

RESEARCH

Organizational Philosophy as a New Perspective on Understanding the Learning of Professionalism

Ellen I. Schafheutle, MSc, MRes, PhD, MRPharmS,^a Karen Hassell, BSc, MA (Econ), PhD,^a Darren M. Ashcroft, BPharm, MSc, PhD, MRPharmS,^a and Stephen Harrison, BSc, MPhil, PhD^b

^aManchester Pharmacy School, The University of Manchester, Manchester, United Kingdom

^bHealth Policy, Politics & Organisation (HiPPO) Research Group, School of Community-Based Medicine, The University of Manchester, Manchester, United Kingdom

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Objective. To define the concept of “organizational philosophy” through identification of elements within undergraduate pharmacy curricula in the United Kingdom that contribute to students’ learning of professionalism.

Methods. A qualitative study using curriculum mapping was conducted to identify “intended,” “taught,” and “received” curriculum in 3 schools of pharmacy. The study involved review of course materials, interviews with teaching staff members, focus groups with final year students, and observation of classes.

Results. “Organizational philosophy” (totality of all contributors) played a vital part in students’ professionalism learning. Key contributions were not restricted to the “taught” curriculum but extended to the wider academic environment. Setting of high standards appeared important; role models had particular significance. Importance of professionalism learning being grounded and longitudinal throughout the curriculum was highlighted. An “integrated” organizational philosophy appeared to be achieved where maximum overlap occurred between “intended,” “taught,” and “received” curricula.

Conclusions. Professionalism learning goes beyond the “taught” curriculum in pharmacy schools. The concept of “organizational philosophy” acknowledges the importance of integration between “intended,” “taught,” and “received” curriculum in the context of overall organization.

Keywords: professionalism, professionalism learning, organizational philosophy, curriculum mapping, hidden curriculum

INTRODUCTION

Pharmacy practice has an increasingly clinical focus, both in hospital and community pharmacy. This is evident in a revised community pharmacy contract,¹ which diversified remuneration away from payment by volume of items dispensed to one which remunerates services. Pharmacy curricula also have been revised to reflect this patient-centered role shift by incorporating more practice and clinical topics.² In the United Kingdom (UK), this was made possible partly through the extension of the 3-year bachelor degree to a 4-year undergraduate master of pharmacy (MPharm) degree in 1997. Practice exposure and placements are, however, relatively limited during the

MPharm degree program, and a supervised pre-registration training year follows graduation with an MPharm degree and precedes qualifying for pharmacist registration.

In line with the shift towards more clinical and patient-centered roles for pharmacists, pharmacy educators and researchers in the United Kingdom are beginning to consider the concept of professionalism, most research and publications on which have come from North America. Pharmacy therefore has looked to other healthcare professions, medicine in particular, that have addressed the topic. While the definitions of professionalism share many features, definitions, particularly those of medical professionalism, are numerous.³⁻⁸ The UK Royal College of Physicians (RCP) defined it as “a set of values, behaviors, and relationships that underpin the trust the public has in doctors.”⁹ Despite a reasonable degree of consensus on what constitutes professionalism in medicine,¹⁰ questions remain as to whether the same characteristics

Corresponding Author: Dr. Ellen Schafheutle, PhD, Manchester Pharmacy School, The University of Manchester, Stopford Building, Oxford Road, Manchester, M13 9PT. Tel: 0161-275-7493. Fax: 0161-275-2416. E-mail: ellen.schafheutle@manchester.ac.uk

are relevant to pharmacy, and particularly how their learning and development can be supported.

Attempts have been made to at least describe elements – or attributes – of professionalism in pharmacy, and these generally refer to values, attitudes, and behaviors.¹¹⁻¹⁴ Pharmacy publications in North America have particularly focused on how the development of professionalism can be supported during professional pharmacy education.^{12,15-18} This is indeed a good starting point, as there is general agreement that the process of becoming a professional starts early, while being a pharmacy student.¹⁹ It therefore makes sense to explore how the foundations of pharmacy professionalism are laid during the MPharm degree program.

Though some studies have explored how to support the learning of professionalism during pharmacy education,^{13,18} the medical education literature highlights the importance of teaching an often tacit concept such as professionalism continuously through the curriculum.²⁰⁻²² Besides the identification of specific areas in the curriculum where professionalism can be explicitly incorporated, the importance of indirect influences such as role models has been highlighted.²³⁻²⁸ Students may be exposed to both bad and good role models,^{25,29} which operate within an overall “culture” within individual medical schools. These less formal but nevertheless important influences on the development of professionalism are increasingly acknowledged and are commonly referred to as the “hidden curriculum.”³⁰⁻³⁴ This is defined as “a set of influences that function at the level of organizational structure and culture,” thus acknowledging the impact organizational factors have on the learning process.³⁵

The aim of this study was to understand and clarify how professionalism is learned, cultivated, and facilitated in the pharmacy academic environment.³⁶ This paper specifically aims to identify elements within MPharm curricula and teaching systems in the United Kingdom that particularly contribute to pharmacy students’ learning of professionalism. The definition of professionalism which underpinned this study, though grounded in that provided by the RCP,⁹ focused on attitudinal and behavioral elements of individual professionalism.³⁶

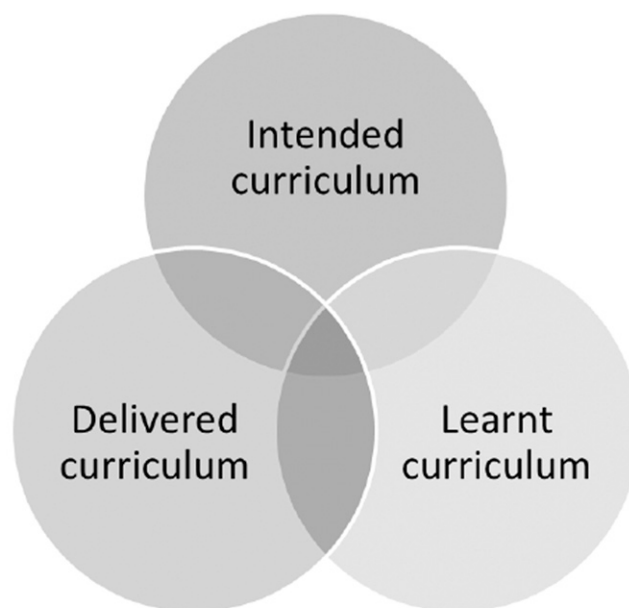
METHODS

The study took place in 3 established schools of pharmacy in different geographic locations within the United Kingdom. As the learning of professionalism is a relatively unexplored area of research, a qualitative approach was chosen. A technique called “curriculum mapping” was used as the analytical framework to explore how and where students were exposed to the concept of professionalism while they were in pharmacy school.³⁷⁻³⁹ Curriculum mapping examines the “intended,” “taught,”

and “received” elements of a curriculum, each of which was explored in this study (Figure 1). Data on the “intended” curriculum were obtained by reviewing course materials, specifically handbooks with an overall description of the degree program or individual pharmacy practice modules. Thus, module aims/intended learning outcomes, types of assessment, specific codes of conduct, etc, were reviewed to establish if and how professionalism and its elements were incorporated.

The “taught” curriculum regarding professionalism was established in interviews with 7 members of the teaching staff members who were involved in direct delivery of the curriculum and/or had a strategic role in overseeing curriculum development and writing. Elements of the “received” curriculum were identified by conducting 6 focus groups consisting of 38 final-year MPharm students (9 male and 29 female students to reflect the 3:7 male:female ratio among UK pharmacy graduates).⁴⁰ Both staff and students were recruited by named contacts within each school, and 2 staff interviews and 2 student focus groups were conducted in each school. The topic guides (Table 1) for teaching staff members and students were similar and built on work published by Van De Camp.^{41,42}

Observations of pharmacy practice classes, where students were learning the dispensing process and, with that, many of the core elements of pharmacy practice, were also undertaken in each school. These observations



Integrated: →← circles move closer together, greater overlap
Diffused: ←→ circles move further apart, less overlap

Figure 1. Illustration of the concept of an “integrated” and “diffuse” organizational philosophy.

Table 1. Topic Guides for Interviews with Teaching Staff and Student Focus Groups

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1. What is professionalism in pharmacy?
Definitions, examples of good/ bad professionalism: behavior & attitudes: Professionalism vs. Poor professionalism – Unprofessional
 - A value (or attitude) which exemplifies (un)professionalism
 - A behavior which exemplifies (un)professionalism
 - A relationship with other people which exemplifies (un)professionalism
 2. Is there a difference between professionalism as applied to students versus pharmacists?
 - What would be a student's professional behavior? – same items as above
 - Does it only apply while in the school or also outside – what about extra-curricular activities / behaviors?
 - How do you see your own role and responsibility in being professional (now and once working in practice)?
 3. Where and how do you think students learn (are taught) 'professionalism' in your school?
 - Any particular courses? Where in the curriculum?
 - When? Is there a 'best' time?
 - Who teaches about professionalism (pharmacists / practitioners – other staff)?
 - How is it being taught?
 - How can teaching staff foster professionalism amongst students?
 - What about role models
 - o Which behaviors encourage and support your own professional behavior, which do the opposite?
 - o What makes them role models (or the opposite)?
 - Any areas where the opposite is achieved – 'un-professionalism' – and how does this impact?
 - o Do they affect what you do?
 - Could you sum up the 'culture' of this school with regards to 'professionalism'?
 - o For ex, collegial atmosphere, good role models
 - o Student & staff behavior
 - o The environment
 4. Whose responsibility is (the teaching of) 'professionalism'?
 - students
 - teachers (non-pharmacists v pharmacists / teacher practitioners)
 - Pharmacy regulator
 - Outside factors – what? Extracurricular activities?
 5. Is professionalism being assessed – and how?
 - Do you think professionalism (as applicable to student or practitioner) is being assessed in your school?
 - Can you describe how? What is being assessed? (Explicitly or implicitly)
 - Can one fail? Examples?
 - Can you describe routines or procedures ('culture') in your school that enable or hinder (or assess) professionalism?
 - o Are you aware of the following policies, and if so, how are they enforced?
 - Fitness to practice
 - Work & attendance committee
 - Plagiarism
 6. How does teaching (of professionalism?) prepare you for professional practice?
 - What do you think being a 'professional' pharmacist will involve?
 - Do you feel your MPharm course prepares you adequately for this?
 - o What's good? - What's not so good / lacking?
 - o What could change?
 - o What could be tried?
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served to elucidate the learning of professionalism elements within both the "taught" and "received" curriculum, as well as within the "hidden" curriculum.

Interviews and focus group sessions were audio recorded, and detailed notes were taken during observations. The recordings and notes were transcribed verbatim. A

thematic framework was developed, verified by the project team, and applied to textual data using QSR-NVivo 8 (QSR International, Melbourne, Australia). Triangulation of data and constant comparison among groups of participants (eg, staff members and students) and among the 3 schools of pharmacy aided the identification of elements

that contributed to the learning of professionalism^{43,44} and their integration.

Comparisons were made between schools. To safeguard the anonymity of the 3 schools (which authors believed helped achieve better engagement of the research sites and participants), their identity was not revealed during the analysis. Quotes were identified by a school code (A, B, C), a participant ID number, and the gender (F or M) for students. University ethics committee approval was granted. A more detailed account of the methods can be found elsewhere.³⁶

RESULTS

Detailed analysis and description of the “intended,” “taught,” and “received” curriculum has been presented elsewhere.³⁶ Based on this, and by comparing across 3 schools of pharmacy, the analysis presented here identifies factors or elements which appear to facilitate (or hinder) a consistent, effective, and integrated approach to professionalism teaching and learning during an MPharm course. Some of these elements could be found in taught classes, such as pharmacy practice classes, and the wider curriculum, but others related more broadly to the whole organization of a college or school of pharmacy. The authors termed the totality of what was included in this as “organizational philosophy” with regard to professionalism learning. A school’s organizational philosophy can also be conceptualized as including the degree of overlap among the “intended,” “taught,” and “received” curricula, while also taking into account the “hidden” curriculum. Thus, a school’s organizational philosophy can be described as “integrated” where there is extensive overlap between the different curricula. The “hidden” curriculum can then be seen as negligible or as not hidden but acknowledged and integrated. Less tangible teaching and learning would be generally positive and supportive of professionalism learning. For a school achieving less overlap, their organizational philosophy can be described as more “diffuse,” and therefore less consistent or effective at supporting professionalism learning, with a substantial “hidden” curriculum in operation.

The remainder of the results section elaborates on the development of this concept, providing examples of the importance of setting high professionalism standards, that are clearly identified in teaching documentation (“intended”), that are explicitly and consistently enacted and delivered by teaching staff (“taught”), and therefore “received” by students as intended. Besides the degree of overlap achieved between the “intended,” “taught,” and “received” curriculum, it further appeared important that integrated professionalism learning was also grounded and longitudinal throughout the curriculum. This means

that it is introduced from early on and built and expanded on during later years. The early development of a positive professional identity also appeared influential in ensuring that high standards of professionalism were “lived” by all. Strong positive role models were influential, and practical classes and the overall academic environment provided opportunities for the enactment of professional behaviors.^{11,12,14,36}

Notable differences were found in the overall operationalization (ie, the “feel” and “living”) of professionalism and its learning in the 3 schools. At the end of each focus group and interview, students and staff members were asked to summarize what they felt the “culture” with regard to professionalism learning was in their school. Despite many finding this difficult, valuable insights were gleaned from these discussions. In 2 schools with a more “integrated” organizational philosophy, staff members and students spoke of a generally positive culture. They not only perceived the importance of professionalism and learning it, but also recognized that the school articulated, integrated, and lived its intentions and policies regarding professionalism clearly and consistently. Comments suggested that the “culture” within the school was such that professionalism was taught both explicitly and implicitly, particularly through the setting of good examples.

A more “diffuse” organizational philosophy was expressed by the teaching staff at 1 school where it was felt that high standards were not consistently set or achieved, and that there was less of a uniform culture around professionalism. They felt that at least some staff members had a very positive attitude towards professionalism learning, but that this did not consistently translate into specific ways of engaging with students for them to subsequently adopt positive elements of professionalism themselves.

Further insights were gleaned from the way participants talked about professionalism and its learning when discussing the importance of its grounded and longitudinal integration throughout the 4-year curriculum. In more “integrated” schools, comments from both staff members and students suggested a conviction that elements of professionalism *had* been successfully and effectively integrated in such a way that they were ongoing from day one.

In the more “diffuse” school, comments from staff members and students demonstrated their awareness of the importance of such integration, ie, they recognized that the concept and learning of professionalism *ought* to be integrated consistently and continuously throughout the degree program. However, they also acknowledged that such integration probably had not been (fully) achieved. So while some staff members may have been *aspiring* to a uniformly positive culture, they recognized that such a uniform approach had not been realized.

Students from the more “integrated” schools talked about the relevance and importance of professionalism in their school in a positive way. For example, the importance of punctuality and dress as professional behaviors was accepted and carried almost as much importance at the university as it would in a work environment. Other attributes of professionalism, such as taking responsibility for one’s own actions and learning, were also seen as important and integrated. Students provided examples of how various elements and attributes had been introduced gradually from year 1, and that they were encouraged to engage and identify with these increasingly throughout their degree program.

Many of the key features which were in place in one particularly “integrated” school to develop, foster, and support professionalism learning included particular dress codes during pharmacy practice classes and an emphasis on students taking responsibility for their actions and learning. Clear expectations were stated explicitly in course materials and also explained to students. Thus, the reasons for having certain rules and enforcing them were clearly articulated by staff members, and they were also recognized and positively embraced by students. The importance of being professional and having professional values, attitudes, and behaviors thus appeared to be internalized by students at this school.

Here, students clearly recognized that the behavior of teaching staff was of a high standard (mainly though setting a good example), and that consequently they expected their students’ behavior to be of a similarly high standard. A dress code that required going to pharmacy practice classes smartly dressed was embraced by students at this school. One student commented, “you actually feel like you’re going to work, [because] you don’t look like a student anymore.” One example of a policy that reinforced the importance of taking responsibility and potential consequences for not acting professionally was what happened when students were late for a class or missed it altogether. In these cases, students were given a writing assignment, usually on the topic covered that day, but this was not seen as punishment by either staff members or students. Rather, it was a way of ensuring students did not miss out on any learning opportunities.

In contrast, in the more “diffuse” school, rules or codes did exist (again evidenced in course materials), detailing elements of professionalism, such as punctuality, attendance, dress, etc. However, these did not appear to be consistently reinforced or “lived,” despite both staff members and students recognizing the importance of this. One student described that such policies existed but were not enforced, so they were viewed as “kind of optional” by

students, particularly as there were no serious consequences for nonadherence.

In this school, even though students recognized the importance of professionalism in the work environment, they felt this was not sufficiently transferred into the university environment. Students felt they were seen more as students, without many of the responsibilities they would have as pharmacists, rather than feeling like future health-care professionals with certain responsibilities instilled into them.

DISCUSSION

This study was qualitative in nature, and further research is needed to confirm whether our findings apply to other colleges and schools of pharmacy. The international relevance and applicability of these findings would also need to be established, as the context here is specific to current arrangements in the United Kingdom, where pharmacy students have relatively little practice exposure during their 4 years at university. Nevertheless, this study provides valuable and novel insights, with a particular focus on learning professionalism in the university setting rather than the practice or clinical setting, which will be relevant in other countries. Our findings suggest that the process of learning and internalizing professional attitudes and behaviors goes far beyond simply teaching about the concept and elements of professionalism and informing students about school policies. Professionalism learning was not restricted to the “taught” curriculum, but included all aspects of the academic (university) environment (and beyond). A particular strength of this study lies in its novel approach to analyzing and interpreting the interplay between the “intended,” “taught,” and “received” curriculum, and comparing and contrasting these across 3 UK schools of pharmacy. The positive and effective learning and development of professionalism appears dependent on a high degree of overlap between the “intended,” “taught,” and “received” curriculum, which we term an “integrated” organizational philosophy, in contrast to a “diffuse” organizational philosophy, which lacks such overlap (Figure 1).

“Organizational philosophy” encompasses all aspects of professionalism teaching and learning (in the widest sense) that contribute to the students’ development of their individual professionalism attitudes and behaviors. It is proposed as a conceptual model for viewing and interpreting the way professionalism learning is delivered and achieved. Different schools could then be seen as being located along a continuum between the 2 extreme points: “integrated” and “diffuse.” An “integrated” organizational philosophy appears to be achieved by setting explicit standards that are enacted consistently by staff

members and recognized by and reinforced among students. Early professionalization, the development of professional identity, and particularly a positive and grounded integration of professionalism learning throughout the whole 4-year degree program also appeared to be important. The concept of “organizational philosophy” may thus be helpful in incorporating all elements likely to enable (or hinder) professionalism learning. It takes account not only of the overt curriculum but also acknowledges what has been referred to elsewhere as the “hidden” curriculum,^{30,31} and proposes how it should be viewed and addressed. The concept of “organizational philosophy” thus describes the importance of aiming for, or achieving, positive integration through maximum overlap between the “intended,” “taught” and “received” curriculum. This paper has identified some of the elements and strategies which help achieve this, including setting high standards, “living” these standards consistently in the school, having strong role models, and establishing clear responsibilities and consequences for students. The importance of professionalism and its learning thus achieves strong and positive recognition at the individual and organizational level, and the importance of this has been recognized.⁴⁵

There, nevertheless, remain limits to what can be developed and achieved in the academic environment, and the importance of students having practice experience has been recognized.^{36,46} However, in UK undergraduate pharmacy education, such experience is mainly gained outside of the formal MPharm program, through part-time or vacation jobs, and after obtaining the MPharm degree, during preregistration training.^{36,47,48} The lack of pharmacy practice experience within the MPharm degree program may be reviewed following the Pharmacy White Paper,⁴⁹ and under the ongoing Modernizing Pharmacy Careers program, which is now part of Health Education England.⁵⁰ Further research then ought to explore how best to integrate practice experience into the undergraduate pharmacy curriculum, drawing on experience and evidence from pharmacy curricula in other countries with programs that include more clinical exposure. The effectiveness and impact of this on students’ learning of professionalism, and how best to support this, also need to be investigated further.

CONCLUSION

By applying “curriculum mapping” and comparing qualitative findings on how professionalism is learned across 3 different school of pharmacy, the authors developed the concept of “organisational philosophy.” This encompasses the totality of factors or elements which appear to facilitate (or hinder) a consistent, effective, and integrated approach to professionalism teaching and

learning during an MPharm course. The authors further suggest that more “integrated” and “diffuse” models exist, and propose that an integrated “organizational philosophy” is crucial for the effective learning of professionalism. The validity and applicability of this concept should be tested, and how it can be used to support course design and implementation of change should be explored.

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REFERENCES

1. Pharmaceutical Services Negotiating Committee. The Pharmacy Contract. PSNC, 2013. www.psn.org.uk/pages/introduction.html. Accessed February 26, 2013.
2. Waterfield J. Is pharmacy a knowledge-based profession? *Am J Pharm Educ.* 2010;74(3):Article 50.
3. Arnold L, Stern DT. What is medical professionalism? In: Stern DT. *Measuring Medical Professionalism*. Oxford: Oxford University Press; 2006:15-38.
4. Hafferty FW. Definitions of professionalism: a search for meaning and identity. *Clin Orthop.* 2006;449:193-204.
5. American Board of Internal Medicine. *Project Professionalism*. ABIM, Philadelphia, PA;1995.
6. Members of the Medical Professionalism Project - ABIM Foundation. Medical professionalism in the new millennium: a physician charter. *Ann Intern Med.* 2002;136(3):243-246.
7. Rosen R, Dewar S. *On Being a Doctor. Redefining Medical Professionalism for Better Patient Care*. London: King’s Fund; 2004.
8. Stern DT. *Measuring Medical Professionalism*. Oxford: Oxford University Press; 2006.
9. Royal College of Physicians. *Doctors in society. Medical professionalism in a changing world*. London: Royal College of Physicians; 2005.
10. Medical Professionalism Project. Medical professionalism in the new millennium: a physicians’ charter. *Lancet.* 2002;359(9305):520-522.
11. Hammer DP. Professional attitudes and behaviors: the “A’s and B’s” of professionalism. *Am J Pharm Educ.* 2000;64(4):455-464.
12. Hammer DP, Berger BA, Beardsley RS, Easton MR. Student professionalism. *Am J Pharm Educ.* 2003;67(3):Article 96.
13. Duke LJ, Klugh Kennedy W, McDuffie CH, Miller MS, Sheffield MC, Chisholm MA. Student attitudes, values, and beliefs regarding professionalism. *Am J Pharm Educ* 2005;69(5):Article 104.

14. Kelley KA, Stanke LD, Rabi SM, Kuba SE, Janke KK. Cross-validation of an instrument for measuring professionalism behaviors. *Am J Pharm Educ.* 2011;75(9):Article 179.
15. Hammer D. Improving student professionalism during experiential learning. *Am J Pharm Educ.* 2006;70(3):Article 59.
16. Brown D, Ferrill MJ. The taxonomy of professionalism: Reframing the academic pursuit of professional development. *Am J Pharm Educ.* 2009;73(4):Article 68.
17. American Pharmaceutical Association Academy of Students of Pharmacy - American Association of Colleges of Pharmacy Council of Deans Task Force on Professionalism. White paper on pharmacy student professionalism. *J Am Pharm Assoc (Wash).* 2000;40(1):96-102.
18. Bumgarner GW, Spies AR, Asbill CS, Prince VT. Using the humanities to strengthen the concept of professionalism among first-professional year pharmacy students. *Am J Pharm Educ.* 2007;71(2): Article 27.
19. Harding G, Taylor K. Why pharmacists are needed to help shape students' professional identity. *Pharm J* 2006;277(7432):766.
20. Archer R, Elder W, Hustedde C, Milam A, Joyce J. The theory of planned behaviour in medical education: A model for integrating professionalism training. *Med Educ.* 2008;42(8):771-777.
21. Hilton SR, Slotnick HB. Proto-professionalism: how professionalism occurs across the continuum of medical education. *Med Educ.* 2005;39(1):58-65.
22. Goldie J. Integrating professionalism teaching into undergraduate medical education in the UK setting. *Med Teach.* 2008;30(5):513-527.
23. Brainard AH, Brislen HC. Viewpoint: Learning professionalism: a view from the trenches. *Acad Med.* 2007;82(11):1010-1014.
24. Baernstein A, Oelschlager AM, Chang TA, Wenrich MD. Learning professionalism: perspectives of preclinical medical students. *Acad Med.* 2009;84(5):574-581.
25. Bryden PM, Ginsburg SM, Kurabi B, Ahmed NM. Professing professionalism: are we our own worst enemy? Faculty members' experiences of teaching and evaluating professionalism in medical education at one school. *Acad Med.* 2010;85(6):1025-1034.
26. Park J, Woodrow SI, Reznick RK, Beales J, MacRae HM. Observation, reflection, and reinforcement: Surgery faculty members' and residents' perceptions of how they learned professionalism. *Acad Med.* 2010;85(1):134-139.
27. Kenny NP, Mann KV, MacLeod H. Role modeling in physicians' professional formation: reconsidering an essential but untapped educational strategy. *Acad Med.* 2003;78(12):1203-1210.
28. White CB, Kumagai AK, Ross PT, Fantone JC. A qualitative exploration of how the conflict between the formal and informal curriculum influences student values and behaviors. *Acad Med.* 2009;84(5):597-603.
29. Paice E, Heard S, Moss F. How important are role models in making good doctors? *Br Med J.* 2002;325(7366):707-710.
30. Karnieli-Miller O, Vu TR, Holtman MC, Clyman SG, Inui TS. Medical students' professionalism narratives: a window on the informal and hidden curriculum. *Acad Med.* 2010;85(1):124-133.
31. Hafferty FW, Franks R. The hidden curriculum, ethics teaching, and the structure of medical education. *Acad Med.* 1994;69(11):861-871.
32. Lempp H, Seale C. The hidden curriculum in undergraduate medical education: qualitative study of medical students' perceptions of teaching. *Br Med J.* 2004;329(7469):770-773.
33. Stern DT. The development of professional character in medical students. *Hasting Cent Rep.* 2000;30(4 Suppl):S26-S29.
34. Gofton W, Regehr G. What we don't know we are teaching: unveiling the hidden curriculum. *Clin Orthop Relat Res.* 2006;449:20-27.
35. Hafferty FW. Beyond curriculum reform: confronting medicine's hidden curriculum. *Acad Med.* 1998;73(4):403-407.
36. Schafheutle EI, Hassell K, Ashcroft DM, Hall J, Harrison S. How do UK pharmacy students learn professionalism? *Int J Pharm Pract.* 2012;20(2):118-128.
37. Harden RM. AMEE Guide No. 21: Curriculum mapping: a tool for transparent and authentic teaching and learning. *Med Teach.* 2001;23(2):123-137.
38. Plaza CM, Draugalis JR, Slack MK, Skrepnek GH, Sauer KA. Curriculum mapping in program assessment and evaluation. *Am J Pharm Educ.* 2007;71(2):Article 20.
39. Kelley KA, McAuley JW, Wallace LJ, Frank SG. Curricular mapping: process and product. *Am J Pharm Educ.* 2008;72(5):Article 100.
40. Seston E, Hassell K. Workforce update - joiners, leavers, and practising and non-practising pharmacists on the 2009 Register. *Pharm J.* 2010;284:80-82.
41. Van De Camp K, Vernooij-Dassen MJ, Grol RP, Bottema BJ. How to conceptualize professionalism: A qualitative study. *Med Teach* 2004;26(8):696-702.
42. Van De Camp K, Vernooij-Dassen M, Grol R, Bottema B. Professionalism in general practice: Development of an instrument to assess professional behaviour in general practitioner trainees. *Med Educ.* 2006;40(1):43-50.
43. Ritchie J, Spencer L. Qualitative data analysis for applied policy research. In: Bryman A. *Analyzing Qualitative Data.* London and New York: Routledge; 1994:173-194.
44. Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. *Br Med J.* 2000;320(7227):114-116.
45. Chuang AW, Nuthalapaty FS, Casey PM, et al. To the point: reviews in medical education - taking control of the hidden curriculum. *Am J Obstet Gynecol.* 2010;203(4):316.e1-316.e6.
46. Cruess RL. Teaching professionalism: theory, principles, and practices. *Clin Orthop Relat Res.* 2006;449:177-185.
47. Willis S, Hassell K. *From Pharmacy Education into Pre-registration Training. Views of Final Year MPharm Students on their Undergraduate Programme and its Influences on their Career Decision-making. A Longitudinal Cohort Study of Pharmacy Careers: Pre-registration Choices Questionnaire.* Report 6. Report to the RPSGB. London: Pharmacy Practice Research Trust; 2007.
48. Silverthorne J, Price G, Hanning L, Scanlan J, Cantrill J. Short report: factors that influence the career choices of pharmacy undergraduates. *Pharm Educ.* 2003;3(3):161-167.
49. Department of Health. *Pharmacy in England – Building on Strengths, Delivering the Future.* London: Crown Copyright; 2008.
50. Department of Health. Health Education England. DH. 2013. Accessed December 7, 2013.