Being a mentor for undergraduate medical students enhances personal and professional development

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Abstract
Background: There is increasing evidence of the positive effects of mentoring in medical undergraduate programmes, but as far as we know, no studies on the effects for the mentors have yet been described in the field of medicine.

Aim: This study aims to evaluate an undergraduate mentor programme from the mentors’ perspective, focusing particularly on the effect of mentorship, the relationships between mentoring and teaching and the mentors’ perceived professional and personal development.

Methods: Data was gathered through a questionnaire to all 83 mentors (response rate 75%) and semi-structured interviews with a representative sample of 10 mentors.

Results: Findings show, for example, that a majority of respondents developed their teaching as a result of their mentorship and improved their relations with students. Most respondents also claimed that being a mentor led to an increased interest in teaching and increased reflections regarding their own values and work practices.

Conclusion: Being a mentor was perceived as rewarding and may lead to both personal and professional development.

Introduction
There is increasing evidence of the positive effects of mentoring in medicine (Morzinski et al. 1996; Connor et al. 2000; Schrubbe 2004; Sambunjak et al. 2006) and in medical undergraduate training programmes (Dorsey & Baker 2004; Buddeberg-Fischer & Herta 2006). Mentoring is a means of professional (Kalet et al. 2002; Murr et al. 2002; Sambunjak et al. 2006) and personal (Murr et al. 2002; Sambunjak et al. 2006) development and the positive effects of mentorship thereby match desired outcomes in many undergraduate programmes. A mentor may, for example, help the mentee to develop implicit knowledge about the hidden curriculum of professionalism, ethics, values and the art of medicine which cannot be learned from a text (Rose et al. 2005). A mentor may also facilitate skills development and provide guidance and strategic advice (Jackson et al. 2003).

The aims of the mentor programme at Södersjukhuset, a Karolinska Institutet teaching hospital, were to facilitate the students’ professional development and to provide tools for this. The mentor programme further aimed to provide the students with a channel into the part of the medical profession not covered by factual knowledge and to discuss topics not covered in the educational programme such as equality, ethical dilemmas, their future professional role, combination of work and private life, etc. All students starting semester five (the first clinical course) 2005 and 2006 were offered a mentor for 2 years. All mentors were medical doctors (MDs) at the hospital. A training programme for people taking on the mentor role is often recommended (Woessner et al. 1998; Woessner et al. 2000; Hauer et al. 2005; McArthur-Rouse 2007) and all MDs were offered the opportunity to participate in a 2-day course before they became mentors. The training included among other issues, the aims and objectives of the mentor programme, the role of the mentor, different learning strategies, equality issues and creative thinking. Follow-up meetings for all mentors were also provided each semester. Most mentors had one mentee, but some had two.

Most publications on mentorship focus on the benefits for the mentee and only a few research studies have investigated the effect of mentoring for the mentor. Within medicine, no such study has yet been identified (Buddeberg-Fischer & Herta 2006). This study aimed to evaluate the mentor programme...
from the mentors’ perspective, focusing particularly on the effect of mentorship on the mentor’s perceived professional and personal development. By doing so, this study further aimed to meet the needs of research on mentoring in medicine (Buddenberg-Fischer & Herta 2006; Sambunjak et al. 2006), describing, for example, the characteristics of the mentoring relationship (Berk et al. 2005, Straus et al. 2009).

Research method

A mixed methods approach was used to provide breadth in the findings. Initially, two focus group interviews were held with five and four mentors, respectively. These interviews aimed to provide insight into the mentors’ thoughts about being a mentor and to explore themes for further data collection. Moreover, the focus groups aimed to provide the authors with information about the mentor programme and how it had been working. The interviews were recorded, listened to repeatedly and transcribed (with the exception of sections containing only programme information). A brief inductive thematic analysis (Braun & Clarke 2006) was made. The information provided from the focus groups regarding the programme and the context, along with the findings from the analysis were used together with an extensive literature review focusing on mentor programmes in health care sciences and particularly undergraduate programmes in medicine, to develop a questionnaire. In the literature, some confusion around the concept of mentoring can be found as supervisors or others in an assessing or teaching role are sometimes referred to as mentors (Bray & Nettleton 2007). For this study, such references were excluded. Themes used in the questionnaire included the mentor’s personal and professional development, the link between teaching and mentoring, the mentor role, what a mentor does and what it means to be a mentor. The questionnaire was piloted with a group of seven former mentors that at the time of the study had left the hospital. Feedback on the pilot questionnaire was also provided by expert colleagues in the field, responsible for running and developing other mentor programmes and mentor training. The questionnaire was distributed electronically to all 83 mentors that were or had been involved in the programme. The questionnaire included a mix of open ended and fixed response questions, some used an ordinal scale (e.g. Has being a mentor increased your interest for teaching and supervision? with the response categories not at all, to some extent, to a high extent and to a very high extent). Other questions used a nominal scale such as What do you think you do in your role as a mentor? For this question, a framework of undergraduate medical teaching activities (Ross & Stenfors-Hayes 2008) was used to capture the mentors’ perceptions. The mentors responded anonymously online. Two reminders were sent out and the questionnaire was open for a few weeks. Opportunity for the respondents to provide feedback on the questionnaire was given. The Mann–Whitney U test was applied to the ordinal data to identify significant differences in the data between the mentors who participated in the mentor training and the ones who did not. The open ended questions as well as the respondents’ comments to the other questions were analysed individually using theoretical thematic analysis (Braun & Clarke 2006).

To follow up the questionnaire, 10 mentors were interviewed. These were systematically selected from a list of all mentors. The interviewees were selected to represent the variations (Larsson 2009) in the mentor group in terms of sex and age and the mentor had to have met their mentee at least three times. The interviews aimed to facilitate the analysis of the questionnaire, in terms of illustrating, contextualising and facilitating a deeper understanding of the answers. The main themes of the interview guide concerned the mentor programme, what mentors do, what it means to be a mentor and what being a mentor had given the respondent in terms of, for example, teaching and their own development. The semi-structured interviews lasted 30–45 min each and were recorded and later transcribed in extenso. As the interviews were linked to the questionnaire, a theoretical thematic analysis (Braun & Clarke 2006) was made, where the data is coded for specific research questions. Firstly, all transcripts were read; secondly, meaningful units in the transcribed interviews were identified and labeled using software for qualitative analysis. The units were subsequently organised into initial themes and sub-themes. The analysis focused primarily on descriptive and interpretative levels (Braun & Clarke 2006) and the interview transcripts were regularly revisited to make sure that all relevant excerpts for each theme were collated. The analysis of the interview data were made in parallel to more interviews being made, which made it possible to refine the interview guide and further explore particular themes as deemed necessary.

Findings

The response rate for the pilot questionnaire was three of seven (43%) and the response rate for the mentor questionnaire was 63 of 83 (75%). Fourteen mentors could not be reached via telephone or email or declined to be interviewed due to other work commitments or leave of absence. This means that in total 24 mentors were approached for the ten interviews. Due to the relation between the questionnaire and interview data, the findings are presented thematically rather than separating them. No significant differences in the responses were found mentors that participated in the initial training and mentors that did not participate.

The programme

The questionnaire data shows that all respondents who participated in the initial training (58%) thought the training was sufficient. Identified problems with the mentor programme were related either to time issues, such as finding a time and place to meet their mentees or other commitments, the mentee not being interested or that it was too easy to slip out of touch with each other. However, 21% of the mentors had stayed in touch with their mentees after the programme finished. Most responding mentors (58%) spent 1–5 h per semester on their mentorship (excluding follow-up meetings for mentors and the initial training), 35% spent 6–10 h and 6% spent 11–15 h.
When asked in the questionnaire to describe what they thought it was like to be a mentor, words related to rewarding (\(n = 24\)) such as ‘stimulating’ or ‘developing’ were most common among the respondents (\(n = 36\)). The second most common choice (\(n = 13\)) was expressions related to it being fun. Other examples include important, an honour, a privilege, appealing, and stressful. The interviewees seemed to find it rather difficult to describe what it was in being a mentor that they found rewarding. One mentor pointed out that although the direct effects were difficult to pinpoint, being a mentor was still rewarding. All interviewed respondents, however, agreed that being a mentor was fun, satisfying and rewarding. Some claimed that they would have quit the programme if it had not been so rewarding for them. Examples of what the mentors found rewarding included an increased understanding for younger colleagues, becoming more familiar with a new generation and understanding how they think and following the development of the curricula. One mentor appreciated the possibility of using her professional knowledge regarding things that are usually hard to communicate; another said it made him reflect over how they handle students in his department. One mentor believed the mentorship gave her curiosity back; another claimed it helped him to see the person behind different professions. One believed the mentor role helped establish them in their role as a doctor and others appreciated the feeling of having come so far in their career that they could help. Others appreciated feeling important and needed. Many mentors claimed that meeting the mentee and discussing with him/her sometimes led to increased self-insight and development. Others appreciated the opportunity to sit back and reflect over issues not commonly discussed.

I feel that I receive so much from the students, it is fantastic to get to be a part of their journey (to become doctors) and I think it is important that they have a mentor, it must be incredibly valuable to them and also for the mentors. We (the mentors) have so much experience that is not strictly medical, there is so much more to it (being a doctor) in some way and as a mentor I am able to offer some of this and that feels great.

When the interviewees described what they did as mentors, they said that they functioned as sounding boards, role models and showed what it is like to be a doctor. They sometimes provided good advice, they supported, helped introduce the mentee to the community of doctors, they encouraged courage, independent thinking and decision making. They furthermore functioned as catalysts or were there for their mentee in case they needed them. One mentor believed the mentorship gave her curiosity back; another claimed it helped him to see the person behind different professions. One mentioned that mentoring as a mentor as up to the mentee to design as he/she wished.

I think I fill a function as an example and as someone to ask about a lot of things (someone), that she (the mentee) can use a bit as she pleases. And she can to be personal, I think that has been important.

The meetings

Based on a number of fixed responses in the questionnaire, the most commonly discussed topics in the meetings were being a doctor, being a medical student, the undergraduate programme, how to combine work and private life and the mentee’s future career (Figure 1).

Based on the interviews, most mentors seem to have met their mentees regularly rather than on a need-basis. Some mentees brought up more private issues with their mentors as well, such as personal relationships. The relation with the mentee was described as friendly, open, personal and non-prestigious. One mentor, however, described the relationship with one of the mentees as one between an expert and a novice and felt that the mentee did not feel comfortable enough to ask about or discuss certain things. The reason for this was believed to be cultural as the mentee seemed to prefer contacts with one of the mentors rather than with a mentor.

The relations also concerned how they wanted to be as mentors, what they wanted to discuss with their mentees and what kind of support or advice they were willing to offer. However, the mentorship was not discussed with their colleagues at all.

Being a mentor

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Mentoring and teaching

All teaching activities that related to facilitating learning, in the framework of learning and teaching (Ross & Stenfors-Hayes 2008), were found to be included in being a mentor. Most strongly linked were ‘relating to learners and providing perspectives’ and ‘facilitating personal and professional
development’. Most mentors also believed that they were functioning as a role model for the student (Figure 2).

The questionnaire findings furthermore showed that 68% of the mentors believed their interest for teaching and supervision had increased through the mentor programme (to some extent, to a high extent and to a very high extent) and a majority of respondents believed that the mentorship had led to some development of their teaching. Half of the respondents discussed pedagogical issues somewhat more after they became mentors than before. Furthermore, a tendency was found showing that it was mainly the respondents who participated in the mentor training who had increased these discussions ($p=0.10$). Most mentors believed that the mentorship developed their view on what it means to be a good teacher and what is important to them as teachers. The mentorship also led to increased reflections regarding their own teaching. Most respondents claimed that being a mentor increased their understanding of the students’ situation and improved their relations to students to some extent. The median for all questions in Table 1 was ‘to some extent’.

The link between teaching and mentoring was brought up by several respondents as something positive. Their interest for teaching had for most respondents increased to some extent through their mentorship. One respondent said that the mentorship provided him with fresh eyes to view his teaching with and another mentor became encouraged to become a better supervisor. The personal link to a student made it easier to understand what it is like to be a student today for some respondents. An increased understanding of the students’ situation had also led to changes in some of the respondents’ teaching approach, and one mentor claimed to now approach students in a different way and involve them more. One mentor explained had being a mentor led to increased reflections regarding his/her teaching.

My mentee gives an example (of teaching that he/she has experienced) and then I think; what do I do when I teach?

The responses to open questions in the questionnaire, as well as interview data, showed that feedback from the students in terms of, for example, their progress or increased demands also motivated respondents to develop their teaching. Other factors motivating development were: Wanting to share knowledge and get people interested in ones field, inspiring teaching courses and a personal drive to want to become a better teacher. Most respondents, however, wanted more managerial support for their teaching, more time and a salary increase and claimed that this would motivate them to develop their teaching further.

Mentoring and personal/professional development

Seventy-four percent of the questionnaire respondents believed that the mentorship led to personal development for (to some extent, to high extent or to a very high extent), whilst 50% of the respondents claimed that the mentorship led to professional development, when answering direct questions about this. However, when asked if being a mentor led to

![Figure 2. What do you think you do in your role as a mentor? Multiple answers accepted.](image-url)

Table 1. The effect of mentorship on issues related to the respondents’ teaching.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>To some extent</th>
<th>To a high extent</th>
<th>To a very high extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has being a mentor increased your interest for teaching and supervision?</td>
<td>19</td>
<td>33</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Has being a mentor lead to a development of your teaching and supervision?</td>
<td>11</td>
<td>44</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Do you discuss pedagogical issues (including the mentorship) more now than before you were a mentor?</td>
<td>29</td>
<td>30</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Has being a mentor developed your view on what it means to be a good teacher?</td>
<td>7</td>
<td>44</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Has being a mentor developed your view on what is important to you as a teacher?</td>
<td>6</td>
<td>43</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Has being a mentor led to increased reflections regarding your teaching?</td>
<td>10</td>
<td>41</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Has being a mentor increased your understanding of the students’ situation?</td>
<td>10</td>
<td>27</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>Has being a mentor improved your relations with students?</td>
<td>18</td>
<td>35</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2. The effect of mentorship on issues related to the respondents’ personal and professional development.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>To some extent</th>
<th>To a high extent</th>
<th>To a very high extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has being a mentor led to personal development for you?</td>
<td>13</td>
<td>37</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Has being a mentor led professional development for you?</td>
<td>31</td>
<td>26</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Has being a mentor led to increased reflections regarding your own values?</td>
<td>11</td>
<td>43</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Has being a mentor led to increased reflections regarding own work practices as an MD?</td>
<td>15</td>
<td>39</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>
increased reflections regarding their own values and work practices, a majority of the respondents claimed this to be the case. The median value for all responses apart from professional development was ‘to some extent’ and for professional development it was ‘not at all’ (Table 2).

One interviewee respondent believed that the mentee’s experiences provided her with perspectives on her own life situation. The mentorship also seems to have led to reflections regarding approaches and relations to colleagues in other professions and patients. Some mentors have also reflected upon gender issues and ethical dilemmas brought up by their mentees. These reflections did not only take place in the meetings with the mentees but also in-between meetings. Some mentors claimed that their professional development mainly concerned their teaching and not so much their role as a doctor.

Discussion

Based on the findings of this study, the presented programme appears to be similar to many others regarding the issues discussed, the mentor role (Abernethy 1999; Connor et al. 2000) and problems regarding lack of time (Abernethy 1999; Ehrich et al. 2002; Straus et al. 2009). The problems related to lack of training are also common in mentor programmes (Abernethy 1999; Andrews & Wallis 1999; Woessner et al. 2000; Ehrich et al. 2002; Bray & Nettleton 2007; Straus et al. 2009). The respondents of this study appreciated the training given and found it sufficient as well as beneficial within other areas, as previously found by Connor et al. (2000).

There is likely to be some variation in what the respondents include in the concept of professional development. For some, this may refer primarily to hands-on medical skills or knowledge. Others may include increased reflections regarding their own values and work practices, as well as reflections regarding, for example, approaches and relations to colleagues and patients or ethical dilemmas in the concept, all which are found as the results of the mentorship. This somewhat unclear definition of professional development makes it difficult to draw any conclusions and is a weakness of this study.

Many clinical teachers do not really consider themselves teachers, since their main responsibility is patient care and not education (Stark 2003; MacDougall & Drummond 2005; Taylor et al. 2007). Teaching as well as mentoring, is furthermore viewed by the respondents as an individual task, often unnoticed or unsupported by others. The findings of this study show that being a mentor led to changes that may be noticed or supported by others. The findings of this study appreciated the training given and found it sufficient as well as beneficial within other areas, as previously found by Connor et al. (2000).

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