

Staff and Student Perceptions of Teaching the History of Pharmacy

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Abstract

Background; Previous surveys have assessed the extent of history of pharmacy taught in Schools of Pharmacy. None have so far explored the views of pharmacy staff and students.

Aims; To assess the views of staff and students regarding teaching history of pharmacy in Schools of Pharmacy.

Method; Questionnaire sent to all Schools of Pharmacy in UK to survey staff views. Questionnaire administered to all first year students from two Schools of Pharmacy.

Results; Staff attach greater importance to historical development of the pharmacy profession, whilst students are more interested in history of medicines discovery. Nearly 60% of students would like a separate history of pharmacy module, with 10% wishing to work on a project.

Conclusion; There is substantial support for teaching pharmacy history amongst staff and students at Schools of Pharmacy. Data obtained dispel the myth that students are not interested in history of pharmacy unless the subject is examinable.

Keywords: Curriculum, perceptions, pharmacy history, staff, students.

Introduction

Papers describing student and teacher perceptions of changes or additions to the pharmacy curriculum have regularly featured in this and other journals. These frequently relate to existing and innovative elements of curriculum development (Kairuz et al, 2007), and reflect a strong commitment to adaptation and improvement (Kassam, 2006). Papers have addressed pharmacy students' attitudes to both inter-professional (Hind et al, 2003) and multi-professional (Horsburgh et al, 2001) learning; and studies of first year pharmacy students have usually focussed on their perceptions of courses already delivered rather than ones they think may be helpful to them (Barner, 2000).

Amongst discussion of what pharmacy students should or should not be taught there is rarely mention of pharmacy's history. This is both surprising and disappointing: surprising because the ever quickening pace of change in pharmacy practice, regulation and scope demands more than ever an understanding of how pharmacy came to be what it is today, and how the profession has responded to change in the past; disappointing because key opportunities are being missed to use history to help develop essential competencies, to help interpret evidence through insights gained from historical methods, and to help build bridges between pharmacy and other health professionals through a better understanding of their origins and boundaries.

Such teaching is generally thought to be very limited in both scope and content, but until recently no comprehensive survey of the situation had been carried out. However in 2003 a survey of all countries was instigated by the president of the International Society for the History of Pharmacy and carried out by researchers in each country.

The survey of the teaching of the history of pharmacy in UK Schools of Pharmacy, reported in 2003 (Anderson et al, 2004), found that most Schools included no historical perspective at all in their undergraduate teaching. Reasons given included the fact that it was not included in the indicative syllabus, that it was not relevant to today's practice, and that students had little interest in it. Others mentioned a lack of resources, such as staff with the relevant interest and knowledge, and lack of time.

The case for the teaching of history of pharmacy in Britain has been presented previously (Anderson et al, 1996), but earlier initiatives have had little impact. However, a recent review of the curriculum in Great Britain provided an opportunity for the issue to be reconsidered. A briefing paper that included an indicative syllabus in the history of pharmacy has been presented at the Education Committee of the Council of the Royal Pharmaceutical Society of Great Britain (Anderson, 2008). This provides the basis for testing staff and student perceptions in this area.

Similar findings to those described emerged in relation to

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teaching the history of medicine to medical students in the early 1990s. However, the situation was transformed with publication of *Tomorrow's Doctors* by the General Medical Council in December 1993. This proposed a major redirection of undergraduate medical education, recognising the importance of humanities teaching in undergraduate medical education (General Medical Council, 1993).

The history of medicine is now taught in all UK medical schools. The Standing Committee on Postgraduate Medical Education (SCOPME) agreed to a similar change of direction for continuing medical education and professional development in early 1994. Most medical schools now have staff dedicated to teaching the history of medicine, and a number offer students the option of an intercalated degree in the subject.

Subsequently, a great deal of practical help has been forthcoming, including eighteen Apothecaries' lecturer posts at Medical Schools supported by the Society of Apothecaries (Worshipful Society of Apothecaries, 2006). Teachers have since described their experience of delivering a history of medicine curriculum (Duffin, 1995). Similar initiatives have been taken by other health professions in Britain, including nursing and physiotherapy. History of pharmacy is now included in the pharmacy undergraduate curriculum of many European countries (Lafont, 2004). Whilst doing what others do is no reason for changing the pharmacy curriculum, it does raise questions as to why pharmacy in Britain is out of step with other professions and pharmacy in other countries.

Methods

Separate surveys were undertaken for pharmacy staff and students. To assess the views of staff, a questionnaire was sent to all 25 Schools of Pharmacy in the United Kingdom during July 2008, addressed to the Head of School. They were asked to invite the most appropriate person to complete the survey. The questionnaire contained eight questions, covering the content of an indicative syllabus, methods for delivering such a course, and the extent of current teaching in this area. Space was included for additional comments. A reminder was sent a month later to those who had not returned the forms. In all a total of 20 completed forms were returned, representing 80% of Schools.

For students, a complete survey of the whole cohort of first year students from two Schools of Pharmacy was carried out. These were groups of students visiting the Royal Pharmaceutical Society in officially arranged orientation visits. One of the Schools was located in the London area, the other in the north of England. Both visits took place in October 2008, when the students had just started.

The questionnaire administered contained six questions, covering the content of an indicative syllabus and preferred methods for delivering such a course, as with the questionnaire for staff. In addition students were asked whether they could see any benefit in learning about the history of pharmacy, and space was provided for additional comments. A total of 145 completed survey forms were returned, from all pharmacy students participating in the visits.

Results

Results for pharmacy staff

Q1. How much teaching of pharmacy history is going on now?

Schools of Pharmacy were asked to indicate the amount of teaching of history of pharmacy that was being undertaken currently. Seventeen (85%) indicated that at least some history of pharmacy was taught at their institution. Most (80%) said that it was integrated into their courses overall, rather than being either stand-alone lectures or courses.

History of pharmacy is mostly taught to first year students, with 11 Schools (44%) indicating that this was the case. However, some indicated that history of pharmacy was taught in other years of the course, with all years mentioned.

The three Schools of Pharmacy where no history of pharmacy was taught were asked to give reasons why this was, and to indicate whether they would consider including it. The three main reasons given for not including it were time constraints and timetabling, the fact that it was not part of the indicative syllabus, and the fact that there was a greater demand for the inclusion of other subjects. However, all three Schools indicated that they would be prepared to consider including it.

Q2. What topics should be covered when teaching the history of pharmacy?

Table I: Content of a history of pharmacy course: rankings by staff and students

Topic (indicative syllabus)	Staff preference Rank (n = 20)	Student preference Rank (n = 145)
1. Pharmacy as a profession: (linking past, present and future)	1	= 4
2. History of medicine safety	2	n/a
3. History of hospital pharmacy	3	3
4. History of community pharmacy	4	2
5. History of proprietary medicines	5	n/a
6. History of quality standards	6	n/a
7. History of RPSGB and its Museum	7	n/a
8. History of pharmacy education	8	n/a
9. History of the NHS	9	n/a
10. History of drug discovery/development	n/a	1
11. History of medicines regulation	n/a	= 4
12. Historical methods	n/a	n/a

Staff were given a list of eight topics from the indicative syllabus that might be covered in a history of pharmacy course; they were asked to rank these in order of importance. An overall ranking was calculated. Of the topics listed the history of pharmacy as a profession was ranked first, and the history of pharmacy education last. The history of medicines safety was ranked second, and the histories of hospital and community pharmacy were ranked third and fourth respectively.

In addition, staff were invited to identify any topics that did not appear explicitly on the indicative syllabus that should be included in a course on the history of pharmacy. The history of the National Health Service was suggested. The list of topics and their ranking by staff is summarised in Table I.

Q3. What resources would you find helpful to support the teaching of pharmacy history?

We asked Schools of Pharmacy for their views about the resources available to support the teaching of history of pharmacy in Britain. Sixteen (80%) said that they had seen *The Evolution of Pharmacy* online resources available through the Museum of the Royal Pharmaceutical Society of Great Britain (*The Evolution of Pharmacy*, <http://www.rpsgb.org.uk/informationresources/museum/resources/evolution.html>) Six staff (30%) had used them in teaching the history of pharmacy in some way.

Positive comments were made about this resource by both those who had used it in their teaching and by those who had seen it but not used it for teaching purposes. The Society's Museum was seen as a very valuable resource, and fourteen Schools of Pharmacy would like the Museum's help in providing them with resources, help and advice.

We also asked them what would be the most useful resource that could be made available. Respondents were invited to tick as many options as they wished. Resources were then ranked according to popularity. The most popular resource was downloadable Powerpoint presentations; the second most popular was information sheets such as those in the *Evolution of Pharmacy* series and on the Museum's website. Guest speakers were ranked third by staff.

Other resources popular with staff were online lectures and static exhibition panels for permanent display in Schools of Pharmacy. There was no support for the use of video conferencing in relation to the history of pharmacy. Methods

preferred by staff are summarised in Table II.

Results for pharmacy students

All first year MPharm students from two Schools of Pharmacy were surveyed at the end of separate orientation visits to the Royal Pharmaceutical Society. The results were pooled (n = 145). We began by asking them whether they felt there would be any benefit in learning about pharmacy's history, and to indicate what they thought this might be; and if not, why they thought so.

Q1. Do you think studying the history of pharmacy would benefit you?

Seventy-eight (54%) of the students surveyed agreed that studying pharmacy history as part of their MPharm course would benefit them. Comments made include:

"It would allow me to achieve a greater understanding of the amount of development that has taken place."

"It helps deepening knowledge of how modern medicines have developed."

"Important to know the background as it will become a major part of your life and your profession."

"Integrated into the course where relevant, would provide good background knowledge."

A further 32 students (22%) gave a "don't know" response to this question, the most frequent comment being "because I am only in my second week of studies." Thirty five (24%) students disagreed with the suggestion that studying pharmacy history would benefit them. Comments made include:

"The future is more important."

"Already a lot to learn in MPharm."

"Could be interesting, but relevance is questionable."

"A patient wouldn't ask to know about history – irrelevant."

Students were also asked in which year of the course they would prefer to learn about the history of pharmacy. Of those who answered positively, 71 (91%) opted for the first year, 1% for the second year, 3% for the third year and 4% for the fourth year.

Q2. What topics should be covered in a history of

Table II: Methods for studying the history of pharmacy: rankings by staff and students

Method of delivery	Staff preference	Student preference
	Rank (n = 20)	Rank (n = 145)
1. Downloadable Powerpoint presentations	1	n/a
2. Information sheets	2	n/a
3. Guest speakers	3	2
4. Online lectures	4	6
5. Exhibition panels	5	n/a
6. Visits	n/a	1
7. Demonstrations	n/a	= 3
8. Practicals	n/a	= 3
9. Projects	n/a	4
10. Tutorials	n/a	5
11. Video conferencing	6	n/a
12. Documentary films	n/a	n/a

pharmacy course?

As with the staff, the students were asked about what topics they would wish to see included in a course on the history of pharmacy. Students were invited to tick options from an indicative syllabus. The most popular topic for students was drug discovery and development, accounting for 32% of responses. The history of both community and hospital pharmacy was requested by substantial numbers of students, but the history of the pharmacy profession and of medicines regulation each accounted for only 13% of responses. The list of topics and their ranking by pharmacy students is summarised in Table I.

Q3. How would you like to study the history of pharmacy?

Students were then asked how they would prefer to learn about the history of pharmacy. Methods preferred by students are summarised in Table II. The most popular method was a visit to a pharmacy museum, accounting for 34% of all responses. This was followed by lectures, with 22% of responses, and then by demonstrations of pharmaceutical processes or skills, as shown in a DVD produced by the Museum of the Royal Pharmaceutical Society, indicated in 13% of responses. Other learning methods mentioned included the undertaking of a project (12%), tutorials with a pharmaceutical historian (10%), and the use of online material (9% of responses).

Students were then asked how history of pharmacy might best be fitted into the MPharm course. Some 47% of responses indicated a preference for a separate optional module on the history of pharmacy, and an additional 12% supported a separate compulsory module.

A preference for history of pharmacy being integrated into some modules was indicated in 26% of responses, with a further 2% indicating a wish to see history integrated into all modules. Fifteen students (10%) would like to see an optional project in the history of pharmacy available to them, and 2% would like to see a compulsory history of pharmacy project in the MPharm course.

Finally, students were asked to indicate to what level they had studied the subject of history previously. Seventy five (52%) had studied history to GCSE level (General Certificate of Secondary Education, aged 16), with an additional 29 (20%) having studied it up to year 9 (age 14). Twelve (8%) had studied it to Advanced level (age 18). Only 29 (20%) claimed never to have studied history.

Discussion

The results of these surveys indicate that there is substantial support for teaching pharmacy history amongst both staff and new students at Schools of Pharmacy in the United Kingdom. But the data obtained also help to dispel two widely held views about teaching this subject: firstly, that students have no interest in the history of pharmacy; and secondly, that students would not be interested in it being taught unless the subject was examinable.

The findings concerning the possible content of a history of pharmacy module indicate significant differences between

students' and lecturers' preferences (Table I). Students favour learning about the history of medicines discovery and development, whilst staff place greater emphasis on the history of pharmacy as a profession. This suggests that staff see the role of history more in terms of helping to develop professional competencies and inter-professional relationships, whilst students are more focused on topics they see as the core of their studies.

Differences are also apparent in the preferences of pharmacy staff and students concerning the preferred mode of delivery of teaching in the history of pharmacy. For students a visit to a museum or similar institution is the most popular option, whilst for staff downloadable Powerpoint presentations are ranked highest.

It is also clear from the survey that different ideas about course design exist at different Schools of Pharmacy. This means that any support that might be offered will either have to remain generic, or become bespoke in order to respond to the needs and preferences of individual schools. Where there is currently some teaching of the history of pharmacy taking place it is clear that this is largely dependent on the particular knowledge and/or availability of appropriate staff.

The study also provides a number of insights into appropriate assessments in the history of pharmacy. Whilst many students indicate that they would be keen to see more history of pharmacy in the curriculum whether or not it is assessed, a substantial proportion would be keen to see it as a stand-alone and compulsory module. Many students see it as a 'hands-on' subject on which they would be interested in undertaking a project.

The viability of a module in the history of pharmacy therefore depends to a large extent on the availability of appropriate resources. The surveys identified the popularity of existing resources such as the information sheets in the *Evolution of Pharmacy* series amongst both staff and students. The popularity with lecturers of downloadable Powerpoint presentations is also consistent with the finding that lectures were the second most popular form of delivery amongst students.

Conclusions

The surveys presented in this paper dispel some of the myths that have grown up about teaching the history of pharmacy to pharmacy students. But it also raises implications for those involved in the delivery of such teaching. Some of the wishes of the students may be more difficult to deliver than others.

For example, despite the popularity with students of museum visits there are severe limitations around the ongoing capacity to support this kind of teaching through the Museum of the Royal Pharmaceutical Society, and indeed other museums. On the other hand, projects and tutorials, also requested by students, could be supported through existing *Evolution of Pharmacy* on-line resources, libraries and other facilities.

An important consequence of the student survey has been the establishment of a dialogue between the Society's Museum and

the students themselves. Museum staff are now liaising with the executive of the British Pharmaceutical Students Association in accrediting evening lectures on the history of pharmacy under its Professional Development Credit scheme; and the Museum has established a Facebook page, with 27% of "fans" being aged 18 to 24.

Members of national history of pharmacy societies represent an important resource in teaching the history of pharmacy. Some are themselves current or former academics. For example, members of the British Society for the History of Pharmacy provide authors for requested information sheets and presentations; they undertake editorial roles in collaboration with Museum staff; they provide guest speakers where requested; and the Society provides limited funding for local initiatives such as exhibition panels.

But for significant progress to be made in teaching the history of pharmacy in Schools of Pharmacy a number of key actions are required from those with responsibility for determining the shape of pharmacy education; these include the need to make specific reference to the history of pharmacy in the indicative syllabus for Schools of Pharmacy; and for a specific module on the history of module to be considered by Schools of Pharmacy.

Finally, when *Tomorrow's Doctors* suggested that history of medicine should be taught to all medical students, a one day workshop was arranged to bring together all those who might be involved in delivering such a module; it acted as a catalyst for taking the subject forward (Jackson, 1996). The findings of this survey suggest that it may now be helpful to arrange such a workshop to explore the practicalities of teaching the history of pharmacy in Schools of Pharmacy.

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