Empathic concern and professional characteristics associated with clinical empathy in French general practitioners

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ABSTRACT

Objective: Clinical empathy, i.e. the ability of physicians to adopt patient perspective, is an essential component of care, which depends in part on empathic concern, i.e. compassionate emotions felt for others. However, too much empathic concern can be challenging for physicians. Aim of this study was to examine physician practice characteristics that could explain clinical empathy beyond empathic concern. We were also interested in testing whether professional reflective activities, such as Balint group attendance or clinical supervision, might make clinical empathy less dependent on empathic concern.

Methods: A total of 295 French general practitioners (response rate of 37%) completed self-reported questionnaires on empathic concern and clinical empathy, using the Toronto empathy questionnaire (TEQ) and the Jefferson scale of physician empathy (JSPE), respectively. We also recorded information on their professional practice: professional experience, duration of consultations, and participation in Balint groups or being a clinical supervisor. Hierarchical regression analyses were carried out with clinical empathy as dependent variable.

Results: Empathic concern was an important component of clinical empathy variance. The physician practice characteristics ‘consultation length’ and ‘being a Balint attendee or a supervisor’, but not ‘clinical experience’ made a significant and unique contribution to clinical empathy beyond that of empathic concern. Participating to one reflective activity (either Balint group attendance or clinical supervision) made clinical empathy less dependent on empathic concern.

Conclusion: Working conditions such as having enough consultation time and having the opportunity to attend a professional reflective activity support the maintenance of clinical empathy without the burden of too much empathic concern.

Keywords: Clinical empathy, empathic concern, general practitioners, Balint groups, clinical supervision

INTRODUCTION

Physician clinical empathy is the ability to understand (rather than feel) the experiences, concerns and perspectives of the patients, combined with a capacity to communicate this understanding (1). Mounting evidence exists that demonstrates its beneficial effect in several respects. For example, clinical empathy is related to many positive patient outcomes such as reduced...
severity and duration of the common cold (2), fewer racial disparities in pain treatment (3), and even less psychological distress and greater satisfaction with the physician in oncological contexts (4). It has also been associated with less litigation between patients and physicians (5) and lower use of healthcare resources (e.g. fewer hospitalizations and laboratory tests) (6). It is thus critical to identify specific physician characteristics linked to clinical empathy, all the more so that empathy is more and more stunted during medical education (7).

One variable widely acknowledged for its overlap with clinical empathy is empathic concern (8–10). This is the emotional reaction of a person who feels easily concerned by the situation of others, is attuned to their mood, and therefore, engages spontaneously in pro-social helping behaviour (10). Empathic concern, which is correlated with clinical empathy at around 0.30, seems to act as an underlying emotional motive of the cognitive effort of physicians in patient perspective taking (8). It is thus an important element for clinical empathy. However, because too much empathic concern can become challenging and demanding in medical settings, it is not desirable that empathic concern is too high or the only motive for clinical empathy (11).

Physician professional practice-related variables could also be linked to clinical empathy. The time spent by physicians to listen to patients during consultations was a strong predictor of clinical empathy (12,13), as was clinical experience (14) even after controlling for age (15). Physician participation in professional reflective activities resulting in stepping back and putting things into perspective, such as supervision activities (i.e. being a preceptor) or Balint groups, might also foster clinical empathy. These elements are even more interesting in that physicians can implement them.

Balint groups are a safe space for discussions and reflection, supervised by an experienced supportive leader, in difficult cases and/or feelings encountered by professionals. Even if, to our knowledge, the association between Balint-group participation and clinical empathy has not yet been established, one of the aims of these groups is precisely to improve doctor perception of their patient concerns as well as their own psychological reactions, facilitating overall medical communication (16). In this respect, a randomized control trial in medical students has shown that after attending Balint-groups, participants scored significantly higher than the control group on a questionnaire testing their knowledge of emotional aspects of the doctor-patient relationship (17). Similarly, qualitative studies suggest that being a clinical supervisor often seems to go with an empathic learner-centred approach (18,19) that could parallel an empathic patient-centred approach in clinical practice.

Taking all these elements into consideration, aim of this study was to identify the unique contribution of physician practice-related variables described above (i.e. consultation length, clinical experience, attending a Balint-group or being a clinical supervisor) to clinical empathy, beyond the contribution of empathic concern. Although research is available on each of these factors separately, they have not yet been considered simultaneously.

Furthermore, testing the moderator effect of practice characteristics on the link between empathic concern and clinical empathy was studied. Although no research is yet available on this subject, a professional reflective activity (i.e. here Balint group or supervision) could lessen the association between the two types of empathy. People with a professional reflective activity develop psychological abilities to be clinically empathic without being too emotionally concerned. Therefore, we assumed that professional reflective activity makes clinical empathy less dependent on empathic concern, while making it more dependent on other abilities, such as stepping back from a difficult situation.

METHODS

Participants and procedure

Participants were approached in two ways. First, during the annual French National Congress of General Practice (Nice, June 2010), 81 participants were approached and 61 accepted and filled in the questionnaire (response rate = 75%). Second, the rest of the sample was recruited through the e-mail registry of the national professional society 'Société de Formation Thérapeutique du Généraliste [professional society for the continuing education of general practitioners]' . This professional organization is committed to training, research, epidemiology and humanities, and arranges numerous trainings and seminars across the country. All 680 members of this society were prompted by e-mail to invite physicians to participate in an internet-based survey (maximum two prompts). The response rate for internet survey was 32% and the global response rate 37%. This response rate can be considered as fairly good, given the fact that participants were not paid. Although 308 completed questionnaires were received, 15 were incomplete and thus were discarded. The final sample is, therefore, composed of 295 completed questionnaires that were analysed. No difference was found between the two subsamples on any of the variables under study, and thus the two subsamples were merged.

The study received full approval from the Université Paris Descartes ethics committee.
**Clinical empathy: The Jefferson scale of physician empathy (JSPE)**. The JSPE is a 20-item questionnaire, consisting of a seven-point Likert scale, which evaluates physician self-reported clinical empathy (20). It has been translated into 38 languages, and its psychometric properties have been verified in numerous studies (21,22). The JSPE provides a total score reflecting how physicians think they assess their own patient perspective taking. The higher the score, the higher the self-reported clinical empathy, with a possible range of 20 to 140. To give an idea of the scores in recent studies: American medical students obtained a mean total score of 115 (standard deviation—SD—of 10) (22) and Iranian general practitioners of 110 (SD = 40) (15). In this study sample, Cronbach’s alpha was 0.70 for the overall score.

**Empathic concern: The Toronto empathy questionnaire (TEQ)**. The TEQ is a 16-item, five-point Likert type self-reported questionnaire that assesses a single factor of empathic concern in people in general (10). It was constructed by factor analyses of items from various existing self-reported empathy questionnaires, to extract the common factor of the concept of empathy. The single factor found revealed to be a primarily emotional process. The uni-dimensional structure of the scale and its validity and reliability has been confirmed in a recent report (23). The higher the score, the higher the self-reported empathic concern, with a possible range of 0 to 64. In its initial validation study, which encompassed three different samples (10), mean scores ranged from 44 to 47 with SD of 8. In the present sample, Cronbach’s alpha was 0.71.

**Professional and practice-related information**

Data was collected on the number of years in practice, the average duration of a consultation reported by the physicians themselves, and whether they were attending Balint groups or were clinical supervisors.

**Statistical method**

We performed regression analyses with clinical empathy as the dependent variable. To identify the variance of the dependent variable shared with professional and practice-related variables beyond the effect of empathic concern, hierarchical regressions were used. Thus, in the first block, we only entered empathic concern. In the second block, all professional and practice-related variables were entered simultaneously, including the interaction term ‘having a reflective activity (participating to Balint groups or acting as a supervisor) multiplied by empathic concern’ to test the assumed moderator effect of one reflective activity on the link between both types of empathy (24).

**RESULTS**

**Sample characteristics**

Characteristics of the study population are reported in Table 1. In brief, the mean age was 51 years, and 49% were women. On average, professional practice was 23 years and self-reported consultation length 20 min. Seventy-six per cent were Balint attendees or clinical supervisors. Average empathy scores were 45.9 and 111.8 for empathic concern and clinical empathy, respectively.

**Variables associated with clinical empathy**

As shown in Table 2, in block 1 of the hierarchical regression empathic concern was significantly associated with clinical empathy ($\beta = 0.36$, $P < 0.001$) and in itself explains 13.2% of the variance of clinical empathy.

The introduction in block 2 of physician practice characteristics significantly improved the fit of the model with an additional significant $\Delta R^2$ of 6.6% ($P < 0.001$). Beyond the effect of empathic concern, consultation length and being a Balint attendee or a supervisor were significantly associated with clinical empathy, with respectively $\beta = 0.19$, $P < 0.001$, and $\beta = 1.45$, $P < 0.005$. The interaction term was also significantly different from zero, $\beta = -1.40$, $P < 0.005$, showing that one reflective activity moderates the link between empathic concern and clinical empathy (see next paragraph for details). Only clinical experience was not related to clinical empathy.

**Moderator effect of one reflective activity on the link between empathic concern and clinical empathy**

To illustrate and interpret the significant interaction, Figure 1 shows two regression lines with empathic concern predicting clinical empathy in the two conditions ‘no reflective activity’ versus ‘one reflective activity.’ Other parameters were held constant (average

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean and standard deviation (SD) or %</th>
<th>Sample range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (SD)</td>
<td>51.0 (9.5)</td>
<td>27–75</td>
</tr>
<tr>
<td>Female physicians (%)</td>
<td>49</td>
<td>\</td>
</tr>
<tr>
<td>Years of clinical experience (SD)</td>
<td>22.8 (10)</td>
<td>1–50</td>
</tr>
<tr>
<td>Self-reported length of consultation in minutes (SD)</td>
<td>20.1 (5.9)</td>
<td>8–60</td>
</tr>
<tr>
<td>Clinical empathy: JSPE total score (SD)*</td>
<td>111.8 (10.6)</td>
<td>84–134</td>
</tr>
<tr>
<td>Empathic concern: TEQ score (SD)b</td>
<td>45.9 (5.4)</td>
<td>24–58</td>
</tr>
<tr>
<td>Professional reflective activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balint attendee (%)</td>
<td>38</td>
<td>\</td>
</tr>
<tr>
<td>Clinical supervisor (%)</td>
<td>62</td>
<td>\</td>
</tr>
<tr>
<td>Balint attendee or clinical supervisor (%)</td>
<td>76</td>
<td>\</td>
</tr>
</tbody>
</table>

*JSPE possible range: 20–140.

bTEQ possible range: 0–164.
consultation length of 20 min and clinical experience of 23 years, corresponding to the sample means). The figure shows that, whether or not the physician has one reflective activity, empathic concern is always positively associated with clinical empathy. However, the association was significantly weaker in participants engaging in one reflective activity. This latter group has also higher scores on clinical empathy than the group with no reflective activity, when empathic concern scores are below 50.

DISCUSSION

Main findings

Empathic concern was an important component of clinical empathy variance. However, physician practice characteristics, with the exception of clinical experience, made a significant and unique contribution to clinical empathy beyond that of empathic concern.

As hypothesized as well, in Balint attendees or clinical supervisors, the link between empathic concern and clinical empathy was weaker than in physicians without reflective activity.

Interpretation

Contrary to most literature data, but also reported in one study of Italian physicians (25), clinical experience was not related to clinical empathy in the study sample. This suggests that the experience itself does not spontaneously develop clinical empathy, at least when other factors are taken into account as was

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Table 2. Hierarchical regression analysis on clinical empathy (JSPE) among 295 French general practitioners.

<table>
<thead>
<tr>
<th>Step</th>
<th>Model</th>
<th>B (non-standardized coefficients)</th>
<th>Standard error</th>
<th>β (standardized coefficients)</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Constant</td>
<td>78.91</td>
<td>4.97</td>
<td></td>
<td>15.89&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Empathic concern (TEQ)</td>
<td>0.72</td>
<td>0.11</td>
<td>0.36</td>
<td>6.68&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>2</td>
<td>Constant</td>
<td>45.44</td>
<td>10.55</td>
<td></td>
<td>4.31&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Empathic concern (TEQ)</td>
<td>1.27</td>
<td>0.22</td>
<td>0.64</td>
<td>5.78&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Years of clinical experience</td>
<td>−0.01</td>
<td>0.06</td>
<td>−0.01</td>
<td>−0.19</td>
</tr>
<tr>
<td></td>
<td>Consultation length</td>
<td>0.33</td>
<td>0.09</td>
<td>0.19</td>
<td>3.51&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>One reflective activity (i.e. Balint attendee or clinical supervisor)</td>
<td>35.9</td>
<td>11.6</td>
<td>1.45</td>
<td>3.08&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>One reflective activity*empathic concern (interaction term)</td>
<td>−0.74</td>
<td>0.25</td>
<td>−1.40</td>
<td>−2.97&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>P < 0.001.
<sup>b</sup>P < 0.005.

One reflective activity, i.e. Balint attendee or clinical supervisor, was coded as 1 = the physician is either one or the other, and 0 = neither one nor the other.

Step 1: F(1,293) = 44.39<sup>a</sup>; Step 2: F(5,289) = 14.28<sup>a</sup>; R² = 13.2% for step 1 and R² = 19.8% for step 2, ΔR² = 6.6, P < 0.001.

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Figure 1. Moderator effect of a reflective activity on the relationship between empathic concern and clinical empathy.
done here. Therefore, it is important to understand what ‘tools’ physicians require for the development of clinical empathy, beyond the effect of their empathetic concern.

In this respect, our other findings might have concrete implications for practice. The possibilities of having consultations of sufficient length and participating in a professional reflective activity promotes that physicians develop clinical empathy. The engagement in a reflective activity seems all the more important to the extent that it may foster clinical empathy, which itself becomes less entangled with the potentially wearing factor of empathetic concern. In line with this idea, previous research has revealed less burnout in Balint attendees than in non-attendees (26) with the former having a more patient-centred approach (27).

Furthermore, our result that being engaged in reflective activities (Balint-group attendance or clinical supervision) leads to more clinical empathy and less dependence on empathic concern suggests that rather than the activity itself, the important element at stake here might be the opportunity for the clinician to step back, de-centre, and reflect upon his/her professional practice. Research demonstrating the effectiveness of an educational programme in mindfulness for an increase in clinical empathy and a decrease in burnout, supports the idea that any programme aimed at another attitude towards professional practice might be relevant to clinical empathy (28). However, further research is warranted to confirm this likely hypothesis.

Limitations
Several limitations of this study should be mentioned. First, this cross-sectional study cannot identify causal relationships. We interpreted clinical empathy as an outcome, but it is also likely that clinical empathy develops empathetic concern. Second, the sample studied was not random and so we cannot rule out the possibility of participation bias. Some physicians were recruited via a professional organization for continuing education, and are therefore interested, at least theoretically, in improving their practice. Consequently, they might not be representative of all French general practitioners. However, both subsamples had similar characteristics, suggesting this bias could be limited. Third, despite its confirmed psychometric validity the TEQ, which taps empathetic concern, has only been validated to date in medical students.

Conclusion
In conclusion, the study hypotheses were confirmed: clinical empathy was associated with empathetic concern, and the professional practice characteristics ‘length of consultation’ and ‘reflective professional activity’ contributed significantly to clinical empathy. Furthermore, one reflective activity was found to moderate the link between empathic concern and clinical empathy, making the latter less dependent on the former and thus suggesting it is beneficial for both physicians and patients. Further research is warranted to understand under what other conditions physicians might increase clinical empathy without being too emotionally concerned.

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