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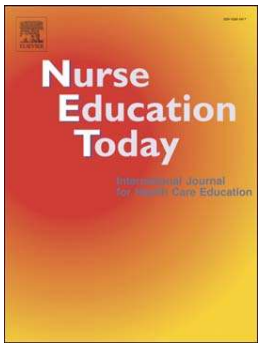
2017



The views of non-medical prescribing students and medical mCentors on interprofessional competency assessment – a qualitative exploration

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PII: S0260-6917(17)30053-9
DOI: doi:10.1016/j.nedt.2017.02.022
Reference: YNEDT 3505

To appear in: *Nurse Education Today*

Received date: 8 July 2016
Revised date: 19 December 2016
Accepted date: 26 February 2017

Please cite this article as: Afseth, Janyne D., Paterson, Ruth E., The views of non-medical prescribing students and medical mCentors on interprofessional competency assessment – a qualitative exploration, *Nurse Education Today* (2017), doi:10.1016/j.nedt.2017.02.022

THE VIEWS OF NON-MEDICAL PRESCRIBING STUDENTS AND MEDICAL MENTORS ON INTERPROFESSIONAL COMPETENCY ASSESSMENT – A QUALITATIVE EXPLORATION.

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No conflict of interest has been declared by the authors

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Title: THE VIEWS OF NON-MEDICAL PRESCRIBING STUDENTS AND MEDICAL MENTORS ON INTERPROFESSIONAL COMPETENCY ASSESSMENT – A QUALITATIVE EXPLORATION.

Abstract

Background:

The United Kingdom (UK) is one of the least restrictive countries in terms of scope of prescribing practice for non-medical prescribers and is a rapidly expanding group of professionals. In the United Kingdom nurse prescribers are assessed in practice by Designated Medical Practitioners (DMP) (doctors) which is a unique approach. In light of proposals to permit nurses to assess each other the benefits and challenges associated with current approach to interprofessional assessment warranted further exploration.

Objective: The aim was to explore interprofessional competency assessment with nurse non-medical prescribing students and their DMPs.

Design: A descriptive qualitative research design was undertaken using semi-structured interviews and focus groups

Setting: The study was completed in a Scottish University that provides non-medical prescribing education to nurses, midwives and allied health professionals.

Participants and Methods: Students (n=6) participated in two focus groups at the start and end of their supervised learning and assessment in practice. DMPs (n=6) participated in semi structured telephone interviews on completion of supervision. Utilising Clark's theory of interprofessional education, a thematic analysis was conducted.

Findings: Professional identity influenced interpretation of prescribing competence with regards assessment and scope of practice. Students and DMPs learned with, from and about each other, and provided a platform for two-way learning and mutual professional respect. The interprofessional learning experience developed relationships and provided ratification for the prescribing role post qualification.

Conclusions: Further exploration with key stakeholders and service users is recommended, prior to any changes to the designated professional group assigned to assessing non-medical prescribing competence.

Keywords: Nursing, non-medical prescribing, designated medical practitioners, interprofessional education, competencies

INTRODUCTION

Changes in patient and workforce demographics have resulted in changes to healthcare delivery policy. This is particularly evident in the field of non-medical prescribing practice where, since 1986, UK legislation has evolved expanding the scope of practice. This started with nurses being only permitted to prescribe from a limited formulary of medications (Royal College of Nursing 2012), to suitably qualified nurses, pharmacists and other allied health professionals permitted to independently prescribe medications, including controlled drugs and unlicensed medication within their professional competence(Medicines and Healthcare products Regulatory Agency 2012). To meet these practice changes and to maintain prescribing standards, the nursing regulatory body has published guidance for education requirements and for registrants once qualified (Nursing and Midwifery Council 2006).

The UK, unlike most other countries, has a unique approach to assessing non-medical prescribing students in practice (Kroezen et al. 2012) whereby the a doctor or designated medical prescriber (DMP) is required to verify that the nurse is competent to prescribe in his or her chosen area of prescribing practice (Nursing and Midwifery Council 2006). Alternatively, in most other countries nurse educators or nurse supervisors take this role, or in some countries there may not even be a period of clinical supervision (Kroezen et al. 2012).

A recent systematic review of 124 publications from 1982 to 2010 by Kroezen noted that the UK along with Ireland are least restrictive in terms of legal authority to prescribe (Kroezen*, et al.*, 2011). This approach to non-medical prescribing in the UK is intended to offer benefits in terms of increasing patients' continuity of care, access to medicines, reductions in waiting times and better utilisation of human and economic resources (Creedon et al. 2009; Latter et al. 2007; Bradley et al. 2007).

There are over 100,000 registered nurse and midwifery prescribers and 36,000 independent and supplementary nurse prescribers in the UK (NMC, 2016). With the rapid growth of non-medical prescribing in the UK (Bhanbhro et al. 2011) and publication of generic prescribing competencies (Royal Pharmaceutical Society 2016) calls for peer support (Ahuja 2009), competency assessment by non-medical prescribers (Courtenay et al. 2007) (McCormick and Downer, 2012) have been mooted. Prior to these proposed changes, the researchers believed an exploration of the experiences of those participating in the current approach to assessment of interprofessional competency assessment was needed. Therefore, this

research sought to explore the value of interprofessional competency assessment from the perspective of nurse non-medical prescribing students and DMPs.

Background

Interprofessional education

Prescribing is a complex process, which frequently involves collaboration with different health care professionals in order to make safe, effective, and evidence-based prescribing decisions. Interprofessional education in healthcare is where students from different professional background learn together with the aim of improving teamwork and ultimately outcomes for patients (Olson & Bialocerkowski 2014). This collaboration and learning approach is reflected in professional prescribing standards (Nursing and Midwifery Council 2006; General Medical Council 2013; Health Care Professionals Council 2013). This appears to have a positive impact on patient care with one interventional study of 150 patients in Switzerland finding, that interdisciplinary psychiatric and geriatric care significantly reduced inappropriate prescribing and prescribing omissions (Lang et al. 2012).

Theoretical frameworks underpin interprofessional education. One such framework is that of Clark (2006). This theory states that values, moral reasoning and problem solving is established within the norms or culture within a profession and is 'unique' to them. This framework has three main characteristics centred on professional socialisation. First, Clark hypothesises that participants are encouraged through interprofessional education to view the world from a perspective, which is different to their own. This aims to develop professional judgement, breaks down biases and improves team working. Secondly, it supports the acquisition of knowledge and skills from another profession, crosses professional boundaries and develops a multi-skilled workforce. Thirdly, mutual interprofessional appreciation and identifies when the skills of another professional may be required.

Details of NMP training requirements

During the NMP programme interprofessional education and collaboration is emphasised to support the development of prescribing skills. In this programme, assessment of clinical competence follows university based teaching and a theoretical pharmacology examination. The student/DMP collaboration requires of development a work based learning plan in order to achieve 78 hours of learning in practice and clinical competencies (Nursing and Midwifery Council 2006). The work-based elements of the programme is achieved through observed

consultations, working with other non-medical prescribers, and reflective case based discussions. This approach provides a 'real world' prescribing experience and develops a mutual appreciation of different professional disciplines, training and perspectives in the context of prescribing.

This work-based assessment is academically assessed in a degree or masters level portfolio evidencing prescribing practice across a range of clinical scenarios within the student's scope of practice. In summary, a problem solving case based approach to learning facilitates students to work collaboratively with other professions developing competence in prescribing more effectively than a uniprofessional approach. Clark (2006) describes this as cooperative, collaborative or social learning.

Research on interprofessional education in NMP

There has been limited research on the role of interprofessional learning and competency assessment by DMPs in non-medical prescribing education for nurses. One study examined the doctors' view on supervision, overall the doctors were positive about the DMP role, however their involvement was predicated by a pre-existing working relationships (Avery et al. 2004). The primary challenge was that supervision involved considerable time and effort and with no protected time or financial incentives offered, those willing to undertake this role may be limited.

This finding was supported in a study which undertook a survey with 57 NMP students on their learning experience with their DMP (Ahuja 2009). A number of these students reported difficulties in finding a DMP for supervision (13.5%) and 19.4% were not satisfied with the time available from their DMP. Some students suggested that a co-mentor model could be more effective due to the time limitations of their mentors. However, despite these issues 100% of the students then reported satisfaction with their DMP's support. Another study which undertook interviews with 10 NMP students on their learning in practice also found that time constraints of the DMPs presented challenges to the students learning experience, and reported that students perceived that pharmacists and other experienced NMP might be more suitable for some of some prescribing competencies such as accountability and concordance (McCormick & Downer 2012). However, the participants also highlighted that some aspects such as the approach to history taking from a DMP was a positive aspect of their interprofessional learning experience. None of these studies concurrently reported supervision and assessment from the student and DMP's perspectives, which is a gap in the evidence base.

THE STUDY

Aim

The aims of this study were to;

1. Explore the views of non-medical prescribing nursing students and their medical mentors on interprofessional competency assessment
2. Investigate whether students' perceptions of interprofessional competency assessment evolved during the programme of study.
3. Explore interprofessional competency assessment as it related to development of safe competent prescribing practice.

Design

The underpinning theory was based on interprofessional education (Clark 2006). Applying qualitative methodology, a topic guide and interview schedule were developed based on the research aims and Clark's theoretical framework. The researchers sought to explore with participants their views, including how their professional norms might influence this assessment approach. NMP students' views were sought on two time points (start and end of supervised practice) to explore whether their perspectives changes over time due to the interprofessional education. DMPs views were sought on completion of the programme.

Study participants

Students were eligible to participate if they enrolled on the September 2013 non-medical prescribing programme and available to participate in both focus groups. DMPs were eligible to participate if they were supervising a student on the September 2013 programme. The selection of DMP and nurses undertaking the non-medical prescribing course allowed the researchers to explore Clark's theory from the perspective of both professions.

Out of a sample of 27 eligible students, six consented and participated in both focus group. The students were from primary care (n=3) and secondary care (n=3) and employed by three NHS boards in Scotland. DMPs (n=6) participated in semi structured telephone interviews. The DMPs were from primary care (n=4) and secondary care (n=2) and

employed by three NHS boards in Scotland

Data collection

Two focus groups were conducted with study participants, one at the start of the learning in practice experience and one on completion of the programme, four months later. Each focus group was approximately 70 minutes and structured around the topic guide. The questions were broad to allow flexibility in the discussion while ensuring the aims of the study were met.

On completion of the programme, telephone interviews were conducted with a convenience sample of DMPs who had supervised students enrolled on the programme. These were conducted using the interview schedule and conducted over a period of a month and ranged from 10 to 18 minutes in length.

Ethical considerations

The study was conducted following ethical approval from Edinburgh Napier University Ethics Committee in December 2012. The university ethics code of practice was followed which included obtaining consent, ensuring anonymity and protecting confidentiality. Potential participants were informed of their right to refuse to answer any question and their right to suspend or withdraw from the research project at any time.

Data analysis

Thematic analysis was undertaken to understand the underlying ideas, assumptions, conceptualisations and ideologies that were presented through analysis of the participant's discussions. Data were analysed using the framework for thematic analysis as described by (Braun & Clarke 2006).

Familiarizing of the data was undertaken as the audio recording were transcribed and read repeatedly to become familiar with discussion. If the transcription was not clear or it was difficult to understand the meaning of discussion, the recordings were listened to again to bring a more complete understanding. The next stage involved the generation of initial codes. The first researcher (JA) generated initial codes, which were then, rechecked a number of times against each of the transcripts. After this, both researchers reviewed the initial coding and began searching for themes applying the Clark's theory as a framework for

analysis. After initial coding, preliminary themes were suggested. These were further refined and original data reviewed as necessary. In the next stage, both researchers reviewed the themes separately and examined the data to verify the themes. Different interpretations of the data were discussed and when agree the researchers defined and named the themes. Exemplar quotes, which reflected the themes, were proposed and a report of the research was completed.

Validity and Rigour

The topic guide for the focus groups and interview schedules were based on issues identified from the research literature and educational policies related to non-medical prescribing. The non-medical prescribing course leader and educationalists at Edinburgh Napier University reviewed both. The study was conducted in line with the protocol and all transcriptions were checked for accuracy after initial transcription. The use of a second researcher to verify transcript, agree themes and cross check data ensured the credibility of the data presented. Both researchers also undertook a process of reflexivity on their own views and continuously referred back to the data to ensure analysis was grounded in the data.

FINDINGS

The data were organized into the three main themes focused on areas related to Clark's framework.

Assessing and viewing a world that is different to their own. One DMP was unclear about the relationship between the competencies and other assessments and safety in prescriber.

> DMP6: '…I don't think [the competencies] gave me insight into whether the person was safe or not...but I also know that there's other assessments in terms of the pharmacology… and I don't really know how they marry with the portfolio...'

DMPs referred to undergraduate medical student education suggesting there might be a preference for using a simulated clinical environment

> DMP 5 '… I mean; the way we do it in medical finals is that the students will have two 15-minute vivas where they are presented a case where they prescribe. They say what they're prescribing, why they're prescribing, how they're prescribing, what the toxicities are and so forth.'

The students also highlighted the assessment was not fully understood by their DMP or other medical staff.

> FG1 NMP1 'I have had to spend some time with my DMP to become familiar with the structure [of the course] and the competencies – that is not an assessment he has been really familiar with…I had to educate them a wee bit on how the course works.'

Moreover, one non-medical prescribing student suggested that neither group of professional were confident of the interpretation of the NMC competencies.

> FG2 NMP2 '…I think the two of us were kind of floundering a bit and even when it came to signing my competences off last week, you know, we were, we still had slightly differing ideas as to what competency…meant and things.'

It also highlighted the differences between professions, which allowed both to explore their roles from a different perspective.

> FG2 NMP4: What xx was saying as well about the fact that, you know, they suddenly understand what your role is about…and what you do …and actually all the other things that nurses have to do. …so it's really, really interesting to hear somebody from another profession, their viewpoint on it.

Acquisition of knowledge and skills across the professions.

Both the non-medical prescribing students and DMPs suggested that there was shared learning during the period of supervision.

> DMP4: 'It's always nice to feel that you've come away and benefitted from somebody else's expertise...you know, because they would maybe going off to do literature reviews on the most recent evidence on using statins, for example, which I wouldn't necessarily have had the time or the inclination to do, so he could teach me...'

On completion of the programme, students considered the option of a non-medical prescriber assessing competence.

> FG2 NMP4: 'Yeah, because for a while I thought, why could an independent nurse prescriber not be…my DMP? But actually thinking about what I've learned about clinical systems and the biochemistry and that sort of thing…I'd rightly or wrongly that I think medics often have a better depth of knowledge…'

This acquisition of knowledge and skills extended to how a prescribing decision was made.

All participants reported a different approach to decision making and suggested that doctors rely more on clinical judgement and nurses on protocols and guidelines.

> DMP3: R: …' Doctors by and large…. are taught to do something which is usually not protocol driven… and so you might have a difference… in the way you work your way through to a solution.'

> FG1 NMP6: 'I don't think they realise how much we have to be governed by guidelines and things than they do, I'm not saying that their not governed by them or don't use them but… He didn't seem to reflect the importance to us of going over these guidelines'.

The students voiced many benefits that were related to the knowledge and skill of the DMP in relation to the prescribing role, which benefited their practice. All focus group participants highlighted benefits of a medical DMP.

> FG2 NMP5: I actually came out of there thinking these guys really know what they're talking about. In terms of prescribing point of view, I learned a hell of a lot from them. But, you know, it's the other kind of stuff…
> NMP4: It's the communication.

The groups were questioned on the role of mentor being replaced by a non-medical prescriber. However, both groups also highlighted that another non-medical prescriber would complement this, but not necessarily replace the DMPs.

> DMP5: 'well I suppose, ultimately, you have to have the process approved by the people actually doing the process at the moment.'

Nurses seemed to highlight more of the negatives of losing a DMP.

> FG1 NMP 3: 'I think having a medical assessor – they can see it from your side as well fresh eyes'

Breaking down of professional boundaries.

Through the involvement of the DMP, students felt their prescribing role was ratified. It was suggested that this involvement develops trust between the two professions.

> FG1 NMP3: 'I think if DMPs are… If they are sitting in with you then they are learning about you and trust your judgment more and are happier with your prescribing and they have seen you at work.'

This approach was also identified by students as valuable in terms of the unique skills of the medical profession in terms of knowledge of biosciences.

> FG2 NMP3: I don't, I think they'll maybe be more confident in what you're prescribing, because they know what your information base is…and your evidence base and you're following certain protocols, and you know…what's behind those protocols. And you can explain things. They know how you deal with the patients and explain to them their options, and feedback. So I think in, I think they'll be more trusting…

It also had ratified the role of the NMP in the wider interprofessional team and felt was largely based on the DMP both seeing the training and having confidence in their individual skill and decision making as their supervisor.

> FG2 NMP4 'And he's passed [his support for NMP] onto some of the other guys in the practice as well. And so I think the repercussions of asking him to be my DMP have been far wider reaching than either of us could ever have anticipated.'

This theme came out strongly from the non-medical prescribers in both the first and second focus groups.

The students were interviewed at two time points to assess for differences in their perception before and after their period of supervised practice. There were no differences noted between the two time points and their perceptions seemed to have changed very little based on their supervised practice. This may be because they have always worked in an interprofessional environment and have benefitted from interprofessional working in the context of acquisition of knowledge and skills, development of professional judgement and breaking down of professional boundaries throughout their careers.

DISCUSSION

The results from this study suggest that, interprofessional competency assessment in the context of prescribing are aligned to Clark's theoretical framework.

One particular aspect which is problematic for both the student and the assessor is that of the competency assessment. This study suggests that the medical profession prefers traditional observed structure assessment and 'real world' competency assessment is an unfamiliar concept. This may be explained by the traditional norms of assessment in medicine. During basic medical training prescribing assessment can be with generic clinical scenarios however, this approach is not possible in the non-medical prescribing with those

attending from differing professional backgrounds. Furthermore practice based assessment is preferred by non-medical prescribing students (Forward & Hayward 2005). This different assessment approach resulted in students explaining assessment and medical staff being unclear about their role in the assessment process and raising questions if the assessment was objective in assessment of prescribing competence. Because of the confusion since completion of the study, the prescribing programme has changed from the NMC competency statements to the single competency framework for all prescribers (Royal Pharmaceutical Society 2016). This may provide greater clarity on the assessment criteria for nurse prescribing students to their medical assessors. A replication of this study following this change may be worthwhile to establish whether there is improved understanding of this approach to assessment.

The data also suggested that, in order to make sense of the competencies, a shift from seeing the world from one's own professional perspective to viewing the world from a different perspective is required. This appears to result in a period of confusion (or decentring) but can ultimately result in an understanding of the views of another profession.

With regards knowledge and skills, the results suggest that non-medical prescribing students valued the scientific knowledge and skills shared between them and DMPs. Discussions related to evidence based practice and scientific knowledge were evident from both groups, knowledge which are fundamental to developing and maintaining prescribing competence. Evidence suggests that non-medical prescribers feel that pharmacology is an area of weakness (Green et al. 2009) but knowledge acquired is to be adequate (Smith et al. 2014). This study suggests that DMPs knowledge base and sharing of this complimented the pharmacology theory delivered during the programme and helped to contextualize the generic principles of pharmacology.

An interesting finding is non-medical prescribing student's assimilation and discussion of prescribing evidence, updated DMP's practice. Supervision of a student or novice in practice is often perceived to be a valuable learning experience for all parties (Lafleur & White 2010) but has not been reported in the non-medical prescribing literature before. Non-medical prescriber students are novices in relation to prescribing but in general, they are registered expert practitioners who routinely assimilate evidence and apply information to clinical decisions. The students are likely to have existing close working relationship with their DMP resulting in mutual trust and respect between the two parties. This relationship may result in the learner-teacher role being a mutually beneficial learning experience. DMPs augment the students theoretical learning and student prescribers contribute to DMPs professional development. These findings may be a case against uni-professional prescribing

assessment and require further exploration.

In conclusion, this process of interprofessional assessment improves team working. It appears to develop an understanding of how another profession approaches the same skill, and allows all parties to acquire a higher level of knowledge and skills and an appreciation of how each profession applies this in practice. This mutual understands is highly valued by the non-medical prescribers and appears to ratify their role as a prescriber. Data from this study suggests this to be important not only during the learning process but beyond this post qualification through the confidence that the DMPs have in their competence as a NMP.

Clark theorised that through interprofessional education there would be a breaking down of biases between professions (Clark, 2016). Exploring the perceptions of the students before and the end of their practice provided an opportunity to examine this aspect of the theory. The researchers did not find any evidence to support this from the perspective of the students – however, this may have been predicated by the close professional working relationship prior to enrollment.

Although DMPs were not interviewed at the start and the end of practice learning, there is evidence DMP's have developed an appreciation of prescribing competence through their involvement in the learning and assessment process. This finding may benefit from further exploration as the acceptance and rapid expansion of non-medical prescribing in the United Kingdom may be related to this. Moreover, this may have implications for international development of non-medical prescribing education and practice.

Implications for Practice and Education

Ultimately, prescribing competence should lead to safe, effective prescribing practice and this is the most important consideration in development of non-medical prescribers practice. While the benefits of interprofessional learning has been well documented in other areas of education (Illingworth & Chelvanayagam 2007) this research provides evidence of the barriers and benefits in relation to prescribing education.

Limitations

Limitations of this study related to sample selection as the students self-selected to volunteer for the focus groups, and this process would potentially exclude outliers such as those who have had a difficult experience as they may wish to avoid discussing this in a group situation.

This was undertaken in only one university – therefore the views of the students and to a lesser extent the DMPs would be focused by the specific course and the interaction with the course tutors. However, despite these limitations this is one of the only studies, which qualitatively and concurrently sought the views of DMPs and nonmedical prescribers on role of this approach to assessment.

CONCLUSION

This study ratified Clark's theory of interprofessional education, demonstrating the clear influence of cognitive and normative maps on professions and development of knowledge and skills. The results suggest there are challenges, particularly in relation to how 'prescribing competence' was interpreted between the two professions. However, the benefits of this interprofessional approach were apparent in this study. The United Kingdom's unique approach to non-medical prescribing assessment may have benefits to professional development and the scope of this role as it continues to expand in the UK. It is therefore recommended that before changes are made to those who can assess non-medical prescribing students in the UK further study on the benefits and limitations of this approach should be conducted.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors

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Highlights – What is the value of inter-professional competency assessment? – A non-medical prescribing perspective.

- There are challenges in defining competency between professions
- There are clear benefits such as allowing different professions to share knowledge of their practice, knowledge and roles.
- Inter-professional assessment may support role ratification of non-medical prescribers post registration
- More research is needed to determine the optimum competence assessment strategy