to achieve the above objectives of developing a conceptual framework of professionalism for the institution. The consensus process included the following steps:

- a. Formation of a multidisciplinary working party on professionalism education
- b. A workshop to identify essential attributes of professionalism
- c. Consensus survey
- d. Consensus discussion for final clarifications
- e. Circulation of the draft framework for final feedback

Formation of a Multidisciplinary Working Party on Professionalism Education

The deans of the four schools (medicine, dentistry, pharmacy and health sciences), and the student body were requested

to nominate their respective schools' representatives. The nominees were invited to participate in subsequent workshops and the participants were included in the core working group. The deans and their representatives' involvement enhanced ownership of developing the framework and the likelihood of its subsequent implementation. It has been clarified to the deans and participants that by agreeing to be in the core working group, they are considered to have approval of the use and disclosure of the discussion content within the core working group. The content of discussion will be use for the conceptualisation, publication, and/or presentation of the university professional structure.

A Workshop to Identify Professionalism Attributes

A total of 27 participants from various programmes attended a two-day workshop. There are six from pharmacy, six from medicine, four from dentistry, three from chiropractic, two from traditional Chinese medicine, two from nutrition and dietetic, two from postgraduate programmes, and two from nursing. There are 13 male and 14 female participants. All the participants are specialised in their own field with minimal Master's level up to PhD level with their academic positions ranging from lecturers to professors. Some of them hold administrative positions like dean of school and programme coordinators.

The workshop was conducted for the participants to come to a collective understanding of professionalism, calibrate the terms for various attributes and identify the essential attributes of professionalism. Based on their schools' current activities in professionalism, the participants identified appropriate teaching, learning methods and opportunities, prepared a teaching-learning matrix, identified and prepared an assessment matrix, and discussed programmatic assessment. Programmatic assessment is an approach in which

information about the learner's competence and progress is continually collected using various assessment tools. The information is analysed, where needed, complemented with purposively collected additional assessment information, with the intent to both maximally inform the learner and their mentor and allow for high-stakes decisions at the end of a training phase (19). In preparation for moving towards a programmatic assessment approach, the schema proposed by van der Vleuten et al. (20) on the implementation of a programmatic assessment of professionalism is discussed. In preparation for the future use of programmatic assessment, the first step is to create a common understanding of professionalism in our context at the university level. Based on this objective, a list of attributes emerged from the school-based group discussions. It was observed that the attributes identified by school-based groups ranged from very general and non-specific to very specific and focused. The participants then discussed and agreed on their mutual understanding of each identified attribute, refined the language and term used before they were compiled into school-specific lists.

Consensus Survey

A consensus survey was conducted online using Google Forms. The survey links with school-specific attributes were sent out to a total of 320 academic staff from all schools. The academic staff were invited to rate each attribute's essentialness in the list as a graduate of their respective discipline, to be fostered in the university's context within their study programme duration. They were also requested to include additional attributes that they deemed "essential". The respondents' consensus were measured using the content validity index (CVI). CVI is the proportion of participants who feel a particular attribute is essential out of the total number of respondents (21). By convention, items that show CVI values of more than 0.75 are considered acceptable consensus.

Consensus Discussion for Final Clarifications

The consensus discussion was participated by eight members, who are representatives of the Core Working Group on professionalism education. The representatives of the School of Dentistry could not participate in the discussion. However, the final list was sent later to the School of Dentistry representatives. Additional attributes suggested in the consensus survey were examined and included where appropriate to the original lists after discussion. All attributes were analysed and refined. Complexities and duplications were minimised.

Circulation of the Draft Framework for Final Feedback

The framework was presented to the relevant Academic Committee for their feedback. Ethics for the methodology was discussed and approved by the Faculty Board Committee. The Senate Committee approves the framework for implementation at the school level. All schools were report the implementation strategies in six months.

RESULTS

The survey was conducted online among the academic staff of different schools to determine the essentialness of attributes identified by their representatives in the working party. The survey responses were analysed using CVI. The CVI for each item is calculated based on the following formula:

$$\text{CVI} = \frac{\text{Number of respondents who have indicated a particular item essential}}{\text{Number of respondents}}$$

By convention, items which has CVI of more than 0.75 are considered receiving consensus to be an essential item/attribute.

The consensus survey shows the list of attributes that emerged from the school-based group discussions. Out of 320 (excluding the 27 Core Working Group academic), 110 or 34.4% academic staff responded. The responses pattern, and CVI processes and values are generated for medicine, dentistry, chiropractic, dietetic, nursing and pharmacy programmes. A sample extracted from the dietetic programme of the response patterns, and CVI process and values are included in Table 1. Almost all the attributes identified by the Core Working Group were rated as essential by their colleagues from various schools. The additional attributes were included in the subsequent consensus discussion. The themes emerging from the list of attributes were carefully examined to formulate an overarching framework of professionalism.

The Conceptual Framework

The themes emerging from the list of attributes appeared to contribute to a three-domain overarching framework (Figure 1), which means: The university expects to develop individual proficiency, client-centredness and work-centredness in the efforts of professional education. Client-centredness are attributes which help to focus on the benefit and well-being of the clients or patients. Individual proficiency is the abilities in physical, social, emotional, intellectual and spiritual aspects which need to be developed by individuals in a professional field. Work-centredness attributes which help to fulfil the task at hand effectively and efficiently.

Essential Attributes Listed Under Each Domain

The list of professionalism attributes identified as essential under each domain (client-centredness, individual proficiency and work-centredness) by one or more schools is shown in Table 2. The Core Working Group noted that there were overlapping understandings of some terms;

Table 1: Consensus survey for dietetic programme

Attribute	Highly/Quite important	CVI
Keeping up to date	12	1.00
Integrity, trustworthiness and honesty	12	1.00
Responsibility	12	1.00
Non-discriminatory	12	1.00
Asking consent in practice	12	1.00
Cultural sensitivity	12	1.00
Respecting client autonomy	12	1.00
Maintaining confidentiality of information	12	1.00
Practising within boundaries	12	1.00
Accurate record keeping	12	1.00
Collegiality	12	1.00
Accountability	12	1.00
Evidence-based practice	11	0.92
Caring	11	0.92
Empathy	11	0.92
Punctuality	11	0.92
Resilience	11	0.92
Ability to work in multi-disciplinary teams	11	0.92
Minimising risk to clients	11	0.92
Appropriate “whistle-blowing”	11	0.92
Advocating clients	11	0.92
Adaptability	11	0.92
Personal appearance and attire	10	0.83
Appropriate use of social media	9	0.75

Note: Total number of participants is 12.

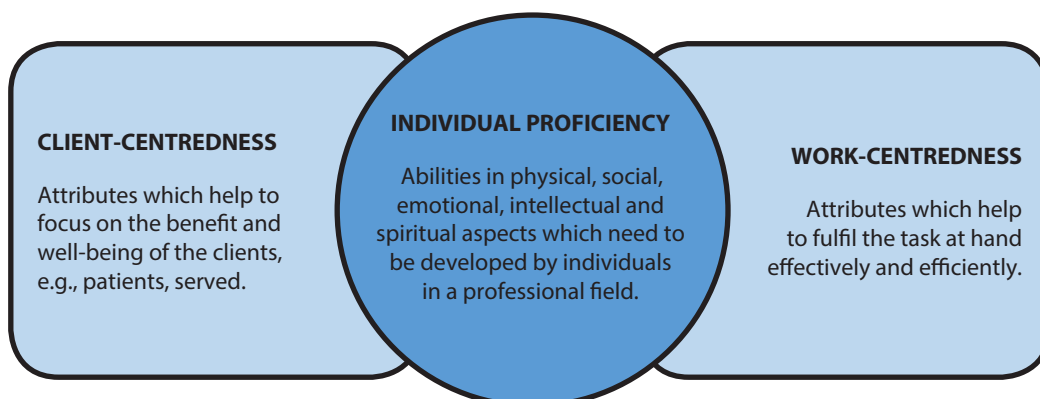


Figure 1: Overarching framework for professionalism education.

Table 2: Domains of professionalism with examples of essential attributes

Domain	Examples of essential attributes
Individual proficiency (Abilities in physical, social, emotional, intellectual and spiritual aspects which need to be developed by individuals in a professional field)	Analytical and decision-making skills Adaptability to change Confidence in performance Conscientiousness Diligence Moral reasoning ability Problem-solving ability Reliability Resilience Temperateness Tenacity Trustworthiness and honesty
Client-centredness (Attributes which help to focus on the benefit and well-being of the clients, e.g., patients, served)	Accurate record-keeping and documentation Appropriate “whistle-blowing” Client advocacy Compassion and caring attitude Compliance with bio-ethical principles Effective communication Empathy Equity Provision of individualised care Maintaining confidentiality Minimising risk to clients Respect towards culture and diversity Respect towards the dignity of patients and teachers Respect for patient autonomy
Work-centredness (Attributes which help to fulfil the task at hand effectively and efficiently)	Ability to deal with uncertainty Accountability Altruism Collegiality Commitment to work Competence Evidence-based practice Leadership Management and organisational skills Organised in academic and clinical work Professional integrity Professional self-presentation (attire and appearance) Compliance with regulatory mechanisms Up taking responsibilities Teamwork Punctuality

for example, attribute of professional self-presentation (attire and appearance) can be placed either under individual proficiency or work-centredness. However, the Core Working Group members decided that although attire and appearance may bring about the comfort of physical movement and support individual preference, studies show the influence of attire on the public's perceived professionalism (22). There is an absolute preference for professionals to be in professional and formal attire as they are rated as more suitable, capable, easier to talk to, and friendlier than those dressed in smart or casual attire. Based on this, attire and appearance are placed under the domain of work-centredness (Table 2). Similarly, each

attribute shown in Table 2 was vigorously discussed and agreed upon before placement into each domain.

Essential Attribute Listed by Each Programme

The representatives from each programme within the Core Working Group determines the essentialness of the attributes discussed. The essentialness demonstrated by programme-based groups is illustrated in the Table 3. Table 3, however, does not demonstrate a comprehensive or exclusive list of essential attributes. The schools have the flexibility to add or remove attributes from their “essential” list from time to time.

Table 3: Essentialness of professional attributes to different disciplines

	Medicine	Dental	Pharmacy/ Pharmacy Chemistry/Dietitic and Nutritions	Chiropractic	Nursing
Individual proficiency					
Analytical and decision-making skills	–	X	X	–	X
Adaptability to change	–	X	X	–	X
Confidence in performance	X	–	–	X	–
Conscientiousness	X	–	–	–	–
Diligence	X	X	–	–	–
Moral reasoning ability	–	X	–	X	–
Problem-solving ability	–	X	X	X	X
Reliability	–	–	–	–	–
Resilience	X	X	X	–	–
Temperateness	X	–	–	–	–
Tenacity	X	–	–	X	
Trustworthiness and honesty	–	X	–	X	X
Client-centredness					
Accurate record keeping and documentation	–	X	X	X	–
Appropriate “whistle-blowing”	–	–	X	–	–
Client advocacy	–	–	X	–	X
Compassion and caring attitude	X	X	X	X	X

(Continued on next page)

Table 3 (Continued)

	Medicine	Dental	Pharmacy/ Pharmacy Chemistry/Dietitic and Nutritions	Chiropractic	Nursing
Compliance with bio-ethical principles	X	X	X	X	X
Effective communication	X	X	X	X	X
Empathy	X	X	X	X	X
Equity	X	–	X	–	–
Provision of individualised care	–	X	X	–	–
Maintaining confidentiality	X	X	–	X	X
Minimising risk to clients	–	–	X	–	–
Respect towards culture and diversity	X	X	–	X	–
Respect towards dignity of patients and teachers	X	X	–	X	–
Respect towards patient autonomy	X	X	X	X	–
Work-centredness					
Ability to deal with uncertainty	X	X	–	–	–
Accountability	X	X	X	X	X
Altruism	X	X	–	X	–
Collegiality	X	X	–	–	–
Commitment to work	X	–	–	–	–
Technical competence	X	X	X	X	X
Evidence-based practice	–	X	X	X	X
Leadership	–	X	X	–	X
Management and organisational skills	–	–	X	–	X
Organised in academic and clinical work	X	–	–	–	–
Professional integrity	X	X	X	–	–
Professional self-presentation (attire and appearance)	X	X	–	–	–
Compliance with regulatory mechanisms	–	X	–	X	X
Up taking responsibilities	–	X	X	X	X
Teamwork	X	X	X	X	X
Punctuality	X	X	–	–	X

DISCUSSION

The need for a modified curriculum on professionalism requires the faculty to differentiate the attributes of professionalism. Addressing and calibrating both faculty's understanding and needs through differentiated instruction is based on the differentiation theory (23). In the differentiation theory, the initial step is to distinguish a cognitive task analysis to depict the difficulty in understanding a concept. The methodology used in this article results in the faculty's differentiation ability of hierarchy, the information needed for differentiation and the factors that influenced its complexity. Professional development trajectories can be planned and a systematic assessment can be performed based on the different domains (individual proficiency, client-centredness and work-centredness) in the framework produced.

While the need and core structure for the framework was driven at the institutional level, developing the essential attributes among undergraduates of respective programmes was left to each school, as formats and programmes are diverse. This was done on purpose to provide flexibility for programme specific essential attributes, change of periodisation according to change of social movement but anchored to common institutional values. Development and implementation of this framework can be viewed from a change management perspective and its impact on teaching, learning and assessments.

Change Management

Implementing a new framework fundamentally is about change and the focus of change directs that implementation process to look for both intended and unintended changes associated with the implementation. One of the established models in the literature is Kotter's 8-step change model (24). Kotter's model focus on the faculty rather than the organisation as a whole or system. For any implementation

of a new initiative, the success lies in the people that make it happens. Kotter's model describes a community of individuals to make things move. The build-up of buy-in creates momentum that helps to feed the change. The more the organisation's buy-in gets, the more traction it generates to help fuel the transition. We find the development process that we used for the framework aligned with Kotter's model for change management (25).

Impact on Teaching, Learning and Assessment

The development of the professionalism framework can affect the teaching, learning and assessments in the respective programmes. AMEE Guide No.61 lays out the strategy in integrating professionalism into the curriculum (26) via teaching and learning. The further fine-tuned attributes at the programme level need to be transparent to all stakeholders, including students and faculty. Hence, communication on the expected behaviours and attitudes needs to be repeated and role modelled continuously. When delivering lessons either in the classroom or in the labs, hospitals, or any other relevant learning sites, the disease or wellness narrative should include aspects of professionalism so that students embrace concepts as a whole and not separately. To build a sustainable change, the literature suggests building a faculty development programme to help the faculty examine teaching and evaluation strategies and promote reflection and self-awareness (27). With regard to assessments, the respective programmes already have broad categories of assessment domains and related tools. We reviewed the assessment matrix by integrating the professional framework's professionalism attributes into these existing assessment domains. A sample on the domain of individual proficiency is shown in Table 4. A similar matrix was built for the domain of client-centredness and work-centredness. Analysis of the matrix shows that the existing methods of assessments can be used to assess most of the essential

Table 4: Sample on the domain of individual proficiency

Domains	Attributes	Goal of professionalism assessment					
		Demonstrating the awareness /understanding of professionalism aspects		Ability to reflect on professionalism aspects		Diligence in professional behaviour	
		Written examinations	Simulation based examinations	Periodical reflective reports	Workplace based assessments	Routine records	
Individual proficiency (Abilities in physical, social, emotional, intellectual and spiritual aspects which need to be developed by individuals in a professional field)	Analytical and decision-making skills	OBA, SEQ	OSCE	-	-	-	
	Adaptability to change	-	-	Reflective account on professionalism dilemmas	MSF	-	
	Confidence in performance	-	OSCE/OSPE	Self-assessment of performance	MSF	-	
	Conscientiousness	-	-	Reflective account on professionalism dilemmas	MSF	In-course work	
	Diligence	-	-	-	MSF	In-course work	
	Moral reasoning ability	OBA, SEQ	OSCE	Reflective account on professionalism dilemmas	WPB assessment	-	
	Problem-solving ability	OBA, SEQ	OSCE	-	WPB assessment	-	
	Reliability	-	-	-	MSF	In-course work	
	Resilience	-	-	Reflective account on professionalism dilemmas	MSF	-	
	Temperateness	-	-	-	MSF	-	
	Tenacity	-	-	-	MSF	-	

Notes: OBA – One best answer; SEQ – Single ease question; OSCE – Objective structured clinical examination; OSPE – Objective structured practical examination; MSF– Multi source feedback; WPB – Workplaced based

attributes, and they should be used maximally to prevent assessment overload. The assessment of professionalism should be mainly formative.

Professionalism should be assessed longitudinally (28). It needs combinations of various methods, as no single instrument can accurately measure an individual’s integrity as a whole, as it may take multiple tools. Increasing the depth, reliability and validity of current instruments in various programme contexts may be more appropriate than concentrating on developing new instruments. Increasing the number of tests and observers increases reliability. Feedback promotes thought, facilitating behavioural change and defining personality. Wilkinson et al. (7) demonstrated in an assessment blueprint that direct observations and collated views through multisource feedback and patients’ opinions are crucial elements because they capture many aspects in reliable, valid and

feasible ways. In order to conceptualise the essential attributes built through this process, we captured the attributes to be assessed using multisource feedback and potential sources of information, as shown in Table 5. For example, the use of e-portfolio as a collective multisource feedback assessment tool. The mentor provides each student with a rating for the portfolio (unsatisfactory or satisfactory) together with feedback. Students with unsatisfactory grades were provided with appropriate remediation. The completion of the portfolio becomes a prerequisite for progression to a subsequent stage of the course. Although multisource feedback could positively drive students’ behaviour, it would adversely influence learning and behaviour due to various situational factors. This could influence the assessors’ abilities to make sound quality judgements, such as the length of time and characteristics of the assessor, for example, apathy (29).

Table 5: Attributes to be assessed using multisource feedback and potential sources of information

Attributes to be measured with multisource feedback	Potential source			
	Peers	Teachers	Clients	Other professionals
Adaptability to change	X	X	–	–
Confidence in performance	–	X	X	X
Conscientiousness: the quality of wishing to do one’s work or duty well and thoroughly	X	X	–	–
Diligence: careful and persistent work or effort	X	X	–	X
Reliability: dependability	X	X	–	X
Resilience: the capacity to recover quickly from difficulties; toughness	X	X	X	–
Temperateness: restraint of one’s emotions, desires, or inclinations	X	X	X	X
Tenacity: extremely persistent in adhering to or doing work	X	X	–	X
Trustworthiness and honesty	X	X	X	X
Accurate record keeping and documentation	–	X	–	X
Appropriate “whistle-blowing”	X	X	–	X
Client advocacy	–	X	X	–

(Continued on next page)

Table 5 (Continued)

Attributes to be measured with multisource feedback	Potential source			
	Peers	Teachers	Clients	Other professionals
Compassion and caring attitude	X	–	X	X
Compliance with bio-ethical principles	–	X	–	–
Effective communication	X	X	X	X
Empathy: the ability to identify with or understand the perspective, experiences, or motivations of another individual and to comprehend and share another individual's emotional state	X	–	X	–
Equity: quality of being just and fair	X	–	X	X
Provision of individualised care	–	X	X	–
Maintaining confidentiality	X	X	X	X
Minimising risk to clients	–	X	–	X
Respect towards culture and diversity	–	X	X	X
Respect towards dignity of patients and teachers	–	X	X	–
Respect towards patient autonomy	–	X	X	–
Ability to deal with uncertainty	–	X	–	–
Accountability: being answerable to one's commissions and omissions	X	X	–	X
Altruism: unselfish concern for the welfare of others	X	–	X	X
Collegiality: respective of the power and authority of others	X	X	–	X
Commitment to work	X	X	–	–
Technical competence	–	X	–	X
Evidence-based practice	–	X	–	X
Leadership	X	X	–	–
Management and organisational skills	X	X	–	X
Organised in academic and clinical work	–	X	–	–
Professional integrity	X	X	–	X
Professional self-presentation (attire and appearance)	X	X	X	X
Compliance with regulatory mechanisms		X	–	–
Up taking responsibilities	X	X	X	X
Teamwork	X	–	–	X
Punctuality	X	X	X	X

Literature shows different views on student self-assessment. It is generally agreed that student self-assessment improves reflectivity and self-regulatory skills. It is a useful discussion tool for students and mentors. However, the self-assessment quality raises serious doubts about an evaluation process and identifies conditions that must be met if the students' judgements are useful, valid and reliable. Brown and Harris (30) recommend that student self-assessment should no longer be treated as an assessment but instead as an essential competence for self-regulation as part of professional development. Therefore, we incorporated an online self-test on the medical ethics course for students as a prerequisite for legibility to sit for the final year exam or progression to a subsequent stage. As professionalism is culturally sensitive, we also advocate cultural competence measurement using our own institutional cultural competency tools (31). The cultural competency self-assessment tool can be used as a discussion point between the mentor-mentee interaction or the portfolio component.

LIMITATIONS

The professionalism framework is conceptualised using the consensus method from the faculty of various programmes. The framework should be inclusive of other stakeholders like patients, clients, alumni and corporate supporting staff. While the students could be consulted during implementation in the schools, their perception should be brought in earlier in the consensus-building process.

CONCLUSION

Creating a professional framework at the institutional level helps to calibrate the understanding and definition of professionalism, taking into account cultural, social-economic and interprofessional differences.

Conceptualising a framework that allows flexibility in prioritising the attributes due to change in the social movement is more practical as the framework remains relevant to the institutional objective. The flexibility also encourages review periodically, which can be incorporated into the professionalism curriculum's evaluation process. Implementation of a new initiative is a long-term effort that can be demanding for faculty. Therefore, it is critical to ensure enough people with the motivation required to manage the implementation rather than expecting only the people who happen to be available. Successful implementation requires support at the institutional level and prioritising the initiative to avoid spreading resources thin. Lastly, factoring in mitigation strategies like contingency plans and evaluating the impact of the implementation is crucial too.

ACKNOWLEDGEMENTS

We would like to acknowledge the core multidisciplinary working party's contribution to professional education and all faculties who took part in the framework's conceptualisation. We would also like to express our gratitude to the Professional Education Advisory Committee members for their recommendation and subsequent feedback on developing an institutional-level professionalism framework. Last but not least, we wish to express our gratitude to Professor Ian Wilson for verifying the English grammar of this article.

REFERENCES

1. Birden H, Glass N, Wilson I, Harrison M, Usherwood T, Nass D. Defining professionalism in medical education: a systematic review. *Med Teach*. 2014;36:47–61. <https://doi.org/10.3109/0142159X.2014.850154>

2. Chandratilake M, McAleer S, Gibson J. Cultural similarities and differences in medical professionalism: a multi-region study. *Med Educ.* 2012;46:257–66. <https://doi.org/10.1111/j.1365-2923.2011.04153.x>
3. Ho MJ, Gosselin K, Chandratilake M, Monrouxe LV, Rees CE. Taiwanese medical students' narratives of intercultural professionalism dilemmas: exploring tensions between Western medicine and Taiwanese culture. *Adv in Health Sci Educ.* 2017;22:429–45. <https://doi.org/10.1007/s10459-016-9738-x>
4. Monrouxe LV, Chandratilake M, Gosselin K, Rees CE, Ho MJ. Taiwanese and Sri Lankan students' dimensions and discourses of professionalism. *Med Educ.* 2017;51(7):718–31. <https://doi.org/10.1111/medu.13291>
5. Alam A, Matelski JJ, Goldberg HR, Liu JJ, Klemensberg J, Bell CM. The characteristics of international medical graduates who have been disciplined by professional regulatory colleges in Canada: a retrospective cohort study. *Acad Med.* 2017;92(2):244–9. <https://doi.org/10.1097/ACM.0000000000001356>
6. McGrath P, Henderson D, Tamargo J, Holewa H A. Doctor-patient communication issues for international medical graduates: research findings from Australia. *Educ Health.* 2012;25(1):48–54. <https://doi.org/10.4103/1357-6283.99206>
7. Wilkinson TJ, Wade WB, Knock LD. A blueprint to assess professionalism: results of a systemic review. *Acad Med.* 2009;84(5):551–8. <https://doi.org/10.1097/ACM.0b013e31819fbaa2>
8. Brody H, Doukas D. Professionalism: a framework to guide medical education. *Med Educ.* 2014;48(10):980–7. <https://doi.org/10.1111/medu.12520>
9. Passi V, Doug M, Peile E, Thistlethwaite J, Johnson N. Developing medical professionalism in future doctors: a systematic review. *Int J Med Educ.* 2010;1:19–29. <https://doi.org/10.5116/ijme.4bda.ca2a>
10. Al-Rumayyan A, Van Mook WNKA, Magzoub ME, Al-Eraky MM, Ferwana M, Khan MA, Dolmans D. Medical professionalism frameworks across non-Western cultures: a narrative overview. *Med Teach.* 2017;39(sup1):S8–14. <https://doi.org/10.1080/0142159X.2016.1254740>
11. Al-Eraky MM, Chandratilake M. How medical professionalism is conceptualised in Arabian context: a validation study. *Med Teach.* 2012;34(sup1):S90–5. <https://doi.org/10.3109/0142159X.2012.656754>
12. Dubai H, Adelstein BA, Taylor S, Shulruf B. Definition of professionalism and tools for assessing professionalism in pharmacy practice: a systemic review. *J Educ Eval Health Prof.* 2019;16:22. <https://doi.org/10.3352/jeehp.2019.16.22>
13. Zijlstra-Shaw S, Robinson PG, Robert T. Assessing professionalism within dental education; the need for a definition. *Eur J Dent Educ.* 2012;16(1):e128–36. <https://doi.org/10.1111/j.1600-0579.2011.00687.x>
14. Hodges BD, Ginsburg S, Cruess R, Cruess S, Delpont R, Hafferty F, et al. Assessment of professionalism: recommendations from the Ottawa 2010 conference. *Med Teach.* 2011; 33(5):354–63. <https://doi.org/10.3109/0142159X.2011.577300>
15. Ho MJ, Yu KH, Hirsh D, Huang TS, Yang PC. Does one size fit all? building a framework for medical professionalism. *Acad Med.* 2011;86:1407–14. <https://doi.org/10.1097/ACM.0b013e31823059d1>

16. Pan H, Norris JL, Liang YS, Li JN, Ho MJ. Building a professionalism framework for healthcare providers in China: a nominal group technique study. *Med Teach*. 2013;35(10):1531–6. <https://doi.org/10.3109/0142159X.2013.802299>
17. Smith LGE, Livingstone AG, Thomas EF. Advancing the social psychology of rapid societal change. *Br J Soc Psychol*. 2019;58:33–44. <https://doi.org/10.1111/bjso.12292>
18. Masovic A. Socio-cultural factors and their impact on the performance of multinational companies. *Ecoforum*. 2018;7(1):1–6.
19. Schuwirth L, Van Der Vleuten C, Durning SJ. What programmatic assessment in medical education can learn from healthcare. *Perspect Med Educ*. 2017;6:211–5. <https://doi.org/10.1007/s40037-017-0345-1>
20. Van Der Vleuten CPM, Schuwirth LWT, Driessen EW, Govaerts MJB, Heeneman S. Twelve tips for programmatic assessment. *Med Teach*. 2015;37:641–6. <https://doi.org/10.3109/0142159X.2014.973388>
21. Shi J, Mo X, Sun Z. Content validity index in scale development. *Zhong Nan Da Xue Xue Bao Yi Xue Ban*. 2012;37(2):152–5.
22. Furnham A, Chan PS, Wilson E. What to wear? The influence of attire on the perceived professionalism of dentists and lawyers. *Journal of Applied Social Psychology*. 2014;43:1838–50. <https://doi.org/10.1111/jasp.12136>
23. van Geel M, Keuning T, Frèrejean J, Dolmans D, van Merriënboer J, Visscher AJ. Capturing the complexity of differentiated instruction. *School Effectiveness and School Improvement*. 2019;30(1):51–67. <https://doi.org/10.1080/09243453.2018.1539013>
24. Kotter JP. *Leading change*. Boston, Mass: Harvard Business School Press; 1996.
25. Wentworth DK, Behson SJ, Kelley CL. Implementing a new student evaluation of teaching system using the Kotter change model. *Studies in Higher Education*. 2020;45(3):511–23. <https://doi.org/10.1080/03075079.2018.1544234>
26. O’Sullivan H, van Mook W, Fewtrell R, Wass V. Integrating professionalism into the curriculum: AMEE Guide No. 61. *Med Teach*. 2012;34:e64–77. <https://doi.org/10.3109/0142159X.2012.655610>
27. Steinert Y, Cruess RL, Cruess SR, Boudreau JD, Fuks A. Faculty development as an instrument of change: a case study on teaching professionalism. *Acad Med*. 2007;82:1057–64. <https://doi.org/10.1097/01.ACM.0000285346.87708.67>
28. Goldie J. Assessment of professionalism: a consolidation of current thinking. *Med Teach*. 2013;35:e952–6. <https://doi.org/10.3109/0142159X.2012.714888>
29. Rees C, Sherperd M. The acceptability of 360-degree judgements as a method of assessing undergraduate medical students’ personal and professional behaviours. *Med Educ*. 2005;39:49–57. <https://doi.org/10.1111/j.1365-2929.2004.02032.x>
30. Brown GTL, Harris LR. The future of self-assessment in classroom practice: reframing self-assessment as a core competency. *Frontline Learning Research*. 2014;2(1):22–30. <https://doi.org/10.14786/flr.v2i1.24>
31. Chandratilake M, Nadarajah VD, Mohd Sani RM. IMoCC – Measure of cultural competence among medical students in the Malaysian context. *Med Teach*. 2020;6 Apr. <https://doi.org/10.1080/0142159X.2020.1741530>