



Pharmacists' empathy after a postgraduate course in narrative medicine: an observational study

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Abstract

Background Narrative medicine is a recent cross-disciplinary approach which through aesthetic activities such as reading fiction and creative writing aims to encourage empathy, reflection, professionalism, and trustworthiness in the encounter between patients and health care professionals.

Aim The aim of this study was to evaluate changes in level of empathy after a postgraduate course in narrative medicine among pharmacists conducting medication counselling.

Method During 2020–2021, three courses in narrative medicine among pharmacists with the aim to enhance empathy were held in Odense, Denmark. The primary outcome was the pharmacists' self-reported level of empathy before and after the course measured with Jefferson Scale of Empathy (JSE), which is a validated 20 item scale with higher scores indicating higher levels of cognitive empathy.

Results A total of 33 community and hospital pharmacists participated in the three courses. The pharmacists' median age was 41 years, 91% were female, 76% were working in community pharmacy, and 47% were, according to themselves, rare readers. The pharmacists completed the JSE scale before and after the course. A statistically significant increase was found in mean total JSE score from 109.9 ± 17.1 before the course to 115.7 ± 14.6 after the course ($p=0.0362$).

Conclusion Following the course in narrative medicine the level of empathy for the pharmacists according to JSE was enhanced. We recommend that future studies also use patient-reported outcomes to explore if the self-experienced enhanced empathy among pharmacists affects the patients' experience of their encounters.

Keywords Community pharmacy · Continuing education · Empathy · Hospital pharmacy · Medication counselling · Narrative medicine

Impact statements

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- A post-graduate course in narrative medicine for pharmacists were developed and the participating pharmacists found it useful in their daily practice.
- JSE was used to measure self-reported empathy before and after the course in narrative medicine, and the empathy of the pharmacists increased after the course.
- Participation in a course in narrative medicine has the potential to improve medication counselling of pharmacists.

Introduction

Narrative medicine is a recent cross-disciplinary approach to healthcare education and practice which aims to encourage empathy, reflection, professionalism, and trustworthiness through aesthetic activities [1–3]. By close reading of a literary text or watching a movie, and by writing creatively to a prompt, the ability to understand narratives and identify with another person's life can be strengthened. The thinking is that narrative competencies such as feeling the story of others can be transferred to clinical practice and be effectively integrated into even short encounters with patients.

Empathy among health professionals has been shown to have various positive effects on patients' health experience and outcomes [4]. One approach for measuring empathy levels among health professionals is with patient-reported questionnaires, and another approach is with self-reported questionnaires. One such scale is The Jefferson Scale of Empathy (JSE), which has been developed for physicians [5], but is also validated for pharmacy students, among others, supporting the use of the instrument in pharmacy practice [6].

Among pharmacists, only a few studies describe empathy levels using empathy scales [7–10] whereas levels among pharmacy students have been more frequently measured [11–20]. Several studies among pharmacy students indicate that education in narrative medicine can strengthen the students' competencies in relation to empathy, social understanding, and communication [21–24] and it has been suggested that narrative medicine be included in pharmacy practice [25].

Aim

The aim of the study was to evaluate changes in level of empathy after a postgraduate course in narrative medicine among pharmacists conducting medication counselling.

Ethics approval

The study was approved by the Research Ethics Committee at University of Southern Denmark (approval 20/68028 of 2021.01.21) and the Legal Services at University of Southern Denmark (approval 10.952 of 2020.03.18). The study was conducted in accordance with the principles of the Declaration of Helsinki [26]. Written voluntary informed consent was obtained from all participants (both pharmacists and patients) after provision of written participant information. The participants accepted publication of their data securing that their identity would be concealed.

Method

Reporting

The manuscript follows the SQUIRE reporting guidelines [27], see Appendix 1.

Participants

Pharmacists from community and hospital pharmacy in region Southern Denmark participated in a course in narrative medicine during 2020–2021. The pharmacists were recruited from The Danish Network for Community Pharmacy Practice Research and Development [28], together with announcements at LinkedIn, Facebook, and from the Association of Danish Pharmacies. Most participating pharmacists conducted medication counselling regularly.

Course in narrative medicine

The course in narrative medicine specifically for pharmacists was conducted three times; June 2020, February 2021, and May 2021. The first and third course were 2 full course days with physical attendance, whereas the second course was 3 shorter course days delivered online because of lockdown during the COVID-19 pandemic. The course content has previously been described in detail [29] but in brief consisted of alternating lectures and exercises with close reading of literary texts and creative writing, all on topics related to the field of narrative medicine. The course can be used in a variety of settings, and it was slightly modified for pharmacists in the choice of exercises related to the pharmacists' daily work. At the commencement of the course, the pharmacists were instructed on how to use narrative medicine in pharmacy practice, making it easier for them to be open towards the learning, as suggested by Rasmussen and Sodemann [30].

Study measurements

Each pharmacist was asked to complete a questionnaire before, immediately following, and approximately 3 months after the course in narrative medicine. The questionnaire before the course consisted of demographic data and JSE, whereas the questionnaire following the course consisted of JSE and pharmacists' satisfaction with the course. The final questionnaire consisted only of JSE.

All pharmacists were asked to recruit one patient before and after attending the course. These patients were asked to complete a questionnaire consisting of The Consultation and Relational Empathy (CARE) measure [31] and demographic

data. The intention was to determine if the patients perceived that the empathy of the pharmacist changed after the study.

Jefferson scale of empathy (JSE)

The primary endpoint was the pharmacists' self-reported level of empathy measured with JSE, a validated 20 item 7-point Likert (1 = strongly disagree, 7 = strongly agree) scale [5]. Scores range from 20 to 140, higher scores indicating higher cognitive empathy [5]. We chose this scale as it is the most frequently used scale used for measuring empathy within health science [30].

JSE has previously been used in Denmark in 2 studies assessing empathy among general practitioners [32, 33]. With permission, one of the Danish versions was used [32] translated in accordance with World Health Organization guidelines [34]. UH and TG adapted this version to the pharmacist profession with knowledge from their backgrounds as pharmacist practitioners.

Consultation and relational empathy (CARE)

The original CARE scale was translated to Danish by TG. UH and TG then compared this initial translation with the English [31] and the Swedish [35] version to create an intermediary version. This version was translated backwards into English by a researcher with both English and Danish as native languages. UH and TG then compared the intermediate, the English, and the Swedish version, together with the backwards translation to create the final version used in this study, see Appendix 2.

Satisfaction questionnaire

The questionnaire on pharmacists' satisfaction and perceived benefit of the course was developed by the authors with reference to the literature [23, 24] and adjusted after the first course. The questionnaire included items on course practicalities, course content, perceived impact on daily practice, and any additional comments, see Appendix 3.

Statistics

The total JSE score was calculated by reverse scoring items and summing the scores from each of the 20 items. This gave each participant a total JSE score for each of the three time points before, after, and later. As data followed a normal distribution with 1 possible outlier, the paired t-test was used to assess differences in the total JSE scores before and after participation in the course. The test was performed

Table 1 Demographics of the pharmacists participating in the course in narrative medicine (n = 33)

Age (median, range)	41 years, 24–60 years*
Female gender (n, %)	30, 91
Working in community pharmacy (n, %)	25, 76
Regular patient counselling (n, %)	31, 94
Rare reader # (n, %)	15, 47

* Data only available for 32 pharmacists answering the questionnaire before the course

Rare reader: Using the categories “Nearly never” or “A couple of times per year” for the question “How often do you read fiction?”. Frequent readers have answered “A couple of times per month”, “A couple of times per week” and “Nearly every day”

using STATA (StataCorp, College Station, TX, USA). The level of statistical significance was set at 0.05.

Results

A total of 33 pharmacists completed the course in narrative medicine, see Table 1 for demographics. Of the 33 pharmacists, 27 (82%) completed JSE both before and after the course. The pharmacists recruited 12 patients for answering CARE; 7 patients (58%) before the pharmacist had attended the course, and 5 patients (42%) after the pharmacist had attended the course. For 2 pharmacists (6%), a patient answered CARE both before and after the pharmacist had attended the course.

Self-reported empathy by the pharmacists

Total JSE score for each pharmacist before, after, and later is shown in Fig. 1. The mean JSE score for participants completing the JSE scale was 111.2 ± 16.6 before the course (n = 32), 115.2 ± 14.5 immediately after the course (n = 28), and 117.6 ± 12.9 after 3 months (n = 27). A statistically significant increase of 5.3% was found in mean total JSE score from 27 participants completing the JSE scale both before and after from 109.9 ± 17.1 before the course to 115.7 ± 14.6 immediately after the course (p = 0.036). On excluding the outlier with the lowest JSE score before the course, the result was not statistically significant (p = 0.062). The total JSE score approximately 3 months later was not statistically different from the score before or immediately after the course.

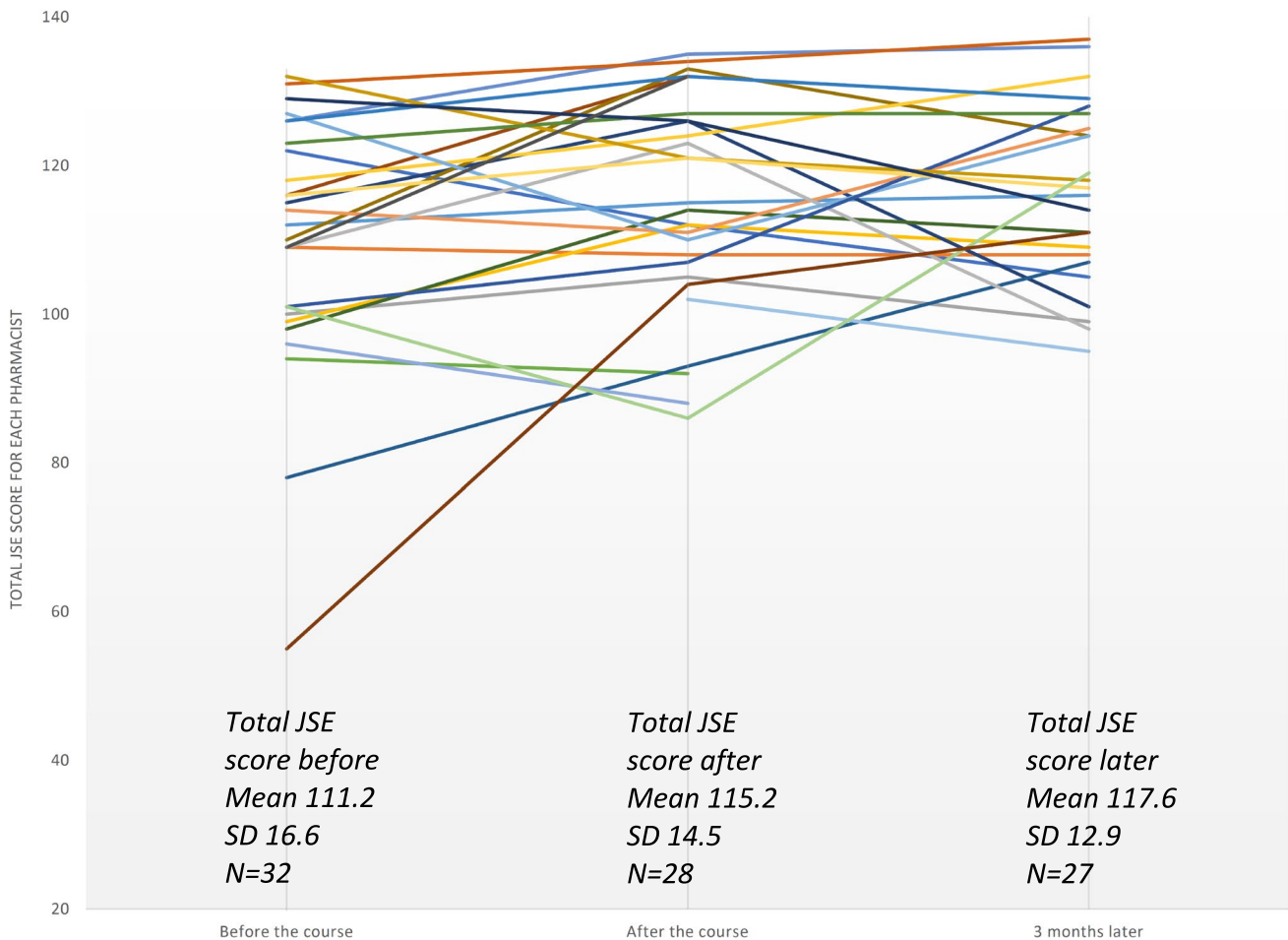


Fig. 1 Total Jefferson Scale of Empathy score for each pharmacist before and immediately following participation in the course, and after approximately 3 months. In total 32 pharmacists completed JSE before the course, 28 pharmacists completed JSE after the course, and

27 pharmacists completed JSE approximately 3 months later. Each line represents the total JSE score, which could range from 20 to 140, for one pharmacist at three time points

Patient-reported empathy of the pharmacists

The patients reported the empathy of the pharmacist as excellent for more than half of the questions in CARE, see Fig. 2.

Satisfaction questionnaire

The pharmacists generally rated the satisfaction with the course as high, and most found it relevant to their everyday practice at the pharmacy, see Fig. 3.

Discussion

Statement of key findings

Our results indicate that pharmacists' self-reported level of empathy was enhanced after a course in narrative medicine. Moreover, the pharmacists expressed high satisfaction with participating in the course. We received too few responses to the patient-reported outcome CARE, and hence it is not possible to comment on whether or not the patients rated the pharmacists' empathy differently before and after attending the course.

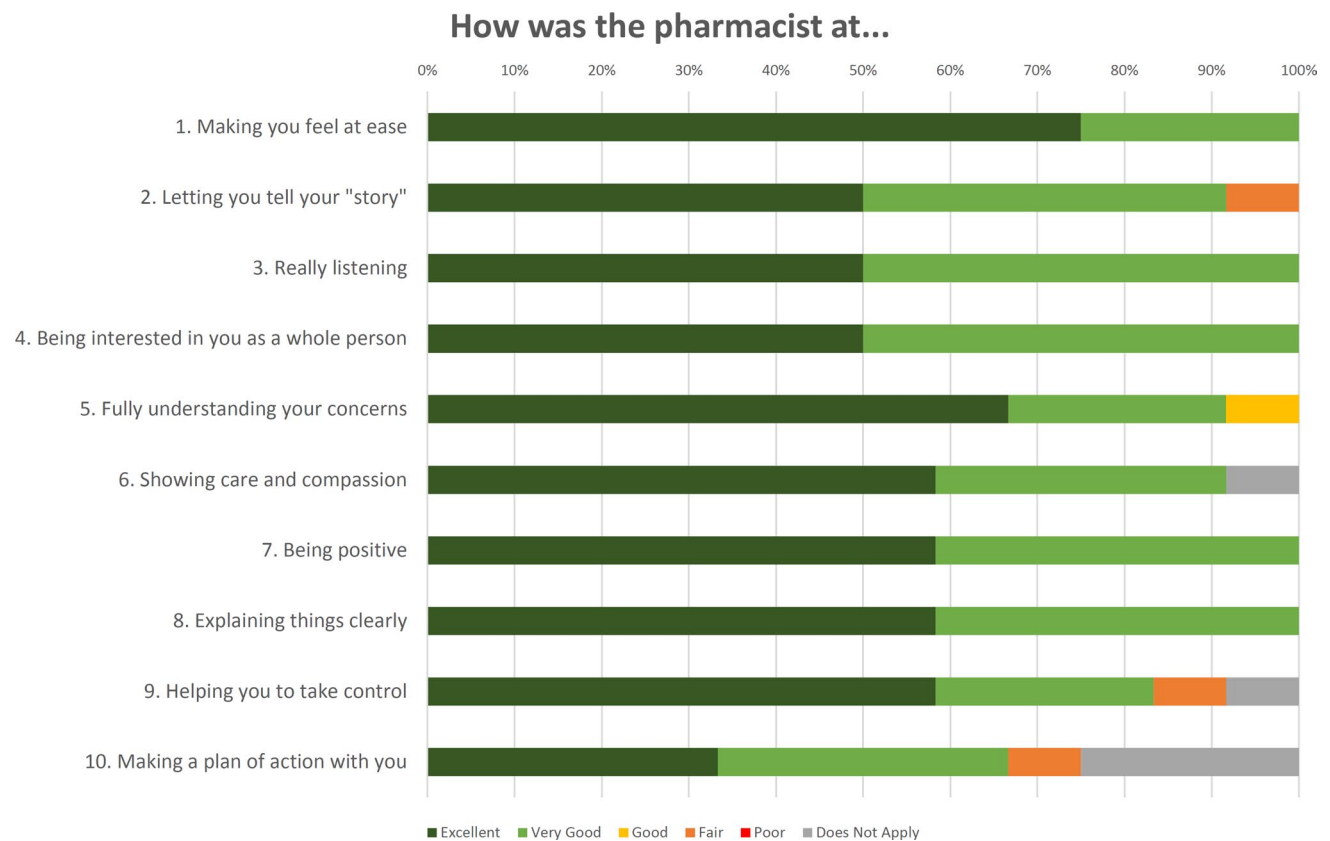


Fig. 2 Patient-reported empathy of the pharmacists as per the 10-item questionnaire Consultation And Relational Empathy (n=12). In total 7 patients completed CARE before the pharmacist had attended the

course, and 5 patients completed CARE after the pharmacist had attended the course. Due to the small number, the results presented are for all 12 patients

Strengths and weaknesses

In this study we used JSE to quantify the empathy of pharmacists before and after a course in narrative medicine, which is a novel approach. The study was designed as a before/after study without a control group, which introduces limitations. We did not perform a power calculation, however, a randomized controlled trial by Lor et al. [36] suggests that 16 pharmacists in each group be included to have a power of 80% to determine a difference of 10 points of the JSE score on a significance level of 5%. This potentially indicates that our study would have been large enough if conducted as a randomized controlled trial. An additional limitation is that it is unknown whether the change in self-reported empathy is due to the course in narrative medicine or other circumstances in the lives of the pharmacists.

Furthermore, the significant difference between before and after the course is eliminated if the lowest scoring participant is removed from the analysis. However, the pharmacists did indicate in the satisfaction questionnaire that the course had a positive impact on their daily work.

We received fewer responses from the patients than anticipated. This could have been due to the pharmacists having difficulties in recruitment, or the patients refusing to complete the questionnaire. Furthermore, as the patients returned the completed questionnaire to the pharmacist, this may have introduced biases such as social desirability.

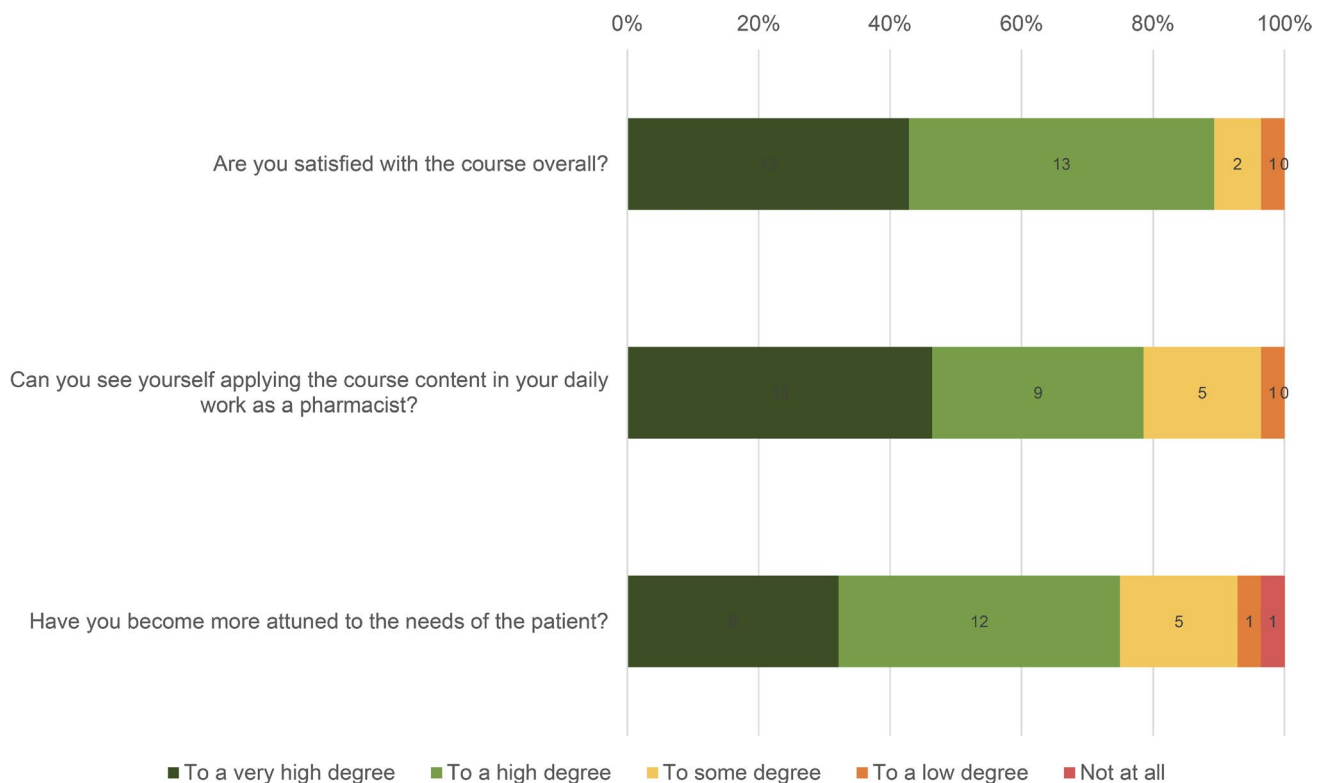


Fig. 3 The pharmacists' satisfaction with the course (n=28). Data from 28 pharmacists answering the satisfaction questionnaire after the course. The figure gives 3 out of 19 questions; for all questions see Appendix 4

Interpretation

The mean pre-course JSE score is comparable to JSE scores found in studies of pharmacists in Japan [7, 8] and pharmacy preceptors in the US [9].

While the results indicated enhanced empathy among the pharmacists after the course, it is uncertain if this resulted in behavior change. This is also highlighted in another study indicating that JSE is mainly based on a cognitive approach to empathy, hence assesses the attitude towards empathy more than the actual empathic ability [32]. Furthermore, there has been critique regarding self-evaluated measurements of empathy emphasizing that patient-centered care must be measured through patient-centered means [37].

In this study, only those pharmacists regularly conducting medication counselling participated in the course in narrative medicine. We suggest that also pharmacy technicians and pharmacists performing other tasks could benefit from the course, as empathy should be present in all patient encounters in healthcare.

Further research

Further research is warranted on pharmacists' level of empathy, including measures of the patients' perceptions of the empathy of their health professionals.

Conclusion

By using JSE, we found tendencies that a course in narrative medicine enhanced pharmacists' level of empathy. We recommend that future studies should include patient-reported outcomes to explore if the self-experienced enhanced empathy among pharmacists affects the patients' experience of their encounters.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11096-024-01815-w>.

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Conflicts of interest TG, and UH declares no conflict of interest. AJR, AMM, and MKA was part of the teaching group but was not present during the evaluation of the course. CVR participated in the course but was not present during the evaluation of the course.

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