Development and Piloting of a Competency Framework for Pharmacy Educational and Practice Supervisors

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Abstract

Background: Pharmacy workplace educators currently have little benchmarking and qualification for their role. This project aimed to develop minimum standards required for educators in the workplace.

Aims: To investigate, through the development of a tool, the roles in pharmacy of: Practice Supervisor, Educational Supervisor and Educational Programme Director.

Method: A group named 'Developing Educational and Practice Supervisors' investigated how to support the development of Practice Supervisor, Educational Supervisor and Educational Programme Director roles in the workplace. Through a workshop, ideas were generated with concept mapping techniques used to organise the results.

Results: A six-cluster competency framework was developed that captured the three roles of Practice Supervisor, Educational Supervisor and Educational Programme Director. A pilot (n =10) demonstrated usability and applicability.

Conclusion: The Developing Educational and Practice Supervisors framework can support the development of pharmacy educators. Moreover, it can assist the career development of pharmacy educators through the progression of roles from Practice Supervisor to Educational Supervisor and Educational Programme Director.

Keywords: *Competency, concept mapping, continuing professional development, experiential learning, pharmacy tutor, practice supervision*

Introduction

Background and Context

This paper describes the development of a pharmacy education competency framework by reporting two phases of data collection and analysis. Firstly, an iterative expert group worked with concept mapping techniques to derive the framework. Secondly, the results of a small questionnaire-based survey of pharmacy educators were used to test and develop the framework amongst practising pharmacy educators.

This project emerged from a desire to value pharmacy professionals who support, guide, coach, mentor and facilitate learning and education in the workplace. The initiative aimed to support a more strategic approach to education in the workplace by making explicit the minimum standard expected of those supervising work-based learning and assessment, as well as informing their professional development. Our work was also borne from a desire to raise the esteem, respect and quality of, in particular, practice supervisors (PS) (Jubraj et al 2010). The project had previously established that there was a need for quality

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assurance (QA) and strategic alignment with other professions, such as medicine, as highlighted by the 'Time for Training report' (Temple 2010). This paper emphasised the need for all educators to be trained, accredited and supported as well as having their roles recognised and rewarded. It suggested that work-based learning must 'make every moment count'. Our approach therefore also concurs with some of the central statements from the Kennedy report in 2001:

> '...to assure the competence of healthcare professionals: education, registration, training, continuing professional development and revalidation... It (systems for assuring competence) should include control of access to relevant professions through setting educational standards and ensuring they are met...'   Ibid; 332

Jubraj et al (2010, 2011) also suggest that the workplace is one of the most important settings for pharmacy education but that a better educational infrastructure (Jones et al 2010) is needed to support the different, but complementary roles of the PS, Educational Supervisor (ES) and Educational Programme Director (EPD).

> '..the culture of the workplace has to be one which values learning and acknowledges the benefits it will bring for the organisation as a whole, particularly as it affects patients.'   Kennedy (2001); 340

A model for pharmacy professionals that uses similar language to medicine, i.e. PS, ES and EPD could assist in clarifying roles and responsibilities. This also accords with Kennedy's (2001) view:

> '...having a mentor and undertaking clinical and professional supervision are amongst the strategies which can be used as part of work-based professional development...'   Kennedy (2001); 340

We recommend the term 'practice supervisor' rather than 'clinical supervisor' since it better describes the range of supervisory roles in the pharmacy workplace (Jubraj et al 2010):

> '...day to day responsibility for trainees in the workplace. Roles include being available to discuss problems, teaching and facilitation on the job, with developmental conversations and regular feedback.'   Ibid; 192

It is interesting to note that various authors describe competence as relating to intellectual capability (Carr-Saunders & Wilson 1964), minimum standards or skills to be satisfactory (Boyatizis 1982, CiPD 2011) or that competence and competency could be related to higher level performance (Epstein 1999, Epstein and Hundert 2002, Klein 1996). However, in the context of an occupation, numerous authors relate these concepts back to a work perspective based on quality working practices (Boyatzis 1982), behaviours to fit the task (Woodruffe 1992) and objectives for the job in hand (ACCA 2010).

Alignment

In an attempt to 'measure' a particular working practice Boyatzis (1982) considered the use of outcomes in a management context whilst Woodruffe (1992) contemplated the alignment between an organisation and the individual. By whatever measures, competencies have become established in healthcare and other fields, often taking the form of a framework. In the nursing profession, Manley and Garbett (2000) suggested that a competency-based approach was helpful in developing a good career structure. From a general practice perspective, Chambers et al (2004) developed a competency-based framework in conjunction with pre-existing material and found that respondents were largely in favour of this approach. Within pharmacy, a range of competency-based or professional development frameworks have emerged, dating back to Nuffield in 1986 and 1992 with the introduction of performance standards for the pre-registration 'competency-based' year (Nuffield 1986, Fowells 2004). Subsequently, the Competency Development & Evaluation Group (CoDEG) was established:

> 'Its aim is to undertake research and evaluation in order to help develop and support pharmacy practitioners and ensure their fitness to practice at all levels.'
>
>   CoDEG (2011)

As part of their research, they developed and validated a range of frameworks from the 'General Level Framework' (GLF) aimed at pharmacists in general pharmacy practice post-registration and the 'Advanced to Consultant Level Framework' (ACLF) describing a pharmacist at an advanced level of practice (CoDEG 2011). Research undertaken by Antoniou et al (2005) and Mills et al (2008) amongst others have validated both the GLF and ACLF as useful tools in pharmacist development. Whilst these framework approaches to measuring competence focus on an individual's development, none specifically address the performance of practitioners in the PS role. A relevant competency framework would encourage appropriate practitioner development and career progression to PS, ES or EPD. This is particularly relevant given that the UK professional regulatory body's – the General Pharmaceutical Council's (GPhC) – 2011 standards for pharmacy undergraduates and pre-registration graduates are more outcomes-based, making reference to Miller's pyramid with competence at the forefront of performance (Miller 1990, GPhC 2011). This means that pharmacy professionals will need to demonstrate their 'competence' much earlier, developed and assessed by competent PS, ES and EPDs.

Aim of the research

To investigate, through the development of a tool, the roles in pharmacy of: PS, ES and EPD.

Methods

Phase one

In 2009 a working party was established called 'Developing Educational and Practice Supervisors' (DEPS) with a membership of key stakeholders from pharmacy and medical education, and secondary and primary care pharmacy practice in the Kent, Surrey and Sussex Deanery area as well as London. The vision of the group was to explore and identify the attributes of pharmacy supervisors in the workplace, in order to develop an accreditation/QA framework to ensure competence and fitness to supervise. The terminology PS, ES and EPD were delineated as the group developed (Jubraj et al

2010), which led to the progression to establish competency frameworks for these roles.

In October 2009, it was agreed that a process was needed to identify and clarify the attributes of the roles of PS, ES and EPD. The aim was to standardise these roles within the entire scope of UK pharmacy practice. A number of resources were reviewed:

- Nursing standards (NMC 2011)
- Facilitator standards for regional pharmacy technician accreditations in medicines management and checking
- National Vocational Qualifications (NVQ Anon 2011)
- Academy of Medical Educators' Professional Standards (AoME 2009)
- American Society of Health-Systems Pharmacists' guidance (Cuéllar & Ginsburg 2005)
- Joint Programmes Board Tutor Handbook (JPB 2009)
- General Level Framework (GLF) (CoDEG 2011)
- Advanced Competency Level Framework (ACLF) (CoDEG 2011)

The next step for this work was to consider how best to establish a new educational framework for pharmacy that would better define, link and phrase the competencies relevant to the PS, ES and EPD roles. The framework would be aligned to the ACLF to enable PS, ES and EPD competences to be used as evidence of their advanced practice. In addition, the specification of levels would support professional development from PS to ES to EPD roles in pharmacy practice.

Whilst the ACLF contains a cluster of competencies around education, training and development, this is a broad cluster and DEPS considered that this did not give the required depth for a potential supervisor. Similarly, there was a previously developed education framework but, in consultation with the developers (Middleton et al 2008), it was agreed that this did not link specifically to the roles of PS, ES and EPD as suggested by Jubraj et al 2010.

Development of the Competency Framework for PS, ES and EPD

To investigate this further, each member of the DEPS team (N=14) participated in a group workshop designed to explore new competencies that might be required in order to achieve our aims. Each panel member was asked to prepare a list of written labels, describing all the different competencies that they thought necessary for the roles of PS, ES and EPD. We asked for single words like 'reflection', where possible. Participants wrote or verbally described the associative links between one concept and another in each of their lists, in order to explore the intended meaning of each label and to ensure that each label was indicative of a single concept. Thus where two participants had used the same label to denote identical concepts, duplication was eliminated. Alternatively, where a single label conflated two or more concepts already, or where several people had used the same label to denote quite different concepts, the list was expanded by seeking words or phrases that were more precise and accurate than

those prepared before. This led to the production of 145 unique labels. Subsequently, a smaller subset of DEPS (N=3) met to review these labels and soon realised that this process was more complex than first anticipated. The generated labels were important concepts that reflected the DEPS groups' views, so this subset suspended their analysis and sought external expertise. This was not expected, so by following an 'action-research' approach, DEPS could remain loyal to the nature of the data and not to misrepresent due to a lack of internal skills of manipulation. External expertise was provided from an expert researcher in concept mapping who used Novak's concept mapping method to organise the data (Novak 1998). This stage comprised of a degree of negotiation as to whether the concept was relevant at all and reduced the compound list to a more circumscribed set of 67 discrete concept labels.

These were then arranged under cluster headings previously agreed: 'Behaviours', 'Skills', 'Attitudes', 'Knowledge', and 'Qualities'. This was undertaken by individual participants after the workshop and the data was used to create a matrix of association whereby label $X_{(1-67)}$ was correlated with every other label to determine the frequency of association and to test the robustness of new cluster headings. This phase of analysis also included a re-iterative examination of the frequency of the agreed concept labels from the original participant lists as well as their more unique contributions. The most essential result was that there was good agreement about the relevance of the cluster headings and also many of competencies already existing within these. Furthermore, it was also possible to specify the clusters and competencies that were not specific to the newer educational purpose of PS, ES and EPD roles, whilst also being able to introduce new ones with considerable confidence about the group's collective purpose. The newly introduced, or modified concept sets are shown in Table I.

Table 1. New concepts and their clusters

Concepts	Cluster
Assessment and Monitoring Learning	Widening participation and inclusion; Individuals and curriculum; Academic progression; 'Embeddedness' (i.e. specific linkage of placement to the curriculum targets of formal education); Supports choices about assessment modes (where choices are appropriate); Identifies special educational needs; Explains the given assessment criteria; Signposts educational resources; Monitors learning beyond simple recall of information; Manages educational quality and assurance.
Managing Learning Programmes	Module design; Planning specific education and training interventions; Deals with poor educational performance; Information and learning resources; Teaching resources and support; Educational risk; Managing educational team performance; Educational change.
Teaching and Learning Practice	Plans instruction; Responsive to context; Professional (educational) vocabulary; Match of educational and organisational context; Educational theory; Interpersonal teaching skills; Learning environment; Learning styles.
Leadership (Educational)	Strategic context; Clinical Governance; Vision; Innovation; Programme Development; Motivational; Responsive.

The next step was to use each of the agreed concept labels, the new ones as well as those brought forward from the extant frameworks, to generate a new set of competency statements. Wherever possible the existing terminology was utilised and the level benchmarks of the ACLF were retained, using: 'Foundation', 'Excellence' and 'Mastery' to denote the same explicit measures of practitioner development. Where new concepts were necessary constructs for new statements, the writing of these was shared in an iterative process of peer-review and editorial (involving three of the original DEPS group participants [also authors of this paper]). Once the new framework was replete, every workshop participant was asked to assess each cluster and the statements made within them; a member check.

At this stage, each DEPS member gave feedback on the organisation of the new framework, the relevance of each competency domain and a critique of the specific wording for each statement at its corresponding 'Foundation', 'Excellence' or 'Mastery' level. Each participant did this on three separate occasions, using their own grasp of the three different pharmacy education roles: PS, ES and EPD[1].

Phase two

In order to test the resultant DEPS framework for suitability, a questionnaire was developed incorporating the DEPS framework, a suggested description of pharmacy educator roles, ideas for educator continuing professional development (CPD) and basic demographics. This was given to pharmacy professionals in a London NHS Trust to complete anonymously as a self-assessment of their PS, ES or EPD role. No suggestion in the questionnaire was made to indicate the level of development for a PS, ES or EPD. Completing a questionnaire after an appropriate briefing indicated consent for their data to be included in the study. A total of 17 were distributed.

Returned questionnaires were coded and entered into Microsoft Excel® where, due to the low number of respondents, basic descriptive statistics were undertaken.

Ethics and Consent

As this study was exploring the development of a framework (Phase one) participation by the team was seen as implied consent. In Phase two, by completing and returning a questionnaire anonymously, participants had consented.

Results

Phase 1

The results from the workshop exercise produced a total of 250 areas that represented the defined roles of PS, ES and EPD (62 behaviours, 83 skills, 16 attitudes, 53 knowledge and 36 qualities). These were subsequently reduced to 145 labels. Through an adapted concept mapping activity aligned to Novak (1998) these formed 67 discrete concepts as described earlier. The resultant six competency clusters are presented in Table II. For each of the roles suggested by Jubraj et al (2010), the competency framework approach uniquely reconciled all three roles of PS, ES and EPD such that

different levels of competency rating existed in one summary framework.

Table II: DEPS Framework with reference to the roles of PS, ES and EPD

Role/ Competency Cluster	Practice Supervisor (PS)	Educational Supervisor (ES)	Educational Programme Director (EPD)
1: Expert professional practice	4 competencies; all "Excellence"	4 competencies; all "Excellence"	4 competencies; all "Excellence"
2: Learning relationships	5 competencies; all "Excellence"	5 competencies; all "Excellence"	5 competencies; all "Excellence"
3: Assessment and monitoring of learning	4 competencies; all "Foundation"	11 competencies; all "Excellence"	11 competencies; all "Mastery"
4: Managing learning programmes	5 competencies; all "Foundation"	10 competencies; all "Excellence"	10 competencies; all "Mastery"
5: Teaching and learning practice	9 competencies; 7 "Foundation"; 2 "Excellence"	9 competencies; all "Excellence"	Not Applicable
6: Academic leadership	Not Applicable	Not Applicable	6 competencies; all "Excellence"

From observation of competency clusters 5 and 6, for example, it can be clearly seen that there is an evolutionary progression through the roles, hence linking to career progression from PS to ES to EPD.

Phase 2

The DEPS framework questionnaire was distributed for piloting to 17 pharmacy professionals in the role of PS, ES or EPD who were specifically involved in training and development in the workplace; 10 questionnaires were returned (59%). Participants were asked about their engagement in education in the workplace with 7 reporting 0-5 hours working in an educational role and 3 reporting 6-30 hours.

All participants were able to map themselves to the DEPS framework as a demonstrable means of assessing how applicable this was in practice. In addition, a series of evaluation questions were asked and results are shown in Table III.

Respondents were also asked to comment on the DEPS framework. One pharmacist suggested that the framework:

'makes it clear what skills you need to progress' (P3)

Another pharmacist was supportive of the framework yet concerned about the levels described:

'The framework is very appropriate for pre-registration tutors, education and training pharmacist and educational programme directors. However, those of us that balance being a pharmacy tutor with a demanding operational commitment may find it [at] too high [a] level' (P6)

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[1] *Contact Emma Wright for more information*

Table III: Evaluation questions asked

Statements	CA[3]	MA	SA	SD	MD	CD	Total	Mean score
1. It demonstrates all the competencies required for my role as a pharmacy tutor	2	6	1			1	10	4.75
2. It is a useful tool in defining my current level of practice as a pharmacy tutor	2	7				1	10	4.8
3. There is a relationship between my current role experience and the DEPS framework	3	2	4			1	10	4.6
4. It would be helpful tool to identify areas I need to develop to progress through my career pathway	2	6		2			10	4.8
5. The terminology used in this framework is easy to understand.	3	2	1	3		1	10	4.4
6. The boundaries of each level in the competencies are clear.		7		2			10	4.6
7. The framework captures my current role as pharmacy tutor.	1	5	1	2	1		10	4.5
8. The framework would be a useful tool to evaluate my competence and fitness to tutor.	2	5	2			1	10	4.5
9. The framework provides a helpful tool for me to complete a portfolio of activity	2	7				1	10	4.8
10. The framework would be a useful tool to define my continuing professional development (CPD) needs as a pharmacy tutor.	2	7				I	10	4.75

3 C= completely agree , A=agree, S=slightly, D=disagree, M=mostly disagree, CD=completely disagree.

Table IV: Respondent reported educator roles (listed, but not described)

Key roles	Individual roles identified	Total number of type of participants in each key role	Total (n)
PS	NVQ assessor (A1 qualified)	1	
	NVQ expert witness	1	
	Undergraduate placement supervisor	2	18
	Section trainer (Pre-registration or Diploma or NVQ)	7	
	JPB Diploma educational facilitators	7	
ES	Pre-registration pharmacist tutor	1	
	JPB diploma practice tutor	6	
	NVQ internal Verifier	1	
	Accredited Checking Pharmacy Technician Facilitators	-	8
	In process and pre-checking accreditation Facilitator	-	
	Medicines Reconciliation Accreditation Facilitator	-	
EPD	Pre-registration pharmacist training manager	1	
	Designated pharmacy technician with responsibility for education and training	1	5
	JPB diploma Lead Trust Tutors	3	

Other views suggested that progression between levels may involve:

'some large jumps between level 1 and level 2...' (P8)

The length of the document was mentioned by two pharmacists:

'very lengthy – may put people off' (P3)

'good idea, a bit lengthy though...' (P7)

Linking back and triangulating with the suggested roles of PS, ES and EPD, respondents were asked to identify their educator roles. Table IV summarises the individual roles of each respondent and gives a total number of respondents under each of the key roles.

Discussion and Conclusions

The DEPS group produced an ACLF-based framework using principles associated with a concept mapping approach. Pilot work indicated that the framework was a useful addition for pharmacy education roles defined as PS, ES and EPD. A higher response rate (N=10) would have permitted statistical analysis. As such, a follow up survey is warranted. Furthermore, respondents were in a variety of roles which made it impossible to identify whether the framework is more suited to a PS rather than an ES or EPD. Feedback also indicates that terminology is not always easy to understand; we will undertake further work to address these limitations.

Individuals generally found the self-assessment method to be straightforward as it linked to the ACLF. However, they found the competency framework to be lengthy with some suggesting that they could not reach 'mastery'. This finding was as expected as the role of an EPD (mastery) is likely to be at advanced level (Jubraj et al 2010). In terms of recognising and validating the educator role, the development of an ACLF-type framework was seen to be a useful addition for PS, ES and EPD roles, although it is versatile enough to stand alone or respond to any future changes in nomenclature. Uniquely, it captured three educator roles and clearly illustrated the transition through the roles by demonstrating and achieving competencies via six competency clusters (table 2).

Therefore, it is envisaged that this competency framework could be utilized in at least two ways: as a career progression tool to assist PS to ES to EPD transition and also to QA the

level of practice for individuals advancing educationally whilst remaining at their established level of clinical pharmacy practice.

This framework has been used as the basis for creating a curriculum for an online PS course that began in January 2011. This has been piloted with PSs in secondary care throughout the Kent, Surrey, Sussex and Hampshire areas. The popularity of, and feedback, for this course reinforces the vision originally identified by the DEPS group.

Future work by the DEPS group will be to validate the frameworks with larger, preferably national cohorts of those working specifically in the PS, ES and EPD roles. In addition, more detailed mapping to the ACLF would help to embed these roles at advanced level in the profession of pharmacy.

In conclusion, we hope that the DEPS framework will help pharmacy to put education at the core of practice by developing competent and capable pharmacy supervisors.

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