



Using reflective writing to enhance empathy among medical students

L'écriture réflexive pour renforcer l'empathie chez les étudiants en médecine

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Article abstract

Implication Statement

Reflection is a skill which has the potential to enhance higher order thinking such as empathy and compassion. We aimed to study reflective writing as a means to nurture empathy among medical students. An interventional study was conducted among 73 final-year medical students using the Toronto Empathy Questionnaire. The questionnaire was administered anonymously before and after a clinical clerkship. Reflective writing generated strong emotional responses but did not improve Empathy Questionnaire scores. Reflective writing about patient care experiences may be useful in clinical clerkships to develop certain constructs of empathy such as perspective taking and compassion among medical students, but it may not raise empathy scores in the short term.



Using reflective writing to enhance empathy among medical students

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Implication Statement

Reflection is a skill which has the potential to enhance higher order thinking such as empathy and compassion. We aimed to study reflective writing as a means to nurture empathy among medical students. An interventional study was conducted among 73 final-year medical students using the Toronto Empathy Questionnaire. The questionnaire was administered anonymously before and after a clinical clerkship. Reflective writing generated strong emotional responses but did not improve Empathy Questionnaire scores. Reflective writing about patient care experiences may be useful in clinical clerkships to develop certain constructs of empathy such as perspective taking and compassion among medical students, but it may not raise empathy scores in the short term.

Nurturing empathy among medical students has gained priority in medical education.¹ Empathy remains an evolving multidimensional construct with subdomains in compassion, cognition, emotion, and communication.² Lectures have a limited impact on the development of empathy.³ Teaching patient-centered communication can lay the foundation for building empathy.⁴ One approach to developing empathy involves reflective writing about patients and patient care experiences. Reflective writing is a skill that may have an effect on empathic concern. We studied the effectiveness of reflective writing on nurturing empathy among medical students.

Énoncé des implications de la recherche

La réflexion est une compétence qui a le potentiel de développer la pensée de haut niveau telle que l'empathie et la compassion. Nous avons voulu étudier l'écriture réflexive comme moyen de développer l'empathie chez les étudiants en médecine. Une étude interventionnelle a été menée auprès de 73 étudiants en dernière année de médecine à l'aide du Toronto Empathy Questionnaire. Le questionnaire a été administré de manière anonyme avant et après un stage clinique. L'écriture réflexive a suscité de fortes réactions émotionnelles mais n'a pas amélioré les scores au questionnaire sur l'empathie. L'écriture réflexive sur les expériences de soins aux patients peut être utile dans les stages cliniques pour développer chez les étudiants en médecine certains concepts d'empathie tels que la compréhension du point de vue de l'autre et la compassion, sans pour autant augmenter les scores d'empathie à court terme.

Innovation

We conducted an interventional study using a pre/post design among 73 final-year medical students. We administered a validated 16-item instrument (Toronto Empathy Questionnaire) before and after the Family Medicine clerkship.⁵ During the four-week clerkship, students were asked to think about their patient care experiences and write a reflective essay. An orientation session for the students provided guidelines on reflective writing and a rubric. We compared empathy questionnaire scores (pre- and post-intervention). We evaluated students' reflective writings qualitatively using thematic

analysis. We did not collect any personal identifying information, and assured students of the absence of impact on course marks.

Evaluation

Empathy questionnaire scores did not improve after the clerkship (mean score 50.1 vs 49.0; $p = 0.84$; Table 1). Questionnaire scores did not differ between male and female students ($p = 0.13$). Scores for all six subdomains of empathy such as sensitivity and altruism were similar. Qualitative analysis showed the following empathy-related themes in students' reflective essays: emotional contagion, distress, humility, and self-awareness.

Table 1. Empathy questionnaire survey among final-year medical students

Characteristic	Pre-clerkship	Post-clerkship	p-value
Participating students	69	61	
• Women	61	51	
• Men	8	10	
Age (years)			
• Mean (SD)	23 (1.3)	23 (1.4)	
Empathy score			
• Mean (SD)	50.1 (7.7)	49.0 (8.0)	0.41
• Score < 45	25%	28%	
• Highest score	63	64	
• Lowest score	34	32	
Gender differences			
• Women's score	50.6 (7.9)	50.0 (7.6)	0.67
• Men's score	46.3 (5.5)	43.8 (8.4)	0.49

Notes: Empathy score can range from 0 to 64, with high scores indicating higher levels of empathy. Scores below 45 are indicative of below average empathy levels. P-values are based on one-way ANOVA tests. SD, standard deviation.

Next steps

Reflective writing during a clinical clerkship generated strong emotional responses among medical students without an increase in scores on the empathy questionnaire. Many of our students remained strongly aware of their feelings, expressing distress at witnessing inadequate care, and resisting enculturation process in themselves. Students, while troubled by inequities and financial barriers experienced by patients, were able to empathize with overburdened clinicians thus avoiding oversimplifying professionalism and its demands. We also saw evidence of students grappling with complexity and uncertainty when managing patients with multiple chronic diseases who were unable to follow physician's

recommendations due to psychosocial constraints. Reflective writing compelled students to think deeply about healthcare and entertain multiple contrasting perspectives. The goal of medical education is to develop competent, compassionate physicians.⁶ We, as medical educators, felt that narrative writing succeeded in enabling perspective taking among our students. Reflection appears to be a valuable activity. Reflection and empathy appear to be related and co-required for higher order competences. Due to the limitations of a single trial, we encourage further study to assess contextual factors. Future studies can assess long term effectiveness with the precondition that medical students are first oriented to the core concepts of empathy, compassion, perspective taking, and effective reflection. Overall, reflective writing may enhance perspective-taking in medical students as it generated strong emotional concerns about patients and healthcare.

Conflicts of Interest: The authors have no conflicts of interest to disclose.

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References

1. Boshra M, Lee A, Kim I, Malek-Adamian E, Yau M, LaDonna KA. When patients teach students empathy: a systematic review of interventions for promoting medical student empathy. *Can Med Educ J*. 2022 Nov;13(6):46-56. <https://doi.org/10.36834/cmej.73058>
2. Pavlova A, Wang CXY, Boggiss AL, O'Callaghan A, Consedine NS. Predictors of physician compassion, empathy, and related constructs: a systematic review. *J Gen Intern Med*. 2022 Mar;37(4):900-11. <https://doi.org/10.1007/s11606-021-07055-2>
3. Sheikh H, Carpenter J, Wee J. Medical student reporting of factors affecting pre-clerkship changes in empathy: a qualitative study. *Can Med Educ J*. 2013;4(1):e26-34. <https://doi.org/10.36834/cmej.36601>
4. Hashim MJ. Patient-centered communication: basic skills. *Am Fam Physician*. 2017 Jan 1;95(1):29-34.
5. Spreng RN, McKinnon MC, Mar RA, Levine B. The Toronto Empathy Questionnaire: scale development and initial validation of a factor-analytic solution to multiple empathy measures. *J Pers Assess*. 2009 Jan;91(1):62-71. <https://doi.org/10.1080/00223890802484381>
6. Hashim MJ. the art of healing - core values and goals of medicine, nursing and healthcare. *J Coll Physicians Surg--Pak*. 2019 Apr;29(4):299-300. <https://doi.org/10.29271/jcpsp.2019.04.299>