

# A strategy towards professionalism in the dissecting room

---

M. Heyns

*Division of Basic Medical Sciences/Anatomy, School of Medicine and Dentistry, Queen's University Belfast, Belfast, UK*

---

## SUMMARY

The teaching and cultivation of professionalism is an integral part of medical education as professionalism is central to maintaining the public's trust in the medical profession. Traditionally professional values would have been acquired through an informal process of socialisation and observation of role models. Recently, however, medical educators have accepted the responsibility to explicitly teach and effectively evaluate professionalism. A comprehensive working definition of the term professionalism and a universally agreed list of the constituent elements of professionalism are currently debated.

The School of Medicine and Dentistry of The Queen's University of Belfast uses an approach of self-directed learning for teaching anatomy, and students are given the opportunity to learn anatomy from human dissection. Self-directed learning teams have been found to be underutilised as educational strategies and presented an opportunity to utilise the first year dissection room teaching environment to nurture the development of the attributes of professionalism. An educational strategy based on role-playing was developed to engage all students around the dissection table. Students received comprehensive back-

ground reviews on professionalism, its attributes and the identification of such attributes in the context of the dissection room. Roles, with specific duties attached, were allocated to each team member. Circulating academic staff members directly observed student participation and gave formative feedback. Students were given the opportunity to reflect on their ability to identify the attributes and reflect on their own and their peer's ability to develop and practise these attributes.

This strategy indicated that small group learning teams in the dissection room utilise widely accepted principles of adult learning and offer an opportunity to create learning activities that will instil in students the knowledge, values, attitudes and behaviours that characterise medical professionalism. Anatomy faculty have a responsibility to nurture and exemplify professionalism and play a significant role in the early promotion and inculcation of professionalism. It remains imperative not only to assess this strategy but also to create opportunities for critical reflection and evaluation within the strategy.

**Key words:** Medical Education – Professionalism – Anatomy – Reflective Practise – Role play

---

Correspondence to:

Dr. Marise Heyns, Division of Basic Medical Sciences, School of Medicine and Dentistry, Queen's University Belfast, Belfast BT9 7BL, UK.  
Phone: 44 (0) 28 90 972136; Fax: 44 (0) 28 90 972174. E-mail: m.heyns@qub.ac.uk

## INTRODUCTION

The concept of medical professionalism has received increased attention in the past few years. There have been concerted efforts to define professionalism, to incorporate its teaching into the medical curriculum, and to measure and assess the success of such teaching strategies. Traditionally professional values would have been acquired through an informal process of socialisation and observation of role models. However, with the increasing complexity of the practise of medicine as well as the changes in the healthcare systems, medical educators have accepted the responsibility to explicitly teach and effectively evaluate professionalism (Steinert et al., 2005; Cohen, 2006; Cruess, 2006).

Cruess et al. (2004) identified the need for a concise and comprehensive working definition of profession which could be expanded to the related terms of professional and professionalism. They acknowledge, in their definition, the element of mastery of a complex body of knowledge to be used in the service of others. Commitment from the professional forms the basis of the social contract between a profession and society, which in turn grant the profession the right to autonomy and self-regulation.

Van De Camp et al. (2004) identified a total of 90 constituent elements of professionalism, and noted that altruism, accountability, respect and integrity were mentioned relatively constantly. Rabinowitz et al. (2004) used focus group methodology and compiled a list of 254 separate desired physician attributes. The question remains whether there could be universally agreed core attributes.

The School of Medicine and Dentistry of The Queen's University of Belfast (QUB) uses an approach of self-directed learning for teaching anatomy, and students are given the opportunity to learn anatomy from human dissection. The curriculum includes three semesters of gross anatomy teaching in the dissection room (DR), commencing from the second semester of the first year. The strategy reported on was employed during the first semester of DR teaching, with the aim to assess the possibility of utilising self-directed learning teams as an educational strategy in order to nurture the development of the attributes of professionalism. Self-directed learning teams have been found to be under-utilised as educational strategies (Steinert et al., 2005).

The students have to prepare for the dissection sessions by pre-reading the relevant sections in the prescribed text-book as well as using other resources made available on the university intranet. This is followed by 4 hours of dissection per week. These practical sessions take place in the DR, where the approximately 140 students are grouped around 20 dissection tables. Apart from the academic teaching staff, there are several clinicians in attendance, including retired surgeons, practicing health professionals and postgraduate students. In an attempt to address the issue of large numbers around the table and the inactivity of some of the students, as well as the lack of preparation by some students, a strategy was developed to engage all students around the dissection table. Each group of students was seen as a team, and the academic coordinator appointed a leader for each table in an individual session. The leader allocated roles to the rest of the group as they saw fit. The roles and duties of each role are summarised in Table 1. Each dissection session was seen as a challenge for the group to complete as a team and to optimize the learning experience. Academic staff members circulate through the DR, directly observe the participation of students in the session and give formative feedback. Through this exercise the possibility of utilising the self-directed learning teams in the dissection room in an approach to foster the development of medical professionalism became apparent.

**Table 1.** Roles and main duties.

ROLE	DUTIES
Leader	Allocates roles, ensures completion of dissection and observation of structures by all members, ensures members understand and fulfill duties, maintains attendance register.
Dissector	Physically dissects, ensures tracking of material, follows dissection guide, and gives opportunity for others to observe structures.
Reader	Follows dissection guide and elucidates structures on models, in atlas or text-books, seeks additional resources as needed.
Summariser	Recapitulates events at regular intervals, relates anatomy covered to the clinical case relevant to the session.
Note taker	Documents anatomical variations observed, notes clinical issues and treatments observed on cadaver.
Operational manager	Maintenance of working area, washing of instruments, stacking of chairs, general neatness.

Role-playing has been documented as an effective learning tool in various disciplines such as medical communication (Yehekel et al., 2000), social science (Luquet and Wetcher-Hendricks, 2005), online graduate education courses (Lebaron and Miller, 2005), humanities (Shortridge and Sabo, 2005) and management education (Herremans and Murch, 2003). Joyner and Young (2006) strongly support role play in order to promote active learning and their advice on planning structured role play may assist in reducing the negative experiences reported on by medical students.

## DISCUSSION

The burning question to answer was whether the first year dissection room teaching could be utilised as an educational strategy in order to nurture the development of the attributes of professionalism. Swick (2006) acknowledges the important responsibility of the anatomy faculty to nurture and exemplify professionalism and identifies the pivotal role that anatomy faculty play in the promotion and inculcation of professionalism.

In the approach at QUB, the concept of role play is not limited to a drama in which a number of participants are asked to portray a particular character and temporarily adopt a specific role. In contrast, the students are expected to adopt specific roles in the different sessions, reflect on the application and their performance in terms of professionalism, and eventually assume a subconscious sensitivity towards the underlying characteristics that demonstrates the attributes of professionalism. The formative assessment, feedback and opportunity to reflect would contribute to a lifelong receptivity to aspects of professionalism.

For staff this strategy reduced the administrative burden of maintaining the attendance register. The students reflected positively on the skills and competencies gained which they listed as follows: cooperative learning, development of leadership skills, team building, communication skills, responsibility, mutual respect, increased motivation and preparedness. Current activities in the DR can be utilised in the identification of the roles and attributes of the professional, and new learning activities can be developed which would serve to emphasise the importance of professionalism.

It is imperative to assess the strategy to instil professionalism, because “they don’t respect what you expect; they respect what you inspect” (Cohen, 2006). Lynch et al. (2004) felt it unlikely that a single assessment will adequately measure a concept as complex as professionalism. Indeed, the advantages of additional assessment methods may balance the disadvantages of a singular assessment method. Bryan et al. (2005) investigated the use of peer evaluation and self-evaluation as tools to assess and provide feedback regarding professional behaviour in first year medical students. In their opinion the students lacked the necessary insight to make accurate evaluations, however, it remains a valuable tool to help students to realistically appraise their own and their colleagues’ professional behaviour.

A common perception is that most professional learning takes place in the workplace and is facilitated by contact with work colleagues. These learning experiences will have much more value if the students were given a thorough review of such professional attributes and were empowered with the ability to critically reflect on their experiences. Taylor (2002) supports the view that undergraduate students should, from early on, be assisted in developing the ability to reflect on their work. In an overview of the theory of reflective practice, Lachman and Pawlina (2006) highlight the benefits of reflective practice and suggest strategies to implement reflective exercise within the anatomy curriculum, such as a cadaver portfolio and a service of gratitude or dedication ceremony.

The knowledge and skills to develop the values and attitudes of the medical profession should be systematically incorporated into the medical curriculum from as early as possible. In an effort to cross the abyss between the values and attitudes that define professionalism and the ability for the student to develop these attributes, a strategy must be employed in which students are given the opportunity to reflect on their ability to identify the attributes and reflect on their own and their peer’s ability to develop and practise these attributes. Teaching staff must accept the responsibility to nurture an encouraging environment for such learning to take place. The dissection room offers an ideal environment for reflection on the learning experience as it is not restricted to personal performance assessment, but also allows for peer assessment, a view supported by Slotnick and Hilton (2006).

## REFERENCES

- BRYAN RE, KRYCH AJ, CARMICHAEL SW, VIGGIANO TR and PAWLINA W (2005). Assessing professionalism in early medical education: experience with peer evaluation and self-evaluation in the Gross Anatomy course. *Ann Acad Med Singapore*, 34: 486-491.
- COHEN JJ (2006). Professionalism in medical education, an American perspective: from evidence to accountability. *Med Educ*, 40: 607-617.
- CRUESS RL (2006). Teaching professionalism: Theory, Principles, and Practices. *Clin Orthop Rel Res*, 449: 177-185.
- CRUESS SR, JOHNSTON S and CRUESS RL (2004). "Profession": A working definition for medical educators. *Teach Learn Med*, 16: 74-76.
- HERREMANS IM and MURCH R (2003). Multidisciplinary decision making through experiential learning: perspectives from practical trials. *Innovative Higher Education*, 28: 63-83.
- JOYNER B and YOUNG L (2006). Teaching medical students using role play: Twelve tips for successful role plays. *Med Teacher*, 28: 225-229.
- LACHMAN N and PAWLINA W (2006). Integrating professionalism in early medical education: the theory and application of reflective practise in the Anatomy curriculum. *Clin Anat*, 19: 456-460.
- LEBARON J and MILLER D (2005). The potential of jigsaw role playing to promote the social construction of knowledge in an online graduate educational course. *Teachers College Record*, 107: 1652-1674.
- LUQUET W and WETCHER-HENDRICKS D (2005). Teaching social interactions and social structure through party behavior. *College Teaching*, 53: 152.
- LYNCH DC, SURDYK PM and EISER AR (2004). Assessing professionalism: a review of the literature. *Med Teacher*, 26: 366-373.
- RABINOWITZ D, REIS S, VAN RAALTE R, ALROY G and BER R (2004). Development of a physician attributes database as a resource for medical education, professionalism and student evaluation. *Med Teacher*, 26: 160-165.
- SHORTRIDGE A and SABO G (2005). Exploring the potential of web-based social process experiential simulations. *J Educ Multimedia Hypermedia*, 14: 375-390.
- SLOTNICK HB and HILTON SR (2006). Proto-professionalism and the dissecting laboratory. *Clin Anat*, 19: 429-436.
- STEINERT Y, CRUESS S, CRUESS R and SNELL L (2005). Faculty development for teaching and evaluating professionalism: from programme design to curriculum change. *Med Educ*, 39: 127-136.
- SWICK HM (2006). Medical professionalism and the clinical anatomist. *Clin Anat*, 19: 393-402.
- TAYLOR G (2002). Clinical governance and the development of a new professionalism in medicine: educational implications. *Education for Health*, 15: 65-70.
- VAN DE CAMP K, VERNOOIJ-DASSEN MJFJ, GROL RPTM and BOTTEMA BJAM (2004). How to conceptualize professionalism: a qualitative study. *Med Teacher*, 26: 696-702.
- YEHESKEL A, BIDERMAN A, BORKAN JM and HERMAN J (2000). A course for teaching patient-centered medicine to family medicine residents. *Acad Med*, 75: 494-497.