Council meeting, 10 May 2012

Professionalism and conscientiousness in healthcare professionals - progress report for study 2

Executive summary and recommendations

Introduction

As part of the programme of research looking at revalidation, the HPC commissioned Durham University to undertake two projects.

The first was a qualitative study to explore student and educator perceptions of what constitutes professional and unprofessional behaviour. The HPC has published the final report: 'Professionalism in healthcare professionals'.

The second is a quantitative study to develop an approach to assessing professionalism, using tools such as the Conscientiousness Index (a tool for collecting discrete measures of professionalism). This involves collecting data using these tools relating to students / trainees on two programmes and 'tracking' students after graduation. The Council received a progress report on this project at its meeting in May 2011. A further progress report is appended. The project is due to continue for three more years with yearly progress reports.

Decision

This paper is to note; no decision is required.

Background information

- 'Revalidation', Council meeting 29 March 2012

http://www.hpc-uk.org/aboutus/committees/archive/index.asp?id=606

Resource implications

None

Financial implications

None

Appendices

- Professionalism and conscientiousness in healthcare professionals. Second progress report for Study 2: Development of quantitative approaches to professionalism

Date of paper

29 April 2012

Professionalism and conscientiousness in healthcare professionals

Second progress report for Study 2 – Development of quantitative approaches to professionalism

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October 2011

(revised April 2012)

1 Introduction

Study 2 aims to develop quantitative approaches to the measurement of professionalism in student paramedics. The progress report dated April 2011 described the initial development of a questionnaire, and of the objective 'Conscientiousness Index'[1] for use in two organisations: University A and Ambulance Trust B. The April report set out a timescale for next steps, which estimated initial data analysis would be available in October 2011.

Following further work, those timescales have been revised. This report sets out the progress since April, highlights issues which have arisen in the development work to date, and presents a revised timeline for the short term completion of this phase, and progression to the end of the project as outlined in the original proposal.

2 Questionnaire development

The April report contained an initial draft questionnaire of 137 items (excluding demographic items) drawn from a literature review and the findings from Study 1. This draft was reviewed and discussed by the project team to eliminate cumbersome, repetitive or otherwise questionable items, resulting in a draft of 105 items for pre-piloting with the respondent population (student paramedics).

Due to the limited availability of student paramedics, this process could not take place until September 2011, when two workshops were held with student paramedics at Ambulance Trust B (12 participants in each workshop). These involved group discussions of the draft, focusing on issues of clarity (did the questions make sense?), relevance (were questions relevant to paramedics?) and utility (will the questionnaire produce useful data, or will respondents be put off responding honestly?).

The first workshop led to the elimination of 19 items and revision of others, while the second led to further revisions and the addition and reinstatement of other items.

Particular concerns were raised around some items which were felt to require some degree of disclosure on the part of participants, meaning they would either not respond honestly, or not respond at all. These items were revised to be less specific, and to require responses which may be seen as less personally revealing, but some concerns remained. The implications of these are discussed in 'Distribution Issues' below.

The current draft of 102 items is included as Appendix A to this report. The global item used by Papadakis and colleagues in the work that informed the initial invitation to tender[2] is included in this draft. The draft will be further reviewed by the research team and further revisions made before full piloting.

2.1 Distribution issues

As well as providing content validation of questionnaire items, the pre-pilot workshops identified other issues of concern ahead of full piloting and data collection. In particular,

these related to the sensitivity of some items, and how these may affect completion and response rates.

The intention is that questionnaires be distributed to students with an anonymised identifier, allowing data to be linked to the conscientiousness index, academic performance, and any subsequent outcomes such as disciplinary problems or leaving the course/profession. However, workshop participants expressed strong concerns about the honesty of responses with such identifiers, and predicted a low response rate. This did not reflect a lack of confidence or trust in the researchers per se, but rather a more generalised concern that the data could have negative consequences. However some of these concerns also applied even if the questionnaire were wholly anonymous – with potential consequences for perceptions of the ambulance service as a whole should any potentially negative findings enter the public domain or media (e.g. if a large proportion of respondents agreed with the item 'I sometimes delay making myself available during the last 10 minutes of a shift').

Redrafting following the workshops has attempted to ameliorate some of the participants' concerns. It may also be possible to address them by arranging questionnaire distribution while trainees are together/on training site. This would allow researchers to explain the purpose of the questionnaire, reassure participants about confidentiality, and is likely to increase response rates. This will be considered in the full pilot phase. An alternative is to remove the identifier, but this may have limited effectiveness, as well as damaging the potential analyses.

The questionnaire is also to be distributed to qualified paramedics, without any identifier. Workshop participants indicated a low response rate should be expected, giving examples of other questionnaires sent to home addresses and distributed through ambulance stations, and the final data collection phase should consider this risk. Participants felt that an incentive (such as a gift voucher or prize draw) would not help increase response rates, but this will still be attempted as described in the original proposal.

2.2 Next steps for questionnaire

The next planned step is to pilot the questionnaire with a group of students at University A who will not be part of the final sample. The purpose of this pilot will be to examine the quality of the data elicited by the questionnaire, considering missing values, ranges, and internal consistency. Further items for elimination will be identified if appropriate.

The intention is that final data collection will be carried out in June/July 2012, with first and final year students at University A and Ambulance Trust B, and samples of qualified paramedics in two regions (Ambulance Trust B and one other Trust – R&D approval has been obtained in both Trusts). A global rating of each student's professionalism will also be provided by a trainer/lecturer with sufficient knowledge of the whole sample. This will provide evidence on the concurrent validity of the questionnaire.

3 Conscientiousness Index development

The Conscientiousness Index (CI) is derived from a collation of objective, countable behaviours. Its nature means it must be developed as a bespoke tool for each organisation. Discussions have taken place at both University A and Trust B, which identified possible content of the CI in both locations, as detailed in the April report. However, the organisational differences and logistical difficulties that were also identified have not been fully overcome, and while there has been further development, concerns remain about availability of data, and so its validity and utility.

At University A, there is some apprehensiveness among staff regarding both the potential workload involved in collecting CI information, and the fairness of recording such data. CI components should be both routine and objective, and it was felt that data unrelated to academic performance was not always routinely collected, and may also not take account of individual circumstances. As noted in the April report, a factor here is also that the students are primarily university students, and the cultural context of the staff-student relationship was felt to potentially be in conflict with the CI. A new IT system may streamline some data collection however, and the potential content will be reviewed further with staff.

In Trust B, the concept of the CI has informed a 'student tracker' which records some relevant data, but also includes subjective ratings. Other potential components are confounded by operational factors outside students' control (for example the number of hours they are rostered with a partner who is a qualified mentor). Students' learning portfolios contain some elements which may qualify for the CI, but the value of these is questionable as they already contribute to the academic mark for the portfolio.

At this stage concerns about the feasibility of the CI as a sustainable, valid and generalisable measure must be raised. Nevertheless, data is being collected from September 2011 in Trust B which may constitute a usable CI, and this will be reviewed during the year. It is hoped that data will also be accessible in University A, allowing a CI to be constructed retrospectively.

4 Revised timeline to August 2012

The revised timeline below replaces that included in the April report, as the initial pre-piloting of questionnaire items was not feasible before September 2011. Precise dates for data collection depend on local logistics, but the questionnaire was distributed to second year students at University A in March 2012, with live questionnaire data scheduled for April 2012. Suitable dates for Trust B are being explored.

	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012	Jul 2012	Aug 2012
Refinement of questionnaire items										
Pilot questionnaire data collection										
Analysis and revision of questionnaire										
Live questionnaire data collection										
Collation of available CI data										
Write up and deliver final report on questionnaire development and analysis										

5 Project plan 2012-2015

The remainder of the project involves the continued collection of data, and the review of questionnaire and CI data (if available) from any 'cases': students who do not complete their course or otherwise present any concerns.

Questionnaire data will be collected from the 2011-12 year 1 cohorts in both 2013 and 2014, as they progress into year 2 in both locations, and into year three or the first year of qualified practice depending on the length of the training programme being followed. This will allow any changes in the different elements of reported professionalism as trainees gain experience to be identified. Questionnaire data will also be collected from subsequent cohorts to allow variability between cohorts to be identified.

A final review of the data for any 'cases' will be conducted in January 2015. This will depend on: (i) organisations providing the code number for any individuals who constitute a case, and (ii) questionnaire/CI data being available for those code numbers.

As stated in the original proposal, any examination of case data will not constitute a demonstration of predictive validity, as the number of cases will be too small. However trends and possible areas for further examination may be inferred.

References

[1] McLachlan JC, Finn G, Macnaughton J. The conscientiousness index: A novel tool to explore students' professionalism. Academic Medicine. 2009;84:559-65

[2] Papadakis MA, Arnold GK, Blank LL, Holmboe ES, Lipner RS. Performance during Internal Medicine Residency Training and Subsequent Disciplinary Action by State Licensing Boards. Annals of Internal Medicine. 2008;1478:870-6