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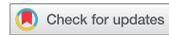
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## Lessons learned from narrative feedback of students on a geriatric training program

Marjolein H. J. van de Pol<sup>a</sup>, Joep Lagro<sup>b</sup>, Elise L. Koopman<sup>a</sup>, Marcel G. M. Olde Rikkert<sup>c</sup>, Cornelia R. M. G. Fluit<sup>d</sup>, and Antoine L. M. Lagro-Janssen<sup>a</sup>

<sup>a</sup>Department of Primary and Community Care, Radboud University Medical Center, Nijmegen, The Netherlands; <sup>b</sup>Department of Internal Medicine, Haga Teaching Hospital, The Hague, The Netherlands; <sup>c</sup>Department of Geriatrics, Radboud University Medical Center, Nijmegen, The Netherlands; <sup>d</sup>Academic Educational Institute, Radboud University Medical Center, Nijmegen, The Netherlands

### ABSTRACT

Geriatrics continues to draw insufficient numbers of medical students today. Currently, little is known regarding how education can motivate students to choose geriatrics. The authors' aim was to examine geriatrics from the students' perspective to identify elements that can be useful in education and improving attitudes toward, interest in, and knowledge about geriatrics. The authors analyzed narrative reflection essays of 36 students and clarified the themes from the essays during focus group sessions. Four overarching themes that influenced students' perspective on geriatrics were identified: professional identity, perception of geriatrics, geriatric-specific problems, and learning environment. Students have an inaccurate image of clinical practice and the medical professional identity, which has a negative impact on their attitude toward, interest in, and knowledge of geriatrics. Furthermore, this study yielded the important role of the hidden curriculum on professional identity, the novelty of geriatric-specific problems to students, and the importance of educational approach and good role models.

### KEYWORDS

Attitude; geriatrics; medical education; narrative reflection; role model; undergraduate

## Introduction

Given our aging population, most doctors will likely serve the health care needs of patients who are frail and older at some point, and will, therefore, need a basic set of geriatric assessment and care competencies. However, geriatrics has traditionally been an unpopular field, despite the high job satisfaction reported among geriatricians (Haley & Zelinski, 2007; Higashi, Tillack, Steinman, Harper, & Johnston, 2012; Shah, Aung, Chan, & Wolf-Klein, 2006). Moreover, doctors often feel overwhelmed by the complexity of problems presented by geriatric patients (Nilsson, Lindkvist, Rasmussen, & Edvardsson, 2012), and many medical students lack a positive attitude toward older patients (Drickamer, Levy, Irwin, & Rohrbaugh, 2006; Haley & Zelinski, 2007; Higashi et al., 2012; Lun, 2011). At the same time and possibly related to this, the number of medical students enrolling in geriatrics is insufficient, especially considering the growing demands of our aging society.

Recently, the Association of American Medical Colleges established minimum geriatric competencies for medical students (Leipzig et al., 2009). Every graduating physician must

**CONTACT** Marjolein H. J. van de Pol  [marjolein.vandepol@radboudumc.nl](mailto:marjolein.vandepol@radboudumc.nl)  Department of Primary and Community Care, Radboud University Medical Center, P.O. Box 9101, 6500 HB Nijmegen, The Netherlands.

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meet these minimum geriatric competencies. However, despite this recent effort to address society's pressing demand for doctors with basic geriatric assessment competencies and to improve attitudes among doctors toward older patients, only a few medical schools have a mandatory clerkship in geriatrics, or some other geriatric-specific training program (Atkinson et al., 2013; Tullo, Spencer, & Allan, 2010). Currently, little is known about how education can positively influence attitude toward older persons and about how young doctors take more interest in the field of geriatrics and care for older persons (Campbell, Durso, Brandt, Finucane, & Abadir, 2013; Nanda et al., 2013). To achieve such improvements, insight is needed into educational methods that will appeal to students and that will improve their attitudes toward and interest in as well as knowledge about geriatrics and care for older persons.

The process of shaping knowledge, values, and behaviours takes place at different levels throughout the course of a student's education: at the formal education level; course catalogs, class syllabi, lectures, notes and handouts, and at the informal level of the so called hidden curriculum; learning that occurs by means of informal interactions among students, faculty, and others and/or learning that occurs through organizational, structural, and cultural influences intrinsic to training institutions. It is through this hidden curriculum that students are socialized to clinical practice and where their professional identity is shaped (Gaufberg, Batalden, Sands, & Bell, 2010; Hafferty, 1998; White, Kumagai, Ross, & Fantone, 2009). Our discussion here examines how medical students' attitudes toward and interest in geriatrics and care for older persons are shaped by various factors, including the formal and hidden curriculum.

Student narrative reflection essays provide a rich source of information about the impact of the formal and hidden curriculum and are a potential substrate for curricular enhancement (Fischer et al., 2008; Karnieli-Miller, Vu, Holtman, Clyman, & Inui, 2010). We hypothesized that student narrative reflection essays would help identify students' preconceptions and image of geriatrics and care for older persons and geriatrics education. To this end, we asked 3rd-year medical students, who had taken a 4-week geriatric course, to write a narrative reflection essay about their experiences in the course and their thoughts on geriatrics and care for older persons before and after the course. The course in question was new and combined traditional teaching methods with a recently developed medical educational game called GeriatriX (van De Pol, Lagro, Fluit, Lagro-Janssen, & Olde Rikkert, 2014). After analyzing the essays, we held focus group interviews to elaborate and clarify the elements that emerged from the essays. This study specifically seeks to explore the preconceptions and image of delivering medical care for persons who are frail and older from the students' perspective to identify elements that can be useful in education in improving attitudes toward, interest in and knowledge about geriatrics. We argue that when it is clear which elements are responsible for improving attitudes toward, interest in, and knowledge about geriatrics, they can be used to adjust medical curricula to deliver geriatric competent young doctors.

## **Method**

### ***Participants***

The participants of this study were students who have taken a 4-week elective course in geriatrics over two consecutive years (September 2012 and 2013) at the Radboud University Medical Center, Nijmegen, The Netherlands. Students complete a total of

five electives during their 3 years of preclinical training. In each period, students can choose from several courses; however, for practical reasons, students are not always placed in their first-choice elective. Every elective course teaches 15 to 20 students at a time. The year cohort consists of 300 students.

Thirty-six students (100%) (age  $22.4 \pm 1.3$ , 21 males/15 females) wrote a narrative reflection essay. Of that group, 17 students (age  $22.9 \pm 1.9$ , 12 males/five females) participated in the focus group interviews.

### ***The elective course***

The main goals of the geriatrics elective course are to increase students' knowledge regarding key geriatric topics and to improve their attitude toward patients who are elderly, using a combination of teaching methods, for example, interactive lectures, group discussions, bedside teaching, and gaming (educational serious game). [Table 1](#) shows an outline of the course.

### ***Narrative reflection essays***

A total of 36 students were asked to write a narrative reflection essay specifically about their preconceptions and perception of geriatrics and care for older persons before and after the course. Students received a few supportive questions to guide them in their reflection essay; Which parts of the course (content and education type) were motivating and stimulating and which parts not?; Why were these stimulating and motivating or not?; What happened to your attitude toward geriatrics before and after the course? Length of the reflection essays was 500 to 750 words.

### ***Data analysis***

The essays were analyzed, using the constant comparative analysis technique (Glaser & Strauss, 1967). Two researchers (MP and EK) first familiarized themselves with the data. They then applied open coding, a process of breaking down, examining, and comparing, thereby conceptualizing and categorizing the data (explorative phase). During the subsequent axial coding, data were placed together again in new ways after open coding. This was done by making connections between categories and with a view to defining the important elements of the information (specification phase). Following that, selective coding was used

**Table 1.** Outline of the 4-week elective geriatrics course.

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Lectures Self-study Become familiar with serious game	Lectures Play the serious game	Lectures Self-study Visit patients	Geriatric assessment of patient cases Self-study	Journal club Play serious game
Weeks 2 and 3	Students work on their serious game case together in small groups of five students each, working under the supervision of a geriatrician or general practitioner who specializes in elderly care.				
Week 4	Self-study and journal clubs to discuss evidence-based geriatrics, guidelines, and geriatric assessment. Write reports regarding patient cases (geriatric assessment), working with the guidelines and serious game cases. All student groups play each developed game case.			Knowledge exam (individual)	Oral presentation of the serious game cases

at the highest level of abstraction, in which the core variable guided further relevant coding, and the data were sought for invalidating themes (reduction phase).

The two researchers discussed the initial coding and consulted a third researcher (AL) wherever disagreements or doubts arose about focal themes. All reflections and interviews were analyzed separately by the first two researchers. The congruence was > 95% in all cases. In the small percentage of difference or disagreement the third researcher was consulted and these differences or disagreements were resolved by consensus.

Interpretation of the focal themes was discussed among the research team. Analysis processing was supported by Atlas.ti version 6.2 software.

### **Focus group interviews**

The content analysis of the essays was used to develop an interview guide for the focus group interviews. This interview guide was generic and concentrated on elaborating the themes that emerged from the essays. We chose focus groups to examine more in depth the elements that emerged from the narrative reflection essays and to draw on group interaction, which encourages participants to explore and clarify their views more in detail. To enable all participants to contribute substantially to the discussion, the groups were kept relatively small (four to eight individuals) yet large enough to stimulate discussion and produce new insights (Kitzinger, 1995).

The focus group interview moderator was a general practitioner and lecturer with extensive experience in moderating focus groups; a researcher (MP) observed the interviews. The focus group moderator had no relationship with the students.

The focus group interviews were audio-taped and transcribed verbatim. One researcher made field notes (EK), and another researcher (MP) listened to the recordings to double-check the accuracy of the transcripts and make any necessary corrections.

In total, three focus group interview sessions were held. The focus group transcripts were analyzed with the same technique used for the narrative reflection essays. Quotations are used to support our findings (NR = narrative reflection essay quote, FG = focus group quote).

All participating students gave informed consent and received a box of chocolates to thank them for their contributions. According to Dutch legislation, no ethics committee approval is necessary for analyzing essays and interviewing students on their thoughts and opinions. The study was approved by the Education-Management Committee of our faculty. Participation in the study was voluntarily, and students could withdraw at any moment without consequence. The reflection essays were blinded before analysis.

## **Results**

Only five of the 36 students participating in the geriatrics course had signed up for the course as their first-choice elective. From the 17 students participating in the focus group interviews, two students had the course as their first-choice elective. All 36 students who wrote essays agreed to participate in the focus groups. Due to logistics (course schedule conflicts), 17 students actually participated in the focus groups to elaborate and clarify the elements that emerged from the essays. Data saturation was reached in the third interview.

## Overarching themes

Four overarching themes that influenced students' perspectives on geriatrics and care for older persons appeared in some way in virtually every student's reflection essay (Table 2): (1) professional identity, (2) perception of geriatrics and care for older persons, (3) geriatric-specific problems, (4). learning environment.

### Professional identity

Several students reported that this geriatrics course changed their perception of medical practice in this field and its professional identity. Most students had preconceived ideas about what it is like to be a doctor and started medical school with an idealized image of medical practice. They envisioned themselves heroically saving all patients, an image engendered in part by the fictional doctors in television shows, such as *Grey's Anatomy* and *ER*, "We're the *Grey's Anatomy* generation" (FG).

When the students first enrolled in medical school, they saw being a doctor as a combination of studying the human body, biology, solving difficult puzzles, interacting with patients, helping them and curing them:

I wanted to be a doctor because I find people and the process of diagnosis fascinating. (FG)

It's an exciting profession ... with a lot of variety ... and offers the chance to help people by thinking through their problems .... I wanted to know more about the human body. (FG)

During medical school, the students came to realize that being a doctor is much more complex than they had envisioned. In daily practice, figuring out the puzzle and solving problems are only aspects of the job. Moreover, curing is not always an option:

Yes, I think effective treatment involves more than just the technically appropriate treatment. (FG)

**Table 2.** Overarching themes from narrative reflections.

Theme	Different topics
Perception of geriatrics and care for older persons	<ul style="list-style-type: none"> <li>- Complexity of care for older persons</li> <li>- Relevance of geriatrics and care for older persons</li> <li>- Difficulty of nonsufficient disease guidelines</li> </ul>
Geriatric-specific problems	<ul style="list-style-type: none"> <li>- Frailty</li> <li>- Emphasis on quality of life</li> <li>- Cost-consciousness</li> </ul>
Learning environment	<ul style="list-style-type: none"> <li>- Practice-based learning</li> <li>- Appealing teaching</li> <li>- Serious gaming</li> <li>- Meeting a researcher</li> <li>- Team work</li> <li>- Using a real patient case</li> </ul>
Professional identity	<ul style="list-style-type: none"> <li>- Seeing oneself in the role of doctor</li> <li>- Ideas about geriatrics and care for older persons</li> </ul>

I think there are a lot of chronic patients in every subfield. In that regard, my personal impression of being a doctor may have differed in the beginning from the actual reality of practicing medicine.... I did not realise there are so many older patients. (FG)

On entering medical school, hardly any of the students had thought about becoming a geriatrician; some had never even heard of the field. After participating in this course, the students discovered that geriatrics includes many of the aspects of being a doctor that were important to them. In addition, the students realized that almost every doctor will face older patients later and will need to know how to deal with the complexity of their care. The geriatrics course also changed the students' perspective on medicine from heroism and cures to more emphasis on care and quality of life:

For me personally, I think it adjusted my views more. At first, I had a really stale image of geriatrics. ... But once you've finished this course, you have a better idea of what it is and realize that it really is more interesting than you thought.... But for me, I don't know if I want to do this every day. (FG)

In medicine, curing a disease is often the ideal ultimate goal. In geriatrics, however, the focus is not so much the "cure" as it is the "care." (NR)

Comparing this field to cardiology, I feel like it presents ... an enormous challenge with older patients. A cardiologist has four pills and a choice between rhythm control and rate control, so to speak. (FG)

### ***Perception of geriatrics and care for older persons***

For many students, this geriatrics course was their first clinical exposure to geriatric patients, as well as their first educational experience with geriatrics. Most of the students were not sure what to expect, and a large number anticipated a frustrating and boring course. Their opinion about geriatrics changed during the course from daunting to rather interesting. One of the influencing factors, which made the course attractive, was that geriatrics became tangible:

Over the past three years, my interests have definitely not included geriatrics.... However, this course was an enjoyable, positive introduction to geriatrics. (NR)

Some students found the complexity and difficulty of geriatrics daunting. Although that remained a concern after the course, they were relieved to discover that small interventions can make a large difference in patients' lives.

Disease-specific guidelines are often insufficient for patients who are frail and older with multiple diseases, which made the students realize the importance of considering all of a patient's conditions in treatment and of individually weighing all treatment decisions. This realization helped to transform the complexity of care from a daunting prospect to an attractive puzzle. Interactions with real and very diverse patients and the occasional chance to overrule guidelines to remain patient centered had a positive effect on attitudes toward older patients in general:

I used to assume that treatment, as a rule, was based on the same medical principles and only required some adjustments for older patients. But this geriatrics course taught me that it's much more complicated than that. (NR)

There's no real predominant cause. It's a combination of things to deal with.... And yes, there are those small measures that can help.... But for me, not being able to cure is difficult. (FG)

One thing I never really thought about before this course was the diversity among "the elderly." (NR)

### ***Geriatric-specific problems***

The concept of frailty was new to many students; most were unfamiliar with the practice of asking patients about their quality of life or the need to consider the costs of various medical treatments. The students gained basic knowledge about important geriatric problems, termed the "geriatric giants" (Sherman, 2003). The geriatrics course allowed the students to integrate medical knowledge, evidence-based medicine, and patient perspectives:

What really struck me was that geriatric patients often present a complex pattern of multi-morbidity and polypharmacy. (NR)

Another thing that stood out in this field is how much more consideration is given to the patients' personal preferences and the question of what measures are worth taking from a medical perspective. In other words, should we treat every single bout of pneumonia?... Yeh, this course made me think about medical futility and what does a patient really think is important.... But I also would have liked more in depth knowledge about for example the geriatric giants. 4 weeks is too short. (FG)

### ***Learning environment***

Students recognized the influence of teacher role models on their learning. Effective teaching increased students' enthusiasm for geriatrics. During the interviews, students were very emphatic about their opinion that teachers make all the difference. The teachers were young at heart, enthusiastic, friendly, skilful, and student centered. They taught with passion, created an active environment that made classes more interesting, and were always willing to reexplain difficult concepts from different angles. Another factor of positive influence on the students was the small scale of the course. A small pool of teachers returned multiple times for different course sections:

All the different course components were very well coordinated. The supervisors were also enthusiastic and easy to approach, which created a highly interactive and very enjoyable environment for course participation. (NR)

The lecturers were teaching this course because they enjoyed it.... And, seeing that enthusiasm on their part, I became more interested in the subject.... Geriatrics in the title of an elective doesn't attract students in the first place, haha. (FG)

Different teaching methods were also recognized as powerful tools to increase student engagement. During the course, students used a real-life patient case as a starting point for discussions with a researcher about evidence-based medicine. In addition, they played the medical educational game GeriatriX. Students found this game inspiring, as it enabled them to combine all their newly acquired knowledge in a safe, practice-based digital environment:

I really liked the GeriatriX game. It allows you, as a student, to weigh the decisions you're going to face later as a doctor. Do you follow the guidelines blindly? What factors will you

consider in choosing a course of treatment? How do you communicate your treatment choices to colleagues? What does the patient want? What do you consider important as a doctor? . . . It was like solving a type of puzzle. The patient visits you with a problem, and now it's up to you to figure it out. It's theory translated into practice!" (NR)

It was a very modern approach to teaching, with the chance to take your own initiatives.... I mean the game ... it was fun. (FG)

Meeting and talking to real patients with real problems gave the students a framework for their theoretical knowledge and also clarified aspects of the importance of patient-centred care:

You learn about a whole host of things at the same time, including about communication and medical technology. What's more, you discover that real patients aren't a perfect match with the textbook descriptions. (FG)

## Discussion

This study examined geriatrics and care for older persons from the perspective of medical students to explore the image of delivering medical care for persons who are frail and older to identify elements that can be useful in education in improving attitudes toward, interest in, and knowledge about geriatrics. One of the most striking findings was that students have an unrealistic impression of clinical practice and the professional identity of this field of medicine, which negatively influences their knowledge of and attitudes toward geriatrics. Our multimethod study design enabled us to obtain highly detailed and nuanced descriptions as well as insight into the factors that influence students' perspectives on geriatrics. Our study design also helped us to identify four overarching focal themes. In addition to professional identity, these themes included: perception of geriatrics and care for older persons, geriatric-specific problems, and learning environment.

### *Professional identity*

This study clearly demonstrates that students have preconceptions about medical practice and shows that professional identity plays a large role in the negative attitude toward geriatrics. The inaccurate image of what it is like to be a doctor has a number of implications. Not only does it lead to a false impression of geriatrics, it may also affect specialization choices after graduation (Scott, 2014). Ongoing efforts to revise medical curriculums should, therefore, focus not only on geriatrics education, but also on the wide range of ritual behaviours, assumptions, and commonly held beliefs regarding geriatrics, care for older persons, and professional identity. The formal and hidden curriculum play a significant role in how students perceive this professional identity. Inconsistencies between what is taught in the formal curriculum and what students experience in the ritual behaviors, assumptions, and commonly-held beliefs of their fellow students and clinician-teachers (the hidden curriculum) creates tension in the process of forging a sense of their professional identity. Earlier research has found indications of the powerful influence of the hidden curriculum and presumptions about older patients (Higashi et al., 2012). There is also some literature on the influence of the attitudes of senior physicians and the organization of the medical system on perceptions about geriatrics

(Gaufberg et al., 2010; Higashi et al., 2012; Thomas et al., 2003). This study demonstrates that narrative reflection essays can reveal influential elements in the hidden curriculum and that clarifying the statements about these elements in focus group discussions can provide a substrate for altering these hidden curriculum effects.

### ***Perception of geriatrics and care for older persons***

By and large, the participants entered the course anticipating a boring and frustrating experience. Interestingly, however, the students were also initially unable to draw up a clear description of what geriatrics generally entails. Evidently, unfamiliarity can also breed contempt. Presumptions about geriatrics as a specialty (medically unrewarding or unchallenging) were intertwined with negative perceptions of older people and care for older persons in general. Possibly, the emphasis on youth and antiaging in medicine and society plays a role in these presumptions (Estes & Binney, 1989; Nelson, 2005). Several students mentioned that they feared the complexity of the problems presented by geriatric patients. It is known that students and physicians tend to feel overwhelmed by the complexity of geriatrics (Drickamer et al., 2006; Lun, 2011). During the geriatrics course, however, the students interacted with real and very diverse patients, and they received their first introduction to patient-centered care. Earlier research has shown that interaction with healthy older individuals can alter student perceptions of older persons (Shue, McNeley, & Arnold, 2005). Another study, where students met older patients in retirement facilities, also showed a positive attitude shift (Hsieh, Arenson, Eanes, & Sifri, 2010). The current study has demonstrated that a short, 4-week geriatrics course can change the perception of geriatrics and care for older persons by invalidating presumptions and demystifying its complexity.

### ***Geriatric-specific problems***

We also found that the lack of knowledge about geriatrics and specific geriatric problems and concepts, such as “frailty,” may lead to assumptions that geriatrics is an uninteresting, or unrewarding field (Bragg et al., 2012; Campbell et al., 2013). For most students, the experience of asking patients about their quality of life, or discussing economic aspects of care, were also new. The course gave them the opportunity to integrate medical knowledge with other aspects of medical care, a task that they found challenging. The students’ experience of gaining more insight into geriatric-specific problems had a positive effect on their perceived knowledge and attitudes toward geriatrics, which strongly substantiates a case for a more integrated approach to geriatrics education. It is known that an increase in knowledge tends to foster positive attitudes toward a given subject (Chang et al., 2014; Leipzig et al., 2009).

### ***Learning environment***

This study also highlights the importance of role models with whom students can identify. New in this study was the finding that students had the presumption that geriatricians and elderly care physicians are old and boring, and that the complexity of problem solving in care for older persons is overwhelming to them. Several students mentioned that the

lecturers, who were all practicing clinicians, made all the difference. Enthusiastic, skilled lecturers created an active learning environment that had a positive influence on the students' knowledge of and attitudes toward geriatrics in general and geriatric specialties. This finding falls in line with several other studies that have demonstrated the importance of role models for professional identity (Bandura, 1962; Egnew & Wilson, 2010; van De Pol & Van Weel-Baumgarten, 2012). In addition, the students commended the small scale of the course and the use of the educational game GeriatriX (van De Pol et al., 2014). Positive role models who are able to build relationships with their students, small-scale courses, and appealing teaching methods are known to positively influence students' attitudes toward geriatrics (Atkinson et al., 2013; Benbassat, 2014; Drickamer et al., 2006; Friedman, 2014; Passi et al., 2013; Sutkin, Wagner, Harris, & Schiffer, 2008). Moreover, the students felt that this combination significantly increased their knowledge about geriatrics. A recent study about designing education to improve care supports this concept (Armstrong, Headrick, Madigosky, & Ogrinc, 2012). Most medical faculty, however, receive little training on how to be effective teachers (Srinivasan et al., 2011; Sutkin et al., 2008). This study emphasizes the importance of combining effective teaching, graded in complexity with appealing role models who build relationships with their students.

### ***Strengths and limitations***

This study has four major strengths. First, our analysis is based on qualitative data from all 36 students in the geriatrics course. We gave the students freedom to express their thoughts by only giving them a few supportive questions. Reflection essays are an effective tool for identifying important themes, it allows learners to “think about thinking” (Sandars, 2009). Secondly, this study gave students the opportunity to elaborate their thoughts in focus group discussions in which all students also agreed to participate. Due to course schedule conflicts, only 17 students were able to attend the focus group sessions. The 17 focus group participants did not differ in age and gender from the entire group of 36, and the proportion of students who had this course as a first choice course was the same. The three focus groups were large enough to clarify in detail all the themes from the narrative reflection essays as we reached data saturation. However, in the focus groups the themes from the reflection essays were elaborated, possibly increasing already existing positive feelings toward the topic. The moderator of the focus groups had no relationship with the participating students or with the curriculum, minimizing power imbalance, and securing a safe environment. The third strength was the low number of students who signed up for the geriatrics course as their first-choice elective. Consequently, our results are not likely to be biased by the inclusion of students with an a priori positive attitude toward geriatrics. In general, geriatrics is not a popular specialty among students. Therefore, the fact that relatively few students signed up for the course as their first-choice elective suggests that the group of course participants likely represents the entire student population (Campbell et al., 2013; Haley & Zalinski, 2007). Finally, the male–female distribution of participants was about equal, thus levelling gender differences (van Tongeren-Alers et al., 2011).

On the other hand, this study also presents a number of limitations. First, this study was confined to one medical school, and all students were 3rd-year bachelor's students of roughly the same age. However, the results of the two consecutive courses were comparable. Secondly, the male–female distribution was about equal, whereas most medical schools currently have far more female students. Therefore, the equal male–female distribution is not representative of the student bodies of Dutch medical schools. In addition, the qualitative structure of this study gave all students the space to formulate their thoughts and can be used as a starting point for further study. However, writing the reflection essays and participating in focus groups can positively influence engagement of the students with the subject (Sandars, 2009). A possible bias in the results is that students may have written social desirable reflections. Although, participation was voluntary and we specifically addressed this possibility in the focus groups. Thirdly, we do not know the long-term effects or sustainability of the positive shift in attitude toward geriatrics and care for older persons. However, the students gave us important pointers for improving geriatrics education, and better education is known to have a positive influence on attitudes and knowledge (Atkinson et al., 2013; Tullo et al., 2010).

## Conclusions and implications for geriatrics education

Although a large number of studies have focused on negative associations with geriatrics and care for older persons, this study seeks to understand the perceptions of students toward geriatrics. Our most important finding was that students lack a realistic perception of clinical practice and professional identity, which negatively influences their image of geriatrics. This study clearly shows that teaching students the complexity of clinical practice and professional identity, instead of focusing on cures and diseases, helps them to develop a more positive attitude toward geriatrics.

On examining the students' perspective of geriatrics, four key findings emerged. First, it is important to acknowledge that the hidden curriculum has a significant influence on professional identity and the preconceptions about geriatrics and care for older persons. Secondly, geriatric-specific problems, such as frailty, are complex and novel to medical students. Thirdly, the approach to teaching is important and appealing role models are absolutely vital in geriatric education. Finally, narrative reflection essays, combined with clarifying, in-depth focus group discussions, can be used as an educational tool to influence students' image of and preconceptions about a certain topic, in this case geriatrics and care for older persons.

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