

“Broadening horizons” optional modules in the Nottingham MPharm degree

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Keywords: *electives, optional modules, MPharm, pharmacy*

Abstract

In Year 3 of the MPharm degree at the University of Nottingham, many of the students undertake 20-credits of “broadening horizons” optional modules, chosen from a wide and diverse range from across the university. This study presents student views regarding their module choices and on their performances with such diverse module choices of varied levels. Follow-up surveys and focus group discussions with alumni will determine the contribution of this breadth to a student’s education, in providing them with a different perspective on life, to their chosen profession and future career paths.

Introduction

The undergraduate Master of Pharmacy (MPharm) degree is the first stage to registration for those wishing to become a pharmacist within the UK, designed to ensure students meet the required outcomes detailed by the General Pharmaceutical Council (GPhC) in the standards for the initial education and training of pharmacists.

The University of Nottingham (UoN) MPharm is a highly integrated course, with modules focussing on patients and their treatment and specific examples of drugs and medicines used to exemplify key concepts in the science of pharmacy. In Year 3 of the course, many of the students undertake 20-credits of “broadening horizons” optional modules, chosen from a wide and diverse range from across the university, cross-faculty. Such an extensive

range of optional modules has not been available to UoN students previously. Additionally, although other MPharm degrees in the UK provide the opportunity of optional modules (just over a third of MPharm courses), these are usually limited in range or provided in-school.

The philosophy to the implementation of “broadening horizons” optional modules on the UoN MPharm course is two-fold: for the most, it will provide some breadth to the students’ education that will serve them well as pharmacists in providing a different perspective on life from the detailed pharmacy curriculum they follow in the other phases of the course; whilst for a smaller group, this will stimulate new interests that will grow into careers in research, journalism or business. It is our intention to follow-up with alumni to determine the value of this intervention and their respective module choices in their development as trainee pharmacists and other career paths.

This study examined the student views of this “broadening horizons” aspect of their course, using a questionnaire completed during the Spring semester of 2014-15 Year 3 MPharm.

Optional module choices

Students are requested to choose two 10-credit modules to study alongside their 40-credit research project in Semester 2 of Year 3. A “recommended” list of 24-28 modules is provided, which consists of modules with prior

approval for module enrolment from other Schools in the University, appropriate for the MPharm students with no pre-requisite or co-requisite module requirements. The level of study of the modules range from level 1 (Year 1 undergraduate) to level 4 (Year 4, Masters level). Module selection is not restricted to this list as students are permitted to choose from outside of the "recommended" list, with approval required by both the offering School and the School of Pharmacy. Support from the University timetabling services ensure that student choices and combinations of optional modules are maximized with minimal timetabling clashes.

For the 2014-15 Year 3 student cohort, a large number of students chose modules in Psychology (level 1), with good interest in Business Studies modules, but less uptake in advanced science modules from Life Sciences and Pharmacy (Table 1). A good proportion (2014-2015: 31%; 2015-16: 34%) chose to take a language module, ranging from beginners' level to post-A-level standard.

Factors for module selection

A questionnaire, approved by the UoN School of Pharmacy UG Research Project Ethics Committee (003/2015 ER-fhf) was ran on SurveyMonkey™, between March 11 – 31 2015 (Weeks 7-9 Spring semester). Student participation was voluntary, responses were anonymous, and with implied informed consent for the data to be used elsewhere upon completion of the survey.

In the questionnaire (115 completed survey, total students 218), a range of reasons were available for students to select for choosing the module they were enrolled in, with the option of stating other motivations also available ("other"); students were asked to provide up to three reasons for their module selection (for each module). "Interesting topic" (59%) and "try something new" (37%) were the two most popular reasons for module choices (Figure 1). Not surprisingly, for those students choosing languages, the most popular reason for their choice was "improving language skills (73%, 27/37 students), whilst "usefulness" was rated the highest at 68% (19/28 responders) by students who had chosen modules in business studies, this in context of their awareness that

many will become involved in the management of community pharmacies, with areas of management such as managing people, finance, leadership, and strategy, critical to their early careers.

School / unit	Level	Numbers enrolled
Business	1	62
Culture, film, media	1	7
Economics	1	13
Humanities	1	6
Language Centre	1-4	67
Law	1	2
Life Sciences	2-3	6
Pharmacy	3-4	61
Psychology	1	212

Table 1 Optional modules chosen by MPharm 3 students (2014-15). Modules from Schools/ units include: *Business* - management strategy, accounting; *Life Sciences* - biological photography, bioethics, natural systems; *Psychology* - addiction and the brain, developmental psychology; *Pharmacy* - complementary/ alternative medicine, medical diagnostics. A recommended list of 28 optional modules was provided, but students could enrol on modules outside of this list (if permitted). Numbers enrolled indicate total numbers registered for module(s) within the School/ unit

The intrinsic motivations dominate in module choice which is consistent with previous studies describing these factors in the encouragement of deeper and greater learning, with enhanced student enjoyment of learning (Howorth 2001; Hedges et al., 2014). More importantly, it is well established that this form of motivation nurtures and encourages the habit of lifelong learning (McKeachie and Svinicki, 2014). For these students, continuing professional development (with lifelong commitment) is essential for every practising pharmacist, as it is for many healthcare professions; continuing education plays an important role in maintaining and updating pharmaceutical skills and knowledge

(International Pharmaceutical Federation). The highest rating for the factor "interesting topic" was seen with those students who had chosen

the advanced sciences modules, 77% (17/22 responders).

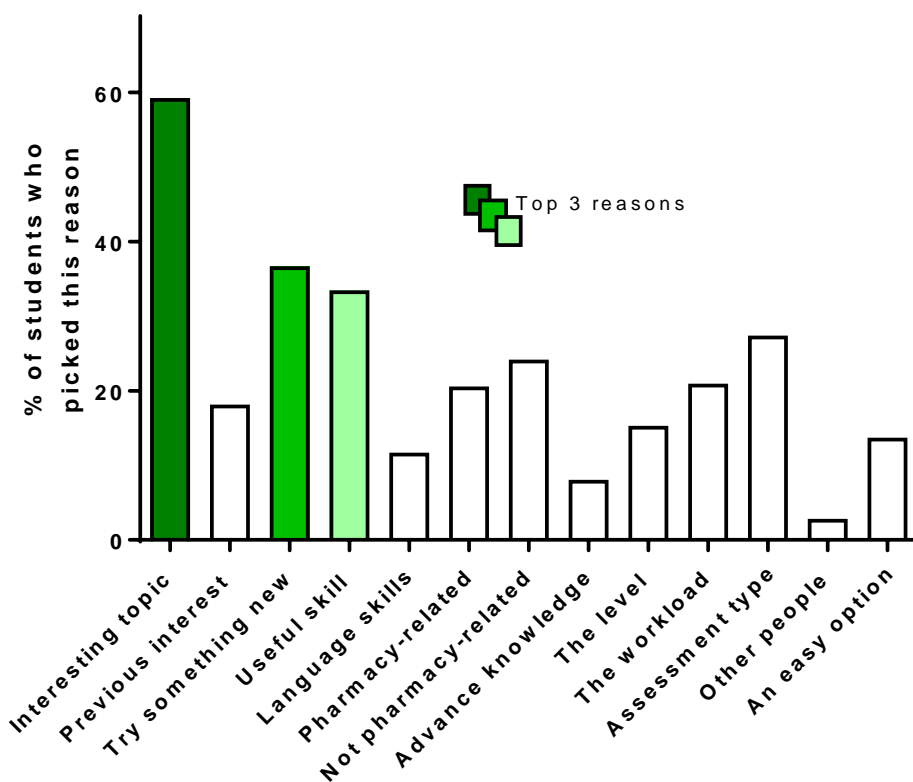


Figure 1 Factors that influenced module choices. Students were asked to provide up to 3 reasons for each module choice

Module characteristics (the level, workload, assessment type) were factors considered in module choice, with very few students being influenced by their peers. A small proportion of students admitted to the extrinsic motivation of choosing a module which they considered to be an easy option, to achieve good assessment performance; of these students, 83% (29/35) of the responders were those who had enrolled on the level 1 Psychology modules.

Performances in optional modules

A concern regarding the introduction of elective modules with varied levels was the equitability of student experience and their assessment performances.

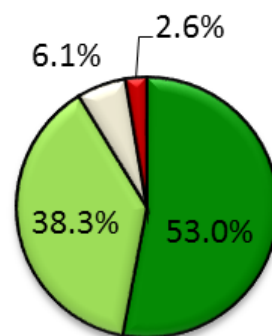
Analysis of assessment marks (2014-15) of the varied levels of optional modules with the students' Autumn semester (Year 3) overall

assessment performance showed no apparent difference in individual achievement, in that regardless of the level of module, student performance was similar to that of their overall Autumn semester marks; thus, for a level 1 psychology module, in which there was a large uptake of Pharmacy students, there was a strong, positive correlation of their performance (65 ± 9 , mean mark % \pm S.D., $n=153$ Year 3 MPharm) with that of their Autumn semester average (65 ± 9 ; $p=0.63$, paired Students' t-test; Pearson's correlation $r = 0.61$, $n=153$, $p < 0.001$). Similarly, strong correlation between module performance and Autumn semester performance was seen with, for example, two level 3 advanced sciences: module X 63 ± 7 (mean mark % \pm S.D.), Pearson's correlation $r = 0.86$ ($n=7$, $p = 0.013$); module Y 71 ± 12 (mean mark % \pm S.D.), Pearson's correlation $r = 0.84$ ($n=6$, $p = 0.037$).

Experiences and perspectives

Students were asked to feedback on their satisfaction with their module choices for each of the two option modules (simple three-point Likert-like scale: "happy", "OK", "not happy"), mid-way through studying these modules (Week 7-9). A small number had requested a change in module within the first two weeks of semester, the "change-of-mind" period. Overall, six responders expressed "not happy" with one of their module choices; five of these students provided comments relating specifically to module delivery, whilst the remaining one student commented about the management of workload of the two modules being studied alongside the research project.

The survey revealed that 91% (105/115) responders agreed or strongly agreed that having "broadening horizons" modules was a good aspect of the MPharm degree (Figure 2). The last question on the survey was an open-ended question that asked students to provide further comments relating to optional module opportunities in their MPharm degree. 25 responders (22%) left written comments in response to this prompt. A large proportion indicated their enjoyment of studying optional modules (76%, 19/25), with several (4/19) embracing the "broadening horizons" aspect in particular, exemplified by a quote from one responder, "feeling more educationally well-rounded as an individual". There were seven comments on studying non-pharmacy related subjects as a refreshing break from the pharmacy curriculum. Two students went further by indicating that they would like optional modules throughout all years of the MPharm course. Despite the breadth of the range of optional modules available from across the university, which were deemed appropriate for the students, three responders reported their preference for greater range of elective modules. It seems then that these students embrace the opportunity to study topics outside of the detailed pharmacy curriculum on their vocational degree. Unfortunately, the established programme and course educational outcomes of the MPharm does not readily permit further opportunities for electives.



■ Strongly agree ■ Agree
■ Neutral ■ Disagree

Figure 2 The opportunity to study optional modules is a good aspect of UoN MPharm? Students provided their responses using the Likert scale. The 3 students who responded "disagree" to this question all mentioned workload or time management issues of the optional modules running alongside the research project

Several responders (28%, 7/25) reported issues of time management with concurrent project work, including the three students who responded negatively ("disagree") to the preceding Likert-scale question (Fig. 2). During this semester, with the cross-faculty optional modules, the curriculum is less under the management of the School of Pharmacy and, unlike the rest of the course, the student experience is more diverse during the Year 3 Spring semester. This, and the nature of activities with more student-directed activities, places greater emphasis on the students to manage their own time and work. To prepare students better for the semester, more guidance and support is now provided in the Autumn semester. Improved scheduling of some of the optional modules (mainly Pharmacy advanced sciences modules) to fit better with project work has resulted in fewer students reporting workload or time-management problems.

Conclusions

Overall, students expressed enjoyment of their optional modules and valued the opportunity to study modules outside of the MPharm curriculum. The responses from this survey has informed improvements to the list of

"Broadening horizons" optional modules in the Nottingham MPharm degree

recommended optional modules. To further improve on module choice and scheduling, the development of new specific modules that interest UoN Pharmacy students may be required. Indeed, a number of UK Pharmacy schools run tailor-made business modules for their students.

The broadening horizons optional modules of the Nottingham MPharm is a major culture change for the teaching of Pharmacy as no other MPharm student gets to experience this opportunity in the UK. Follow-up surveys and focus group discussions with alumni will determine the contribution of this breadth to a student's education, in providing them with a different perspective on life, to their chosen profession and future career paths

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