Teaching and learning professionalism in medical education

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Dissertation for the University of Groningen, the Netherlands, with references and summary in Dutch. The study presented in this thesis was carried out at the Graduate School for Health Research SHARE of the University of Groningen.

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Design Marleen Zoon, Ontwerp Denker, Groningen
Press GVO drukkers & vormgevers B.V. | Ponsen & Looijen

ISBN 978 90 367 7020 0

rijksuniversiteit
groningen

Teaching and learning professionalism in medical education

Proefschrift

ter verkrijging van de graad van doctor aan de
Rijksuniversiteit Groningen
op gezag van de
rector magnificus prof. dr. E. Sterken
en volgens besluit van het College voor Promoties.

De openbare verdediging zal plaatsvinden op
woensdag 18 juni 2014 om 11.00 uur

door

Hanke Dekker

geboren op 17 december 1966
te Haskerland

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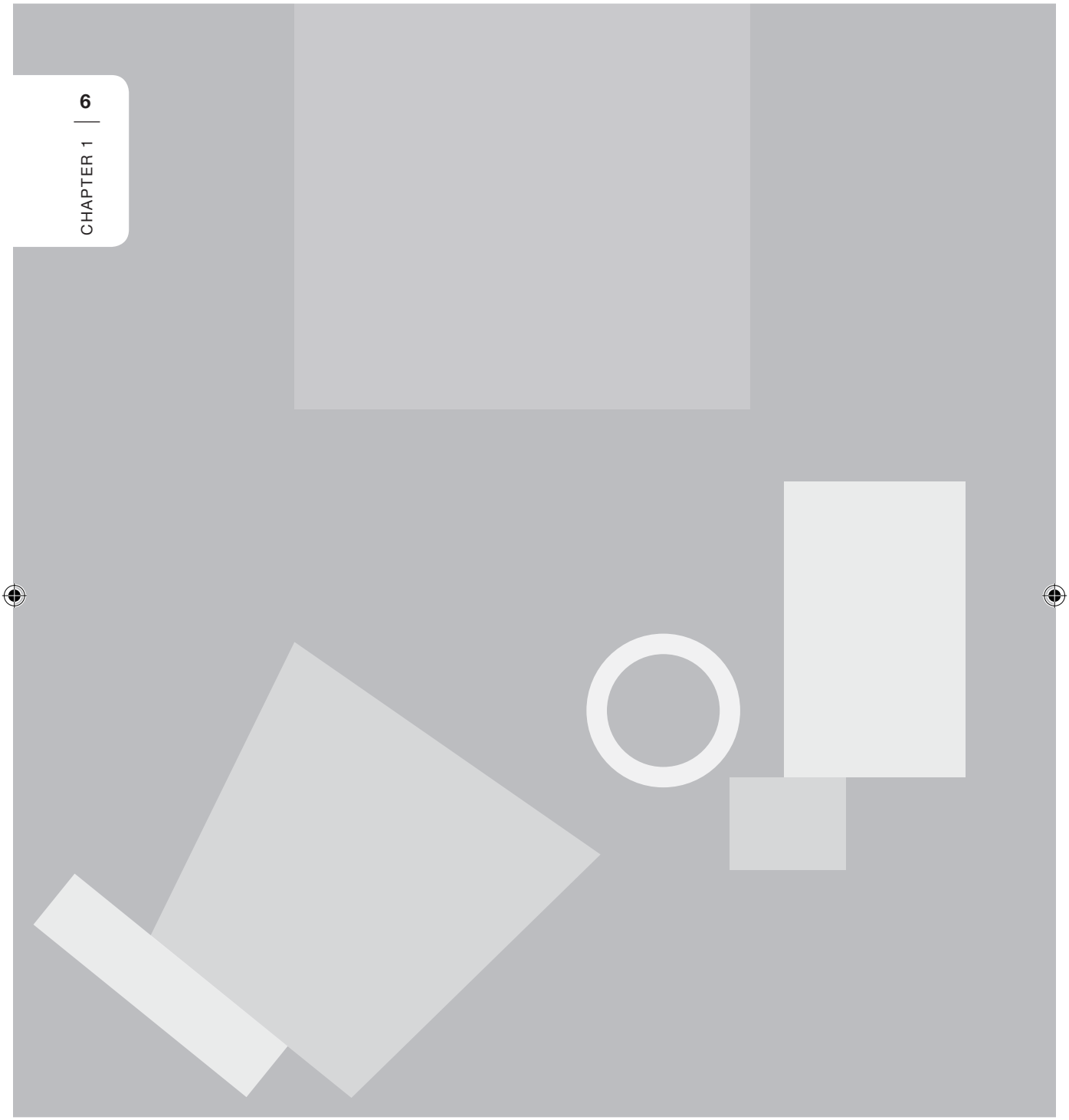

INTRODUCTION

'Doctor convicted of possessing child pornography banned from the medical profession' (AD, 20 November 2013)
'Instigator of murder still practising as a doctor' (nos.nl, 15 November 2013)
'Addicted doctor temporarily suspended' (Trouw, 1 November 2013)
'Shocked reactions on statement dishonest doctor' (Eenvandaag, 25 October 2013)
'Horror-doctor … also stole money' (Spits, 28 October 2013)

This selection of headlines from the Dutch media gives the impression that many doctors would appear to be losing touch with their fundamental commitment to medical professionalism. The incidents might appear anecdotal; however, similar incidents have been reported worldwide. Several authors have raised concerns in international journals that public trust in the medical profession could be in decline.[1-3] As a result, there has been a widely acknowledged call for professionalism to be taught explicitly.[4,5] This thesis addresses a few aspects of the effective teaching and learning of professionalism in undergraduate medical education.

BACKGROUND

The concept of professionalism has changed over time.[6] Scribonius Largus, a physician and pharmacist at the court of the Roman emperor Claudius, was one of the first to make the connection between professionalism and medicine. He described professionalism as '*a commitment to compassion or clemency in the relief of suffering*'.[7,8] These early ideas carried forward into the Middle Ages, when three professions were described: law, the clergy and medicine.[6] They were called the 'learned professions' because one of their main characteristics is that individuals from each group possess a body of specialist knowledge and skills.[6] The other characteristics are commitment to high standards of service, having a degree of self-regulation and autonomy, and practicing moral and ethical standards of behaviour.[6]

In the nineteenth century science began to transform medicine, making it more effective and therefore worth paying for. At the same time, the industrial

revolution created greater wealth more generally, enabling patients to pay for healthcare.[9] Medicine came to be organized at a national level in most developed countries through the establishment of national medical associations. Governments awarded these associations monopolies over medical practice, and in return the medical profession was expected to serve society. This implicit understanding between medicine and society is called the 'social contract.[9,10] Under the terms of this contract, medicine was granted a monopoly over the use of its knowledge base, considerable autonomy in practice, prestige and status, the privilege of self-regulation and financial reward. In return, doctors and the profession are expected to be altruistic, demonstrate honesty and integrity, assure the competence of practitioners and be devoted to the public good. [9, 10] Consequently, the meaning of professionalism has changed over time and professionalism has become the basis of the relationship between medicine and society.

It is not easy to practice professionalism in a rapidly changing society.[11] There are many societal factors that influence the context in which doctors work.[12,13] In recent years, medical knowledge has expanded rapidly and the complexity of the skills doctors require has increased due to technological development. Each doctor must confront the inherent complexity of medical practice and will be increasingly dependent on specialists in other fields or other healthcare workers. As a result, medical care requires a multidisciplinary approach in which teamwork is essential. In addition, with the easy access and the availability of an extensive amount of information about health and disease through the Internet, doctors are increasingly being confronted by well-informed and articulate patients. Furthermore, the focus of healthcare has broadened to include political and economic considerations. Politicians express their opinions and intervene in healthcare matters, and insurance companies have considerable influence over the provision of healthcare. The media also plays an increasingly important role as an information source on healthcare issues. Finally, today's doctors are looking for a renewed balance between their work and their private lives and do not wish to be available 24 hours a day. In sum, many societal factors influence current medical practice.

The implicit balance between society and the medical profession appears to have been disturbed. As early as the early 1970s, the sociologist Freidson suggested that self-regulation of the medical profession did not always function as intended.[14] He argued that even though doctors were oriented towards providing a service to patients, issues such as financial income and prestige were becoming more important. Freidson also commented that there did not seem to be an effective way to discipline colleagues for incompetence or ethical lapses. It is difficult for doctors to deal with failing colleagues and to call them to account. While sociologists tended to focus on the relationship between the medical profession and the society that it serves, the physician Coulehan expressed a cynical view of medical reality: '*Physicians enter their patients' rooms as infrequently as possible; and when they do enter, they listen to these patients as little as possible. Instead, they usually have an agenda in mind, a procedure to perform or a parameter to check*'.[15]

A CALL FOR TEACHING PROFESSIONALISM

Doctors, patients and members of the general public have come to realize that medical professionalism is under threat. The traditional apprenticeship model, in which medical students develop professional values and beliefs during an implicit process of socialization, is no longer sufficient to prepare medical students for future practice. The Canadians Richard and Sylvia Cruess are important advocates of teaching professionalism explicitly to students. A justification for this focus was provided by Maxime Papadakis, who reported a strong association between practising physicians who end up being disciplined by a medical board and their prior unprofessional behaviour in medical school.[16] To answer the call for professionalism to be trained explicitly to prepare medical students for future practice, clear learning outcomes and aligned teaching and assessment are required.[17] Further definition of the concept of professionalism is necessary before these learning outcomes can be developed.

DEFINING PROFESSIONALISM

A necessary step towards the operationalization of professionalism is its definition.[18] However, professionalism seems difficult to define because it is often regarded as an intangible topic.[19,20] There is an immense body of literature which seeks to define professionalism, ranging from commentaries and the works of individual authors, to formal descriptions provided by national boards and other organizations.[19,21-32] A simple way of demonstrating the variety in these definitions is to perform a word count. An example of a short definition – 19 words – was provided by the Royal College of Physicians of London:

'*Medical professionalism signifies a set of values, behaviours and relationships that underpins the trust the public has in doctors*'.[30]

In contrast, the American Board of Internal Medicine needed 364 words to define professionalism:[21]

'*Professionalism in medicine requires the physician to serve the interests of the patient above his or her self-interest. Professionalism aspires to altruism, accountability, excellence, duty, service, honor, integrity and respect for others. The elements of professionalism required of candidates seeking certification and recertification from the ABIM encompass commitment to the highest standards of excellence in the practice of medicine and in the generation and dissemination of knowledge, a commitment to sustain the interests and welfare of patients, a commitment to be responsive to the health needs of society.*

These elements are further defined as:
Altruism is the essence of professionalism. The best interest of patients, not self-interest, is the rule.
Accountability is required at many levels — individual, patients, society and the profession. Physicians are accountable to their patients for fulfilling the implied contract governing the patient/physician relationship. They are also accountable to society for addressing the health needs of the public and to their profession for adhering to medicine's time-honored ethical precepts.

Excellence entails a conscientious effort to exceed ordinary expectations and to make a commitment to life-long learning. Commitment to excellence is an acknowledged goal for all physicians.
Duty is the free acceptance of a commitment to service. This commitment entails being available and responsive when "on call," accepting inconvenience to meet the needs of one's patients, enduring unavoidable risks to oneself when a patient's welfare is at stake, advocating the best possible care regardless of ability to pay, seeking active roles in professional organizations, and volunteering one's skills and expertise for the welfare of the community.
Honour and integrity are the consistent regard for the highest standards of behavior and the refusal to violate one's personal and professional codes. Honor and integrity imply being fair, being truthful, keeping one's word, meeting commitments, and being straightforward. They also require recognition of the possibility of conflict of interest and avoidance of relationships that allow personal gain to supersede the best interest of the patient.
Respect for others (patients and their families, other physicians and professional colleagues such as nurses, medical students, residents, and subspecialty fellows) is the essence of humanism, and humanism is both central to professionalism, and fundamental to enhancing collegiality among physicians.'

There is a conceptual division in how professionalism is defined by various authors.[20] The first type of definition regards professionalism as a set of observable behaviours, such as the Dutch Consilium Abeundi Project Team's '*professional behaviour from which the norms and values of the medical profession can be inferred*'. The Project Team elaborated professional behaviour into three dimensions: dealing with tasks, dealing with others and dealing with oneself.[31] These dimensions provide a practical framework for teaching, learning and the assessment of professional behaviour.

Framing professionalism as 'observable behaviours' assumes that clinical teachers have a shared set of standards for what is professional or unprofessional behaviour. However, Ginsburg and colleagues demonstrate that

doctors do not have a commonly shared set of standards for what constitutes professional or unprofessional behaviour.[33] It would appear that there are no behaviours that are always professional in every situation. According to Coles,[34] professional practice involves physicians in finding not so much the 'right' answer but rather in deciding what is 'best' in the given situation they find themselves in. What this 'best' decision or behaviour is in a certain situation depends on the specific features of that situation. Professionalism is thus context-dependent.

Focusing on accountability attempts to do justice to this contextual dependence of professionalism.[35] An accountable professional is able and willing to justify why his behaviour or decision is appropriate to a specific context and a specific patient.[36] In this justifying process, both the technical and the normative dimensions are important.[36] The technical dimension is more about how – how to bring bad news, for example – but the normative dimension is about whether bringing bad news at a given moment is indeed the proper thing to do. Reflective skills are regarded as essential to the development of this normative aspect to professionalism.[36]

Recently, an international group of experts identified three different yet complementary perspectives of professionalism: professionalism as an individual characteristic, professionalism as a quality of interpersonal interaction and professionalism as a societal phenomenon.[37] This more overarching debate on professionalism reflects a growing consensus on the meaning of professionalism.

To progress in this effort of dealing with the various definitions of professionalism, O'Sullivan and colleagues recommend a serious and practical approach to teaching and learning professionalism: medical schools should develop their own definition of professionalism and use that as starting point.

TEACHING AND LEARNING PROFESSIONALISM

In addition to the growing body of literature attempting to define professionalism and its learning goals, there is a broad range of articles about teaching and learning professionalism. Within this branch of literature, situated learning theory is an important educational framework to guide the teaching and learning of professionalism.[38,39] Situated learning was first described by Lave and Wenger as a learning model in a community of practice.[40] A community of practice refers to a group of professionals who share a common interest and a desire to learn from and contribute to their community with their variety of experiences.[40] Novices in a community of practice start at the periphery and by participation – a socialization process – they move gradually closer to the centre of the community, ultimately to become expert members.[40] Although this theory is applicable to various learning settings, it seems particularly appropriate for educating professionals belonging to communities joined by 'intricate, socially constructed webs of beliefs'.[41] The situated learning theory is valued as an effective approach for teaching and learning professionalism in medical education because it describes the students' transformation from being members of the lay public to expert members of a profession, possessing skills and a common set of values.[38]

In situated learning theory, role models play a key role.[9,18,42] Role modelling is a process in which faculty members demonstrate clinical skills, model and articulate expert thought processes and manifest positive professional characteristics.[43] Peer-pressure from respected role models is a very powerful tool.[44] Conversely, the destructive effect of role models who fail to meet acceptable standards can be equally strong.[45] What complicates learning from role models is that it occurs through observation and reflection, which is a complex mix of conscious and unconscious activities.[46] Negative role models can also play a part in many unconscious activities, which could hamper learning. Therefore, students and teachers should become more aware of the impact of role modelling.[47]

Reflection is key to becoming more aware of the negative impact of role modelling and to making unconscious activities more explicit.[44] Sandars defined reflection as '*a metacognitive process that creates a greater understanding of both the self and the situation so that future action be informed by this understanding*'. Reflection does not come naturally to most students.[49,50] There is a variety of educational tools and instruments that can be used to facilitate reflection, such as portfolios, personal development plans and short narratives about important incidents.[51-53] Although reflection helps individuals make sense of their experiences, the potential of reflection might not be fully realized without the help or support of another person.[48]

A small-group setting seems an effective educational environment for facilitating reflection.[54,55] Reflecting together in a small group – shared reflection[56] – is more effective than reflecting individually, because it offers information from multiple sources and multiple perspectives.[57] Interacting with peers stimulates individuals to look at things from different perspectives and hence to identify and overcome their blind spots.[58]

To summarize, situated learning theory is suitable for teaching and learning professionalism. Reflection, role models and peer support are important key components. Furthermore, there is a variety of educational tools and instruments to facilitate reflective learning, such as portfolios, personal development plans and guides for writing short narratives about important incidents.[51-53] However, it is unclear how these various conceptual and practical components can be incorporated into an integrated approach to the teaching and learning of professionalism.

TOWARDS THIS THESIS

One of our medical school's goals is to teach our students professionalism in an integrated manner. Therefore, we chose a definition of professionalism and developed an integrated course in which learning outcomes, learning activities and assessment were aligned. This course was designed to increase students' reflective competence by applying the concepts of situated learning, taking

into account the impact of role modelling, using different educational tools and instruments, enabling clinical experiences as input, and by using a small-group setting. We designed a course closely aligned to our goals and justified the choices we made in the design process. While doing so, we were confronted by many uncertainties about the 'how' question when it comes to teaching and learning professionalism. This context was the inspiration for this thesis.

Chapter 2 provides an overview of the intensive and integrated professional development course, in which 400 medical students learn to report their own experiences and reflect upon them with their peers in a structured manner. In 2011 the professional development course received the Netherlands Association for Medical Education award for best educational innovation.

Portfolio use is a tool to facilitate students' reflective learning and, therefore, a key component of our professional development course. The study described in *Chapter 3* aimed to explore the role of mentoring in portfolio-based learning. To gain more insight into the process, we explored how mentoring portfolio use has been implemented in undergraduate and postgraduate medical education settings. This study was performed on behalf of the Special Interest Group on portfolios of the Netherlands Association for Medical Education.

Chapter 4 presents our research into the characteristics of written feedback which stimulate the students' reflective competence. The aims of the study were to determine the characteristics of written feedback comments on the medical students' reflective writing assignments (Study 1) and to investigate which of these characteristics were perceived as conducive to the students' reflection process (Study 2).

Intervision sessions are held during the professional development course's small-group meetings, in which the clerks report, discuss and reflect on their own experiences in a structured manner. To determine whether the clerks' self-selected clinical experiences meet all learning outcomes, we conducted qualitative research on the issues they addressed during the intervision sessions. This study is described in *Chapter 5*. First we categorized the

issues raised by the clerks, and then investigated how the categories were related to three different yet complementary professionalism perspectives: professionalism as an individual characteristic, professionalism as a quality of interpersonal interaction and professionalism as a societal phenomenon.

The central issue in the article presented in *Chapter 6* is the student–teacher relationship. Teachers are important role models for young trainee doctors. Unfortunately, sometimes they show unprofessional behaviour. To address misconduct in teaching, it is important to determine thresholds for inappropriate behaviours in student–teacher encounters. We explored to what extent students and teachers perceived certain behaviours as misconduct or as sexual harassment.

Chapter 7 provides a general discussion of the thesis's findings, which includes methodical considerations, and implications and recommendations for medical education practice and research.

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SMALL GROUP SESSIONS ON PROFESSIONALISM DURING CLERKSHIPS: HOW CAN THEY BE ORGANIZED EFFECTIVELY?

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Submitted

ABSTRACT

Introduction Professionalism can be regarded as a reflective and evaluative second-order competence. The educational consequence of this principle is that clerks should learn to reflect in order to justify their behaviour and decisions in different situations from a normative perspective. It also means that training in professionalism should be linked to the training of other competences within the clinical workplace. In this paper we present a prize-winning course based on this concept of professionalism and report on students' experiences.

Method Small group sessions of twelve clerks and a supporting coach are scheduled 24 times a year. Sessions start with 'intervision', in which clerks reflect in a structured manner on a self-selected clinical experience, followed by a thematic discussion. In addition, clerks are required to compile a portfolio. The participants are mentored through this process in three individual interviews with the coach. Clerks starting a Masters' programme in September 2009 (n=93), September 2010 (n=86) and September 2011 (n=94) were invited to complete a web-based questionnaire containing ten items assessing their perceptions of various parts of this course on a four-point scale.

Results Seventy-seven students from the 2009 cohort (84%), 67 students from the 2010 cohort (80%) and 67 students from the 2011 cohort (78%) participated in our study. The students found that the peer groups felt safe (80-90%) and the sessions helped them to reflect on their future roles as professional doctors (80%). They were least appreciative of the personal development plan (50%). Students from the 2011 cohort were more positive about the course than the earlier 2010 and 2009 cohorts.

Discussion We designed a professional development course with structured and frequent small group sessions to create a safe environment in which clerks could learn to reflect on incidents experienced in daily clinical practice. The course encourages students to reflect on action and to gain more insight into the grey zones of doctoring. The intervision structure helps students become accountable professionals.

INTRODUCTION

Professionalism is essential for high quality care. For centuries, medical students developed professional values and beliefs during an implicit process of socialization.[1] However, this traditional apprenticeship model is no longer felt to be sufficient to prepare clerks for their future practice in a complex, rapidly changing society.[1-3] As a result, there is a call for professionalism to be trained explicitly to prepare clerks for future practice.[1,4] In this article we provide an overview of an intensive professional development course which trained 450 clerks annually to report and reflect upon their experiences with their peers in a structured manner.

Explicit training needs clear learning goals and aligned teaching and assessment methods.[5] Teaching professionalism requires the operationalization of its concepts to provide clear learning goals. There are several definitions of professionalism. At the turn of the millennium, attempts to define professionalism were focused on 'observable behaviours'. Swick, for instance, formulated a list of nine 'professional' behaviours,[6] including physicians subordinating their own interests to the interest of others, physicians adhering to high ethical and moral standards, and physicians demonstrating a continuing commitment to excellence. The assumption was that these nine behaviours cover what constitutes professionalism and that physicians are expected to exhibit these behaviours observably in day-to-day practice.

Framing professionalism as 'observable behaviours' assumes that clinical teachers share an agreed set of standards on what is professional or unprofessional behaviour. However, little agreement was found in a study of thirty faculty members who were asked to respond to five videotaped scenarios of students behaving in a professionally challenging situation.[7] This failure to find a shared set of standards was explained by asserting that there are no behaviours which are always professional in every situation. Therefore, education in professionalism is – for students – not a matter of learning behavioural patterns, but of discovering what professional behaviour is in a specific, unique situation (and to act accordingly). As Coles summarizes

it – professional practice involves physicians finding not so much the 'right' answer but rather in deciding what is 'best' in a given situation.[8] What this 'best' decision or behaviour is depends on the specific features of that situation. This means that professionalism is always context-dependent.

This contextual dependence of professionalism requires a focus on accountability.[9] An accountable professional is someone who is able and willing to justify why in the specific context, for the specific patient, the specific behaviour or decision was appropriate. In addition to the more technical dimension of the actions question, the normative dimension is also important in this justification process.[10] All doctoring actions can be viewed from a technical perspective, for example how to perform a proper physical examination of the knee or how to communicate bad news. However, there is also a normative side: is this action or decision really the best to take at a given moment? Is bringing bad news at this juncture really the right thing to do? The technical dimension of doctoring is already very present in medical training; the normative dimension, however, is in danger of being overlooked. An accountable professional is aware of the technical and the normative dimensions of professionalism. Reflective skills are essential to the development of this normative dimension.[10]

Accountability occurs in a complex reality and in relation to significant others: patients, other physicians, healthcare organizations, society, etc. In terms of the CanMEDS-model, a physician is accountable in his/her role as medical expert, communicator, collaborator, manager, health advocate and scholar. Therefore, professionalism is a reflective and evaluative second-order competence: it can only be expressed through the performance of other competences.[10]

For our professional development course, we adopted this vision of professionalism as a second-order competence: a reflective and evaluative competence. This choice has two consequences. First, the main goal of our course is that clerks become able to reflect in order to justify their behaviours and decisions in different situations from a normative perspective. Second, the training of professionalism should be linked to the training of other

competences within the clinical workplace. However, the clinical workplace itself is a rather unstructured learning environment. Therefore, we designed our professional development course in such a way that – despite differences between learning events – all students develop themselves towards becoming accountable professionals.

In line with this choice we decided to use 'intervision' groups as the major educational method for the professional development course. *Inter*vision is, unlike *super*vision, focused on discussing a case or problem with *peers*. Intervision groups are somewhat comparable to Balint groups, in which doctors meet regularly to discuss demanding situations in order to strengthen their doctor-patient relationships.[11,12] During intervision, peers meet regularly to discuss work-based problems according to a predefined structure to support each other, learn from each other and to explore possible solutions.[13] Discussing real clinical experiences guarantees the relationship with other competences. The structure of the sessions stimulates clerks to learn to reflect systematically. This course was awarded by the Netherlands Association for Medical Education with a prize for best educational innovation in 2011. This article provides an overview of this course and a report of the students' experiences.

OVERVIEW

Context

The undergraduate medical curriculum at the University of Groningen, University Medical Center Groningen, comprises a three-year preclinical Bachelor's programme and a three-year clinical Master's programme. This article focuses on the Master's programme. The first Master's year follows a dual learning format. Five-week periods of skills training alternate with five weeks of clerkships.[14] During the second Master's year, students are assigned to one of seven different teaching hospitals in the northeast of the Netherlands. In the last Master's year, following a research elective, students complete their basic medical training with a twenty-week preregistration clerkship. Groningen is a large medical school with an influx of 450 new students each year. We developed a professional development course for these large cohorts of clinical students during their clerkships in the first and second years of the Master's programme.

Small group sessions

The backbone of the professional development course is the small group sessions, which are scheduled twenty-four times a year – protected time dedicated to the professional development course. Each group consists of ten to twelve clerks, is chaired by one of them in rotation, and is supported by a 'coach' (a senior teacher). The two-hour small group sessions consist of two parts: (1) intervision and (2) thematic discussions.

The intervision part is a structured small group activity which initiates peer support. In the educational path towards becoming a doctor, the switch to clinical training is widely acknowledged as a difficult transition.[15,16] Clerks often experience stress and have feelings of insufficiency. Peer support helps cope with these experiences. A second benefit of this structured small group activity is that it stimulates interaction between students. Interacting with others is required to overcome the limitations of personal blind spots.[17] Interaction thus encourages students to consider different perspectives, which is a necessary condition for developing insight and justifying decisions.

During intervision, peers discuss work-based problems according to a predefined structure. The role of teachers (coaches) is to monitor the intervision process and maintain its structure. Even though students chair the sessions themselves, the coach is present to provide feedback and optimize the quality and safety of the meetings. The predefined structure of the íntervision session encourages students to become effective team members. The intervision structure includes the following six steps: problem inventory, analysis, awareness, advice, similar experiences by others and evaluation (Box 1).

1. Problem inventory
Catching up, looking back on the past, listing experiences and problems encountered and deciding which subject will be discussed in the meeting.

2. Analysis
Asking the 'problem submitter' searching questions about the subject to gain clarity about the situation and the current question.

3. Awareness
The analysis should help students realize that the true problem is a deeper, underlying one. If so, the problem needs to be rephrased accordingly.

4. Advice
Discussion and advice on how to deal with the situation. The problem submitter summarizes the advice received, trying to make a reasoned decision about what to implement and how.

5. Similar experiences by others
Peers who have similar experiences with the subject can now discuss their experiences.

6. Evaluation
As a wrap-up, the group evaluates the meeting: was the advice chosen feasible, does the discussion format need adaptation?

Box 1. Predefined intervision structure consisting of six steps

Key to the intervision approach is that the group decides which professional challenges will be discussed. This freedom of topics does not compete with the intended learning outcomes, which focus on the ability to reflect on a situation and choose justifiable actions. However, there are certain topics known to be difficult for future physicians to deal with professionally and our intervision approach does not guarantee that all these topics will be discussed.

Therefore, we formulated a list with themes that students should discuss during the course of a year. These themes might not occur every day in medical practice, but are considered to be important to every professional medical doctor (Box 2).

Corporality	Overweight people
Social media	Patient-centred care
Collegiality and loyalty	Doctor and researcher
Sick doctors	Sexual harassment
Inexplicable symptoms	Medicalization
Dealing with death	Quality of life
Pain and suffering	Patient safety
Diversity	Dealing with mistakes
Autopsy	

Box 2. Overview of themes

To generate good quality discussions, students have to prepare the session's topic by reading two or three articles, which is assessed by a digital formative test. After the group discussion, the students have to write concisely in their portfolios about what they learned about the theme of relevance to their future professional practice. The discussion of topics is in four steps: reading articles, sitting a test, discussing the theme with peers and writing a summary report.

Assessment

The students have to compile a portfolio, comprising personal data, reflections on the thematic discussions and a personal development plan. The personal development plan is structured around four essential reflective questions:
1. Where do I stand? (strengths and weakness analysis linked to the seven CanMEDS competences); 2. What do I want to know or do better?

(personal learning goals); 3. How do I reach these goals? (approach and resources); and 4. How can I demonstrate this growth? (proof).

To mentor this portfolio creation process, each student has three individual interviews during the year with the coach. During the first interview, student and coach become better acquainted and the background of the personal development plan is explained. An initial draft of the strengths and weakness in analysis is also discussed. During the second interview the student's participation in the small group sessions is discussed and an improved draft of the personal development plan is also considered. The third interview has a more formal, evaluative character, and by this time the student has a completed portfolio and has written the final version of the personal development plan.

In addition to the portfolio assessment, there are other assessment components. First, attendance during the small group sessions is compulsory. Second, students have to participate actively in the group, not only as student chairs but also by providing input for the intervision and by supporting other students during the sessions. Third, the first two interviews are compulsory despite their formative character. The third, summative interview is held at the end of the year. The coach assesses the students (fail, average or good) on the basis of their portfolios and how they participated during the small group sessions.

Teachers

The teachers (called coaches) in this professional development course mentor the small group sessions, create a safe environment within the groups, interview individual students and assess the portfolios and personal development plans. Coaches in our professional development course are important role models for the young trainee doctors to become professional doctors. Only senior doctors and experienced psychologists familiar with our idea of professionalism are invited to become coaches. We organize induction workshops for new coaches in which the aim and the content of the course is explained and the intervision process itself is practised.

In addition to these induction workshops, we also organize monthly lunches which serve as an intervision group for teachers. During these lunches, coaches present cases or problems concerning their coaching work and discuss these with peers. Applying this intervision approach to the coaches as well has several advantages. First, all coaches gain some experience of participating in an intervision group. This is valued as helpful for when coaches have to monitor the intervision process during their student sessions. Second, exchanging experiences and providing peer support supports the building of a community of practice. The term community of practice refers to a group of people who share a common interest and a desire to learn from and contribute to the community with their variety of experiences.[18] Newcomers who join such a community start at the periphery, but by participation – a socialization process – they move increasingly to heart of the community. When translating this idea to the support of teaching staff, we recommend not only offering workshops but also maximizing the opportunities for experiential learning.[19] Creating opportunities for peer coaching of teachers is a way of recognizing the informal power of participating in a community of practice.[18]

EVALUATION

Students starting their Master's programme in September 2009 (n=93), September 2010 (n=86) and September 2011 (n=94) were invited to complete a web-based questionnaire to assess their perceptions of various parts of the professional development course. The questionnaire consists of ten items which students could rate on a four-point scale (– – = not at all, to ++ = very much). The responses to the questionnaire were analysed using descriptive statistics. To improve readability, the percentages for '+' and '++', and '– –' and '–' were summed. Seventy-seven students from the 2009 cohort (84%), 67 students from the 2010 cohort (80%) and 67 students from the 2011 cohort (78%) participated in our study. The results are presented in Table 1.

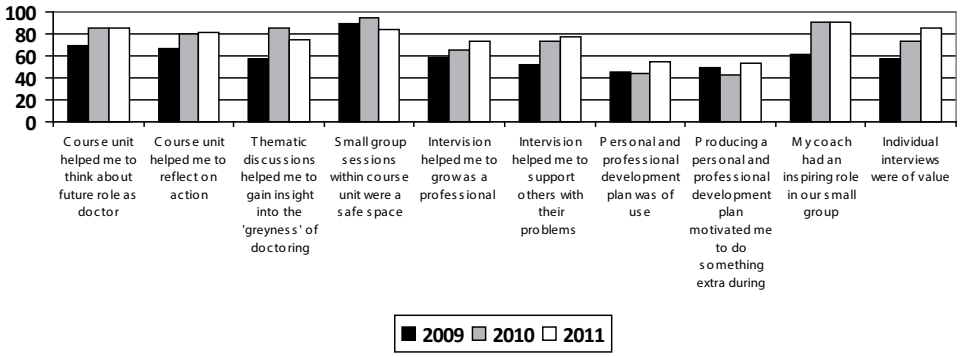

Table 1. Percentages of responding students who scored + and ++, summed in 2009, 2010 and 2011

DISCUSSION

Future doctors should learn how to reflect in order to become accountable professionals. Students learn to understand the situations they are in, and to be morally and technically accountable for the choices they make in dealing with these situations. We designed a professional development course with structured and frequent small group sessions in order to create a safe environment where students can learn to reflect on incidents and problems that they encounter during their daily clinical practice. Students evaluated the course positively.

This course is distinguished by the high frequency of the small group meetings (24 two-hour meetings in a year) and the fact that it is organized for cohorts of more than 400 clerks a year. This means that during their first and second Master's years, more than 800 clerks participate in the course. In addition, the course is implemented in seven different teaching hospitals; six located in the north-eastern Netherlands and one situated in the Dutch Caribbean island of Curaçao. At all seven hospitals, all the clinical teachers are aware that on Wednesday afternoons, all clerks gather in groups, away from the wards and outpatient clinics – Wednesday afternoons are dedicated to professional development. In the words of Donald Schön, time for reflection on action.[20]

We managed to implement this course on such a large scale because it was an integral part of a curriculum reform. It was not started as a small pilot project but as an important educational innovation supported by our medical school board and all the stakeholders involved. This breadth of support was essential because not all the clinical teachers were initially convinced of the added value of such a course. This attitude has changed considerably over the years. The course is currently widely regarded as an essential component of our medical curriculum.

The evaluation data from three cohorts of students (2009, 2010 and 2011) demonstrate that it takes time for a course to 'settle'. The responding students from the 2011 cohort were generally more positive about the course then the first cohort from 2009. This could be because all those involved (clerks, coaches and administrative staff) had to get used to the course. What is expected from the students and the coaches? The clerks from the first cohort did not have senior peers who could provide them with the inside story on what it is like to participate in an intervision group. The coaching job was also a new task for most teachers, even though they had experience of lecturing or skills training. They were initially unfamiliar with facilitating group reflection. The rather complicated structure of the course, the group sessions with intervision and the thematic discussion, the individual interviews, and the use of the personal development plan, were all factors that needed to become settled.

From the students' perspective, our evaluation data show that clerks value the course unit for helping them think about their future roles as doctors. In being helped to reflect on their actions, the clerks gain more insight into the 'grey zones' of doctoring, and the small group sessions are perceived as safe spaces for open discussion, with the intervision part helping them to develop as accountable professionals and learn to support others through the discussion of shared problems. Our coaches report that the more talented students support the other students during these sessions.

The greatest appreciation from the responding students was for their coaches, their teachers in this course. This could be because our teachers volunteered for this new coaching work. We assume that they were genuinely motivated.

Students appreciated least the use of a personal development plan. Only half of our responding students evaluated the personal development plan positively and felt motivated by it to do something additional during their clerkships.

A point of note – mentioned by our coaches during their monthly lunches – was the size of the small groups. The literature recommends that an effective small group consists of six to eight students.[21] However, our cohorts were 450 students each and the number of coaches was limited. In the interests of continuity, we preferred a higher frequency of larger small group sessions over fewer of a smaller size. Students entering the clinical phase experience many transitions: rotating from the skills centre to a ward, moving from department to department, changing from supervisor to supervisor.[22] This fragmentation can negatively impact on student development, so there is a need to enhance continuity across clinical clerkships.[23] One approach to this is organizing peer groups across clerkships.[24] We chose to schedule 24 small group sessions a year to encourage this continuity. However, further research is necessary to decide how many sessions are required for continuity and how other factors, such as group size, play a role in this.

Future research is also needed to analyse the topics and/or problems our clerks bring to the intervision sessions. To examine the suitability of this educational format for covering the entire professionalism domain, it would be interesting to categorize the problems and see how these categories relate to professionalism.

We organize the intervision sessions in the first and second Master's years. During these years clerks are assigned to a limited number of teaching hospitals, which makes organization feasible. Clerks in their third Master's year are more or less free to choose their hospital, which can be in other parts of the country or even abroad. There are many hospitals involved in the training

of these preregistration clerkships. As a consequence, the opportunities for the central organization of small group intervision sessions are limited. However, our third year clerks expressed a need for intervision sessions because their responsibilities are increasing at this stage of their training. We were very proud and pleased to hear that some senior clerks organized 'intervision' sessions themselves while 'abroad'. We regard such initiatives as evidence of the attainment of our ultimate goal: training accountable, reflective professionals.

CONCLUSION

Based on the opinion of an expert panel of the Netherlands Association for Medical Education and our evaluation data, we conclude that it is possible to organize a structured, high quality course for cohorts of 400+ clerks, in which they learn to reflect in order to gain insight into what comprises correct actions in a broad range of demanding professional situations. We consider our course fundamental to our clerks becoming reflective, accountable professionals.

ACKNOWLEDGEMENTS

We would like to thank the students who filled in questionnaires for this manuscript and Tineke Bouwkamp-Timmer for her close reading and constructive comments to improve the manuscript.

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MENTORING PORTFOLIO USE IN UNDERGRADUATE AND POSTGRADUATE MEDICAL EDUCATION

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Published in:
Medical Teacher 2009;31:903–909.

ABSTRACT

Aim Mentoring is widely acknowledged as being crucial for portfolio learning. The aim of this study is to examine how mentoring portfolio use has been implemented in undergraduate and postgraduate settings.

Method The results of interviews with six key persons involved in setting up portfolio use in medical education programmes were used to develop a questionnaire, which was administered to 30 coordinators of undergraduate and postgraduate portfolio programmes in the Netherlands and Flanders.

Results The interviews yielded four main aspects of the portfolio mentoring process – educational aims, individual meetings, small group sessions and mentor characteristics. Based on the questionnaire data, 16 undergraduate and 14 postgraduate programmes were described. Providing feedback and stimulating reflection were the main objectives of the mentoring process. Individual meetings were the favourite method for mentoring (26 programmes). Small group sessions to support the use of portfolios were held in sixteen programmes, mostly in the undergraduate setting. In general, portfolio mentors were clinically qualified academics trained for their mentoring tasks.

Conclusion This study provides a variety of practical insights into implementing mentoring processes in portfolio programmes.

INTRODUCTION

Current views on learning and societal developments have led to a transition from knowledge-based to competency-based curricula in medical education.[1-3] One of the major characteristics of competency-based curricula is that students learn to actively plan, monitor and evaluate their own learning processes. Becoming a self-directed learner is both important and complex and should be viewed as a long-term process.[4] A crucial activity to foster the development of students' self-directed learning skills is reflection.[5] Compiling a portfolio is considered an important instrument to enhance students' reflective skills.[6] However, it is not an easy task to successfully and effectively implement a portfolio programme.

Mentoring is widely acknowledged as being essential for portfolio learning.[7-9] However, few studies have provided insight into the process of mentoring portfolio use. Two qualitative studies have indicated that the learning effects of compiling a portfolio and interacting with a mentor are hard to separate.[6,10] Pearson and Heywood highlighted the importance of interaction between a learner and a supervisor using the portfolio as a catalyst to guide further learning,[11] while Austin and Braidman reported on a group mentoring format used in undergraduate training.[12] In a study by Finlay et al., students who visited a cancer patient for nine months were supported by small group tutorials twice a month.[13] The students valued these tutorials because they offered them the opportunity to learn from each other. A cross-over comparison of a traditional continuing medical education and a portfolio-based programme for general practitioners revealed that the latter met general practitioners' needs better.[14] An important aspect of this programme were group meetings of six to eight general practitioners, facilitated by a tutor to enhance the process of co-mentoring.

The use of portfolios in medical education has increased over recent years, especially in the Netherlands, where extensive educational reform of all postgraduate programmes has resulted in the compulsory use of portfolios for all residents.[15] In undergraduate settings portfolio use has also increased because it is viewed as a necessary learning and assessment tool in

competency-based curricula. As a consequence, Dutch and Flemish educators have been very active in developing and implementing portfolio programmes. In an effort to present the different ways of organizing a mentoring programme, we studied the mentoring process in Dutch and Flemish portfolio programmes in undergraduate and postgraduate settings.

METHOD

Context

In 2001, the Netherlands Association for Medical Education (NVMO) started a Special Interest Group on Portfolios for medical teachers and educationalists.[16] Members of this Special Interest Group were involved in implementing portfolio use in the Netherlands and Flanders, the Dutch-speaking region of Belgium. They attended regular meetings to develop expertise by exchanging experiences, insights and materials. The Netherlands accommodate eight medical schools and Flanders five. The members of the Special Interest Group were informed that eight of these 13 medical schools had implemented portfolio programmes in their undergraduate curricula. Postgraduate training is mainly workplace-based and provided in university medical centres and general teaching hospitals.

Approach

To obtain information on how the mentoring of portfolio use has been set up in different undergraduate and postgraduate settings, we used a combined approach employing semi-structured interviews and a questionnaire.

Semi-structured interviews

For the semi-structured interviews we approached six educators who had become experts on portfolio programmes. All were active members of the NVMO Special Interest Group. To represent the Bachelor's setting, we selected two portfolio programme coordinators (from Maastricht University and the University Medical Center Groningen); for the Master's setting we selected two portfolio programme coordinators (from the University Medical Center Utrecht and the University Medical Center Groningen) and to represent postgraduate training we selected the educational programme coordinator of Obstetrics

and Gynecology from the VU University Medical Center Amsterdam and the coordinator of Internal Medicine of the University Medical Center Groningen. The following issues were addressed during the interview: the portfolio programme aims, the position of the portfolio in the curriculum, portfolio content, how mentoring had been set up, the backgrounds of portfolio mentors and the mentor training programme. The semi-structured interviews were performed by the first author. Additional information was gathered with phone calls and email. All interviewees were asked to review the written reports of their own interview, to verify the data and obtain their approval.

Questionnaire

The outcomes of the semi-structured interviews were used to establish a questionnaire. Investigator triangulation was applied to translate the interview outcomes into questionnaire topics. The first author and two co-authors interpreted the interview data independently. Subsequently, they discussed their interpretations to identify the main topics of mentoring portfolio use. This interpretation process yielded four topics: (1) the educational aims of mentoring portfolio use, (2) individual meetings, (3) small group sessions and (4) background/training of the portfolio mentors. A questionnaire was designed to gather additional information about these topics in different medical education settings. For this purpose, the four main topics were elaborated into sub-questions. Three educational researchers with experience in questionnaire design commented on the first draft of the questionnaire (32 questions). This resulted in a twenty-nine-question survey in which five-point Likert scales (1 = —, 5 = ++), yes/no, multiple-choice and open-ended questions were used. These open-ended questions were added to offer the respondents the opportunity to mention aspects of mentoring portfolio use that were not included in the questionnaire. All active members of the Special Interest Group were invited to provide names of other educators responsible for coordinating portfolio programmes, which resulted in a mailing list covering the majority of the undergraduate and postgraduate portfolio programmes that had been fully implemented by December 2008. The questionnaire was distributed electronically.

Analysis

The responses to the questionnaire were analysed using descriptive statistics. To improve the readability of the frequency tables, the percentages for '+' and '++' were summed. The same was done with the percentages for '–' and '– –'.

RESULTS

Interviews

The results of the six semi-structured interviews showed a broad variety in portfolio use – different learning objectives, portfolio content and organization. Furthermore, the position of portfolio programmes in the curriculum differed. In the Bachelor's setting, portfolio learning was organized as a separate course for which students received ECTS credits (European Credit Transfer System). In the Master's setting, students also received ECTS credits, but these portfolio programmes were interwoven with clinical clerkships. In postgraduate training portfolio use was fully integrated into the workplace environment. In each setting, the process of portfolio mentoring was focused on different aims. The mentoring itself was elaborated in individual meetings and small group sessions. The frequency of these mentoring activities varied widely. Most portfolio mentors had a medical background. All portfolio programmes included staff development training to support mentors; however, the content of these training programmes varied widely.

Questionnaire

The questionnaire was completed by 30 respondents, representing 30 different portfolio programmes.

Aims of mentoring portfolio use

The most frequently mentioned aims of mentoring portfolio use were 'to provide students with feedback on their portfolios' (94%) and 'to stimulate reflection' (90%). The least applied educational aim was 'to support students when drawing up a learning plan for the coming period' (62%) (Table 1).

	The student/clerk/resident…		– –/– (%)	± (%)	+/++ (%)	*N*
1	is helped and advised when compiling a portfolio	undergraduate	0	20	80	15
		postgraduate	14	7	79	14
		total	7	14	79	29
2	is given feedback on the portfolio or parts of it	undergraduate	6	0	94	16
		postgraduate	0	7	93	14
		total	3	3	94	30
3	is stimulated to reflect	undergraduate	6	0	94	16
		postgraduate	0	14	86	14
		total	3	7	90	30
4	is monitored in his/her competence development	undergraduate	13	19	68	16
		postgraduate	0	14	86	14
		total	7	16	77	30
5	is supported when drawing up a learning plan for the coming period	undergraduate	26	13	61	16
		postgraduate	21	14	65	14
		total	23	13	64	30
6	is encouraged to develop an understanding of his/her strengths and weaknesses	undergraduate	6	25	69	16
		postgraduate	0	14	86	14
		total	3	20	77	30
7	is motivated and inspired	undergraduate	6	31	63	16
		postgraduate	0	31	69	13
		total	3	31	66	29

Table 1. Application of aims of mentoring portfolio use in practice

The responses to the open-ended questions yielded three subsequent mentoring goals: (1) overall mentoring, (2) discussing emotional, social and ethical aspects, and (3) verifying whether students meet their educational demands.

Individual mentoring

Students were mentored individually on their portfolios in 26 programmes. Individual meetings were scheduled one to two times a year in 14 programmes, three to four times in 10 programmes and five or more times a year in two programmes. Most of the time, students (92%) and mentors (81%) introduced

points for discussion, and feedback was provided on the points for discussion from the previous meeting (84%). In 75% of the programmes, agreements were recorded in writing as a result of the individual meetings, while a fixed agenda was used in half of the programmes
(Table 2).

	During the individual mentoring meeting…		– –/– (%)	± (%)	+/++ (%)	*N*
1	the mentor introduces points for discussion based on the portfolio handed in	undergraduate	0	7	93	14
		postgraduate	8	26	66	12
		total	4	15	81	26
2	students are stimulated to introduce subjects for discussion themselves	undergraduate	7	7	86	14
		postgraduate	0	0	90	12
		total	4	4	92	26
3	there is feedback on what was discussed during the previous meeting	undergraduate	0	14	86	14
		postgraduate	8	8	84	12
		total	4	12	84	26
4	a fixed agenda is used	undergraduate	50	14	36	14
		postgraduate	25	8	67	12
		total	38	12	50	26
5	the agreements are recorded in writing to conclude	undergraduate	16	0	84	12
		postgraduate	16	17	67	12
		total	16	8	76	24

Table 2. Application of aspects of individual mentoring meetings in practice

The responses to the open-ended questions revealed that during some individual meetings a summative assessment format was used. Another aspect of individual mentoring mentioned was the evaluation of students' development. In programmes where small group sessions were scheduled to complement individual mentoring sessions, reflection on group processes was also a subject for discussion. Additionally, individual meetings sometimes resulted in subsequent email correspondence between mentor and student.

Small group sessions

Small group sessions to support portfolio learning were held in 16 programmes, mostly in the undergraduate setting. The frequency of small group sessions

was one to four sessions a year in 10 programmes, five to eight sessions a year in two programmes and nine or more sessions a year in four programmes. The group size varied from six to 11 students, though five programmes had a group size of more than 12 students/clerks/residents. During the small group sessions most attention was paid to discussing clinical or other experiences (68%), followed by practising reflection skills (54%) and practising providing and receiving peer feedback (50%). Very little attention was paid to compiling a portfolio (12%) (Table 3).

	During the small group session …		– –/– (%)	± (%)	+/++ (%)	N
1	making a portfolio is practised	undergraduate	69	16	15	13
		postgraduate	33	67	0	3
		total	63	25	12	16
2	students/clerks/residents practise giving and receiving peer feedback	undergraduate	39	23	38	13
		postgraduate	0	0	100	3
		total	31	19	50	16
3	reflecting is practised	undergraduate	23	15	62	13
		postgraduate	33	34	33	3
		total	25	19	56	16
4	experiences are discussed	undergraduate	23	15	62	13
		postgraduate	0	0	100	3
		total	19	13	68	16
5	co-mentoring is practised	undergraduate	54	9	37	11
		postgraduate	0	0	100	1
		total	50	8	42	12

Table 3. Application of aspects of small group sessions in practice

The responses to the open-ended questions also revealed that attention was sometimes paid to (1) discussing personal learning styles, (2) discussing social/ethical themes and (3) clinical reasoning based on patient cases.

Portfolio mentors

The mentors from 27 programmes mostly had medical backgrounds. In some programmes, portfolio mentors included social scientists (10 programmes) and basic scientists (four programmes). The responses to the open-ended questions

suggested that a portfolio mentor should preferably be independent, meaning that the same mentor should not also be the student's daily supervisor during rotations. An independent mentor should have a good overview of the aims of the portfolio and the content and structure of the different rotations. Another suggestion was that 'problem' students should be mentored by mentors who are particularly skilled in that area.

Nineteen out of the 22 programmes offered educational support to mentors. Various kinds of support were provided: instructions on paper (19 programmes), one-off personal instructions (15 programmes), general pedagogic training lasting several days (three programmes) and specific training aimed at mentoring portfolio use (13 programmes). The support was not solely focused on training mentors before they started their mentoring tasks, but also on their training during the process. Regular meetings were arranged in nine programmes where mentors could share experiences and expertise. The responses to the open-ended questions emphasised the fact that training is important, but very time-consuming.

DISCUSSION

Our study provides a description of mentoring processes in 30 undergraduate and postgraduate portfolio programmes. Most programme coordinators reported several educational aims for mentoring, which are in line with the 'coaching domain' of a recently described framework for teaching competences (Molenaar et al. 2009).[17] This coaching domain comprises: (a) exploring students' coaching needs, (b) supporting students in defining and redefining learning objectives and looking for alternative ways to reach their goals, (c) supporting students to reflect critically, and (d) enhancing students' ability to direct their own learning processes. All aims mentioned are reported back in two-thirds or more of the programmes. The most frequently reported mentoring aim was 'providing feedback', which is in line with the widely acknowledged opinion that feedback is the driving force behind improvement.[18-20] Students also emphasize the need for feedback on their portfolios to assist them in determining whether they are on the right track.[9] The second most frequently

reported aim of mentoring portfolio use was 'stimulating reflection', which is necessary because reflection does not come naturally to most students.[21,22] Students also stress the need for more guidance on the reflective aspect of portfolio learning.[23] The following educational aims of mentoring are also often reported: supporting students in compiling a portfolio, monitoring students' competency development, supporting students in developing a better awareness and understanding of their strengths and weaknesses, supporting students in drawing up a learning plan for the coming period, and motivating/inspiring students. It is unclear why some portfolio programmes do not apply all the educational aims of mentoring mentioned. One reason could be that some portfolio programmes are still not fully developed. Another explanation could be that some aims relate directly to the portfolio content, for instance, if a learning plan is not included in the portfolio, the aim of supporting students with such a plan is not applicable. However, the results of our study revealed that the aims of undergraduate and graduate portfolio programmes did not differ or only differed slightly. Apparently, the manner and context in which a portfolio is implemented has little influence on the educational aims of mentoring portfolio use.

Students were mentored individually with their portfolio in almost all programmes. For postgraduate programmes, the Dutch Central College of Medical Specialties prescribes a fixed number of individual mentoring meetings (i.e. progress interviews) – four during the first year and decreasing from two per year in the following years to an annual individual meeting. Furthermore, the implementation of portfolios contributes to scheduling individual mentoring meetings, especially in a clinical setting. This is a positive result, because individual mentoring is often challenged by increased clinical, administrative, research and other educational demands on medical faculties.[24] Another benefit of the implementation of portfolio is that it offers a focus on individual mentoring, which is seen as a requirement for successful mentoring,[25] and which is enhanced by the mentor introducing points for discussion based on the portfolio handed in. Students are also encouraged to introduce subjects for discussion themselves in almost all portfolio programmes. This is in line with the idea that self-directed learners play an active role in their learning

process.[1] To enhance the students' longitudinal development it has become common practice in individual mentoring to consider the main themes (intentions and discussion points) of the previous meeting and to conclude the meeting with new plans and agreements. A fixed agenda is more useful in a postgraduate than in an undergraduate setting. This is in line with a Canadian study that highlights a need for structured mentorship in postgraduate training programmes.[26] Future research is required to determine the characteristics of an effective individual portfolio meeting and to explore the optimal frequency of individual meetings. Another interesting aspect for further research is the content of the meetings – what kind of topics are based on the portfolio are discussed during individual mentoring meetings?

In undergraduate programmes, small group sessions were frequently organized alongside individual meetings. The focus of these meetings was on training the skills necessary for effective portfolio use. Students discussed experiences and practised reflective skills. This kind of peer discussion is of great importance to reflective learning.[27,28] Further research is needed to examine whether students who have learned to reflect within a group context and who have been trained to discuss their experiences perform better than students without such training. Practising how to give and receive peer feedback or co-mentoring were less common activities during small group meetings. This is in contrast with a study by Mathers et al., who found that co-mentoring in continuing medical education is a crucial aspect of portfolio learning.[14] Making a portfolio is seldom a subject of discussion during the small group sessions, even though in most programmes it was highlighted as a very relevant educational aim. Mentors probably consider helping students to compile their portfolios as a more individual activity. The results of our survey showed a great variety in the number of small group sessions for each year and group size. The research results on group size in a problem-based learning curriculum are not unequivocal, though it is generally acknowledged that a group size of six to eight students is optimal.[29] Further research is needed to determine whether this group size is also optimal for small group sessions aimed at discussing experiences and practising reflective skills.

Most of the portfolio mentors in this study were clinically qualified academic staff. In the early years of the medical education continuum, social scientists or basic scientists were also active as portfolio mentors, alongside clinically qualified mentors. This is in line with a study by Austin and Braidman, who found that mentors do not think it necessary to have a clinical background when supporting student portfolio use in undergraduate training.[12] Future research should determine the competencies and the skills required for successful portfolio mentoring in both undergraduate and postgraduate training.

Since mentoring portfolio use is a relatively new but crucial task, training portfolio mentors is vital.[11,30] In most of the programmes, mentors were supported by training; however, the applied training formats varied widely across the programmes of study. Four respondents mentioned specially developed training courses for portfolio mentors, during which the mentors practised selecting subjects for individual meetings based on authentic portfolio materials. The actual discussion was practised through role-play and, subsequently, the role-play mentor received feedback from the other participants. Some medical schools and hospitals organized regular sessions, in which mentors were encouraged to exchange experiences to learn from each other. The importance of such peer meetings has recently been highlighted in a review about effective faculty development.[31] Since the time of most portfolio mentors is often limited, future research should focus on the feasibility and effectiveness of different training formats.

The strength of our study, compared with studies reporting on a single mentoring format, is that it provides a description of the mentoring process for 30 different portfolio programmes. Almost all of the Dutch and Flemish undergraduate portfolio programmes we knew of were included in our study. Representing the postgraduate setting, a smaller part of the total number of portfolio programmes was involved, possibly due to the fact that some postgraduate programmes were still in the process of implementation. A limitation of our study is that we only provided a descriptive overview of implemented mentoring formats and that we did not examine which portfolio mentoring format most effectively affects the learning process.

Conclusion

The mentoring process within portfolio programmes has a strong focus on providing feedback and stimulating reflection. Students are mainly mentored individually. In addition, some programmes provide small group sessions to offer students an opportunity to discuss experiences and practise reflective skills. Some institutions also facilitate peer meetings for their portfolio mentors to share experiences and expertise. This study reveals that Dutch and Flemish medical education programmes show a wide variety in why, what, where and how the mentoring process in relation to portfolio use is carried out. Further research should elucidate the most effective way of mentoring portfolio use.

ACKNOWLEDGEMENTS

The authors thank all portfolio programme coordinators for completing the questionnaire and Tineke Bouwkamp-Timmer for her constructive comments on the manuscript.

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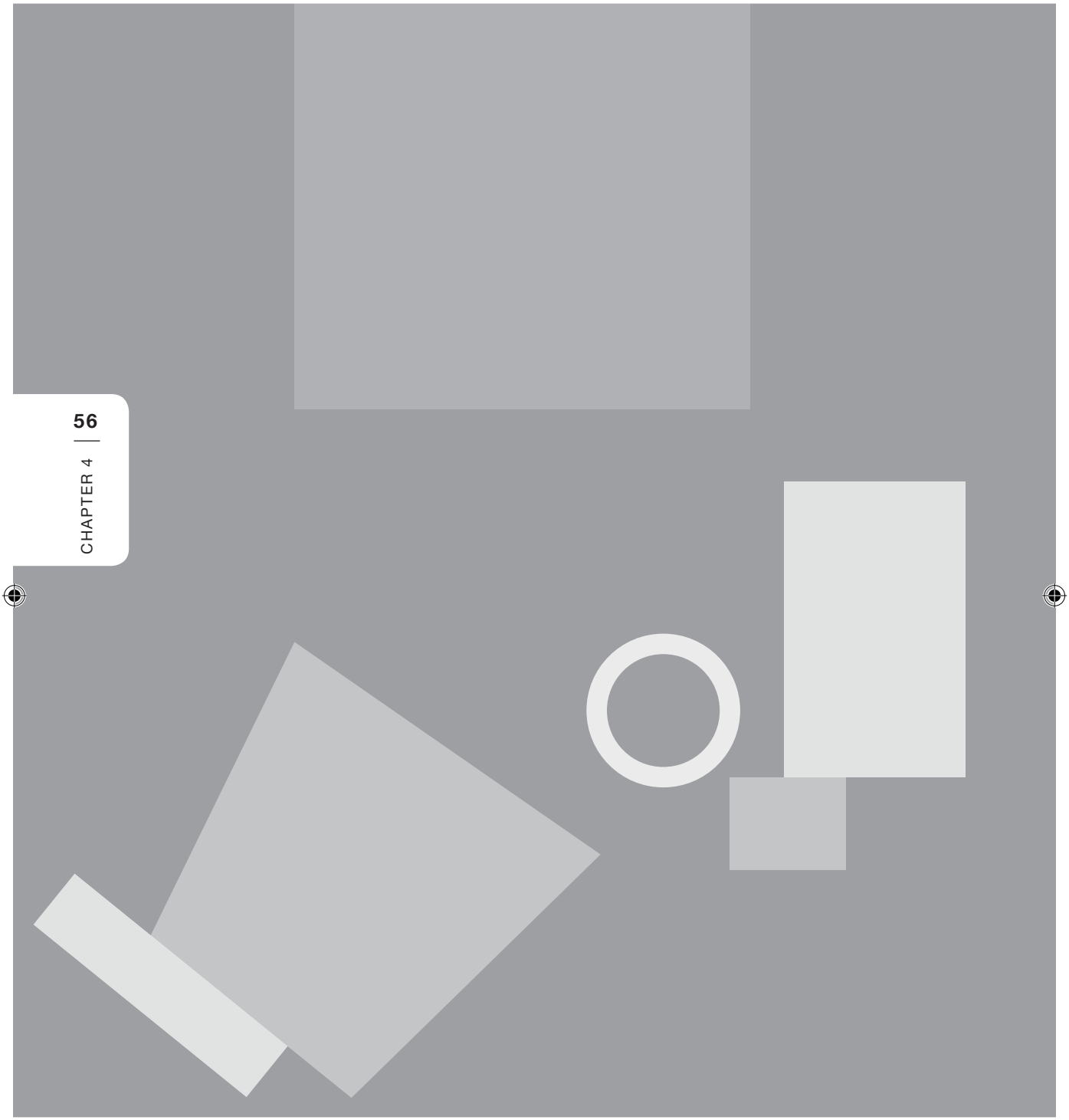

WHICH CHARACTERISTICS OF WRITTEN FEEDBACK ARE PERCEIVED AS STIMULATING STUDENTS' REFLECTIVE COMPETENCE: AN EXPLORATORY STUDY

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Published in:
BMC Medical Education 2013;13:94.

ABSTRACT

Background Teacher feedback on student reflective writing is recommended to improve learners' reflective competence. To be able to improve teacher feedback on reflective writing, it is essential to gain insight into which characteristics of written feedback stimulate students' reflection processes. Therefore, we investigated (1) which characteristics can be distinguished in written feedback comments on reflective writing and (2) which of these characteristics are perceived to stimulate students' reflection processes.
Methods We investigated written feedback comments from forty-three teachers on their students' reflective essays. In Study 1, twenty-three medical educators grouped the comments into distinct categories. We used Multiple Correspondence Analysis to determine dimensions in the set of comments. In Study 2, another group of twenty-one medical educators individually judged whether the comments stimulated reflection by rating them on a five-point scale. We used *t*-tests to investigate whether comments classified as stimulating and not stimulating reflection differed in their scores on the dimensions.
Results Our results showed that characteristics of written feedback comments can be described in three dimensions: *format of the feedback* (phrased as statement versus question), *focus of the feedback* (related to the levels of students' reflections) and *tone of the feedback* (positive versus negative). Furthermore, comments phrased as a question and in a positive tone were judged as stimulating reflection more than comments at the opposite side of those dimensions ($t = (14.5) = 6.48$; $p = < .001$ and $t = (15) = –1.80$;$p < .10$ respectively). The effect sizes were large for *format of the feedback comment* ($r = .86$) and medium for *tone of the feedback comment* ($r = .42$).
Conclusions This study suggests that written feedback comments on students' reflective essays should be formulated as a question, positive in tone and tailored to the individual student's reflective level in order to stimulate students to reflect on a slightly higher level. Further research is needed to examine whether incorporating these characteristics into teacher training helps to improve the quality of written feedback comments on reflective writing.

BACKGROUND

Current views on learning and societal developments have led to a shift from knowledge-based to competency-based medical curricula.[1-5] The main focus of these curricula is on the development of competencies – demonstrable abilities encompassing knowledge, skills and professional behaviour. An underlying assumption is that a clear set of competencies can help students to self-direct their own learning. In other words, students can actively plan, monitor and evaluate their learning processes to enhance their professional development. For the development of these self-directed learning skills, reflection – a metacognitive process that creates greater understanding of self and situations to inform future action – is widely acknowledged as a crucial attribute.[6-8]

Since reflection does not come naturally to most students,[6,9] Aronson (2011) has suggested that formal education is required to enhance students' reflective competence.[10] In medical education, various methods are in use to facilitate reflection: reflective storytelling and writing, critical incident analysis, writing personal development plans and portfolios.[11-14] Although these methods help most students to make sense of their experiences, the potential of reflection may not be fully realized without personal teacher/supervisor support.[8,10] A supportive mentor who provides feedback on students' reflective assignments seems to be a prerequisite for enhancing students' reflective competence.[15] We consider in particular written feedback valuable, since this kind of feedback is captured on paper and can be reread by students at a later time.[16]

Teachers often perceive providing written feedback on reflective writing as a difficult task and some have expressed a need for training.[17] In order to fulfil their needs and to develop adequate teacher training courses on providing feedback on reflective writing, it is essential to gain insight into which characteristics of written feedback will help teachers to stimulate students' reflection processes. Therefore, the aims of this study were to determine the characteristics of written feedback comments on students' reflective writing assignments (Study 1) and to examine which of these characteristics are perceived as conducive to students' reflection processes (Study 2).

METHODS

Context and materials

Both studies were performed at the medical school of the University of Groningen, the Netherlands. The pre-clinical Bachelor's program of this medical school lasts three years. Each study year consists of four 10-week Problem Based Learning modules including tutorial groups and a Professional Development module which spans the academic year. This Professional Development module is aimed at encouraging students to reflect on their professional behaviour and their first practical experiences. For their reflection on professional behaviour, students make use of assessment forms gathered at the end of each 10-week module. Each student is evaluated on his professional behaviour by their tutor on the hand of an assessment form that focuses on 3 dimensions: Task Performance, Aspects of Communication, and Personal Performance.[18] Tutors rate each student per dimension on a scale ranging from 1 (poor) to 10 (excellent). This quantitative mark needs to be accompanied by a qualitative narrative. Each student is also assessed at the end of every module by two peers who use similar assessment forms. Furthermore, the students meet – once per five weeks under supervision of a teacher – in small groups (10 students per group) as part of the Professional Development module. During these sessions, students do not only learn to reflect on their assessments of professional behaviour in the tutorial groups, but also on different experiences gained during short internships at a general practitioners office or during an outpatient clinic, for instance their first patient-related encounters. Halfway through the academic year, after collecting the various assessment forms, each student writes a reflective essay in which he or she summarizes the judgements obtained, reflects on differences between these judgements, determines major improvement points and describes an action plan to improve his or her future behaviour. The student puts the reflective essay together with the assessment forms and other completed assignments in a portfolio and hands it in to the teacher. To ensure that the feedback was given timely – which is essential to effective delivery of feedback[19] – the teachers provide written feedback on the various assignments in the students' portfolios within two weeks after receiving the portfolio. In order to help students to enhance their professional development, the written feedback comments that

the teachers provide should stimulate reflection. For our study, we made use of teachers' written feedback comments (n=43) on students' reflective essays.

Study 1 - Determining characteristics of written feedback comments

Participants

Twenty three medical educators (teachers and educational scientists) were asked to participate in this study, which was aimed at determining which characteristics can be distinguished in written feedback comments. They were conscientiously selected on the basis of their knowledge and skills. They were all involved in the Professional Development course in the bachelor phase of the undergraduate medical programme as developer and/or supervisor and therefore they formed an important stakeholder group. All participants were instructed about the procedure of writing reflective essays and trained in general didactics on providing feedback. Furthermore, they all have been active, as participant or as trainer, in workshops on how to stimulate reflection on experience for instance by applying Korthagen's ALACT (Action, Looking back, Awareness, Creating alternatives and Trial) –model.[20] Participants were informed about the purpose of the study and participation was voluntary. The data were processed confidentially.

Analysis and procedure

To determine the characteristics of the written feedback comments, we used a nonlinear variant of Principal Components Analysis, called Multiple Correspondence Analysis (MCA). MCA is an analysis method which yields outcomes based on the frequency with which concepts or variables are associated with each other. MCA has been widely used in, for instance, marketing research[21,22] and is suitable for addressing our research question. Compared to, for instance, the Delphi method or the Q-method, the advantage of MCA is that each participant contributes equally to the end result and that there is little risk of drop-out as the participants need to make an effort only once. MCA summarizes the most apparent relationships between nominal variables. The nominal variables in this study were the 43 written feedback comments. MCA can be used to identify the structure in a data set, i.e. detect underlying dimensions in our written feedback comments. The accompanying procedure involves having the comments sorted into categories by individual

raters. Therefore, we gave each participant all 43 comments – each printed on a different paper card – and asked them to sort the comments (individually) into distinct categories based on similarities that they observed between the comments. We informed them that there were no right or wrong solutions and that they could make as many categories as they felt necessary. The only requirement was that a category had to contain at least two cards.

Two important aspects for determining which number of dimensions provides the best fit are 1) the inertia and 2) the interpretability.[23] The inertia refers to the amount of variance explained. Per dimension, inertia can range from 0.0 to 1.0. All dimensions of a MCA solution should be interpretable, as a solution that is not interpretable and theoretically logical is of little value.[24-26] Usually, up to three dimensions are retained.[23] Since statistical experts suggest investigating the interpretability of several solutions to ensure selection of the solution that makes the most sense and displays the most scientific sensibility,[27, 28] we decided not to restrict ourselves to a maximum of three dimensions, but investigate the interpretability of up to four dimensions. To optimize the interpretation process, investigator triangulation was applied. The first author and two co-authors independently interpreted the dimensions of each solution and subsequently discussed their interpretations to reach consensus on the interpretation of the dimensions and the best solution. MCA was performed with SPSS (version 18.0.3).

Study 2 - Comments that stimulate reflection

Participants and procedure

We asked 21 experts, Dutch or Belgian medical educators, at an invitational conference on reflection to participate in this second study. They were all engaged in professional development programmes in their own institutes in the Netherlands or Belgium and were interested in further education concerning how to optimize students' reflection skills. We asked this 'convenience' sample to rate the extent to which each feedback comment *stimulates reflection* or *not* on a five-point Likert-type scale, ranging from *not at all* (– –) to *very well* (++). Participants were informed about the purpose of the study and participation was voluntary and anonymous.

Analysis

After a research team discussion consensus was reached to use 75% as a cut-off percentage. This percentage is also a generally accepted 'rule of thumb' within our country. If 75% or more of the participants of the expert panel assessed a particular comment as stimulating reflection (+ and ++) it is considered as stimulating reflection. A comment was considered as not stimulating reflection if 75% or more of the participants assessed a comment as not stimulating reflection (– and – –). The comments that did not satisfy either of these conditions were labelled neutral. We performed independent *t*-tests to determine whether comments classified as stimulating reflection differed from those classified as not stimulating reflection with respect to their scores on the dimensions found in Study 1. We calculated the effect size (*r*) to find out whether differences were relevant, with the thresholds for small, medium and large effects being $r = .10$, $r = .30$ and $r = .50$, respectively.[29]

Ethical statement

National practice in the Netherlands, where this study was carried out, does not require ethical approval for educational studies and surveys. However, in this we adhered to the following ethical principles. The researchers had no hierarchical relationship with the participants. Participation was voluntary and data were processed either anonymously (Study 2) or at least confidentially (Study 1). Furthermore, in accordance with the university privacy policy, all materials derived from the portfolios were anonymized. This means that none of 1) the students from whose portfolios the feedback comments were derived, 2) the teachers who provided the feedback comments or 3) the participants in our studies are identifiable from the data, with the result that no possible harm can arise from publication.

RESULTS

Characteristics of written feedback comments

The outcomes of both the MCA and the interpretation process indicated that the three-dimensional solution was the best solution for describing the characteristics of written dimensions were good (.728 and .560 respectively)

and the inertia of the third dimension satisfactory (.377). All three dimensions were clearly interpretable, with the dimensions being interpreted as *format of the feedback comment*, *focus of the feedback comment* and *tone of the feedback comment* (Table 1).

Table 1. Object scores of a three-dimensional solution and inertia

Written feedback comment	FORMAT	FOCUS	TONE
1 How do you plan to deal with dominant people?	1,806	–,665	,265
2 You have six years of medical school to go and I have a lot of confidence in how you will develop. But beware; a strong point can become a pitfall. For example, wanting to do everything perfectly can lead to a burnout.	,359	1,022	1,027
3 How are you going to work out your learning goals?	2,303	–1,655	–,078
4 Great essay, clear learning goals.	–1,222	–1,227	,779
5 I find your reflective essay recognizable.	–1,009	–,978	,420
6 You're self-critical and you pick up on the remarks of others very well.	–,642	–,259	,906
7 Okay.	–1,169	–1,160	,254
8 Almost right, but how are going to realize your learning goals?	2,032	–1,349	,365
9 The most important point in your reflective essay is missing, the self- reflection.	–,356	,146	–1,510
10 Clear and precise.	–1,221	–1,231	,743
11 I feel you have diagnosed your strengths and weaknesses clearly. Particularly the fact that you noticed that you hold back in discussions and thus relinquish the opportunity to lead the discussion in another direction.	–,113	,946	1,082
12 Your accent is music to my ears.	–,465	,208	–,845
13 Adequate essay with clear learning goals.	–1,223	–1,234	,678
14 You picked up on your own learning goals well, you're smart enough but some more self-discipline would be desirable.	,098	1,371	,899
15 How are you going to work on your negative points?	2,303	–1,655	–,078
16 Self-assessment is lacking, how are you going to work out your learning goals?	1,968	–1,345	–,367
17 I could not find your self-evaluation form; your self-reflection essay is too brief.	–,483	–,024	–1,349
18 Good that you share your assessors' points of criticism but I don't see this properly reflected in the points for improvement. They are there if I read between the lines, but you should try to be more specific.	,484	,658	,369

Table 1. Object scores of a three-dimensional solution and inertia *(Continued)*

Written feedback comment	FORMAT	FOCUS	TONE
19 Good essay with adequate content, structure and use of language. The self-assessment and the reflective essay are also good.	–,985	–,654	,562
20 An adult response to criticism.	–,891	–,636	,831
21 You seem well able to imagine how others value you; your learning goal is interesting. A hint: consciously experiment with a pitfall. If you change your role in the group, the role of others in the group changes also.	,428	1,493	1,469
22 The evaluation was well reflected upon and formulated into clear learning goals.	–,895	–,920	,738
23 Assessment forms are missing, the assignments are neatly produced; you are active in the group and a stimulating person.	–,328	,753	,142
24 It's striking that your essay is the longest I received. You are a feisty lady who has a tendency to cut corners a bit too often. Spend some more time on reflection and your assignments and you'll be fine.	,270	1,407	,958
25 You are a good group member, stimulating too. But in your reflective essay you mention a lack of interest. What makes you think that?	1,108	,705	1,358
26 Try to formulate more concisely - although your language skills are good, your texts are too long.	–,021	,950	–1,584
27 The self-assessment form is missing, but you worked it out OK in the reflective essay.	–,605	,088	–,503
28 A more extensive reflection than others.	–,815	–,588	–,259
29 It's a pity that your content is shallow, it is the bare minimum, something already commented on by your coach as a point for improvement.	,131	,534	–1,669
30 You're a hard worker, but in the group you could push yourself more to the fore to show that you have an opinion.	,193	1,523	,284
31 An assessment form is missing, you have a pleasant manner with the patients and they like you.	–,300	,810	–,107
32 A nice summary to learn from.	–1,010	–,939	,258
33 Please pay more attention to the following: careful language use, professional language use and discipline. The reflective essay is unprofessional.	,240	,598	–1,661
34 Be on time!	–,156	,194	–2,047
35 Pay a bit more attention to the layout.	–,303	,202	–2,641
36 Reveal more of yourself in your essay.	,302	,282	–1,431
37 Just like everyone else, this is mostly a summary of other people's feedback.	–,610	,043	–1,396

Table 1. Object scores of a three-dimensional solution and inertia *(Continued)*

Written feedback comment	FORMAT	FOCUS	TONE
38 You dare to be critical and you support this reasonably (which is good). But being self-critical is also important. Sometimes you seem very pleased with yourself, and if you get feedback you often point the finger at others. At other times you seem perfectly well prepared to notice the same about yourself.	,167	1,473	,667
39 Some of the assessment forms are missing! You come across as very convinced of yourself, which is all very well and good but you should also show flexibility and display a genuine interest in others, which you do to some extent but not completely. Therefore, listen harder; you already know what you're going to say yourself. P.S. good time management and punctuality.	,260	1,645	,660
40 Written clearly, in keeping with my earlier remarks, but with evident progress made.	–,688	–,136	,291
41 An adequate essay.	–1,221	–1,237	,642
42 Good essay, it shows that you have thought it over. Putting less into discussions is not the same as being more moderate. Stick to your guns but learn to control your timing.	,348	1,556	,579
43 Elaborate: what about your role in the group? Why do you want it to change? Is the poor preparation of your fellow students caused by language problems?	1,929	–,717	,298
Inertia	.728	.560	.377

At one end of the dimension *format of the feedback comment,* the items were formulated as questions, for example 'Elaborate: what about your role in the group? Why do you want it to change? Is the poor preparation of your fellow students caused by language problems?' (comment 43), while items at the opposite pole were more formulated as a statement. An example of such a statement is 'An adequate essay' (comment 41). Items on the dimension *focus of the feedback comment* represented comments aimed at completing the descriptive aspect of the reflective essay versus comments that go more deeply into the content of the reflection, thus touching on higher levels of reflection. The former comments relate to the layout of the essay, missing information or unsatisfactory elaboration of the learning points, for example 'Self-assessment

is lacking; how are you going to work out your learning goals?' (comment 16). Feedback comments that concerned the content of the essay often contained a suggestion to improve future professional behaviour, for example 'You're a hard worker, but in the group you could push yourself more to the fore, show that you have an opinion' (comment 30). Items on one pole of the dimension *tone of the feedback comment* reflected a positive environment in which the feedback was given, for example 'You are a good group member, stimulating too. But in your reflective essay you mention a lack of interest. What makes you think that?' (comment 25). Comments on the opposite pole represented remarks on shortcomings, for example 'It's a pity that your content is shallow, it is the bare minimum, something already commented on by your coach as a point for improvement' (comment 29). The internal consistencies of these three dimensions were high (α = .98, .96, and .93, respectively).

Comments stimulating reflection

Of the 43 feedback comments, eleven were classified as stimulating reflection (comments 3, 8, 15, 16, 18, 21, 25, 38, 39, 42, 43) and 6 as not stimulating reflection (comments 5, 7, 12, 35, 40, 41). Comments that were rated as stimulating reflection differed significantly from those rated as not stimulating reflection on the dimension *format of the feedback comment*, (t(14.5) = 6.48; p<.001) and marginally on *tone of the feedback comment* (t(15) = –1.80; p<.10). The effect sizes were large for *format of the feedback comment* (r = .86) and medium for *tone of the feedback comment* (r = .42). Closer inspection revealed that comments that were rated as stimulating reflection were predominantly phrased as questions and were phrased in a more positive tone. No differences were found regarding the dimension *focus of the feedback comment*.

DISCUSSION

The main goal of written feedback on students' reflective writing is to stimulate and improve students' reflection skills in order to enhance their professional development. Our study revealed three dimensions characterizing written feedback comments on students' reflective essays: *format of the feedback comment* (questions versus statements), *focus of the feedback comment*

(related to the levels of students' reflections) and *tone of the feedback comment* (positive versus negative). Besides, we found that comments perceived as stimulating reflection were predominantly formulated as questions and tended to be phrased in a positive tone.

The results of our study are partly in line with the more general feedback literature. This literature indicates that, in general, feedback has two main functions: to inform students about a certain performance and/or to actively stimulate them to improve their performance.[30] The *format of the feedback* dimension relates to these functions: written feedback comments formulated as statements correspond with the informing function and comments formulated as questions relate to the improvement function of feedback. If students are supposed to improve their reflection skills, written feedback comments on their reflective writing should preferably be formulated as a question. Furthermore, it is known from literature that a positive affective climate is crucial to the learning process and helps enhancing the impact of feedback.[31,32] This corresponds with our finding that comments considered as stimulating reflection were mainly phrased in a positive tone. A possible explanation may be that feedback on a negative tone can raise resistance within students.[33,34]

We did not find differences between comments perceived as stimulating and as not stimulating reflection on the dimension *focus of the feedback comment*. Unlike the former two dimensions, this dimension seems to be more specific to reflective writing rather than related to the general feedback literature. In the literature on reflection, several levels of reflection are described, evolving from descriptive writing to critical reflection, where students explore and critique assumptions and also show emotional insight.[7,35,36] We noticed that the quality of the reflective essays of our students differed, with some students only describing experiences and others really attempting to reflect on their experiences. It appears that feedback comments on all levels of reflection can stimulate reflection. One could surmise that students whose reflective writing is still at the lowest level of descriptive writing can benefit from feedback on their description, while others who really critically analyse the remarks about their professional behaviour, benefit more from feedback on their reflection.

According to this line of reasoning, feedback comments can stimulate refection all along the dimension *focus of feedback*.

The main goal of providing written feedback comments was to enhance students' reflection on their professional development. Based on our participants' perceptions, we presume that this goal may be achieved by formulating feedback comments on students' reflective writing as a question and in a positive tone. Considering that educational literature indicates that challenging students to perform on higher levels may help to increase their skills,[31,37] this goal may even better be served if the comments focus on a reflection level that is slightly above the level on which the student performs. In the literature on reflection, different levels of reflective writing are described, ranging from descriptive writing to critical reflection [36]. Future research might investigate which kinds of questions can be asked to challenge students towards reflection levels slightly above the level on which they perform and examine the effectiveness of challenging students towards higher reflection levels.

A limitation of our study is that we did not include students in our study to find out which types of comments stimulate reflection. We intentionally chose to start this area of research with experienced medical educators. To move the field forward and examine the hypotheses generated through our qualitative work that feedback on reflective writing should be formulated a) in a question, b) positive in tone and c) on a reflection level slightly above that of the student, future research might try to investigate effectiveness of feedback differing in these characteristics. For instance, an experiment might be designed, in which students are given different types of feedback and instructed to revise their reflection after feedback. The outcomes might shed more light on the effectiveness of type of feedback in terms of improvement in reflective narratives. In this way, the field may get beyond qualitative and opinion data.

A second limitation is that only about 25% of the comments were regarded as feedback that stimulates reflection. However, despite the low numbers in our analyses, we did find significant differences between comments considered as stimulating and not stimulating reflection and these differences seemed relevant considering the effect sizes that we found.

Our 3 dimensions *format*, *focus* and *tone* of feedback may provide useful starting points for teacher training. Early experiences in teacher training sessions focusing on these characteristics are positive. The three dimensions seem to provide our teachers with a feasible framework for providing written feedback on students' reflective writing. Future research should focus on the effect of this training on the quality of feedback comments. Does the quality of feedback comments of teachers who are trained with this conceptual framework improve? And, linked to that, do students who receive feedback comments, (1) tailored to their reflection levels, (2) formulated as questions to lift them to slightly higher reflection levels, and (3) formulated in a positive tone, improve their reflective writing?

CONCLUSIONS

This study showed that written feedback comments on students' reflective essays can be characterized in terms of *format*, *focus* and *tone* of feedback. In addition, our study indicates that written feedback comments should be formulated as a question, positive in tone and tailored to the individual student's reflective level in order to stimulate students to reflect on a slightly higher level. Further research is needed to investigate the effectiveness of incorporating these three dimensions into teacher training to improve the quality of written feedback comments on reflective writing.

ACKNOWLEDGEMENTS

The authors would like to express their thanks to Tineke Bouwkamp-Timmer for her constructive comments and to all the experts who took the time to participate in this study.

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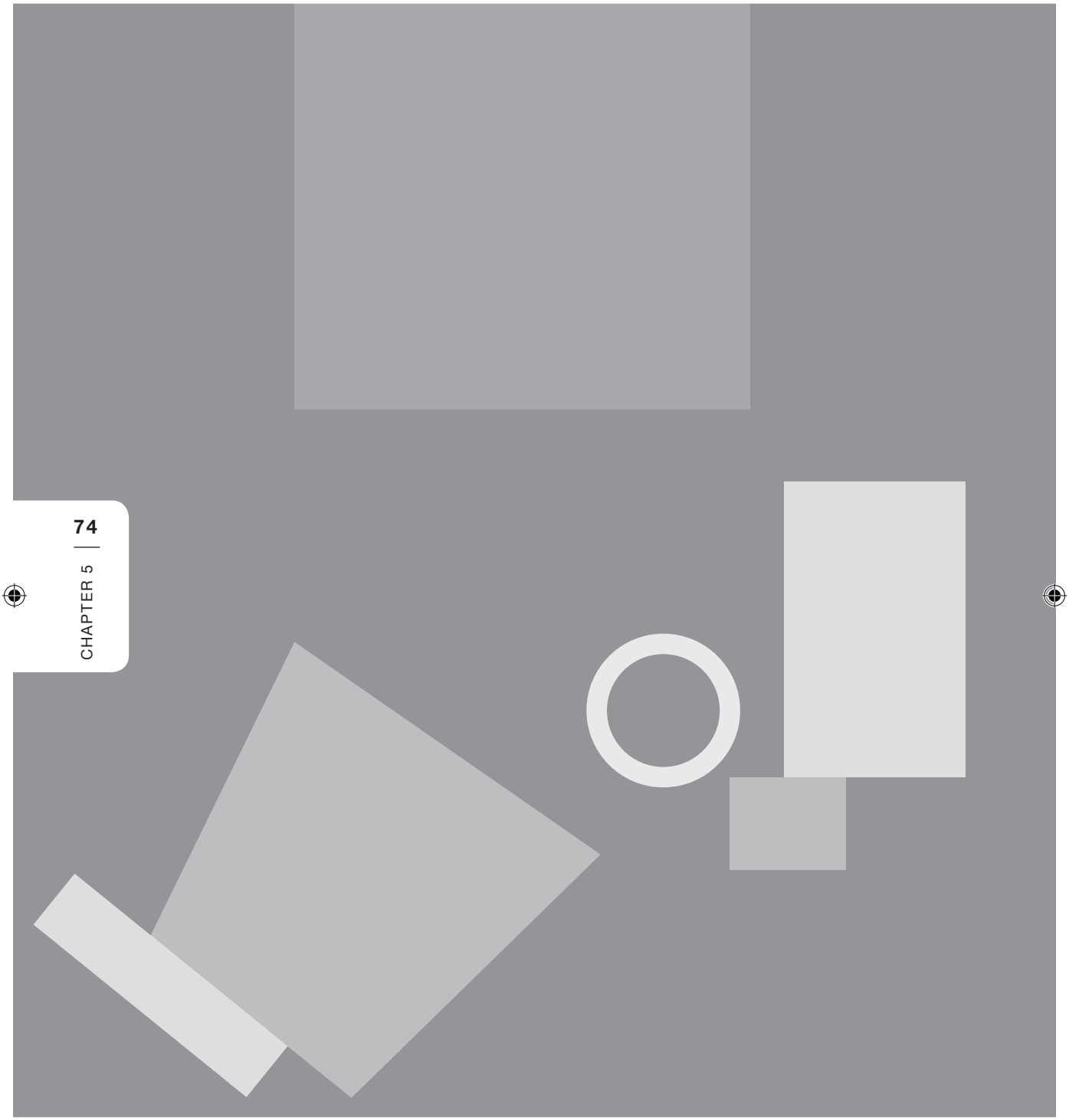

DO CLERKS' SELF-REPORTED TOPICS IN SMALL GROUP SESSIONS PROVIDE A SUFFICIENT CONTEXT TO DEVELOP PROFESSIONALISM?

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ABSTRACT

Introduction Teaching professionalism is an important part of medical curricula today. Reflective small group sessions in which students choose their own discussion topics are recommended to enhance the students' professional development. We investigated which topics were addressed during these sessions and whether these relate to professionalism.

Method Twenty-four small group session supervisors each reported the last five topics their students presented for discussion. We used framework analysis, a five-stage qualitative process, to group the topics in relation to professionalism domains.

Results The supervisors reported 106 different topics. Ten themes were identified, nine of which related to three internationally recognized professionalism perspectives. The themes 'doubts about personal effectiveness', 'doubts about career choice' and 'dealing with emotional incidents' pertained to professionalism as an individual characteristic. The themes 'problems among clerks', 'problems between clerks and supervisors', 'problems between clerks and patients', 'observing problematic interactions between others' and 'bringing bad news' related to professionalism as an interpersonal quality. The theme 'ethical dilemmas' related to professionalism as a societal phenomenon.

Conclusion Most of the topics clerks choose to discuss during the reflective sessions appear to relate to the three professionalism perspectives internationally recognized. We conclude that small group sessions in which students learn to reflect on self-selected topics is a suitable training context in which professionalism can be developed.

INTRODUCTION

In our rapidly changing society, teaching professionalism is pivotal to preparing clerks for their future practice.[1-3] The traditional informal approach of teaching professionalism by role modelling is no longer considered sufficient.[4,5] To support clerks' professional development processes, it is advised that reflection on real, work-based experiences be stimulated.[6] An effective way to learn to reflect on work experiences is in small peer groups.[7-9] The aim of this study is to investigate which work-based experiences students present for discussion during such sessions, and whether these stimulate reflection on professionalism.

A necessary step towards teaching professionalism is to clarify the concept.[10] However, professionalism is difficult to define and several definitions, often related to culture, can be found.[11-13] Constructing a specific, universal definition that fits all settings might not be possible.[11] In an attempt to reach consensus, an international group of experts identified three different, yet complementary perspectives on professionalism: (1) professionalism as an individual characteristic, trait, behaviour or cognitive process; (2) professionalism as an interpersonal process or effect; and (3) professionalism as a societal phenomenon, a socially constructed way of acting or being, associated with power.[14] From the first perspective, professionalism is 'understood as external, behavioural manifestations of a complex set of cognitive and attitudinal elements and personality characteristics, mutually and with the environment'. The second perspective is that professionalism is 'something constructed (or suppressed) through inter-personal interaction. Working in this discourse means giving attention to interpersonal relationships, particularly that of student and teacher'. From the third perspective, professionalism 'emerges and is modified through the interaction of professional groups with society. Professionalism is something that serves a social purpose of some higher order. That is, professionalism has a function – be it in relation to the status of the profession, the organization of the health care system, or the cultural, social or moral structure of institutions and societies of which medicine is a part'.

It is difficult to formulate clear learning outcomes based on these three broad perspectives on professionalism: what do students actually have to learn to become professionals? Some authors discuss that learning professionalism should not only be focused on behaviours, or right or wrong decisions, but that context must be taken into account.[15,16] They argue that a true professional is someone who takes responsibility and can explain why – in this context and for this specific patient – the decisions made were appropriate. In other words, a professional is prepared to be *accountable* for his or her behaviour and decisions in a complex reality and in relation to significant others. This means that in order to become accountable professionals, students have to learn to reflect on and judge incidents that have occurred in practice.[16] Therefore, our medical school has adopted the vision that professionalism is a second-order competence: a reflective and evaluative competence.[16]

In line with this idea, it is important to provide clerks with stage-appropriate opportunities for reflection.[17,18] Reflection is a metacognitive process that creates a better understanding of both the self and the situation, which will guide future actions and improve performance.[19] Reflection on action (afterwards) – a reconstructive mental review that occurs after an event – is considered particularly useful for learning professionalism.[10,20] Although reflection on action is widely acknowledged as being crucial for learning professionalism, it is difficult to apply in educational practice.

Several recommendations have been formulated to stimulate reflection on professionalism. First, *authentic work experiences* have been suggested as the 'trigger' for the reflective process.[21] The advantage of using real work experiences is that students' reflective activities are integrated with learning in a clinical environment. The learning process is therefore more closely related to understanding and solving real life problems. Learning that takes place in an authentic situation is considered most effective.[21] Second, the *small group setting* is valued as a desirable educational environment for training reflective skills.[7,9] Reflecting together in a small group – Mann et al. call it shared reflection[8] – is more effective than individual reflection because it offers information from multiple sources and multiple perspectives.[22] Interaction with

peers helps students see different perspectives and can thus reduce the risk of encountering blind spots.[23] Third, *a well-balanced combination of structure and freedom within the group process* appears to be a prerequisite to facilitating reflection.[24] Scheduling time for reflective activities does not imply that it will be spent productively. Too much structure, however, can lead to what Boud and Walker call 'recipe following'.[24] Having students go through a strict checklist and requiring them to reflect on demand carries the risk that they will work through the checklist mechanically without considering their own uncertainties, questions and opinions.

Based on these recommendations found in the literature, we implemented reflective small group sessions in which clerks choose their own clinical experiences to discuss in a structured manner. Starting from the idea that students learn about professionalism when they learn to reflect on experiences, we wondered whether the clinical experiences students raised for discussion during the small group sessions cover the professionalism domain. To investigate whether all three perspectives as described by Hodges and colleagues[14] were addressed in the small group sessions, we collected the work experiences students mentioned during the sessions and analysed whether these topics covered the professionalism domain.

METHOD

Context

Our undergraduate medical curriculum at the University Medical Center Groningen comprises a three-year pre-clinical Bachelor's programme and a three-year clinical Master's programme. The focus of this article is on the second year of the Master's programme, in which clerks are assigned to one of seven different teaching hospitals in the north-east of the Netherlands. Students participate in ten successive clerkships, each consisting of four weeks. During each of these clerkships, time is set aside for professional development. For that purpose, students participate in small group sessions scheduled on a two-week basis, resulting in 20 meetings a year. Each small group consists of 10 to 12 clerks, is chaired by one of them (in rotation) and is facilitated by a coach. Most coaches are senior staff members with a medical background. The two-

hour small group sessions consist of two parts: (1) 'intervision' and (2) theme discussions. In this study we will focus on the intervision part. During intervision, peers discuss work-based problems according to a predefined structure to support each other, learn from each other and to explore possible solutions.[25] The intervision part of the session is structured according to a six-step process (Box 1).

1. *Problem inventory*
   Catching up, looking back at the past, listing experiences and problems encountered, and deciding which subject will be discussed at the meeting.

2. *Analysis*
   Asking the 'problem submitter' informative questions about the subject to obtain clarity about the situation and the current question.

3. *Awareness*
   The analysis can help students realize that the real problem is a deeper, underlying one. If so, the problem needs to be rephrased. Starting this rephrasing with 'I …' is recommended.

4. *Advice*
   Discussing and advising on how to deal with the situation. The problem submitter summarizes the advices, tries to make a reasoned choice for an advice and to outline how to use this advice.

5. *Similar experiences*
   Peers with similar experiences of the subject can now discuss them.

6. *Evaluation*
   As a wrap-up, the group evaluates the meeting: was the advice chosen feasible, does the discussion format need adaptation?

Box 1. Predefined 'intervision structure'

Participants

We asked the 24 coaches from our seven teaching hospitals to report the last five topics that their clerks discussed during the 'intervision' sessions. We chose this approach because we wanted a representative overview of topics and not a list with the most striking, spectacular or emotional topics. Participation was voluntary and anonymous.

Ethical statement

At the time this study was carried out, national practice in the Netherlands did not require ethical approval for educational studies and surveys. Nevertheless, we adhered to ethical principles and we confirm that neither our participants nor their students can be identified from the material that we present. We do not expect plausible harm to individuals from participating in this study. The researchers did not have a hierarchical relationship with the participants and no rewards were offered. Participation was voluntary and anonymous.

Analysis

We used framework analysis to determine the categories in the overall list of topics.[26,27] Framework analysis was developed by social policy researchers in the UK as a pragmatic approach to real-world investigations and is a qualitative analysis method that consists of five different stages.[26] McHarg and colleagues were the first we know of to use framework analysis in the setting of medical education.[28] Compared to highly iterative approaches such as grounded theory, framework analysis is less focused on the development of a new theory but offers the option to build on existing ideas.[29,30]

Framework analysis consists of the following five stages:

1. Familiarizing with the data
2. Identifying a thematic framework for coding the data
3. Pilot indexing
4. Charting all data
5. Mapping and interpreting the data.

Stage 1: Familiarizing with the data

The first author (HD) familiarized herself with the data by repeated and in-depth reading of the topics list. She had a good understanding of the 'intervision' sessions, since she was involved in the design and delivery of these sessions in the various teaching hospitals.

Stage 2: Identifying a thematic framework for coding the data

Derived from this process of familiarization and the research question, the thematic framework was created as follows. HD printed all the topics on different paper cards. By grouping the paper cards on a table a preliminary framework emerged.

Stage 3: Pilot indexing

This preliminary thematic framework was tested independently by JCS and JWS, who both tried to map the paper cards to the framework themes. At this stage, the focus was not on locating all the topics somewhere on the thematic framework, but on the framework itself. Based on the outcome of this mapping process, the three researchers (HD, JCS and JWS) discussed, compared and negotiated the final coding scheme.

Stage 4: Charting all data

All authors (HD, JSA, JWS, TvdM and JCS) received the whole topics list along with the final coding scheme. They were asked to map the topics on the thematic framework, which contained 10 themes reflecting subject matter and one residual category for unclear descriptions. HD prepared an overview of all the authors' indexing. If topics were indexed differently by the co-authors, the interpretations were discussed at a final meeting and the authorial team tried to reach complete consensus.

Stage 5: Mapping and interpreting the data

From the outcomes of stage four, we realized that our thematic framework related to the relatively new, more overarching conceptual framework on professionalism presented by Hodges et al.[14] This framework is a consensus of an international group of experts that professionalism can be viewed from three

different, yet complementary perspectives: professionalism as an individual characteristic, professionalism as a quality of interpersonal interaction and professionalism as a societal phenomenon.[14]

RESULTS

The 24 coaches reported 106 topics. These topics could be grouped into 10 themes and one residual category resulting from the framework analysis process. Nine of these themes relate to the three internationally recognized perspectives on professionalism. The themes *doubts about personal effectiveness, doubts about career choice* and *dealing with emotional incidents* pertained to the domain of professionalism as an individual characteristic. The themes *problems among clerks, problems between clerks and supervisors, problems between clerks and patients, observing problematic interactions between others* and *bringing bad news* related to professionalism as an interpersonal quality, and the theme *ethical dilemmas* related to professionalism as a societal phenomenon. The theme *organization of clerkship* could not be linked to any of the three perspectives. (Box 2)

Professionalism from an individual scope	Doubts about personal effectiveness Doubts about career choice Dealing with emotional incidents
Professionalism from an interpersonal scope	Problems between clerk and clerk Problems between clerk and supervisor Problems between clerk and patient Observing problems between supervisor and patient Bringing bad news
Professionalism from a societal scope	Ethical dilemma's
No match	Organization of clerkship
	Unclear description

Box 2. Framework for indexing 'intervision' topics

Our framework analysis resulted in three themes related to the individual perspective on professionalism. Examples of topics pertaining to the doubts about personal effectiveness theme include '*finding a balance between maintaining distance from patients and being involved*', '*uncertainty about professional role*' and '*confrontation with lack of ability/knowledge*'. A topic that illustrates doubts about career choice is '*having doubts about becoming a doctor half-way through clerkships*'. The third theme – dealing with emotional incidents – contained issues such as '*feeling powerless when a patient suddenly dies*' and '*the impact of meeting young, seriously ill patients*'.

Five themes were related to the interpersonal perspective on professionalism. Three of these themes cover problematic interactions between the clerk him/herself and (1) peers, (2) patients or (3) supervisors. An example of problems between the clerk and a colleague clerk is '*fellow clerk is dysfunctional*'. Examples of problematic interactions with patients are '*clerk felt that a patient did not take him/her seriously*', '*how to deal with an aggressive patient*' and '*how to deal with a patient who shows romantic feelings towards you*'. Examples of problems with supervisors vary from: '*staff member treats clerk impolitely*' to '*makes suggestive remarks towards female clerk during meetings*'. The fourth theme is somewhat different from the first three as it pertains to problematic interpersonal interactions between other persons than the clerk him or herself – '*clerk feels irritated by specialist's unfriendliness towards a patient*' and '*emergencies appear due to lack of medical attention (not by clerk)*'. The fifth theme focuses on a specific type of communication, namely the bringing of bad news – '*clerk has to inform a patient about malignancy*'.

One theme – ethical dilemmas – is related to professionalism viewed from a societal perspective. Examples include '*suspected child abuse*', '*ethical problems concerning euthanasia and palliative sedation*' and '*pointless medical treatment*'.

The tenth theme, organization of clerkship, did not seem to relate to the three different scopes of professionalism. It includes topics such as '*clerk is evaluated by someone he/she hardly knows*', '*lack of structure for clerk, not being seen, no*

programme' and '*poor clerkship content*'.
Charting the topics was not always clear cut. The authors agreed that 22 of the 106 topics could fit multiple themes, for example, the topic '*moving to a new clerkship every four weeks – the introductory period is difficult every time*'. At first sight this topic seems to relate strongly to poor clerkship organization. Since it is known that clerks often experience difficulties with transitions, why organize the clerkships so that there are 10 transitions a year? However, this topic could also relate to another theme. The clerk might be very insecure and expect many difficulties in the future. Being too vulnerable and insecure can be an issue related to the clerks' personal effectiveness. A second example of a topic with several lines of approach is '*unable to deal with negative feedback given harshly*'. This topic could apply to a supervisor who appears to provide harsh feedback or a clerk who has problems dealing with constructive feedback. It can therefore relate to an individual attribute issue of the clerk or of the supervisor.

For a complete overview of topics, themes and dimensions please refer to Table 1.

Table 1. Complete overview of topics, themes and perspectives

Perspective		Themes and topics	Code for thematic interpretation
Professionalism from an individual scope		**Doubts about personal effectiveness**	**A**
	1	Making mistakes	
	2	Finding a balance between taking responsibility and letting go	
	3	Finding a balance between maintaining distance from patients en being involved	
	4	Uncertainty about professional role	

Professionalism from an individual scope	Doubts about personal effectiveness	A
5	Confrontation with lack of ability/knowledge	
6	Unable to let go of work in the evenings and at weekends	
7	Having a feeling of knowing too little	
8	Insecure about own role as clerk	
9	Clerk's lack of self-confidence in carrying out procedures	
10	Insecurities about own functioning	
11	Allocating/taking on responsibility	
12	Fear of making mistakes	
13	Dealing with boundaries as a clerk	
14	Position you have as a clerk	
15	Feeling powerless when you see things going wrong	
	Doubts about career choice	**B**
16	Having doubts about coming a doctor half-way through clerkship	
17	Is this profession really for me?	
	Dealing with emotional incidents	**C**
18	Feeling powerless when a patient suddenly dies	

19	Dealing with serious situations (e.g. death)	
20	Confrontation with death	
21	The impact of meeting young, seriously ill patients	
Professionalism from an interpersonal scope	**Problems between clerk and clerk**	**D**
22	Fellow clerk maintains distance	
23	Inter collegial problem between clerks	
24	Problems between clerks	
25	Fellow clerk is dysfunctional	
26	Fellow clerk having problems	
	Problems between clerk and supervisor	**E**
27	Specialist is abrupt towards clerk	
28	Makes suggestive remarks towards female clerk during meetings	
29	Sexual harassment in the workplace by the person who is going to evaluate clerk	
30	Staff member treats clerk impolitely	
31	Specialist behaves very impolitely towards clerk	
32	How to deal with residents who take out their frustrations/stress on clerks	
33	Receiving an unfriendly welcome by supervisor	

	Problems between clerk and supervisor	E
34	Conflicts with clinical teacher	
35	Grumpy surgeon	
36	Negative experience with clinical teachers	
37	Specialist who is unconcerned with clerks	
38	Conflicts with supervisor	
39	How to deal with clinical teachers without having any connection	
40	Residents supervising clerk are uninterested and unmotivated	
41	Clinical teachers who have little time for clerk	
42	Unfriendly welcome	
43	Arguments with supervisor	
	Problems between clerk and patient	**F**
44	Clerk felt that a patient did not take him/her seriously	
45	Dealing with incidents in communicating with patients	
	Observing problems between supervisor and patient	**G**
46	'Do Not Resuscitate' policy not noted properly in case history	
47	Clerk feels irritated by specialist's unfriendliness towards a patient	

	Observing problems between supervisor and patient	**G**
48	Specialist behaves impossibly towards patient	
49	Resident not taken seriously in presence of clerk	
50	Criticism/comments on specialist's social skills in patient contacts	
51	Emergencies appear due to lack of medical attention (not by clerk)	
52	Observing unfriendly approach towards patients	
53	Problems regarding unclear communication by specialists towards patients	
54	Bad news consultation poorly handled by specialist, any prior agreements ignored	
55	Functioning of resident/specialist	
	Bringing bad news	**H**
56	Bad news consultation	
57	Clerk has to inform a patient about malignancy	
58	Active participation in giving bad news	
Professionalism from a societal scope	**Ethical dilemmas**	**I**
59	Ethical problems concerning euthanasia and palliative sedation	
60	Paedophile released from prison - how is that possible?	

Professionalism from a societa scope	Ethical dilemmas	I
	61 My patient is wanted by the police, what should I do?	
	62 Pointless medical treatment	
	63 Palliative sedation	
	64 Forced medical intervention	
	65 Euthanasia	
	66 Problems relating to informed consent and the use of drugs that are not (yet) registered	
	67 Issues about informed consent and 'Do Not Resuscitate' policy	
	68 Problems with current legislation in the use of very expensive drugs for which the hospital has to bear part of the cost	
	69 Euthanasia and palliative sedation	
	70 In-vitro fertilization and genetic research on remained fertilized egg-cells	
	71 Treating uninsured outpatients	
	72 Examination by clerk of patients under anaesthetic, espec. vaginal examination	
No match	**Organization of clerkship**	**J**
	73 Clerk is evaluated by someone he/she hardly knows	
	74 Lack of structure for clerk, not being seen, no programme	

No match		Organization of clerkship	J
	75	Clerk's view of social medicine clerkship is negative	
	76	Only allowed to observe, not given any responsibilities	
	77	Poor clerkship content	
	78	Lack of structure in clerkship	
	79	Insufficient opportunity to acquire practical skills	
		Unclear description	**K**
	80	Is a complete physical examination necessary every time?	
	81	Negative experience with training	
	82	Life events	
	83	Unprofessional behavior	
	84	Clerk's experience as a patient – things he/she finds surprising or blatantly wrong	

Multiple matches			Themes
	85	Not allowed to do much during clerkship	J/E
	86	Feeling guilty about not being able to help patient with existing or potential acute medical problem	C/A
	87	Uncomfortable situation when during bad news consultation – doctor leaves the room! D	G/H

Multiple matches		Themes
88	Nursing staff do not respect clerk's role and saddle him/her with unpleasant chores	E/J
89	How to deal with an aggressive patient	A/F
90	How do you deal with a patient who shows romantic feelings towards you?	A/F
91	Suspected child abuse	I/C
92	Having romantic feelings for a beautiful patient	A/F
93	Misjudging a situation in the emergency room	A/C
94	Assessment during clerkship is unsatisfactory: - half way through, clinical teacher finds this impossible - just a formality at the end	E/J
95	Moving to a new clerkship every four weeks – the introductory period is difficult every time	A/E/J
96	Lack of support for clerk after emotional event (serious trauma) for patient	C/E
97	Unable to deal with negative feedback given harshly	A/E
98	How do I deal with my faith/spirituality during contacts with patients?	A/E/I
99	Patient has traced and contacted (stalking) clerk on `Facebook' (social network) and wants to chat with clerk outside working hours. How to deal with this.	A/F
100	Feeling of not being welcome	A/E/J
101	Left to own devices	A/E/J
102	Boredom	A/J

Multiple matches		Themes
103	Clerk's approach towards residents and specialists	A/E
104	Problems with issues regarding alternative medicine, where are your own boundaries?	A/I
105	Problems with assessments that do not go well	E/J
106	Transgression of moral values regarding patient with unhealthy lifestyle – to treat or not to treat?	A/I

DISCUSSION

We identified that the topics that clerks spontaneously choose for discussion during small group sessions appear to cover the entire professionalism domain. Our framework analysis yielded ten themes, nine of which could be mapped to the three internationally recognized perspectives on professionalism: professionalism as an individual characteristic, as a quality of interpersonal interaction and as a societal phenomenon.[14] Allowing clerks to self-select topics for discussion in small groups does not appear to undermine the overall educational aim to address all the perspectives relevant to the students' professional development.

Some of the topics cannot be ascribed to a single theme. Several themes could relate to two or even three perspectives. For instance, a personal characteristic can influence how a person interacts in a certain situation. This finding does not undermine the ideas of Hodges and colleagues, who state that professionalisms can be viewed from three different perspectives.[14] They highlight that it is necessary for educational reasons to unravel professionalism, but that in reality, professionalism is a complex and multidimensional construct. Interplays among the perspectives on professionalism are key to their way

of thinking. We have structured the reflective small group sessions in such a way that clerks can deal with topics that touch these different perspectives. During step 2 of the intervision structure – the analysis phase – the 'problem submitter' is asked informative questions about the subject to obtain clarity about the situation and the current question. Take for instance the topic '*How do I deal with my faith/spirituality during contacts with patient?*' The questions could focus on individual characteristics: 'why is faith/spirituality so important to your personal effectiveness?'; on interpersonal interaction: 'how do you deal with a severely ill patient who wants to talk about euthanasia, while this is not in line with your faith/spirituality?'; or on a societal phenomenon: 'do you feel inhibited talking about faith/spirituality with a patient since we live in country that has a separation of state and church?' Asking questions covering these three perspectives can impact on step 3 – the awareness phase. The analysis occasioned by the question can help students realize that the real problem is a deeper, underlying one.

Some of the topics clerks present are not directly related to their own behaviour but rather prompted by their observations of others – for instance problematic interactions between supervisors and patients or other staff members. We value this as a positive outcome because it suggests that clerks are becoming more conscious of the effect of negative role modelling. This is an important finding, since role modelling is still an important learning tool in the clinical workplace. Role modelling occurs through observation and reflection, and is a complex mix of conscious and unconscious activities.[31] Students are often not aware of how they are influenced by role models.[32,33] If they observe negative role models, the informal learning processes can lead to ethical erosion.[34] To counteract ethical erosion, it is recommended that students and teachers become more aware of the impact of role modelling.[10] Apparently, our sessions facilitate the discussion of negative role modelling.

Not all the themes of our analysis relate to professionalism. Some of the topics dealt with clerkship organization issues. Examples include clerks feeling isolated, clerks not being allowed to do much during clerkship, and clerks being evaluated by clinical teachers they hardly know. These are important problems for clerks because failing or passing a clerkship has major consequences.

A strong point of our study is that we did not ask the coaches to list their most interesting topics and sessions, we asked them to list the topics from their last five sessions. We thereby obtained a representative topic list including ordinary, down-to-earth topics, instead of a list mainly consisting of highlights. A possible limitation of our approach is that the respondents only provided us short summaries of the topics, and it is therefore possible that we may have misunderstood some topics. Another limitation of our study is that we did not assess what students really learned from these sessions. We know from evaluation data that clerks value the group sessions as safe spaces and that the sessions help them think about their future roles as doctors.[35] However, how does this impact on their behaviour in the clinical setting? Does participating in intervision sessions impact on how clerks deal with problematic situations encountered in practice?

Future research on this, in our opinion promising, educational format is necessary. Our outcomes indicate that our intervision format is suitable for covering the entire professionalism domain. Currently, there is a growing number of medical schools – at least in the Netherlands – implementing these intervision sessions for clerks. Replication of our study to examine whether the findings replicate would strengthen our outcomes. Further research could also focus on the postgraduate setting, where the 'intervision' format is also used and where the topics residents bring in for discussion could differ from those of clerks. Postgraduate students have increasing responsibilities, so we would expect that they would bring in topics concentrating on difficulties in patient care, handling work stress or supervising clerks. Therefore, it would also be interesting to analyse these topics. It is clear that further research is required to gain more insight into the effective use and impact of intervision sessions.

Experiences reported during intervision sessions related very well to the internationally recognized perspectives on professionalism. We conclude that the intervision format and the focus on reflection on experiences could help students develop themselves professionally.

ACKNOWLEDGMENTS

We would like to thank all coaches who participated in this study and Tineke Bouwkamp-Timmer for her constructive comments to improve the manuscript.

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MEDICAL STUDENTS' AND TEACHERS' PERCEPTIONS OF SEXUAL MISCONDUCT IN THE STUDENT–TEACHER RELATIONSHIP

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Published in:
Perspectives on Medical Education 2013;2:276–89.

ABSTRACT

Teachers are important role models for the development of professional behaviour of young trainee doctors. Unfortunately, sometimes they show unprofessional behaviour. To address misconduct in teaching, it is important to determine where the thresholds lie when it comes to inappropriate behaviours in student–teacher encounters. We explored to what extent students and teachers perceive certain behaviours as misconduct or as sexual harassment. We designed – with a reference group – five written vignettes describing inappropriate behaviours in the student–teacher relationship. Clinical students (n=1195) and faculty of 8 different hospitals (n=1497) were invited to rate to what extent they perceived each vignette as misconduct or sexual harassment. Data were analyzed using *t*-tests and Pearson's correlations. In total 643 students (54%) and 551 teachers (37%) responded. All vignettes were consistently considered more as misconduct than as actual sexual harassment. At an individual level, respondents differed largely as to whether they perceived an incident as misconduct or sexual harassment. Comparison between groups showed that teachers' and students' perceptions on three vignettes differed significantly, although the direction differed. Male students were more lenient towards certain behaviours than female students. To conclude, perceptions of misconduct and sexual harassment are not univocal. We recommend making students and teachers aware that the boundaries of others may not be the same as their own.

INTRODUCTION

Development of professional behaviour has become a major part of education in competence-based medical curricula.[1,2] Teachers play a key role in teaching professional behaviour, as they are important role models for trainee young doctors.[3] Unfortunately, teachers sometimes show unprofessional behaviour. Especially in the clinical workplace, where clinical teachers ought to be role models, misconduct in the student–teacher relationship (including sexual harassment) appears to occur.[4,5] This is a serious problem, all the more because students are dependent on their clinical teachers for feedback and assessment.[6] To be able to outline a strategy to deal with (sexual) misconduct, it is important to determine which behaviours in the student–teacher encounters are perceived as (sexual) misconduct. In this study, we analyzed to what extent students and teachers consider incidents as misconduct and sexual harassment in the student–teacher relationship.

Unprofessional behaviours can be grouped into three different levels of severity: (1) atypical of the standard student–teacher relationship, (2) crossing boundaries and (3) violating boundaries.[4] In this study, we focus on unprofessional behaviours with sexual overtones. Examples of such behaviours range from inappropriate comments, unwelcome attention, flirtatious or sexual remarks to too personal questions and physical contact.[6,7] The extreme forms of this type of misconduct are called sexual harassment. Sexual harassment – which is alarmingly often reported by students, with prevalence rates ranging from 18-60% [6,8-10] – has been shown to have a negative impact on students' well-being.[11-14] Students who had been sexually harassed indicated that they functioned less well as a consequence and reported lower self-esteem and self-confidence.[12] Victims of sexual harassment also reported a diminished interest in or enthusiasm for their studies.[10] Furthermore, harassed students felt more stressed and depressed, drank more alcohol and tended to be more suicidal than non-harassed students.[15] There are also indications that sexual harassment affects students' speciality choices.[16] For instance, female students confronted with incidents of harassment during their surgical clerkship did not specialize in general surgery, despite their initial intention and interest. The high prevalence

rate of sexual misconduct in the student–teacher relationship and its negative impact on students denotes the importance of addressing sexual misconduct.

Medical schools have increasingly acknowledged the need to address sexual harassment. Several measures have been taken to address this issue. Hospitals and medical schools have, for instance, emphasized the fact that their students and teachers belong to a profession that has high ethical standards on maintaining appropriate professional boundaries in both the doctor–patient and the teacher–student relationship. In addition, hospitals and medical schools have formulated definite policies on sexual harassment and implemented procedures for reporting incidents of sexual harassment, and they have informed students and teachers about these policies and procedures.[5] Despite the fact that several measures have been taken to address (sexual) misconduct, students do not optimally make use of the established mechanisms for reporting abuse.[12] Reasons for not doing so are that students consider themselves as belonging to the lowest level of the hierarchy and they fear retaliation from abusive faculty, which could jeopardize their residency plans.[15] Another reason for not reporting sexual harassment is that female students feel that they, perhaps, may have been oversensitive.[17] Apparently, the measures taken are not enough to attain wholesome student–teacher relationships. Addressing sexual harassment actively in medical school curricula is needed to teach students how to deal with sexual misconduct and how to form and keep up professional relationships.[18-20]

Methods to address sexual misconduct actively in curricula may include interactive educational sessions, in which students can discuss harassing experiences together and with their teachers.[18] To make these educational activities effective, it is essential to examine whether students and teachers have similar views on what constitutes (sexual) misconduct or even sexual harassment. We noticed that our students and teachers easily agree on sexual harassment when it concerns extreme sexual misconduct like rape. However, during their small-group meetings, our students also mentioned incidents with a sexual overtone in the student–teacher relationship that did not concern extreme forms of sexual misconduct. While the students who brought these

incidents up obviously considered them as sexual misconduct, remarkably, not all teachers and students did so. This observation puzzled us and we decided to investigate whether such differences in opinion only occur incidentally or whether students and their teachers differ structurally in their opinions about the severity of unprofessional behaviours. We wanted to gain more insight into the opinions of students and teachers in order to provide input for the educational sessions on this topic. The aim of this study was to explore to what extent students and teachers perceive certain inappropriate situations in the student–teacher encounters as sexual misconduct or – more severely – as sexual harassment.

We formulated the following research questions:

1 To what extent are incidents perceived as (1) misconduct and as (2) sexual harassment?
2 To what extent are individuals consistent in their opinions: do individuals have an overall sensitivity for misconduct or sexual harassment?

We were also interested in group and gender differences in views on incidents:

3 Are there differences of opinion between students and teachers?
4 Are there differences of opinion between male and female students?

We also investigated whether female students who have already experienced harassment before/during medical school differed in their perception about incidents from those who have not experienced previous harassment. Therefore our last question was:

5 Are there differences of opinion between harassed and non-harassed female students?

METHODS

Context

This study was performed at the University Medical Center Groningen in the Netherlands. The medical curriculum consists of a Bachelor's and a Master's programme, each lasting 3 years. Clinical clerkships start in the first Master's

year at the University Medical Center Groningen. For the clerkships of the second Master's year, students are allocated to 1 of 7 different teaching hospitals in the north-eastern part of the Netherlands. After having written a Master's thesis during the third year, students complete their basic medical training with a 20-week clerkship during which they act as junior doctors under strict supervision.

In the first and second Master's year, students have to attend small-group sessions every other week, in which they discuss – in a structured way – various situations they experienced during clerkships. During these sessions, the subject of 'sexual harassment' has often been brought up as a problematic situation.

Vignettes

We designed five vignettes to provide the participants with the context and background of unprofessional behaviours with sexual overtones in the student–teacher relationship. Real-life experiences that clerks mentioned during their small-group sessions were used as a source for the written vignettes. To cover different types of harassing behaviour, we used the classification scheme of Witte et al. to define the content of the five vignettes.[21] In order to improve face and content validity of the vignettes, we used a reference group of 5 teachers and 5 students. The five vignettes, which were originally in Dutch, are presented in English:

1. Sexist remark *(Barbie doll*): In the hospital where you are completing your clerkships, it is commonly known that gynaecologist A addresses all female clerks as 'Barbie doll'. You, a female clerk, are on his ward for the first time and indeed, you are also addressed by him as 'Barbie doll'.
2. Embarrassing comment *(Sexual joke*): While you are waiting in the coffee room for an operation, you (a young clerk) overhear surgeon A while he tells an explicit sexual joke to surgeon B.
3. Sexual overture *(Eye contact & invitation*): During morning report you (male clerk) notice that a female paediatric resident is constantly looking for eye contact. Afterwards she invites you to dinner.

4 Stereotypical comment (*Menstruation*): You are a female internal medicine clerk and during your evaluation at the end of the day your supervisor mentions that you performed much better last week. He asks you whether your poor clinical performance today may be attributed to your menstruation.
5 Clerk as harasser (*Provocative clothes*): You, a rehabilitation specialist, are in your office in the hospital at the end of the day. A female clerk enters and takes a seat very close to you. Her white coat is unbuttoned and you notice that she is wearing provocative clothes. She wants to know what she has to do in order to get a higher mark. She needs this higher mark because she wants to pass with honours.

Participants

All students registered as first-, second- or third-year Master's students were included in our study (n=1,195). All clinical teachers registered at the administrative offices of the University Medical Center Groningen and seven teaching hospitals were invited to participate (n=1,497). With permission of the various hospital boards, we administered the electronic questionnaires among staff members and residents.

The participants were asked to judge each vignette in two ways: (1) to what extent they perceived the vignette as misconduct and (2) to what extent they considered it as overt sexual harrassment. We defined misconduct as behaviour perceived as crossing a boundary and sexual harassment as behaviour violating a boundary.[5] They were asked to rate their opinions on a five-point scale (1 = not at all, 5 = very much). We also added questions about gender, age, profession and whether the participant had experienced one or more sexually harassing situations him/herself.

Ethical statement

At the time this study was carried out, national practice in the Netherlands did not require ethical approval for educational studies and surveys. However, in this study we adhered to the following ethical principles. The researchers had no hierarchical relationship with the participants. Participation was voluntary and anonymous. No rewards were offered.

Analysis

Descriptive statistics were used to analyze to what extent the vignettes were perceived as misconduct and as sexual harassment. Pearson's correlations were used to analyze to what extent students and teachers were consistent in their opinions about the different vignettes. We calculated correlations between the opinions on misconduct and sexual harassment within and between vignettes.

A paired *t*-test was used to determine differences between sexual harassment and misconduct. Differences between students and teachers, male and female students, and harassed and non-harassed female students were analyzed using the independent samples *t*-test. Due to the high number of comparisons, we used Bonferroni correction, with the Bonferroni correction alpha being 0.05/35 and, therefore, interpreted differences with $p \leq .001$ as significant. To indicate the importance of the differences, effect sizes (ES) were calculated using the formula described by Field.[22] Consequently, we applied ES = .10 (small effect); ES = .30 (medium effect) and ES = .50 (large effect).

RESULTS

Descriptives

The questionnaire was completed by 643 students (response rate 54%); 77% were female and 23% were male. The female/male ratio of the total student population is 70–30%. The students' average age was 23.8 years. The questionnaire was completed by 551 clinical teachers (response rate 37%), of whom 36% were female and 64% male. The average age of the clinical teachers was 42.9 years. The respondents were 181 medical specialists of the University Medical Center Groningen (33%), 138 medical specialists from teaching hospitals (25%), 154 residents (28%), 48 general practitioners (9%), 18 public health doctors (3%) and 12 persons with a different background (2%). In the past, 130 clerks (20% of all participating clerks) and 65 clinical teachers (12% of all participating teachers) had experienced one or more sexually harassing incidents themselves. Of the 130 harassed clerks, 124 were females (95%).

Table 1. Views on sexual harassment and misconduct

N = 1194	Low (%)	Neutral (%)	High (%)	Mean (SD)	*t* (df)	*p*	ES
Sexist remark							
Misconduct	20	20	60	3.52 (1.09)	35.85 (1,186)	.000*	.72
Sexual harassment	54	28	18	2.47(1.06)			
Embarrassing comment							
Misconduct	52	25	23	2.54 (1.15)	22.38 (1,189)	.000*	.54
Sexual harassment	73	18	9	1.97 (1.01)			
Sexual overture							
Misconduct	44	25	31	2.75 (1.24)	16.97 (1,188)	.000*	.44
Sexual harassment	57	26	17	2.33 (1.14)			
Stereotypical comment							
Misconduct	5	10	85	4.31 (0.88)	39.82 (1,190)	.000*	.76
Sexual harassment	18	18	64	2.87 (1.25)			
Clerk as harasser							
Misconduct	5	8	87	4.25 (0.90)	21.39 (1,187)	.000*	.53
Sexual harassment	42	26	32	3.62 (1.17)			

Respondents rated the vignettes on both misconduct and sexual harassment on a scale from 1 = not at all to 5 = very much. Low = percentage of respondents scoring 1 or 2, neutral = percentage of respondents scoring 3, high = percentage of respondents scoring 4 or 5. * significant at .001 level (differences between scores on misconduct and sexual harassment)
Effect size low = .10, medium = .30 and large = .50

Views on misconduct and sexual harassment

All vignettes were perceived significantly more often as misconduct than as sexual harassment (Table 1). Respondents rated the vignettes 'Stereotypical comment' and 'Clerk as harasser' as the most improper and the vignette 'Embarrassing comment' as the least improper. An in-depth exploration of individual ratings of the vignettes revealed a large variation in opinions. Every vignette was perceived by some respondents as very sexually harassing and as real misconduct, whereas others did not perceive them as sexually harassing or misconduct at all. For instance, the vignette 'Embarrassing comment' – which was rated as least improper – was perceived by 9% of the respondents as still highly sexually harassing behaviour.

Relations between misconduct and sexual harassment scores, both within and between vignettes

Within the vignettes, the correlations between individual scores on misconduct and sexual harassment varied between .35 and .74 (Table 2, bold numbers). Between the vignettes, the correlations between individual scores on misconduct varied between .09 and .33 (Table 2, italic numbers) and the correlations between individual scores on sexual harassment varied between .20 and .46 (Table 2, underlined numbers).

Group differences

Students' and teachers' opinions differed significantly on the vignettes 'Sexist remark', 'Embarrassing comment' and 'Sexual overture' for both misconduct and sexual harassment (Table 3). However, the direction differed. The students were more permissive towards the vignettes 'Sexist remark' and 'Embarrassing comment', whereas the teachers were more permissive towards 'Sexual overture'. Male students were more permissive on the vignettes 'Clerk as harasser', 'Sexual overture' and 'Embarrassing comment' (Table 4) than were female students. We did not find any statistical differences between the opinions of harassed and non-harassed female students (Table 5).

Table 2. Relations between misconduct scores and sexually harassing scores, both within and between vignettes

N = 1194	**Sexist remark**		**Embarrassing comment**		**Sexual overture**		**Stereotypical comment**		**Clerk as harasser**	
	Misc.	Sexu.	Misc.	Sexu.	Misc.	Sexu.	Misc.	Sexu.	Misc.	Sexu.
Sexist remark										
Misconduct	1.00	**0.56**	*0.33*	0.26	*0.09*	0.12	*0.26*	0.17	*0.22*	0.18
Sexual harassment		1.00	0.32	<u>0.46</u>	0.14	<u>0.25</u>	0.12	<u>0.36</u>	0.13	<u>0.23</u>
Embarrassing comment										
Misconduct			1.00	**0.68**	*0.25*	0.26	*0.13*	0.24	*0.18*	0.15
Sexual harassment				1.00	0.25	<u>0.33</u>	0.02	<u>0.34</u>	0.10	<u>0.20</u>
Sexual overture										
Misconduct					1.00	**0.74**	*0.15*	0.23	*0.17*	0.21
Sexual harassment						1.00	0.07	<u>0.33</u>	0.15	<u>0.31</u>
Stereotypical comment										
Misconduct							1.00	**0.35**	*0.30*	0.16
Sexual harassment								1.00	0.16	<u>0.30</u>
Clerk as harasser										
Misconduct									1.00	**0.55**
Sexual harassment										1.00

All correlations are significant at 0.01 level. Bold = correlations within vignettes between misconduct and sexual harassment, italic = correlations between vignettes concerning misconduct, underlined = correlations between vignettes concerning sexual harassment

Table 3. Students versus teachers

	Students (*n* = 643) Mean (SD)	**Teachers** (*n* = 551) Mean (SD)	*t* (df)	*p*	ES
Sexist remark					
Misconduct	3.33 (1.09)	3.73 (1.06)	–6.37 (1,170)	0.000*	0.18
Sexual harassment	2.27 (0.99)	2.70 (1.10)	–7.09 (1,109)	0.000*	0.21
Embarrassing comment					
Misconduct	2.38 (1.09)	2.73 (1.12)	–5.23 (1,122)	0.000*	0.15
Sexual harassment	1.83 (0.93)	2.13 (1.08)	–5.05 (1,089)	0.000*	0.15
Sexual overture					
Misconduct	2.92 (1.20)	2.56 (1.28)	4.92 (1,133)	0.000*	0.14
Sexual harassment	2.44 (1.12)	2.20 (1.15)	3.64 (1,187)	0.000*	0.11
Stereotypical comment					
Misconduct	4.26 (0.90)	4.37 (0.49)	–2.18 (1,189)	0.029	0.06
Sexual harassment	2.89 (1.26)	2.84 (1.25)	0.63 (1,190)	0.527	0.02
Clerk as harasser					
Misconduct	4.23 (0.90)	4.27 (0.90)	–0.83 (1,188)	0.406	0.02
Sexual harassment	3.68 (1.11)	3.55 (1.23)	1.88(1,112)	0.059	0.06

Effect size low = 0.10, medium = 0.30 and large = 0.50

* Significant at 0.001 level

Table 4. Male students versus female students

	Male (n = 150) Mean (SD)	Female (n = 492) Mean (SD)	t (df)	p	ES
Sexist remark					
Misconduct	3.24 (1.09)	3.36 (1.09)	–1.21 (637)	0.226	0.05
Sexual harassment	2.18 (0.96)	2.30 (0.99)	–1.24 (637)	0.214	0.05
Embarrassing comment					
Misconduct	1.97 (0.96)	2.50 (1.10)	–5.70 (278)	0.000*	0.32
Sexual harassment	1.59 (0.82)	1.90 (0.95)	–3.61 (637)	0.000*	0.14
Sexual overture					
Misconduct	2.33 (1.08)	3.10 (1.17)	–7.21 (638)	0.000*	0.27
Sexual harassment	1.87 (1.01)	2.61 (1.10)	–7.84 (270)	0.000*	0.43
Stereotypical comment					
Misconduct	4.01 (1.01)	4.34 (0.84)	–4.07 (638)	0.000*	0.16
Sexual harassment	2.67 (1.17)	2.95 (1.28)	–2.45 (639)	0.014	0.10
Clerk as harasser					
Misconduct	3.91 (1.09)	4.32 (0.80)	–4.25 (201)	0.000*	0.29
Sexual harassment	3.27 (1.26)	3.81 (1.03)	–4.82 (213)	0.000*	0.31

Effect size low = 0.10, medium = 0.30 and large = 0.50

* Significant at 0.001 level

Table 5. Harassed female students versus non-harassed female students

	Harassed (n = 124) Mean (SD)	Non-harassed (n = 368) Mean (SD)	t (df)	p	ES
Sexist remark					
Misconduct	3.40 (1.14)	3.35 (1.08)	0.41 (489)	0.597	0.02
Sexual harassment	2.30 (1.00)	2.30 (0.99)	0.01 (489)	0.909	0.00
Embarrassing comment					
Misconduct	2.67 (1.19)	2.45 (1.06)	1.84 (193)	0.067	0.13
Sexual harassment	1.98 (0.98)	1.88 (0.94)	0.98 (487)	0.330	0.04
Sexual overture					
Misconduct	3.15 (1.19)	3.08 (1.16)	0.52 (488)	0.806	0.02
Sexual harassment	2.64 (1.09)	2.60 (1.10)	0.34 (488)	0.720	0.02
Stereotypical comment					
Misconduct	4.37 (0.81)	4.33 (0.85)	0.43 (488)	0.495	0.02
Sexual harassment	3.06 (1.32)	2.92 (1.26)	1.04 (489)	0.370	0.05
Clerk as harasser					
Misconduct	4.24 (0.93)	4.35 (0.75)	–1.17 (181)	0.197	0.09
Sexual harassment	3.75 (1.04)	3.83 (1.02)	–0.77 (487)	0.756	0.03

Effect size low = 0.10, medium = 0.30 and large = 0.50
* Significant at 0.001 level

DISCUSSION

In this study, we explored medical students' and teachers' perceptions about written vignettes describing inappropriate student–teacher encounters. All vignettes were consistently considered more as misconduct than as actual sexual harassment. At the individual level, we found a large variation in perceptions of misconduct and sexual harassment. Both within and between

respondents, opinions differed from incident to incident: some respondents perceived a particular incident as very harassing and the other incidents as not harassing at all, while other respondents, in contrast, perceived one of the other vignettes as particularly harassing. All incidents were considered by some as overt misconduct or as very sexually harassing and by others as not misconduct or sexual harassment at all. There was no consistency across respondents regarding which incidents they considered most serious or, in other words, a general sensitivity for sexual harassment does not seem to exist.

Upon comparison of the opinions of subgroups in our respondent sample, we found some differences between teacher and student perceptions, but there was no clear pattern. In some cases, teachers were more permissive, in other cases students were more lenient. This outcome differs from the results of a study conducted by Ogden,[23] who found that clinical teachers considered more behaviours to be abusive than did students. In addition, we found that male students were more lenient towards certain behaviours than female students. An explanation for the fact that females perceived vignettes more as sexual harassment and as misconduct than males did may be that female students themselves are more often victims of sexual harassment – in our study, for instance, 96% of the harassed students were female – and that these experiences affect their perceptions of the vignettes.[10,15,24,25] If this line of reasoning is true, we might expect different views between harassed and non-harassed students. However, we did not find any differences in the opinions of harassed and non-harassed female students.

A strength of our study is that we used real-life experiences of clerks to investigate their perceptions and those of their teachers. Considering each of these experiences was felt to be inappropriate by some and as acceptable by others stresses the need to address a range of examples of misconduct in education. In our study, the vignette in which the clerk was the harasser was perceived as most sexually harassing. Teachers indicated that they recognized the situation and that it made them feel uncomfortable and insecure because they doubted whether the clerk intentionally tried to harass or whether they had misunderstood the situation. Based on their study of sexual harassment

of female doctors by patients, Schneider and Phillips[26] suggest that this phenomenon can be explained by the so-called contra power. Contra power harassers have a way of obstructing formal power in spite of an explicit power imbalance. They tend to use low-risk behaviour, because it can easily be explained as a misunderstanding. In our vignette, the student fulfilled the role of the harasser, although the teacher held the formal power. Considering our findings, we recommend not to limit the discussion of misconduct to stereotypical incidents in the student–teacher relationship in which the 'harasser' is an older male and the 'victim' is a young female, but also to discuss vignettes in which the clerk is the harasser.

We realize that our study, in particular the content of the vignettes, was limited to the Dutch context. Although our vignettes were based on real-life situations reported by our Dutch students, they may be culturally biased. The Netherlands is a country characterized by individualism and feminism and gender equity in social and sexual interaction is generally accepted in the Netherlands.[27,28] Although the content of the vignettes may be specific to the Dutch culture – and maybe also to other countries high in individualism and femininity – the principle of incidents being differently valued by individuals, i.e. being considered as misconduct or not, may hold in different cultures. Future research is needed to find out whether our outcomes – that individuals differ strongly as to what they consider as acceptable or not acceptable – are also valid for other countries or cultures.

The most important finding of our study is the observation that students and their teachers differ structurally in their opinions about the severity of unprofessional behaviours. The differences in interpretations can be caused by many factors such as the respondent's individual past experiences, personality, cultural background, religious background, family background or the way he/she was brought up. The thresholds for perceiving incidents as misconduct or even sexual harassment seem highly personal and which incidents are considered as most serious varies strongly across individuals. This outcome forms a plausible explanation for why it is so hard to define and address sexual harassment in medical schools. The lack of uniformity in answers hinders the

formulation of strict guidelines on which conduct is permissible and which conduct is not.

The practical implications of these outcomes are that a different approach is required to address sexual misconduct. Interactive educational sessions in which students and teachers discuss vignettes together are recommended.[18] As study material for these educational sessions, we suggest – based on our outcomes – to present several (at least 4 to 5) different vignettes about the student–teacher relationship per session. Using vignettes with incidents of differing severity in a session helps to create awareness that there are individual differences in thresholds concerning what is acceptable and what is not. Such awareness may help participants of these educational sessions to realize and respect that other peoples' boundaries may not be the same as their own. Second, we recommend taking gender differences into account in the educational sessions. Because male students were more permissive on some vignettes than female students, awareness of differences between males and females may be increased by composing mixed-gender small groups.

We would like to stress the importance of developing awareness among students and teachers, because it is not easy to find the right balance between closeness and distance. It is the teacher's task to help students to acculturate or socialize in the 'community of practice' of the medical profession.[18] Therefore, the role of the clinical teacher requires a certain level of collegial and social closeness.[18] Since the student–teacher relationship is by definition one of unequal powers, however, finding the right balance between closeness and distance may be difficult.[4] Teachers may be unaware that they are deviating from professional standards of conduct. Because of power inequality, students may find it hard to negotiate boundaries or defend themselves against boundary crossings. The issue may be further complicated by the fact that what is acceptable is often not a clear-cut matter of right and wrong. Therefore, we encourage educators to explicitly pay attention to raising awareness of students and teachers that what is acceptable to some people may not be acceptable at all to others.

CONCLUSION

Students' and teachers' perceptions of sexual harassment and misconduct are not univocal. Our findings indicate that students and teachers recognize the concept of misconduct sooner than sexual harassment. We suggest teaching both students and teachers to be aware of different situations of misconduct within their mutual relationships, and to realize and respect that other people's boundaries may not be the same as their own.

ACKNOWLEDGMENTS

We would like to thank all the teachers and students who participated in this study and Tineke Bouwkamp-Timmer for her constructive comments to improve the manuscript.

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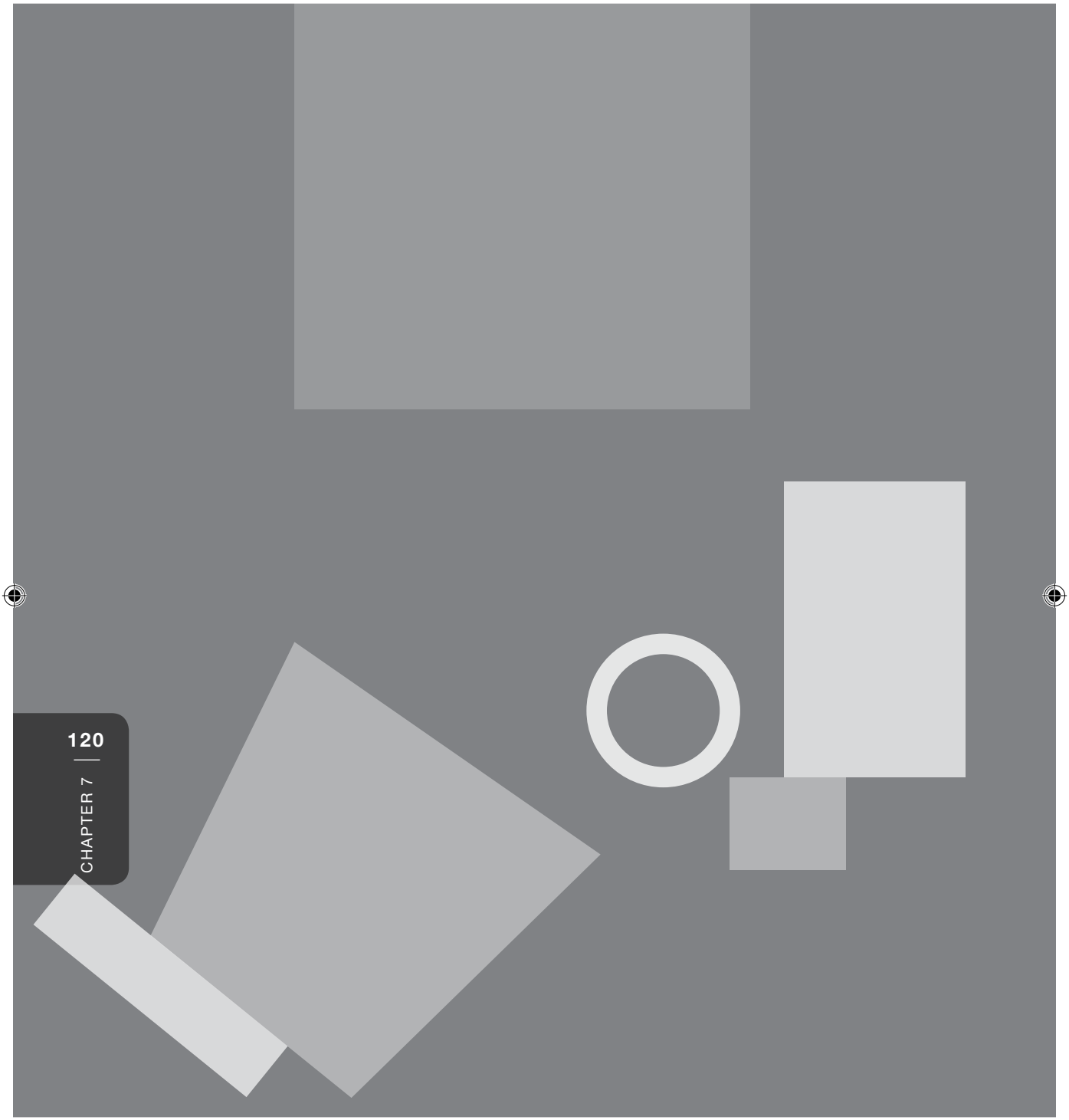
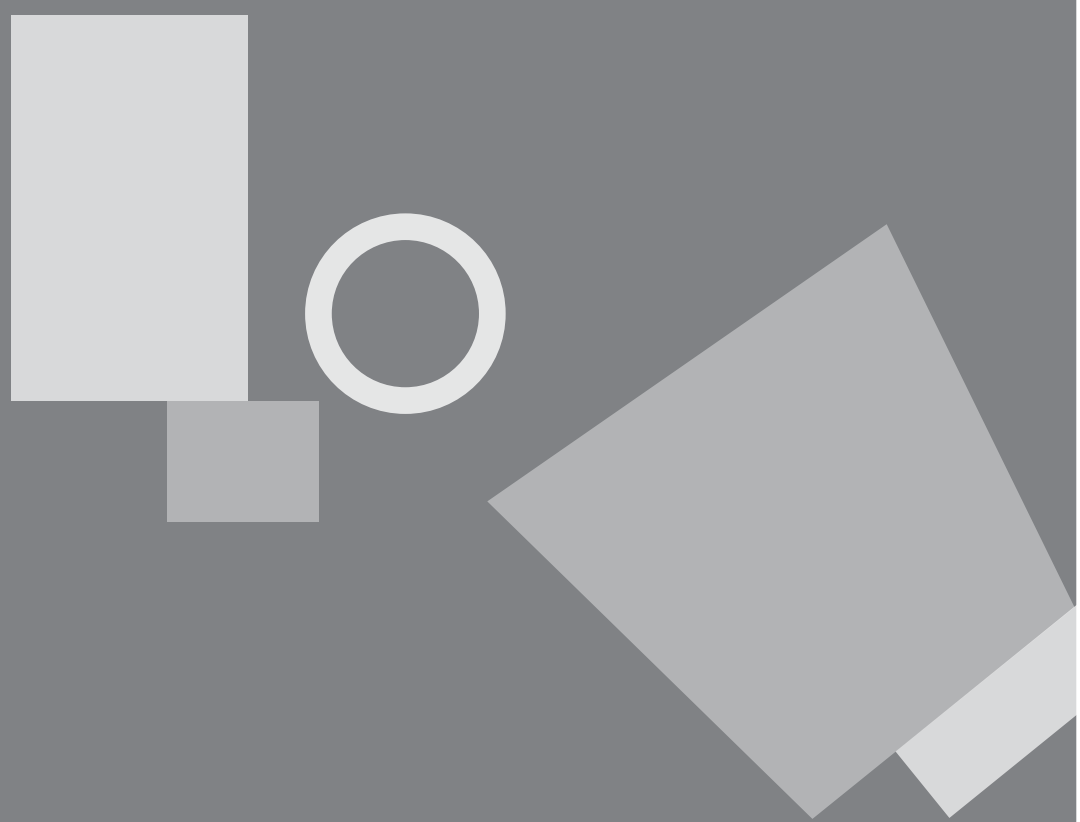


GENERAL DISCUSSION



GENERAL DISCUSSION

There has been a major shift over the last ten years in medical education, from more or less fragmented knowledge and skills training towards developing competencies: demonstrable abilities integrating knowledge, skills and professional behaviour.[1,2] Professionalism is considered to be one of the more challenging competences to implement in a curriculum in an integrated way due to its reflective and context-dependent nature.[3] The findings of the five studies in this thesis add to the body of literature on teaching and learning professionalism in competence-oriented medical education.

MAIN FINDINGS

We first presented an overview of the 'professionalism' course we developed for our 400 Master's programme students (Chapter 2). We discussed the rationale for the course and its 'intervision' format. During intervision sessions, students learn to reflect on their own work-based experiences in a structured manner with help of their peers. Students showed growing appreciation for the course; however, they were less satisfied with some aspects of portfolio use.

Portfolios are used to facilitate students' reflective learning. We explored how portfolio use is mentored in the Netherlands and Flanders and found a range of options, varying from individual mentoring to mentoring in a group format in which peers also play a role (Chapter 3). We also found that the mentor feedback on student portfolio assignments only encouraged reflection when the written feedback comments were formulated as questions, were positive in tone and tailored to the individual student's reflective level (Chapter 4). It is important that students discuss their work-based experience which stimulates reflection. We found that the topics students choose to discuss during the reflective small group sessions covered all three professionalism domains: professionalism as an individual characteristic, professionalism as an interpersonal quality and professionalism as a societal phenomenon (Chapter 5). One specific type of work-based experience was mentioned regularly: misconduct in the student–teacher relationship. We therefore analysed student and teacher perceptions of

misconduct on the basis of five written vignettes and found that opinions were not unequivocal. We concluded that it is more important to teach students to be aware of differences in opinions rather than teaching rules about what is right or wrong (Chapter 6).

OVERALL FOCUS OF THE THESIS

For centuries, there were no formal, professional development courses in medical education.[4] Medical students developed their professional values and beliefs through participating in traditional apprenticeship relationships with their teachers.[5] Teaching and learning in this setting was based solely on role models and was therefore part of an implicit process of socialization.[6,7] Students observed their clinical teachers interacting with patients and patterned their activities and behaviours on these observations. Although this implicit approach remains of great value today, it is no longer felt sufficient to prepare medical students for professional practice.[4,8] Therefore, the focus has shifted towards more explicit training in professionalism.[5]

Training professionalism is not, however, a matter of learning prescribed behavioural patterns; it is about discovering what behaviour is suitable in specific, unique situations, and acting accordingly. Professional practice involves doctors deciding what is 'best' in a given situation and not so much finding the 'right' answer.[9] What this 'best' decision or behaviour is depends on the specific features of that situation. This means that professionalism is always context-dependent. This contextual dependence of professionalism requires a focus on accountability.[10] An accountable professional is someone who is able and willing to justify why a specific behaviour or decision was appropriate in a specific context, for a specific patient.[11] To this end, reflective skills are regarded as essential for developing professionalism.[11]

Therefore, the focus of explicit training in professionalism is on stimulating students' reflective capacity. As a result, medical students today participate in various reflective activities, such as writing reflective essays, compiling portfolios and small group intervision sessions. These are all attempts to make

the implicit professional behaviour more explicit. The complex task for teachers is to encourage their students' reflective competence. The student and the teacher perspectives are considered in the following.

LEARNING PROFESSIONALISM

Students have to learn to develop into professional doctors. Our professional development course enables students to stimulate their reflective capacity to prepare themselves for professional practice. The findings in Chapter 2 show that students value this professional development course. The evaluation data demonstrate that clerks consider participating in this course as helpful for thinking about their future roles as doctors. Furthermore, they value the various activities in the course that help them reflect on their actions and gain more understanding of the 'grey zones' of doctoring. The small group sessions are perceived as safe spaces for open discussion, with the intervision structure helping them consider different perspectives. They thereby develop into accountable professionals and learn to support other team members by discussing shared problems. The findings in Chapter 5 suggest that allowing clerks to self-select the topics for discussion will cover all the perspectives relevant for students' professional development.

Students were generally positive about the course, which covers a broad range of professional complexities. However, favourable reactions do not always ensure that the intended learning outcomes are being achieved.[12] How can we be sure that this type of course really encourages students to become accountable, reflective professionals? What helps, in our opinion, is the *continuity* of our course. Over a period of two years, clerks meet every other week in small group sessions, approximately 45 times in total, during which they learn to reflect together in a structured way while focusing on a real experience contributed by one of the group members. We expect that this high frequency of meetings helps students integrate reflective skills into their work. The following examples are positive indications for this integration. Our hospital's monthly periodical – Polsslag – contains a column in which clerks report experiences.[13] One of them, a female clerk in her last Master's year

(without intervision sessions) described how as her responsibilities increased, she really missed the security of her small group of peers and reflecting on how much she had learned. Another example is that in one of our affiliated hospitals, third-year Master's clerks took the initiative to organize intervision sessions themselves. These signs are, of course, not hard evidence; however, they suggest that we are on the right track to stimulating our students to become reflective professionals.

The readiness of clerks to organize intervision sessions becomes particularly important if we consider – for instance – the moving story of one pulmonologist who often has to give bad news to patients with lung cancer.[14] She provides a safe space for her patients: warm, empathic, calm. However, this pulmonologist feels very isolated when dealing with her own emotions and calls for more professional support from peers. Would it have helped this doctor if she had learned, using the intervision method, to reflect on critical incidents with peers? We do not know. What we do know is that peer support is valued as the most acceptable source of support in coping with emotional stressors.[15]

We did not investigate the minimum number of sessions students need to learn to reflect and to integrate this into their functioning. We choose quite a high number of regular peer meetings. We noted that similar peer groups meetings are organized at other medical schools, but with students only meeting three to five times per year. We consider such a low number of group sessions as insufficient to master the complicated skill of reflecting on professionalism. Future research is needed to determine the optimal number of sessions.

We also noticed that in other schools, peer groups often discuss pre-structured cases presented for discussion by teachers. Such cases often have a 'right' or 'wrong' answer. The strong point of our course, however, is that students bring in their own real-life experiences. The 'right' or 'wrong' of most of these experiences is not as clear, as in the real-life situations we used for the vignettes in Study 6. Real-life situations are more to do with shades of grey than black or white. We consider such grey situations more suitable for learning to reflect than black and white ones. However, further research is needed to investigate this assumption.

Not all aspects of our professional development course were positively valued. For instance, half of our responding students did not appreciate having to write a personal development plan for their portfolio, and they did not feel motivated to do additional assignments during their clerkships (Chapter 2). The literature also shows that students can become confused about how to approach various reflective writing activities.[16] They do not always recognize the value of these writing activities and often perceive them as 'paperwork'. Compiling a personal development plan is perceived by students as far more useful when it is used in a dialogical context.[17] This is comparable to our finding in Chapter 3 that the use of portfolios should be supported by a form of mentoring. Based on these recommendations, we decided to plan three individual coaching meetings for each clerk, scheduled across the year, to discuss the personal development plan. We expected that clerks would thus experience the process as more meaningful. However, over a period of three years, we saw no improvement in the students' appreciation of the personal development plan. This raises some questions. The enthusiasm of individual coaches is highlighted as important to the individual mentoring of personal development plans.[18] We do have enthusiastic coaches who are highly appreciated by their students. However, this appears to be insufficient. We need to learn more about how to implement the personal development plan so that students really experience it as a meaningful activity which contributes to their self-directed learning process. Further research is necessary to gain greater insight into the effective use of a personal development plan. It is possible that first-year clinical students do not really have the opportunity to steer their own learning paths. Their learning environment can still be quite teacher driven. We need to examine what the most appropriate environment for working with a personal development plan is. Another approach would be to find out what would happen if the focus of a personal development plan shifted more towards extending strengths than addressing weakness. We could conduct a longitudinal cohort study to examine how the various activities of the professional development course presented really contribute to the learners' development into accountable, reflective professionals.

TEACHING PROFESSIONALISM

Our responding students really appreciated their teachers on this course (Chapter 2). We assume that this is because our teachers were genuinely motivated. Most of our teachers volunteered for this new coaching work and they like their role. However, during our monthly lunches, teachers indicated that they found the task of enhancing students' reflective abilities rather complex. Most teachers in medical education are primarily doctors and/or researchers and therefore often have no formal background in teacher training. Their ideas of teaching and learning build on the way they were educated themselves and are influenced by the teaching tasks they deliver in other parts of the curriculum, such as lecturing, training skills or bedside teaching. Although many medical teachers today participate in 'teach the teacher' courses and other formal training programmes, supporting the development of students' reflective activities is perceived as one of the more challenging jobs.

The outcomes of our study of written feedback comments (Chapter 5) offer practical assistance for teachers. Written feedback comments on students' reflective essays should be formulated as questions, be positive in tone and tailored to the individual student's reflective level in order to stimulate the students' reflective competence. We have used these outcomes in workshops to improve the feedback skills on reflective writing. Further studies should investigate whether these workshops really have an effect on the quality of the written feedback comments teachers provide.

The findings in Chapter 6 highlight that the student–teacher relationship can be a complex one. For clinical teachers, this relationship seems less clear than the doctor–patient relationship. To create a safe environment, a certain amount of 'closeness' in the student–teacher relationship – trying to make the student feel at ease – would appear necessary and therefore, teachers ask about students' weekends or make jokes. This can be the first step on a slippery slope towards actual inappropriate behaviour or even misconduct. However, the boundaries between appropriate behaviour and inappropriate behaviour are unclear and providing clear guidance about which remarks teachers can make is impossible.

Moreover, appropriate behaviour in the teacher–student relationship appears to depend on context, and the individual beliefs of teachers and students also play a role.

Both findings – effective written feedback on reflective essays and the complexities of the boundaries in the student–teacher relationship – can serve as input for workshops to support teachers. However, we suggest going one step further. In line with the work of Karen Mann et al., we propose that teachers should themselves be better prepared for reflection and reflective practice.[19] This serves two goals. First, reflecting on personal teaching performance creates a better understanding of teaching practice and helps identify personal strengths and weaknesses. Goals for the future can be formulated on that basis, helping teachers to become better teachers. This reflective practice also helps teachers gain a deeper understanding of the expertise, attitude and values which underlie the teaching profession. Second, becoming more skilled in reflection themselves enables teachers to support and guide students better in their reflective activities.

Future research should focus on how to support teachers to become more reflective teachers. Steinert has developed a framework of different approaches to faculty development that can offer guidance.[20] This framework summarizes two dimensions: from individual learning from personal experiences to group (collaborative) learning, and from informal approaches to more formal ones. Our teacher-support activities mainly focused on group learning. We scheduled structured, group activities as formal workshops and more informal lunches to exchange experiences. Better encouragement of teachers' individual learning remains a rather unexplored area. Future research in this area appears necessary.

METHODOLOGICAL CONSIDERATIONS

A strength of this thesis is that all the studies provide insights into how professionalism should be learned and taught. Literature on professionalism in medical education was long dictated by *what* should be learned and taught.

Currently, consensus is emerging that professionalism is difficult to define owing to its reflective and context-dependent nature, and that constructing a specific, universal definition that fits all settings might not be possible. Accordingly, the focus shifted towards preparing students to deal with professionalism's contextual dependence, to enable them to make accountable decisions. How can we stimulate students' reflective capacity to prepare them for professional practice? We think that the results of this thesis contribute to answering this question and are therefore of relevance to educational practice.

A second strength of this thesis is the deliberate use of various research methods to answer the research questions. The two methods we applied – Multiple Correspondence Analysis (MCA) and Framework Analysis (FA) – are still quite novel in medical education research. Both methods have advantages over others. MCA is a method that permits the analysis of qualitative feedback comments in a more quantitative manner. MCA allows researchers to detect and represent underlying patterns in a dataset. A pattern in this context is that several participants judge certain written feedback comments as having characteristics in common. The purpose of MCA is to reveal these patterns. MCA can be described as a nonlinear variant of Principal Components Analysis. FA contributes another important benefit. FA was developed by social policy researchers in the UK as a pragmatic approach to real-world investigations. Compared to highly iterative approaches, such as a grounded theory, FA is less focused on the development of a new theory, but offers the possibility of building on existing ideas. To improve the face and content validity of the questionnaires we used to collect data for the more quantitative analysis, we incorporated the outcomes of semi-structured interviews and the results of discussions with a reference group of five clerks and five teachers when designing them.

This thesis is limited in its generalizability. All studies were conducted in the Dutch-speaking part of the world. Moreover, most studies were carried out within the clinical context of a single medical school. Although students and teachers from several teaching hospitals were also involved in the studies, the overall format of the clinical setting was the responsibility of one medical

school. As a consequence, the findings of this thesis should be used with caution in other contexts.

A second limitation has to do with bias, in particular the influence of the researcher. The author of this thesis was also the project leader of the group that designed and implemented the professional development course throughout our curriculum. This carried with it the advantage that the author was familiar with all the ins and outs of the course and the underlying considerations. However, it could also have created bias. Being critical about your own course is not easy, though the author did endeavour to be dispassionately honest. Furthermore, the co-authors, with their different backgrounds, helped the author to remain critical.

FUTURE

Professionalism is not easy to practise in our complex, rapidly changing world. To address this, explicit training in professionalism have been the catchwords of the last ten years. Our medical school answered the call for explicit training and developed a successful, intensive programme with a focus on the students' reflective capacity. However, we have a remark to make with respect to the future. The training of professionalism seems overly focused on individual development alone. The individual student, clerk or resident has to learn how to become a reflective, accountable professional. Twenty-first century medicine requires more than ever a team approach. Doctors in trouble – read for example the headlines in the introduction to this thesis – all have colleagues. What did those colleagues do? Should not training in professionalism focus more on team development and team performance? Are doctors skilled in giving feedback to their colleagues or even confronting them if their work fails to meet the required professional standards? Should educators not pay more attention to team accountability and professionalism as a team concept? As highlighted in the introduction, the influence of role models on student learning is considerable. Perhaps if we foster this team accountability, it will help team members adjust to their professional team standards.

CONCLUSION

In this thesis we aimed to gain greater insight into certain aspects of how professionalism should be learned and taught. This thesis adds to this in four different ways. First, it provides an overview of a good example of an integrated course for clerks for teaching and learning professionalism. We showed that it is feasible to implement this kind of course on a large scale: we ran more than 40 small group sessions scheduled across a period of two years, with an annual intake of over 400 clerks. Second, we found that the topics clerks self-select for discussion during the reflective small group sessions address all the perspectives relevant for students' professional development. Third, we found that written feedback comments on students' reflective essays should be formulated as questions, be positive in tone and tailored to the individual student's reflective level in order to stimulate their reflective competence. Fourth, we found that the student and teacher perceptions about misconduct are not unequivocal, and that it is more important to teach students to be aware of differences in opinions rather than teaching them rules about what is right or wrong. I hope that these practical outcomes will be used by other medical educators in their work developing and researching the teaching and learning of professionalism.

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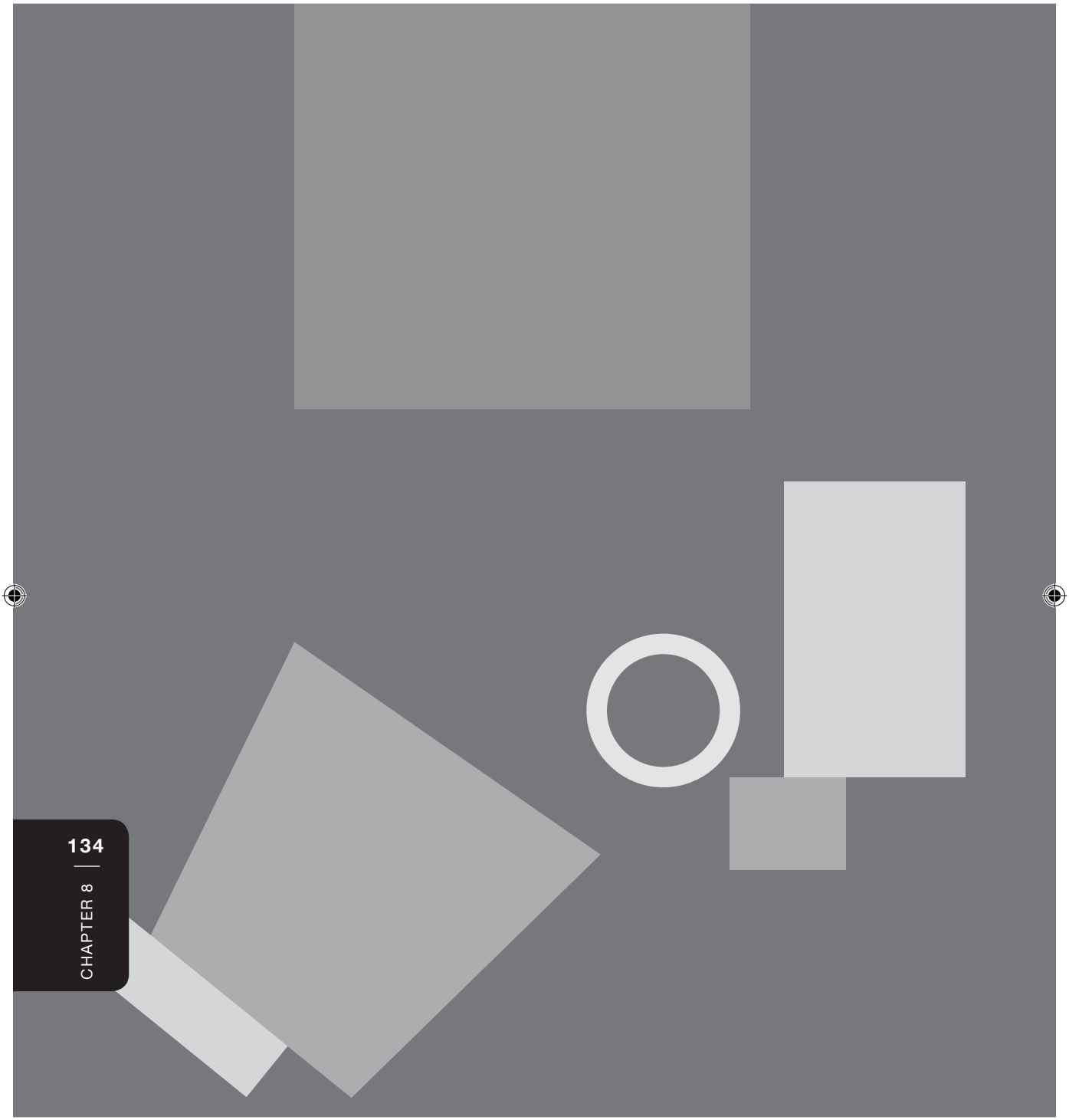

SUMMARY

SAMENVATTING

DANKWOORD

SUMMARY

For centuries, medical students have developed their professional values and beliefs while participating in a traditional apprenticeship relationship with their teachers. Teaching and learning professionalism in the clinical setting was merely based on role models and, therefore, was an implicit process of socialization. Although this implicit approach is still of great value today, it is no longer felt to be sufficient to prepare medical students for professional practice. Many societal factors influence current medical practice, for instance the rapid expansion of medical knowledge and technical possibilities; medical care requiring a multi-disciplinary approach; the increasing influence of politicians, insurance companies and media on healthcare; the use and influence of internet and social media; patients becoming more articulate; and medical doctors desiring a different work-life balance. Doctors, patients and members of the general public have come to realize – prompted by incidents and alarming headlines in the media – that medical professionalism is under threat. Therefore, there is a widely acknowledged call for professionalism to be trained explicitly to prepare medical students for future practice. The studies in this thesis add to the body of literature on teaching and learning professionalism in medical education.

Chapter 1 addresses two important themes in teaching and learning professionalism. First, the existing literature is summarized and discussed to explore the complexities of defining the concept of professionalism. Although it would appear that there is no unequivocal definition of professionalism available that can be used in every context, some consensus is emerging. Professionalism can be viewed from three different, yet complementary perspectives: professionalism as an individual characteristic, professionalism as a quality of interpersonal interaction and professionalism as a societal phenomenon. Second, an overview of the existing literature on how professionalism should be learned and taught is provided and discussed. The chapter concludes that situated learning theory is the most suitable for teaching and learning professionalism. Reflection, role models and peer support are valued as key elements in learning professionalism, and a variety of educational tools and instruments are available to facilitate this reflective learning.

Chapter 2 presents an overview of an intensive and integrated professional development course for clerks, along with the results of the course evaluation. The rationale underpinning the course is that professionalism is a reflective and evaluative second-order competence. The educational consequences are that (1) clerks should learn to reflect to justify their behaviours and decisions in various situations, and (2) that training in professionalism should be linked to the training of other competences within the clinical workplace. The course was designed to increase the students' reflective competence by applying the concept of situated learning, accounting for the impact of role modelling, using various educational tools and instruments, enabling clinical experiences as input, and using structured and frequent small group meetings with a supporting coach. The course consists of 24 sessions per year. Each session starts with 'intervision', in which clerks reflect on a self-selected clinical experience according to a predefined structure, and ends with a thematic discussion. In addition, the clerks are each required to compile a portfolio. During the course, the clerks are mentored through three individual interviews with their coaches. The course evaluation revealed that the clerks perceived the small group sessions as a safe environment in which they can learn to reflect on incidents experienced in daily clinical practice. The course encourages them to reflect on action and to gain more insight into the grey areas of doctoring. The 'intervision' structure helps clerks become accountable professionals. They were less satisfied with the use of a personal development plan as part of their portfolios.

In **Chapter 3** the focus is on the use of portfolios to stimulate students' reflective learning. Mentoring is widely acknowledged as being crucial for portfolio learning. The aim of this study – performed on behalf of the Special Interest Group on portfolios of the Netherlands Association for Medical Education – was to examine how mentoring portfolio use has been implemented in undergraduate and postgraduate settings. The results showed that the main aim of mentoring portfolio use is to encourage the feedback process and stimulate students' reflective capacity. Individual meetings are the most favoured method for doing so. Informed by the portfolio content, the mentor and mentee discuss themes from the previous meeting and formulate

learning goals for the ensuing period. Small group sessions are more common in an undergraduate setting and focus mostly on exchanging experiences and practising reflective skills.

As part of their portfolio assignments, students often have to write reflective essays. For teachers, it is quite a challenging task to provide feedback on these essays. To support them in providing appropriate feedback, it is essential to gain insight into which characteristics of written feedback stimulate students' reflection processes. **Chapter 4** reports on an analysis of authentic written feedback comments on students' reflective essays. In these essays the students summarize their judgements from several assessment forms, reflect on differences between these judgements, determine improvement points and develop action plans to guide their future behaviour. The analysis suggests that written feedback on students' reflective essays should be formulated as questions, be positive in tone and tailored to the individual student's reflective level in order to stimulate students to reflect at a slightly higher level.

Starting from the idea that students learn about professionalism when they learn to reflect on experiences, we wondered whether the clinical experiences students brought up for discussion during the small group sessions covered the domain of professionalism comprehensively. **Chapter 5** presents a qualitative study in which 24 teachers from seven different teaching hospitals were asked to report the last five topics their clerks discussed during the 'intervision' sessions. This resulted in a list of 106 issues which were categorized into ten themes which, in turn, corresponded with three internationally recognized perspectives on professionalism. The themes 'doubts about personal effectiveness', 'doubts about career choice ' and 'dealing with emotional incidents' pertained to professionalism as an individual characteristic. The themes 'problems among clerks', 'problems between clerks and supervisors', 'problems between clerks and patients', 'observing problematic interactions between others' and 'bringing bad news' relate to professionalism as an interpersonal quality. The theme 'ethical dilemmas' relates to professionalism as a societal phenomenon. We conclude that small group sessions in which students learn to reflect on self-selected topics provide a suitable training context in which professionalism can be developed.

An issue that was mentioned regularly during the small group sessions is misconduct in the student–teacher relationship. Teachers are important role models for young trainee doctors. Unfortunately, sometimes they show unprofessional behaviour. To address misconduct in teaching, it is important to determine thresholds for inappropriate behaviours in student–teacher encounters. **Chapter 6** explores these thresholds by means of five written vignettes describing different inappropriate behaviours in the student–teacher relationship. All the vignettes were consistently considered more as misconduct than as actual sexual harassment. At an individual level, respondents largely differed as to whether they perceived an incident as misconduct or sexual harassment. Comparison between groups showed that the teacher and student perceptions of the three vignettes differed significantly, although the direction differed. The students were more permissive towards the vignettes 'Sexist remark' and 'Embarrassing comment', whereas the teachers were more permissive towards 'Sexual overture'. In conclusion, perceptions of misconduct and sexual harassment are not unequivocal. We recommend making students and teachers aware that other people's boundaries might not be the same as their own.

Chapter 7 presents our most important findings, educational implications and suggestions for further research, as well as the study's strengths and weaknesses. We conclude that small group sessions in which students learn to reflect on self-selected topics provide a suitable training context in which professionalism can be developed. We expect that the high frequency of the sessions – approximately 45 small group sessions over a period of two years – is crucial to really getting reflective skills integrated in the clerks' own functioning. The main aim of teachers in this types of courses is to support students' reflective activities. Both findings, effective written feedback on reflective essays and the complexities of boundaries in the student–teacher relationship, can serve as input for workshops to support teachers. However, we suggest that teachers themselves should also be better prepared for reflection and reflective practice. This thesis's strengths include its relevance to educational practice and the deliberate use of various research methods. Weaknesses include the limited generalizability and possible bias, since the author was also the project leader of the group that designed and implemented the professional development course throughout the curriculum.

SAMENVATTING

Eeuwenlang hebben studenten Geneeskunde hun professionele normen en waarden ontwikkeld in een meester-gezel relatie, een van de oudste vormen van leren waarbij de student met een dokter meeloopt en gaandeweg de kunst afkijkt. In deze klinische setting was het leren over professionaliteit vooral gebaseerd op rolmodellen, wat wordt gezien als een impliciet socialisatieproces. Hoewel dit informele leerproces nog steeds van grote waarde is, wordt toch gesteld dat het studenten niet goed genoeg voorbereidt op een loopbaan binnen de actuele medische beroepspraktijk. De hedendaagse praktijk wordt steeds complexer door de invloed van diverse maatschappelijke factoren, zoals de snelle groei van medische kennis en technische mogelijkheden; de noodzaak om steeds meer multidisciplinair te werken; de toenemende invloed van de politiek, verzekeringsmaatschappijen en de media op de gezondheidszorg; het gebruik en de invloed van internet en sociale media; patiënten die steeds mondiger worden; dokters die een andere balans wensen tussen werk en privé et cetera. In deze zeer complexe wereld heerst onder dokters, patiënten en andere burgers het idee dat medische professionaliteit aan het afkalven is, wat nog eens wordt versterkt door alarmerende berichten in de media. Er is daarom een breed gedragen roep om studenten expliciet te onderwijzen in professionaliteit, zodat ze beter voorbereid zijn op de medische praktijk. De studies in dit proefschrift leveren een bijdrage aan inzicht in het leren en onderwijzen van professionaliteit binnen het medisch onderwijs.

In **Hoofdstuk 1** worden twee belangrijke thema's over het leren en onderwijzen van professionaliteit behandeld. Het eerste thema betreft de 'wat-vraag', met name hoe moeilijk het is om een complex begrip als professionaliteit te definiëren. Hoewel er geen universele definitie van professionaliteit beschikbaar is die bruikbaar is voor elke setting, lijkt er toch wel enige consensus te ontstaan. Professionaliteit kan worden beschouwd vanuit drie verschillende, maar complementaire perspectieven: professionaliteit als vooral een individuele eigenschap, professionaliteit als een kwaliteit van interpersoonlijke interactie én professionaliteit als een maatschappelijk fenomeen. Het tweede thema in dit hoofdstuk betreft de 'hoe-vraag', met name hoe professionaliteit het best

geleerd en onderwezen kan worden. Uit een overzicht van de literatuur komt naar dat de 'situated learning' theorie – leren in de context waarin het geleerde toegepast moet worden – wordt beschouwd als de meest passende leertheorie voor professionaliteit. Reflectie, rolmodellen en ondersteuning door medestudenten zijn belangrijke sleutelbegrippen als het gaat om onderwijs in professionaliteit. Om het reflectieve leren te stimuleren, is een aantal onderwijsmethoden en -middelen beschikbaar.

In **Hoofdstuk 2** wordt een overzicht gegeven van een geïntegreerde onderwijslijn gericht op professionele ontwikkeling van coassistenten en worden de eerste evaluatiegegevens gepresenteerd. De rationale achter deze onderwijslijn is dat professionaliteit te beschouwen is als een reflectieve en evaluatieve, tweede orde competentie. De onderwijskundige gevolgen van deze keuze zijn dat (1) coassistenten moeten leren reflecteren zodat ze hun keuzen en gedragingen in verschillende situaties (leren) verantwoorden en (2) dat de training in professionaliteit moet worden verbonden aan het leren van andere competenties binnen de klinische werksetting. De onderwijslijn is ontwikkeld om het reflectieve vermogen van studenten te vergroten door het concept van 'situated learning' toe te passen, rekening te houden met de effecten van rolmodellen, gebruik te maken van verschillende onderwijsmethodes en -middelen, klinische ervaringen als input te gebruiken en gebruik te maken van bijeenkomsten in kleine groepen onder begeleiding van een docent met een coachende rol. De onderwijslijn omvat 24 bijeenkomsten in kleine groepen per jaar. Elke bijeenkomst start met een intervisiedeel, waarin coassistenten aan de hand van een vastgestelde structuur leren reflecteren op een zelf-geselecteerde klinische ervaring. Deze werkwijze draagt bij aan het expliciteren van het juist zo impliciete gedrag van rolmodellen op de klinische werkvloer. In het tweede deel van elke bijeenkomst wordt een van tevoren vastgesteld thema besproken, dat juist de grijze kanten van het 'dokteren' belicht. Voorbeelden van dergelijke thema's zijn: collegialiteit en loyaliteit, fouten maken en zieke dokters. Daarnaast wordt de coassistenten gevraagd een portfolio samen te stellen. Elke coassistent heeft drie keer per jaar een individueel voortgangsgesprek met zijn

coachende docent. De evaluatiegegevens laten zien dat de coassistenten de bijeenkomsten in kleine groepen ervaren als een veilige omgeving, waarin ze inderdaad leren reflecteren op ervaringen uit de dagelijkse klinische praktijk, dus 'on action'. De coassistenten geven echter ook aan minder tevreden te zijn over het gebruik van het persoonlijk ontwikkelingsplan, dat een onderdeel is van hun portfolio.

In **Hoofdstuk 3** wordt verder ingegaan op het gebruik van portfolio's om het reflectieve leren van studenten te stimuleren. Er is veel literatuur waaruit blijkt dat begeleiding cruciaal is om reflectief te kunnen leren aan de hand van een portfolio. Het doel van de studie die beschreven is in dit hoofdstuk en die uitgevoerd is namens de voormalige portfoliowerkgroep van de Nederlandse Vereniging van Medisch Onderwijs, is nader te onderzoeken hoe deze begeleiding is vormgegeven in zowel de basisopleiding als de vervolgopleidingen. Uit de resultaten blijkt dat de hoofddoelen van het begeleiden van portfolio's zijn: het bevorderen van het feedback proces en het stimuleren van reflectie. Individuele gesprekken zijn de meeste gebruikte begeleidingsvorm. Tijdens deze gesprekken wordt door de begeleider en de lerende aan de hand van de inhoud van het portfolio teruggeblikt op de afgelopen periode, waarbij de thema's van het vorige gesprek worden meegenomen. Aansluitend worden er plannen en leerdoelen voor de komende periode geformuleerd. Begeleiding van bijeenkomsten in kleine groepen komt vooral de in basisopleidingen voor en richt zich meer op het bespreken van ervaringen en het concreet oefenen van reflectieve vaardigheden.

Als onderdeel van het portfolio, moeten studenten vaak reflectieve essays schrijven. Voor docenten is het een uitdagende taak om deze essays te voorzien van goede feedback. Om docenten hierin te kunnen ondersteunen, is het essentieel inzicht te krijgen in karakteristieken van geschreven feedback die de reflectieve vaardigheden van studenten stimuleren. In **Hoofdstuk 4** wordt een analyse beschreven van authentieke, door docenten geschreven feedback commentaren op reflectieve essays van studenten. De essays waar de feedback op is gegeven, betreft werk van studenten waarin ze verschillende beoordelingsformulieren professioneel gedrag samenvatten, verschillen beschouwen, op basis hiervan verbeterpunten formuleren en

een actieplan maken om in de toekomst hun professionele gedrag (bij) te sturen. Uit de analyse is gebleken dat goede geschreven feedback op deze essays geformuleerd wordt als een vraag, positief van toon is en aansluit bij het reflectieve niveau van de student. Om een student daadwerkelijk te laten groeien qua reflectieve vaardigheden is het gewenst de student uit te dagen door hem/haar aan te zetten een stapje diepgaander en kritischer te reflecteren, bijvoorbeeld door de student te vragen welke emoties het opriep om een negatieve beoordeling te krijgen.

Uitgaande van het idee dat studenten leren over professionaliteit door ze te laten reflecteren op klinische ervaringen, vroegen we ons af de onderwerpen, die studenten inbrengen tijdens het intervisiegedeelte van de bijeenkomsten in kleine groepen, inhoudelijk het hele domein Professionaliteit dekken. Een kwalitatieve studie naar deze onderwerpen wordt gepresenteerd in **Hoofdstuk 5.** 24 docenten van zeven verschillende ziekenhuizen is gevraagd de onderwerpen die besproken zijn tijdens het intervisiedeel van de laatste vijf bijeenkomsten te rapporteren. Dit heeft een lijst opgeleverd van 106 verschillende onderwerpen, die in tien verschillende categorieën zijn geplaatst. Negen van deze tien categorieën passen binnen drie internationaal erkende perspectieven op professionaliteit. De thema's 'twijfels over persoonlijke effectiviteit', 'twijfels over beroepskeuze' en 'omgaan met emotionele gebeurtenissen' zijn concretiseringen van het perspectief professionaliteit als een individuele eigenschap. De thema's 'problemen tussen coassistenten onderling', 'problemen tussen coassistent en begeleider', 'problemen tussen coassistent en patiënt', 'observeren van problematische interacties tussen anderen' en 'problemen rondom slechtnieuwsgesprek' zijn concretiseringen van het perspectief professionaliteit als een kwaliteit van interpersoonlijke interactie. En het thema 'ethische dilemma's' relateert aan het perspectief van professionaliteit als een maatschappelijk fenomeen. We kunnen dan ook concluderen dat bijeenkomsten in kleine groepen waarin studenten reflecteren op zelfgekozen klinische ervaringen een geschikte setting lijkt te zijn voor het ontwikkelen van professionaliteit.

Een onderwerp dat regelmatig ingebracht worden tijdens de intervisie in kleine groepen betreft misdragingen in de student-docent relatie. Docenten zijn belangrijke rolmodellen voor dokters in opleiding, maar vertonen soms

onprofessioneel gedrag. Wat vinden coassistenten en docenten nu van dit soort gedragingen? In **Hoofdstuk 6** worden de meningen van coassistenten en docenten aan de hand van vijf vignetten geëxploreerd. De vijf vignetten omvatten de volgende ongepaste gedragingen met een seksuele ondertoon: 'seksistische opmerking' (gynaecoloog noemt alle coassistentes 'barbiepop'), 'gênante opmerking' (jonge co hoort chirurg expliciete seksgrap vertellen), 'seksuele toenadering' (vrouwelijke aios zoekt voortdurend oogcontact met co en vraagt hem uit eten), 'stereotypische opmerking' (supervisor vraagt aan co of menstruatie slechte prestaties veroorzaakt) en 'co als lastigvaller' (coassistent draagt uitdagende kleding en vraagt om een hoger cijfer). Alle respondenten – dus zowel de coassistenten als de klinisch docenten – ervaren de vijf vignetten meer als ongepast gedrag dan als seksuele intimidatie. Op individueel niveau lopen de scores nogal uiteen tussen de respondenten. Elke vignet is door een aantal respondenten gescoord als heel seksueel intimiderend, terwijl er ook bij elk vignet een aantal respondenten is dat het niet eens een vorm van ongewenst gedrag vindt. Op groepsniveau zijn de scores ook niet eenduidig. Het is niet zo dat coassistenten in vergelijking met docenten alle vignetten meer intimiderend vinden. Er zijn wel significante verschillen, maar het verschilt per vignet welke groep toleranter of juist strenger is. Zo zijn de coassistenten toleranter ten aanzien van de barbiepop-opmerking en de seksgrap, terwijl de docenten toleranter zijn ten aanzien van het oogcontactvignet. Deze grote variatie in percepties maakt het moeilijk om eenduidige gedragscodes af te spreken. Aangeraden wordt dan ook om studenten en docenten zich er bewust van te maken dat hun eigen grenzen wellicht heel anders zijn dan die van anderen.

In **Hoofdstuk 7** worden de belangrijkste bevindingen, implicaties voor de onderwijspraktijk, ideeën voor vervolgonderzoek en de sterke en minder sterke punten van de verschillende studies gepresenteerd. Geconcludeerd kan worden dat bijeenkomsten in kleine groepen waarin studenten reflecteren op zelfgekozen klinische ervaringen een geschikte setting lijkt te zijn voor het ontwikkelen van professionaliteit. We verwachten dat de hoge frequentie van de bijeenkomsten – in een periode van twee jaar meer dan 45 bijeenkomsten – cruciaal is voor de integratie van deze reflectieve vaardigheden in het eigen functioneren van de coassistenten. Docenten die actief zijn in dit type onderwijs ondersteunen vooral reflectieve activiteiten van studenten. Onze bevindingen ten aanzien van effectieve geschreven feedback op reflectieve essays en de

complexiteit waar grenzen liggen omtrent gedrag tussen studenten en docenten kunnen als input fungeren voor workshops om docenten te ondersteunen. Een sterk punt van dit proefschrift is haar relevantie voor de onderwijspraktijk en het zorgvuldig gebruik van verschillende onderzoeksmethoden. Minder sterke punten betreffen de beperkte generaliseerbaarheid van de uitkomsten en de mogelijkheid van bias, aangezien de auteur van dit proefschrift ook projectleider is geweest van de groep die de beschreven onderwijslijn professionele ontwikkeling heeft ontworpen en geïmplementeerd.

DANKWOORD

Dit proefschrift is een product met één naam op de omslag. Maar de weg er naar toe is er één geweest van interactie met veel mensen. En ik wil dan ook iedereen die me heeft geholpen door interesse te tonen, dingen uit te leggen en mee te denken heel erg bedanken! Een aantal mensen wil ik graag bij naam noemen.

Allereerst mijn drie promotoren, die mijn bakens zijn geweest op het onderzoekspad.

Janke Cohen-Schotanus, we werken al twintig jaar intensief samen. Twee noorderlingen met bijna dezelfde voornaam, dat kon ook niet mislopen. Ik waardeer het zeer dat je me altijd gestimuleerd hebt om door te groeien en om nieuwe dingen op te pakken. Natuurlijk kon ik ook best promotieonderzoek doen. Ik heb van je geleerd om mijn 'darlings te killen' en de lezer van mijn stukken wat meer mee te nemen in mijn denkstappen. Vaak was ik te kort door de bocht. Dank voor je constructieve feedback en alle kwartjes die je bij mij liet vallen.

Thys van der Molen, onze samenwerking is begonnen met de implementatie van de lijn Professionele ontwikkeling in de masterfase. Je had bij de start een aantal duidelijke resultaten voor ogen: een goede onderwijslijn, niet alleen evaluaties op studenttevredenheidsniveau maar ook een proefschrift en het liefst ook een studieboek. Zie hier, allemaal gelukt! Je onderzoekservaring in een heel ander veld bleek van grote waarde voor mij en leverde interessante discussies op. Je hebt me veel vrijheid gegeven. Wat hebben we een plezier gehad als we op bezoek gingen naar de coaches in de geaffilieerde ziekenhuizen. Samen in de auto, zak Engelse drop erbij en maar over bootjes praten. Dank.

Jos Snoek, je sloot wat later aan als promotor. Je bleek een laagdrempelige en zeer geïnteresseerde begeleider die in discussies vaak aandacht vroeg voor een extra perspectief of een andere insteek. Je vragen hebben me aangezet tot

dieper nadenken. Je manier van begeleiden was altijd vriendelijk. Ook heb ik veel feedback van je gekregen. Lekker ouderwetse aantekeningen met een blauwe vulpen geschreven op een uitdraai. Dank.

Tineke Bouwkamp-Timmer, wat heb je veel aandacht en zorg besteed aan mijn schrijfwerk en altijd weer werd het weer een stapje beter. De Hanke-zinnen die soms wat 'short through the curve' waren, werden met jouw hulp mooie, te begrijpen, wetenschappelijke zinnen. Ook dank voor je luisterend oor tijdens onze vele bilateraaltjes.

Johanna Schönrock-Adema, onze samenwerking is begonnen toen we een tijdje kamergenoten werden. Jij bent theoretisch goed onderlegd en statistisch begaafd. Kwaliteiten die voor mij met mijn meer praktische inslag van veel waarde zijn. Je bent dan ook een zeer gewaardeerd medeauteur van een aantal van mijn stukken. Dank.

Wie zouden mijn paranimfen moeten worden? Fransje Okker en Ally van Hell natuurlijk! Mijn nuchtere collega's die niet van dankwoorden houden. Maar fijn dat ik ook nu weer op jullie steun kan rekenen.

Dit proefschrift heeft haar fundament in een grote onderwijsinnovatie. Dus ik wil alle mede-ontwerpers en coördinatoren (Leo Aukes, Menno de Bree, Peter van Dijken, Harianne Hegge, Wouter van der Heide, Klaas van der Meer, Thys van der Molen, Friso Muntinghe en Bas Sorgdrager), affiliatie- en coassistentencoördinatoren, consulenten (Florien Bos, Marleen Erich, Marjolein Heijne-Penninga, Fransje Okker) en producenten (Uki Bosma, Nicole Dijkema-van der Voorn, Henriette van der Meulen, Jetty Veendijk, Hilde Wiersma) die betrokken zijn (geweest) bij de implementatie en organisatie van de onderwijslijnen *Beroepsvoorbereiding en Professionele ontwikkeling* heel erg bedanken. In tien jaar tijd is onze lijn dankzij jullie een zeer gewaardeerd programma geworden.

Beste coaches, van iedereen draag ik jullie misschien wel het meest op handen! Uiteindelijk zijn jullie degenen die het echte werk doen door tijdens elke coachgroepbijeenkomst studenten weer te motiveren tot meer reflectieve diepgang. Dank.

Menno de Bree en Donald van Tol, samen met Thys van der Molen vormden we de redactie van dat andere boek, het *Handboek medische professionaliteit*. De middagen op mijn werkkamer om ideeën uit te werken voor het boek, heb ik echt heel motiverend gevonden en heeft zeker bijgedragen aan dit proefschrift. Bijna niet is leuker* dan een huisarts, filosoof, psycholoog en onderwijskundige bij elkaar te zetten en deze laten uitwisselen over wat professionaliteit in de medische setting nu echt is. Dank.

Alle collega's van de afdeling Docentondersteuning en Kwaliteitszorg dank ik voor het begrip toen ik wat minder beschikbaar was en me terugtrok op het kamertje op de eerste verdieping. Kevin Haines, dank voor het tijdelijk overnemen van een aantal van mijn taken.

De collega's van het Centrum voor Innovatie en Onderzoek van Medisch Onderwijs (Wouter Kerdijk, Janet Raat, Nynke Renting, Nynke Schripsema, Yoyo Suhoyo en Martha van der Wal) dank ik voor het meedenken over mijn onderzoek en het delen van promovendi lief en leed. Leo Aukes (oud-CIOMO-er), dank voor alle mooie, reflectieve gesprekken en het leuke schriftje dat je me gaf om alvast goede ideeën voor stellingen in te noteren.

Yvonne Steinert, our visiting professor from McGill University, Canada. Writing in English is not an easy task. Your workshops and feedback really helped me do some serious 'wordsmithing'. Your clear educational insights, always based on firm evidence, were very helpful in developing my thoughts. Thanks.

Beste leden van de portfoliowerkgroep van de Nederlandse Vereniging voor Medisch Onderwijs, de werkgroep die inmiddels niet meer bestaat. Jullie zijn voor mij een groep mensen geweest die mijn toen nog wat vage wens om onderzoek naar medisch onderwijs te doen een start hebben gegeven. Mijn eerste artikel was er dan ook één namens deze werkgroep. Dank.

Remko Bezema en Monique Dolinski-Vos, dank voor jullie hulp bij het inzetten van de eindspurt. Tijdelijk een andere werkplek regelen, bleek een gouden idee.

Mijn ouders, Klaas en Iet Dekker-Weima, jullie bijdrage aan dit proefschrift is meer indirect. Door me van jongs af aan liefde voor onderwijs mee te geven en doorzettingsvermogen bij te brengen. Dank.

Lieve Bram, je vindt het gek om ook bedankt te worden in het kader van dit proefschrift. Want - zoals je zelf zegt - je hebt toch niets voor mij uitgetypt. Maar dank voor andere dingen…*

Hanke Dekker

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