Towards excellence in clinical education

Ann-Charlotte Falk[2], Elisabeth Liljeroth[3]

Corresponding author: Dr Ann-Charlotte Falk ann-charlotte.falk@sll.se
Institution: 2. Karolinska Institute, 3. Karolinska institute
Categories: Education Management and Leadership, Research in Medical Education, Curriculum Evaluation/Quality Assurance/Accreditation

Received: 29/06/2017
Published: 10/07/2017

Abstract

Background: The healthcare system has a growing need for knowledgeable and skilled health care personnel to meet the demands to support student learning in clinical training. One way to assess teachers’ competence is to use a teacher portfolio; however, this has not been done with the mission of clinical health care personnel in focus. Therefore, the aim of this study was to develop a portfolio to assess clinical health care personnel’s pedagogical competence.

Methods: Pedagogical active nurses and physicians from the anesthesia department, operating room and intensive care, and an educational expert with extensive experience of developmental work of pedagogical portfolios in the academic setting developed a qualifications portfolio for pedagogical competence in the clinical setting.

Result: The assessment standards define five levels of teaching competence and include both experience and quality of the educational mission in the clinical setting. The pedagogical portfolio is congruent with the assessment tool and structured with headings to promote clinical teachers to document both quantitative and qualitative aspects of teaching.

Conclusion: The portfolio enables clinicians and managers in academic hospitals to highlight the need for high-quality professional and the ability to identify needs for pedagogical skills among health care personnel.

Keywords: Assessment criteria; pedagogical values; educational portfolio; health care personnel

Introduction

The healthcare system has a growing need for skillful teachers that pursue their mission based on a good understanding of teaching and learning. The role of a teacher in medical education is multifaceted and includes: providing information, role modelling, facilitating, managing learning, and community building (Harden 2000). One definition of a pedagogical expert is a person who is familiar with theoretical assumptions and activity in higher
education. One way to assess such competence is to use portfolios, as reported by Pyörälä (2014) in the academic setting. A portfolio is a structured compilation of materials that together provide a picture of the teachers’ educational competence and to verify the teacher’s capabilities, both in educational training and teaching experience. It can include texts that help practitioners to become aware of how theory and practice can be linked. However, to our knowledge a portfolio for clinical health care personnel who take part of clinical education as part of their regular work has not been described. There is scarce knowledge on how to describe standards for the clinical health care personnel’s competence, except for being a reflective practitioner (Kolb 2014). Despite the extensive education carried out in clinical practice, there is currently no framework to assess pedagogical competence in the clinical setting. Competence for clinical teachers. Furthermore, competence frameworks related to being a clinical teacher have not taken into consideration how modern health care can be provided via interprofessional teamwork with both physicians and nurses. A controversy described by Harden & Crosby (2000) is whether or not health care personnel should teach in the clinical setting or if there should be specialized teachers with pedagogical competence working at universities should teach during clinical practice. Historically, clinical teachers within nursing and medicine are recruited to teach based on their competence as practitioners, and evidence-based knowledge of teaching and learning have not been demanded or valued.

Research on teaching and learning in higher education has shown that there is a correlation between the teachers’ understanding of what and how their students learn and the teachers’ success in teaching (Biggs & Tang 2003). There is reason to believe that a good knowledge of the basics of pedagogy can sensitize health care personnel to develop a pedagogical practice of among health care personnel in the clinical setting (Irby 1994, McLean 2001, McLeod 2009). However, as mentioned above, the literature heavily relies on studies regarding academic teachers and may not fully apply to the conditions of pedagogical work based on clinical pedagogical aspects and health care personnel’s competences. Furthermore, the nature of clinical work in nursing and medicine does not promote reflective pedagogical writing that communicates the quality of work. Therefore, we developed a framework to assess and promote clinical health care personnel’s pedagogical competence. The framework aimed to strengthen the value of pedagogically based teaching and learning in the clinical setting. The framework has a portfolio structure, and its purpose is to guide clinical health care personnel, both reg. nurses and physicians in regard to documentation, compilation and reflection on pedagogical competence, and to provide clear standards to assess pedagogical competence.

**Method**

We applied a model for developing educational change using a peer group of clinical health care personnel in nursing and medicine at an anesthesia department, operating room and intensive care to develop a qualifications portfolio, and we defined assessment criteria for pedagogical competence in the clinical setting.

**Context**

The university hospital with 1700 beds with 15300 employees where clinical education and training is crucial with an integral part of the work. The clinic is responsible for extensive education at a high academic level, theoretical as well as bedside, which requires highly trained and skilled health care personnel. All clinical work takes place in multi-professional teams in the operating rooms, as well as in the intensive care unit (ICU). In Sweden, education for both physicians and registered nurses is part of higher education and therefore the pedagogical portfolio is made for both nurses and physician working in the clinic. For registered nurses there are three years of education, 180 ECTS (European Credit Transfer and Accumulation System), plus an additional one-year, 60 ECTS, at advanced level, which is regulated by the Swedish higher education authority. The education provides a professional degree
(postgraduate diploma) in specialist nursing at a master degree in most universities in Sweden with no special focus on pedagogical issues.

**Result**

The development of the qualification portfolio was inspired by the teaching portfolio for academics at the university, and was revised according to the different skills required by health care personnel at a clinical setting in a university hospital. The portfolio has both quantitative as well as qualitative aspects on five different levels of teaching in the clinical setting (table 1).

| 1. Pedagogical competence | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|---------------------------|---------|---------|---------|---------|---------|
| 1.1 Pedagogical education | Physician or Registered nurse, specialist in anesthesia / intensive care/ theatre | ≥ 7.5 ECT in Pedagogic i.e. 1 week education Training in clinical supervision | ≥ 60 ECT in pedagogic i.e one year education Master in pedagogic | ≥ 120 ECT in pedagogic i.e 2 years education Master /license examination in pedagogic. | PhD in pedagogy |

2 Pedagogical work

| 2.1-2.3 Art and form of education | Clinical education Single lectures and/or seminars | Clinical bedside education on regular and advanced level Lectures on regular basis for one colleague or one student category. | Clinical bedside and for teaching at university, involved in clinical examinations. Lectures on regular basis for several colleagues and/or student categories | Main supervisor in clinical and/or at university, involved in clinical assessments Lectures on regular basis for several colleagues and/or student categories in different national context. Examines theoretical and clinical competences | Main supervisor for PhD students Involved in clinical assessments Lectures on regular basis in different contexts (nationally and internationally). Develops plans and evaluates examinations in theory and practice |

| 2.3 Pedagogical assignments | Time limited clinical bedside supervision or clinical assignments | Limited educational assignments i.e. clinical bedside training | Adjunct clinical lecturer supervisor for physician in specialist training for extended period of time | Clinical lecturer or clinical assistant, 100% Pedagogical responsibility for clinical education. Supervision of clinical supervisors | Lecturer, Ass. Professor, Head of education. Responsible for clinical education in the clinical setting. Responsible for compliance towards university requirements. |

| 2.4 Production of pedagogical teaching aids | Development of digital teaching aids | Development of resources for the planning, delivery and evaluation of teaching and learning i.e. films, assessment criteria, student evaluation forms | Responsible for and developer of clinical and theoretical examinations Produce textbooks. | Produces textbooks Responsible for and develops clinical and theoretical examinations for national/international context. |

| 3. Pedagogical development | | | | |

| 3.1 Pedagogical developmental project | Organize workshops Implementing supervision in the clinical setting | Head of pedagogical projects clinical training, team training perioperative dialogue | Main supervisor or co-supervisor for pedagogical research |

| 3.2 Presentation of pedagogical project | Regional level | National Congresses and seminars | International Congresses and seminars |

| 5. Quality of pedagogical work | Recurrent positive evaluation from students/colleagues. | Continuous development of teaching based on theory and clinical evaluation | Applies and develop theoretical knowledge in teaching, reflects on teaching and education | Applies and initiate theoretical knowledge in teaching, reflects on teaching and education |

**Table 1. Pedagogical portfolio in the clinical setting**
Based on the teaching portfolio, an assessment tool was developed, with comprehensive criteria for theoretical pedagogical training, teaching assignments within the department and the university, as well as educational development and research (figure 1).

Figure 1. Areas to assess both qualitative and quantitative pedagogical competencies

The assessment criteria include five different levels on all aspects of pedagogical merits, with level one referring to physicians and RNs at specialist level educating students during their clinical training. The assessment criteria for health care personnel should be individually evaluated in the different levels between one too five. Different assessment levels have been developed throughout the scale, and level five requires a doctoral degree in pedagogical education (figure 2).
The aim of the assessment tool is to place the clinician’s knowledge and experience on a continuum and on different assessment levels so clinicians can evaluate and develop their competence where needed (see figure 3 for an example).

Discussion

To our knowledge, this is one of the first attempts to apply a portfolio-based framework to assess and promote
pedagogical competence for all clinicians in nursing and medicine at a University hospital. Teaching is a demanding and complex task; however, clinical health care personnel with educational responsibilities /mentors are recruited on the basis of being competent health profession practitioners without paying attention to their ability to support student learning (Powley & Higson 2013). Teaching skills implies a qualitative aspect of pedagogy in a health care personnel’s competence, which is something more than just the number of teaching hours. They include the entire educational process from planning and implementation to evaluation, feedback and development. The teaching skills referred to in this portfolio is how well a reg.nurse or a physician works in the actual pedagogical situation, but one which also includes awareness, development tendency, ability to cooperate and contributions to higher education teaching development. This is in well in line with the results of Pyörälä (2014) who showed that a role-based portfolio helped teachers in the academic setting to discover educational roles and to become goal-oriented in their professional development.

The portfolio was inspired by the teaching portfolio for academics at the university and was revised according to the different teaching skills required in a clinical setting in a university hospital by a peer group of clinicians. However, it is not only the individual clinician that has to develop pedagogical skills. The organization within the academic hospital has to foster high-quality teaching, rewarding teaching excellence and setting professional standards for medical teaching to ensure teaching develops professionally within hospital organizations (Powley & Higson 2013). However, literature that has developed such recommendations is still lacking. Whether or not it is possible to assess pedagogical competence reliably has been questioned. However, assessment is possible if there is a clear definition of teaching skills, with different criteria based on pedagogical knowledge in the clinical setting, which is in line with our portfolio. As described by Bligh and Brice (2010) to develop effective leaders, a professional framework is essential to ensure continuous quality improvement in different pedagogical approaches in the clinical setting. High-quality teaching is a challenge, and to initiate a framework for professional development within clinical the clinical setting for both reg.nurses and physicians could be one way to achieve it.

Conclusion

The portfolio enables clinicians and managers in academic hospitals to highlight the need for high-quality professional and the ability to identify needs for pedagogical skills among health care personnel. The portfolio is a valuable tool to highlight professional development for the individual clinician as well as in the organization.

Take Home Messages

- The portfolio assesses pedagogical competences in the clinical setting
- A framework for high quality teaching
- The portfolio identifies pedagogical skills among health care personnel
- The portfolio highlight professional development
- Identifies pedagogical needs in the health care organization

Notes On Contributors

Ann-Charlotte Falk, Reg nurse, specialist in critical care nursing, Ass. Professor in nursing and Director of nursing development at Perioperative medicine and intensive care, Karolinska University hospital
Elisabeth Liljeroth, Reg nurse, specialist nurse in anesthesia, Lecturer at Karolinska Institute and at PMI, Karolinska University hospital in Solna.

Acknowledgements

We gratefully acknowledge all the educational health care personnel in our clinic and Linda Barman for valuable guidance throughout the project.

Bibliography/References

Biggs J. & Tang C. 2003. Teaching for Quality Learning at University, UK, Open University press,

Bligh J. & Brice J. 2010. Leadership in medical education. Bmj; 340, c2351.

Harden R. & Crosby J. 2000. The good teacher is more than a lecturer-the twelve roles of the teacher. Medical Teacher 22, 334-347.

Irby D. 1994. What clinical teachers need to know. Acad Med, 69, 333-42.

Kolb A. & Kolb D. 2014. On Becoming an Experiential Educator: The Educator Role Profile [Online]. EBLS Working Papers. Available: http://learningfromexperience.com/media/2014/02/ERP-ebls-working-paper-2-14.pdf [Accessed 20160125 2016].

Mclean M. 2001. Rewarding teaching excellence. Can we measure teaching excellence? Who should be the judge?. Med teacher, 23, 6-11.

Mcleod P, Steinert Y, Chalk C, Cruess R, Cruess S, Meterissian S, Razack S & Snell L 2009. Which pedagogical principles should clinical teachers know? Teachers and education experts disagree. Disagreement on important pedagogical principles. Med Teach, 31, e117-24.

Pyörälä, E 2014. How we developed a role-based portfolio for teachers' professional development. Medical Teacher, 36(9):765-8.

Pownley E & Higson R 2013. The arts in medical education: a practical guide. 2nd edn. London; Radcliffe.
Appendices

Declarations

The author has declared that there are no conflicts of interest.

This has been published under Creative Commons "CC BY 4.0" (https://creativecommons.org/licenses/by-sa/4.0/)

AMEE MedEdPublish: rapid, post-publication, peer-reviewed papers on healthcare professions’ education. For more information please visit www.mededpublish.org or contact mededpublish@dundee.ac.uk.