Clinical empathy in GP-training: Experiences and needs among Dutch GP-trainees: "Empathy as an element of personal growth"

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Clinical empathy in GP-training: Experiences and needs among Dutch GP-trainees. "Empathy as an element of personal growth"

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ABSTRACT

Objective: Clinical empathy has been described as a key component of effective person-centeredness in patient-physician communication. Yet little is known about general practitioner (GP) trainees' experiences and opinions regarding clinical empathy, empathy-education and the development of empathic skills. This study aimed to explore trainees' experiences with clinical empathy during GP training.
Methods: This study used focus group interviews. GP trainees at two Dutch universities were approached by e-mail. Focus groups were conducted between April and November 2018. Six focus groups were conducted: two with starting trainees, two with trainees at the end of their first year and two with trainees at the end of their 3 years' training. Two experienced qualitative researchers analyzed the focus groups. During the thematic analysis the differences and similarities between the various stages of education were taken into account and a framework for the identified themes and subthemes was developed.
Results: Thirty-five GP trainees took part. Four main themes could be identified. Starting trainees experienced frictions regarding the influence of personal affective reactions on their medical competencies. Trainees at the end of their first year indicated that they reached a balance between empathic involvement and their responsibility to carry out relevant medical tasks, such as following GP guidelines. Trainees at the end of their three years' training recognized the mutual relationship between the development of the behavioral part of clinical empathy and personal growth. All trainees stated that their needs concerning education changed during their GP training and proposed changes to the curriculum.
Conclusions: GP trainees face various obstacles in developing empathic skills and behavior. Particularly they mention handling personal affective reactions. Trainees express a clear wish for clinical empathy, in its theoretical as well as its skill and emotional aspects, to play a central role in the curriculum.
Practice implications: More explicit attention to be paid to empathy by embedding theoretical education, explicit attention to skill training and assessment of empathic behavior by patients and supervisors

1. Introduction

Empathy is a cornerstone of person-centeredness in patient-physician communication [1–5]. Empathy – i.e. clinical empathy - can be regarded as the ability and willingness of a physician to understand the patient's situation, perspective and feelings; to communicate that understanding and check its accuracy; and to act on that understanding in a helpful therapeutic way [1,4,6,7]. It is based on three pillars: the physician's attitude, skills and behavior [4]. Its positive effects on patients' therapy compliance, satisfaction and empowerment, as well as on reducing malpractice litigation, have been clearly demonstrated [2,4,8]. Patients have a clear preference for general practitioners (GPs) who listen with attention, with whom they can build a therapeutic relationship [9,10]. When GPs are clearly pressed for time or when they pay more attention to the computer screen, patients experience this as obstacles to receiving empathy [11]. GPs consider protocolized care as a potential barrier to delivering empathy [9,10]. Both patients and GPs question whether sufficient attention is given to the development of clinical empathy in GP trainees during GP training [10].

Given that empathy has proven to be a powerful diagnostic, therapeutic and communicative tool, it is an important competency that should be addressed in GP training. Studies of medical school

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training show that developing empathic skills is not easy. This may be a consequence of the emphasis in medical education on the biomedical model, a lack of role models, limited exposure to patients, hierarchical power dynamics and perceived pressures during training [12–15].

There is limited evidence that in residency the emphasis on medical competence, the lack of good role models and time pressure have a negative influence on empathic behavior [16]. More insight into the experiences with clinical empathy of medical trainees during residency and into their evolving needs is needed. Using these insights empathy training can be given a more central place in the curriculum, thereby relieving the above mentioned concerns of GPs and patients in daily practice.

Therefore, we decided to perform a qualitative study with the following research question: What kind of experiences do GP trainees have with clinical empathy during GP training, and how do their needs develop during training in order to become GPs who can apply clinical empathy in a professional way?

2. Methods

2.1. Design

We performed a qualitative study using focus group interviews with GP trainees. We used the COREQ guideline for the reporting of this study [17]. We chose focus group research because it allows participants, in an interactive dialogue, to explore complex topics together, to express their individual views and also to compare and reflect on one another's comments, which enables the researcher to collect a broad range of experiences [18]. To interpret individual and group findings, it is necessary to describe the characteristics of a focus group e.g. whether or not the individual members know each other, whether they have hospital experiences and their ages. Moreover, it is important to report on the interactions, e.g. about power dynamics, areas of agreement and dissent [19] (see Table 1). Although there was a risk that a competitive atmosphere might develop, clinical empathy being a relatively sensitive topic, the qualified moderator paid attention to creating an open and trustful atmosphere. Furthermore, studies showed that focus groups are an effective method for data gathering regarding sensitive topics among colleagues [20,21]. To get insight in whether the trainees' experiences differ at different stages of their training, we formed focus groups of trainees who just started their GP training, of trainees in the middle of their training and of trainees at the end of their training. A moderator – a retired GP - led the discussions. To focus on experiences of GP trainees a topic guide was used, based on three pillars of clinical empathy (attitude, skills and behavior) and the experiences of experts FD, ALJ and ToH (GPs and qualitative researchers) (see appendix).

2.2. Setting

We performed our study in the Netherlands. The Dutch three-year general practice postgraduate medical education (PGME) program is based on the Canadian Medical Education Directives for Specialists (CanMEDS) competency framework. CanMEDS is an educational framework that describes the abilities physicians require to effectively meet the health care needs of the people they serve [22]. It has been adapted for the Dutch context on the principles of workplace-based learning [23]. GP trainees spend the first year of their program in a GP supervisor's practice. In the second year GP trainees learn by working in other fields (e.g. emergency medicine, care of the elderly and psychiatry). In the third year, trainees work once more in (another) supervisor's practice. Throughout training, GP trainees spend one day a week (day-release course) at one of the eight university training institutes of General Practice, to follow an educational program. On these days they learn about case histories, protocols, skills and Entrustable Professional Activities (EPAs), with room for group discussions of their experiences in the workplace. In the Netherlands GP training consists of a nationwide uniform framework that each training institute fills in according to its own insight.

2.3. Sampling

We recruited GP trainees of the universities of Nijmegen and Leiden; the first being a university in the eastern, more rural part, the other located in the western, more urbanized part of the Netherlands. Permission for recruiting trainees was obtained from the heads of the training institutes.

In order to get a relevant representation of the current population of GP trainees, we set out to use a representative sample of trainees in successive years of training. After receiving 35 applications, we formed six focus groups consisting of 5 and 6 participants each. We deemed both the number of focus groups and of participants per group to be fitting for our purposes, allowing each participant within a group to take an active role and share their experiences, and allowing us to gather enough sufficient information for an in-depth exploration of the topic of interest. After conducting and analyzing the six focus groups, we concluded that data saturation was reached. Two focus groups consisted of GP trainees who had just started training, two consisted of GP trainees at the end of their first year of training, and two consisted of GP trainees at the end of their third and final year.

We offered all the participants lunch and a small voucher as a thank you for their participation.

2.4. Data collection

We informed GP trainees about the study by e-mail. All participants gave written informed consent. The six focus groups were held between April and November 2018 at the universities of Nijmegen and Leiden. Each discussion lasted 60–90 min. All the interviews were audio-recorded, with the participants' consent. Recordings were transcribed verbatim and in case of insufficient audio quality the written reports were used. During the focus groups, an experienced moderator (LV) acted as facilitator and an observer (FD) monitored the process of the interviews, wrote a word-for-word report and noted down key points that were discussed. Both researchers had no functional or professional relationship with any of the participants. At the beginning of each focus group discussion, it was explained to the participants that the data would be processed

Table 1
Characteristics GP trainees Focus groups, N = 35.

University	Year GP training	Female/Male	Average age
Nijmegen	Start GP training	4 female, 1 male	31
Leiden	Start GP training	4 female, 2 male	29
Nijmegen	End of the first year of GP training	3 female, 2 male	28
Leiden	End of the first year of GP training	5 female	29
Nijmegen	End of the third year of GP training	4 female, 3 male	28
Leiden	End of the third year of GP training	6 female, 1 male	32

anonymously. Signed consent forms were obtained from each participant. At the end of each focus group the moderator summarized the discussion, to give participants the opportunity to add further comments. The observer (FD) and one of the members of the research team (ToH) met in between focus group sessions to discuss the content of preceding sessions. When it was deemed necessary, we adjusted the topic guide for the next focus group to reach an even more in-depth understanding of the topics discussed. During the analysis of the sixth focus group it became clear that data saturation was reached as no new topics could be identified from the data.

2.5. Data analysis

We conducted a thematic analysis of the data using ATLAS ti 8 the next level for Windows (Scientific Software Development GmbH). Thematic analysis is an appropriate and powerful method to use when seeking to understand a set of experiences, thoughts or behaviors across a data set [24,25]. Two researchers (a qualitative research assistant and a qualitative researcher/GP) analyzed the anonymized data; the latter also observed the focus groups.

First, two experienced qualitative researchers (MdK, FD) independently examined the transcripts to become familiar with the data and to divide the text into smaller categories. After that, they analyzed the first transcripts with suitable codes. Then they met on several occasions to compare and to carry out the ascribed codes of different paragraphs of each transcript. In an iterative process between analysis and data sampling the ascribed codes were compared with new data from following focus groups and adapted if necessary. If codes were adapted or if new codes were identified during the study of new data (i.e. a new focus group), these codes were used and constantly compared with data already studied (i.e. previous focus groups). Furthermore, the topic guide was adapted according to these new codes and the moderator was requested to delve deeper into specific topics of interest.

Then, during discussion meetings between the researchers, codes were grouped together into themes. For example, codes such as learning skills, gaining knowledge about the concept of empathy and raising awareness of the concept of empathy, were grouped together into the theme 'recommendations for GP education'. In the sixth focus group no new themes could be identified. Taking into account the differences and similarities between the various stages of education, the data analyzers developed a framework for the identified themes and subthemes and discussed the themes within the research team, with particular attention to the interpretation of the transcripts. Illustrative quotations were selected to enrich the description of themes.

3. Results

A total of 35 trainees participated. Their mean age was 30.1 years and the male-female ratio was one to three (Table 1).

All focus groups discussed the following issues: the importance of discussing empathy in patient-GP communication, the effectiveness of clinical empathy, the difficulties they met in describing the concept of empathy and the value they attached to empathic skills. All trainees experienced that their needs in learning empathy changed over the course of their GP training, and they argued for more fitting attention to be paid to empathy during GP training.

Focusing on the differences between the groups we could identify three themes. Starting trainees experienced frictions regarding the influence of personal affective reactions on their medical competencies. Trainees at the end of their first year indicated that they had reached a balance between empathic involvement and their responsibility to execute relevant medical tasks, such as following guidelines. Trainees at the end of the third year recognized the mutual relationship between the development of clinical empathy and personal and professional growth.

Table 1 contains background characteristics of the participants.

3.1. Experiencing frictions at the start of GP training; the impact of overwhelming personal affective reactions on medical competencies

In the course of their first year GP trainees experienced frictions between dealing with empathy on the one hand and developing their medical competencies on the other. First year GP trainees struggled with personal affective reactions – being moved or experiencing sadness – to the emotional state of patients. Feeling unable to handle these emotions make them feel uncomfortable. These experiences made them feel insecure about the extent to which the emotional state of patients might affect them and their medical competencies. They expressed a need for attention being paid to handling emotional issues from the very start of GP training.

> It's also about expressing the emotions you experience, it's about your own feelings too, not just about your thoughts. If you know someone is afraid of a serious illness, you should consider their feelings rather than just concentrate on the concrete facts. That does make it more difficult for me, more difficult than when you're only dealing with the cognitive part. (Starting trainee, rural)

> Yes, you are expected to take decisions and to lead the conversation. Even if you're aware of brimming up and you can't think of another question, or you feel you can't really restart the conversation because it's so poignant. So, I think that to me is a boundary, sitting opposite someone with tears in my eyes. In itself it's not really a problem, but it should not get in the way of me doing my job, because although the patient has come to me for compassion, they also want my help. (Starting trainee, urban)

3.2. At the end of the first year of GP training; reaching a balance between empathic involvement and responsibility for medical tasks

GP trainees at the end of their first year stated that they attempt to reach a balance between being empathically involved and being responsible for performing relevant medical tasks, such as following the guidelines. Their experience had taught them that on the one hand it is essential in this phase of the learning process to become conscious of the behavioral part of clinical empathy, which they describe in terms such as being interested, being accessible and experiencing a click with the patient. On the other hand, they were very aware of the importance of mastering the medical tasks. They felt that both aspects deserve equal attention. The trainees mentioned as important for the development of their empathic behavior: allowing space for learning by doing, comparing with colleagues, coaching and feeling comfortable in the learning practice. In addition to this, they stressed the significance of having the GP-supervisor as a role model, having experienced how the supervisor could teach them how to show empathy in a professional manner and how to deal with being emotionally involved.

> I do find that very difficult, I remember that this first year I told my supervisor like "I don't feel empathic enough", which was also, I think, because I was focussing too much on the medical issues. There should be some room in the consult to be yourself, to feel empathy. (End of first year trainee, urban)

> My supervisor is a very empathic type of person, very compassionate towards patients, he has worked in that practice for 30 years and know it inside and out. So, it's very inspiring for me to see that it can be done in that manner. I agree that it's different for everyone, that you should develop your own style. (End of first year trainee, urban)

3.3. At the end of GP training; recognizing the mutual relationship between developing empathy and personal and professional growth

At the end of their GP training, trainees underlined the mutual influences of personal growth, feeling at ease in daily practice and behaving empathically. They had discovered that the behavioral part of empathy is influenced by their personal and professional growth, e.g. by their own experiences and their personal choice about what kind of a doctor they want to be. Also a good work-life balance and feeling self-confident were mentioned as accelerators for the development of their behavioral part of empathy.

This empathic behavior, according to many of their experiences, was helpful in sharing responsibility with the patient, in 'shared decision making'. Getting feedback from patients on their empathic behavior maked them feel more self-confident. They expressed a need for giving more space to the patients' input during their training.

> The difference in being empathic, in feeling it yourself, is that it touches on who you are, on an experience that you have had up close, something that makes you feel what the patient is feeling in their grief, so it has to do with yourself. (End of third year trainee, rural)

> So yeah, to me it's not even so much about the patient that is sitting opposite me, but more about "is my work-life balance okay and am I happy in my place of work", so those elements are in fact more important, and whether I feel comfortable with myself, so that I can connect with the patient from that place of self-confidence. (End of third year trainee, urban)

3.4. Changing needs in learning empathy

The focus groups made clear that, founded on their experiences, the needs of GP trainees concerning empathy-education, were different at different stages of their GP training. The focus groups made it clear that the trainees' needs for empathy education changed during GP training. At the first stage of training trainees experience insecurity about the influence of personal affective reactions. They need more specific attention to these emotional issues. In the second year they reach a balance between empathic involvement and responsibility for medical tasks. They feel more control in dealing with emotions. At the end of training they recognize that developing empathy and personal and professional growth are interrelated. They demand a more specific role for supervisors and patients. Generally, they wished that more explicit attention would be given to clinical empathy. Starting GP trainees especially stressed the importance of paying attention to emotional issues while learning empathic skills from the beginning of GP-training. Trainees in all stages of training experienced a lack of knowledge about the theoretical backgrounds of clinical empathy. Furthermore, they experienced a lack of patient feedback on their empathic behaviors.

> I would like to understand much more, and be inspired by books for instance, or by lectures for instance, so through being inspired by writers and lecturers for instance. (Starting trainee, rural)

> You can talk about it all you want but what's that going to do for you? Isn't it rather something you should practise and practise and then work with the patient's feedback? (End of first year trainee, urban)

Trainees had concrete ideas on how to improve their awareness of the role that empathy can play, how to increase their theoretical knowledge about empathy and how to optimize their empathic skills. First and foremost, they considered the teaching group to play a vital role in this, in which they could exchange experiences and opinions and support each other with emotional issues. They considered specialized tutorials or workshops as ways of learning about the concept of empathy and about its effects and pitfalls. They also stressed the importance of using specific training possibilities such as practicing different behaviors and working with feedback on a consult by several feedback givers.

> More attention to putting forward a case yourself during the day-release course, there are definitely people who have emotional issues there and we get to talk about it, about how to deal with it. (End of first year trainee, rural)

> When you have three patients who touch you deeply, that there is a danger then of letting your emotions get on top of you, of giving too much and not getting enough in return, so that at the end of the day you're drained. Yes, to learn to how to achieve more balance in such cases. (End of first year trainee, urban)

Rather than completing checklists - which is the current form of assessment – trainees expressed a clear preference for having the GP supervisor reflect upon and evaluate their behavior. In addition, trainees especially in the third year group, suggested that patients should play a more prominent role in the process of reflection.

> I think that especially your supervisor … and to hear the opinion of someone else who looks at it too, and that you're not just completing a checklist by yourself…. Yes, watching yourself on video with someone else, that is definitely instructive. (End of third year trainee, urban)

4. Discussion and Conclusion

4.1. Discussion

This qualitative study describes that GP trainees at the start of their training experienced tension between their emotions, caused by the emotions of their patients, and their medical competencies. They felt concerned about being 'carried away' by their emotions as well as about these emotions having an adverse effect on their professional competency. By the end of the first year GP trainees tend to have reached a balance between being empathically involved and carrying out their medical tasks with responsibility. They learned this by practice, by being coached and by looking at the examples set by their supervisors. GP trainees at the end of their training found that developing the behavioral part of clinical empathy and personal growth go hand in hand.

4.1.1. Dealing with emotions

This study describes how first year GP trainees are worried that personal emotions will have a negative effect on their performing medical tasks in a professional manner. In contrast, 'later stage' GP trainees consider personal growth and personal choices to be important in developing empathic professional behavior. This development is accelerated by having a supporting working relationship with their GP supervisor and being able to see them as role models, feeling at ease in the learning practice and feeling self-confident about what kind of a doctor they want to be.

The influence of personal emotions is associated with so-called emotional contagion [26]. This phenomenon, where the emotions of one person are directly triggered by the emotions of another person, can cause untrained doctors to be overwhelmed by the emotions of patients [27]. This can result psychological defense mechanisms [28]. This study shows that "early" GP trainees appear to be fighting against emotional contagion, but that "later stage" GP trainees describe handling personal emotions more positively; they experience learning the behavioral part of clinical empathy as an opportunity to add a personal touch to their professional identity. Some studies have argued that empathy decreases in the last year of medical

education [12]. In contrast, our study indicates that GP trainees in their last year, deploying personal experiences, choices and the supervisor's example, try to integrate their emotions into their empathic engagement, thereby integrating the competence of clinical empathy into their professional identity. Their developed sense of self-knowledge and mental flexibility allows them to look beyond themselves and pay more attention to the patient's perspectives [29].

Consequently GP trainees have to deal with the tension between learning empathic emotional engagement on the one hand, and becoming a competent medical expert on the other. It appears that learning empathic behavior is negatively influenced by a strong emphasis on the biomedical elements of care and by bad role models during basic training [15,28]. The struggle that starting GP trainees experience with incorporating empathic behavior into their professional performance can perhaps be explained by this emphasis on biomedical aspects during basic training. Other studies show that this tension can also be influenced by the priorities that educational institutes communicate (e.g. that it is of paramount importance to be a medical expert first) or by a dissonance between what these institutes proclaim and what their supervisors actually do [30,31]. Finally the use of empathy in patient-physician contacts is influenced by how much attention is paid to the ideals of GP trainees, by which elements of clinical empathy trainees find important and by their experiences during residency [32].

To reduce this tension and to stimulate learning empathic behavior, it is necessary that GP training allows trainees, with help of specific training facilities, to integrate emotional and compassionate aspects on the one hand, and medical expertize on the other, into their professional identity. This requires more attention to clinical empathy throughout the curriculum [33,34].

4.1.2. Training empathic skills as a fixed part of GP training

One of the important wishes of trainees was that more explicit attention would be paid to empathy during training; e.g. opportunities to practise empathy skills and that attention should be given to the role of their personal emotions in this. They also wanted to learn more about the theoretical background of empathy.

However, currently there is no standardized evidence-based empathy training which can be implemented in GP training and not many studies have been published on how to teach empathy. Patel et al. suggested that there are training curricula which are effective for enhancing clinical empathy. These training curricula focused on detecting patients' non-verbal cues of emotions, recognizing and responding to opportunities of empathy, facing the patient, eye contact and verbal statements of support [35]. Furthermore, Riess et al. have suggested that physician empathy, as rated by patients, improved by integrating the neuroscientific knowledge of empathy into medical education [36].

It has been demonstrated that, for trainees to become skilled communicators, it is essential to go through a continuous learning cycle of repeated practice and reflection. Such a continuous learning cycle can be supported by the training institutes of General Practice and by trainees' supervisors in the working practice [34,37]. Furthermore, such a skills training cannot be seen separately from the personal development of the trainee [38].

4.1.3. Evaluating progress of empathic behavior

Trainees in this study criticize the current form of assessment of empathic behavior by completing a list with check marks which represent the presence of an emotional reflection during the consult e.g. appointing a patient who weeps. They prefer evaluation and reflection together with their GP supervisor and patients. Trainees also point to the shortcomings of artificial practice methods such as simulated patients, because they are too far removed from real life experiences. Learning empathy involves a complex process of interaction with the working environment during which trainees get to communicate in different situations; for this purpose the authentic setting of the learning practice is important [35,39]. Giroldi confirmed that the use of checklists impedes learning as it might induce artificial behavior and does not provide the learner with constructive feedback [37,40]. Within assessment literature there is a shift from ratings to narratives [39,41].

Reflection has always been an important element of GP training. Research tells us that skills are best learned and retained when learners receive feedback on their performance immediately after the consultation [42] and that feedback is a key factor in acquiring new communication skills [43]. Therefore, giving actual patients and GP supervisors a more prominent role in the evaluating process seems crucial, i.e. organizing specific moments within the curriculum to evaluate the patients' experiences during the consult together with patient, trainee and supervisor.

This study provides an insight into how clinical empathy changes during GP training and in the restrictions GP trainees are facing. An important characteristic of this qualitative study is that it provides a cross-sectional – at different stages of training - inventory of trainees' individual understandings of clinical empathy. We limited ourselves to GP trainees because they are in the middle of learning and developing skills.

The fact that only a sample of Dutch GP trainees took part may be a limitation in that it may not be possible to generalize our conclusions for GP trainees in other countries. However, we expect similar outcomes in countries with similar models of GP training. Another potential limitation is that the trainees participated voluntarily, which could indicate that they have an above-average interest in empathy.

In most of the focus groups the ratio of male to female participants was weighted towards more females, which may have impacted the group dynamics. One may assume that male GPs have a more pragmatic style of consultation and female GPs a more personal and relational one. It may also be the case that male and female trainees have different experiences and opinions where empathy as part of their professional identity is concerned (attaching a different worth to it, feeling more or less need for reflection). Because of the male to female ratio in our study, it may be that its results reflect more the needs of female GP trainees.

Even though the moderator paid specific attention to creating an open atmosphere, and although Dutch GP trainees are used to discussing sensitive issues in a peer group, it cannot be ruled out that not everyone felt entirely free to express themselves during the focus group discussions.

Tape-recording the discussions, transcribing them verbatim, evaluating and checking the participants' contributions at the end of each focus group session and using multiple coding during the analysis, all add to the rigor and the trustworthiness of the study. Our skilled moderator (LV), focus group observer (FD) and one of the analyzers (ToH) all having a GP background might lead to some researcher bias. However, as the other analyzer (MdK) has no medical background, researcher bias can be expected to be minimal.

4.2. Conclusion

Handling personal emotions and too little specific empathy training opportunities are just a few of the problems GP trainees face in developing the behavioral part of clinical empathy. Consequently, they want empathy to have a more central place in the curriculum. In particular they consider the role of the GP supervisor as well as patient feedback to be crucial in reflecting on the development of their empathic behavior. That is exactly why we urge those responsible for GP training to embrace these findings. Specific education about the theory and evidence of empathy and training of specific empathic skills should be offered explicitly. Last but not

least, the role of patients and GP supervisors in evaluating the progress in empathic behavior of trainees should be given much more importance.

5. Practice implications

The results of this study can inspire representatives of GP training to develop adaptations within the curriculum, e.g. embedding theoretical education of empathy and improving empathy training itself. Although GP trainees describe that attention is being given to empathy education within GP training in different parts of the curriculum (e.g. moments of reflection within the teaching group, practicing consultations, intervision and some specific courses), they would prefer more explicit attention to be paid to empathy. Both cognitive education and personal skills training should be offered. Skills training could be inspired by the five phases of communication training – confrontation with undesired behavior; becoming conscious of undesired behavior; the search for alternative behavior; personalization of alternative behavior and internalization of new behavior [34,44].

The trainee-supervisor relationship was found to be key in developing trainees' patient-centered skills, knowledge and attitudes [45]. GP supervisors should be more aware of their role. This could have consequences for the content of specific systematic training programs for supervisors. Clinical empathy is to be regarded a complex behavioral skill and needs a tailored evaluation of progress [39].

Clearly, to increase representativeness of our findings, more studies need to be conducted to investigate whether trainees in other Dutch university institutes of General Practice, as well as GP trainees in other countries, have similar experiences and opinions. One way of doing this is by using quantitative questionnaires based on our findings.

CRediT authorship contribution statement

A description of the author's diverse contributions to this work.

F.A.W.M. Derksen as corresponding author is responsible for the description of the contributions.

Conception or design of the work: F.A.W.M. Derksen, T.C. Olde Hartman, A.L.M. Lagro-Janssen and A.W.M. Kramer. Data collection: F.A.W.M. Derksen. Data analysis and interpretation: F.A.W.M. Derksen, T.C. Olde Hartman, A.L.M. Lagro-Janssen and A.W.M. Kramer. Drafting the article: F.A.W.M. Derksen, T.C. Olde Hartman, A.L.M. Lagro-Janssen and A.W.M. Kramer. Critical revision of the article: F.A.W.M. Derksen, T.C. Olde Hartman, A.L.M. Lagro-Janssen and A.W.M. Kramer. Final approval of the version to be published: F.A.W.M. Derksen, T.C. Olde Hartman, A.L.M. Lagro-Janssen and A.W.M. Kramer.

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Ethical approval

The CMO of the Radboud University (file no. 2018-4270) as well as the Ethics committee of LUMC (file P.18.094) approved the study.

Disclaimers

None.

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none.

Data

None.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.pec.2021.03.030.

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