

BRIDGING THE GAP: FROM CLASSROOM TO CLINIC

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Abstract

Introduction: Students of clinical degrees such as medicine, dentistry, osteopathy, optometry etc. often find that the transition from theoretical lectures and technical practice to patient care in clinics is challenging. The Optometry Department at Hadassah Academic College Jerusalem designed a workshop called "Introduction to Patient Care" in order to bridge that gap. This workshop is given to second year students in the second semester, before they begin their clinical rotations at the start of their third year. The workshop has a maximum of 14 students who meet weekly for 13 weeks. The learning outcomes of the workshop are to develop communication skills, to implement self-reflection and critical thinking, to gain experience in analysing a clinical case, to formulate an evidence based (EBP) plan, and to advance the student's self confidence in a clinical scenario. The workshop uses the following active-learning pedagogical methods: Role play, Peer Assessment, Team Learning, Case Based Learning.

Methods: To test the learning outcome of self-reflection, the Groningen Reflection Ability Scale was administered before and after the workshop to evaluate the impact of the workshop on the student's ability to reflect. The anonymous questions explore the ability of self-reflection, empathic reflection, and reflective communication using 4-point Likert scale (1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree). The overall range score is 18-72 points. The overall score as well as each reflection type's score were calculated. The Mann-Whitney test was used to compare the scores before and after the workshop. We added open questions that required the students to present their position in specific types of reflection that were thematically analysed.

Results: 104 students were recruited for the study. 97 students responded before the workshop and 101 at the end of the workshop. The overall score showed significant improvement before and after the workshop respectively (58.06 ± 7.25 and 59.73 ± 6.74 , $p < 0.05$). In addition, a trend was seen in scores of self-reflection, empathetic and communication reflections but this did not reach a significant level. The open questions show that the workshop may trigger student's thinking about the importance of self-awareness, an empathetic approach and good communication skills.

Recommendations/Conclusions: We recommend the implementation of workshops of this kind in other clinical degrees. The workshop helps to develop self-reflection and interpersonal/communication skills of the student. Future plans include evaluation of the other learning outcomes.

Keywords: *Role Play, Reflection, Case Based Learning, Team Learning.*

1. Introduction

Students of clinical degrees such as medicine, dentistry, osteopathy, optometry etc. often find that the transition from theoretical lectures and technical practice to patient care in clinics is challenging (Flood & Robinia, 2014). The Optometry Department at Hadassah Academic College Jerusalem (HAC) designed a workshop called "Introduction to Patient Care" in order to bridge that gap. This workshop is given to second year students in the second semester, before they begin their clinical rotations at the start of their third year. The workshop has a maximum of 14 students who meet weekly for 13 weeks.

2. Objectives

The workshop uses the following active-learning pedagogical methods: Role play (Deepa & Ieva, 2012) (Rønning & Bjørkly, 2019) (Nestel & Tierney, 2007), Case Based Learning (Foutch, Awad-Amani & Belloli, 2020) (Thistlethwaite, 2012), Peer Assessment (Bostock, 2000) and Team Learning (Stanton, Sebesta & Dunlosky, 2021). The learning objectives of the workshop are: to develop communication skills (Lytton et al., 2019), to encourage self-reflection and critical thinking (Rønning & Bjørkly, 2019), to gain

experience in analysing an optometric case (Lytton et al., 2019), to formulate an evidence based (EBP) plan (Twa, 2019), and to advance the student's self confidence in a clinical scenario (Lytton et al., 2019).

3. Course structure

The students are divided into groups of 10-14. Each group has a facilitator. At the beginning of the semester the facilitator divides the students randomly into pairs. Before each weekly session a pair of students is given a case report of a virtual patient to prepare for the group. The case report consists of a short history describing the patient and their symptoms, and a record of the optometric examination. The pair of students prepares a role play in order to present the symptoms and history to the group. They also prepare a Power Point presentation (PPT) which includes: patient history (given as part of the case), clinical findings from the examination (given as part of the case), analysis of the clinical findings, treatment plan, Evidence Based Practice (EBP) to back up the chosen plan, and either a referral letter or a summary for the patient. The case reports are designed to cover a wide variety of patient types and optometric findings (Asokan et al., 2016). The pair also has to prepare an additional role play to present the findings and plan to the "patient" at the end of the session. Each student prepares and presents two cases during the semester.

4. Workshop structure

The workshop begins with the role play of the first part of the examination, whereby one student plays the optometrist who asks the patient for symptoms and history, and the other student plays the patient.

This role play is used to present to the group essential details about the patient, while at the same time it serves to develop the student's communication skills. After the role play, the group is encouraged to give feedback on the "optometrist's" communication skills and also regarding the content of the questions. The student playing the role of the optometrist is assessed on language, communication, manner and content.

The group is then divided into pairs. All pairs are given the examination results, and each pair has to upload to Padlet an Evidence Based analysis and plan for the patient. The facilitator grades the content of the Padlet. During this time the original pair of students who prepared the case present their "findings" and analysis and plan to the facilitator using professional language. The facilitator discusses their plan and asks questions, and reviews their PPT presentation. The students are graded on their presentation, and on their understanding of the examination, the findings, the analysis, the treatment plan, and the clinical research papers (EBP).

The group now comes together and each pair's analysis and treatment plan (on Padlet) are shown to the whole group. The clinical cases are carefully designed to allow for more than one option for treatment, and the group (helped by the facilitator) will have to discuss the different modalities and come to a consensus. The students need to use EBP to back up their arguments. The pair of students who prepared this case join in the discussion and will try to persuade the group to accept their suggested plan, but this does not always happen.

Once a treatment plan has been agreed on by the group, a second role play takes place. This time the facilitator plays the role of the patient while the student who originally played the patient plays the optometrist. The "optometrist" has to present the results of the examination along with the plan agreed upon in a clear, concise and empathetic manner to the patient. The "patient" will ask questions and often exhibit opposition. This gives the student experience in effective and empathetic communication.

After the second role play the group again gives peer assessment for the student who role played the optometrist. The student playing the optometrist is graded on his or her communications skills, including empathy towards the patient. Finally, the facilitator sums up the salient points from the workshop.

The pair who presented the case are graded on their role play, on their PPT presentation and on their understanding of the case. The rest of the group is graded weekly on their verbal input to the discussion and the analysis and plan from Padlet.

Overall grading for this course: 40% active participation (including Padlet, peer assessment, discussion), 10% for role play on first case, 10% first PPT presentation, 20% second role play, 20% second PPT.

5. Results

To test the learning outcome of self-reflection, the modified Groningen Reflection Ability Scale was administered before and after the workshop to evaluate the impact of the workshop on the student's ability to reflect. The anonymous questions explored the abilities of self-reflection, empathic reflection, and reflective communication using a 4-point Likert scale (1=strongly disagree, 2=disagree, 3=agree,

4=strongly agree). The overall range score was 18-72 points. The overall score as well as each reflection type's score were calculated. The Mann-Whitney test was used to compare the scores before and after the workshop. We added open questions that required the students to present their position in specific types of reflection that were thematically analyzed, 104 students were recruited for the study. 97 students responded before the workshop and 101 at the end of the workshop. Although we did not ask gender, the vast majority were female. The overall score showed significant improvement before and after the workshop respectively (58.06 ± 7.25 and 59.73 ± 6.74 , $p < 0.05$). In addition, a trend was seen in scores of self-reflection, empathetic and communication reflections but this did not reach a significant level. The open questions show that the workshop may trigger student's thinking about the importance of self-awareness, an empathetic approach and good communication skills (Doron et al., 2022).

The students were also asked to complete two feedback forms on the workshop, one specifically designed for the course, and one general form administered by the college. Results are shown in tables 1, 2 and 3.

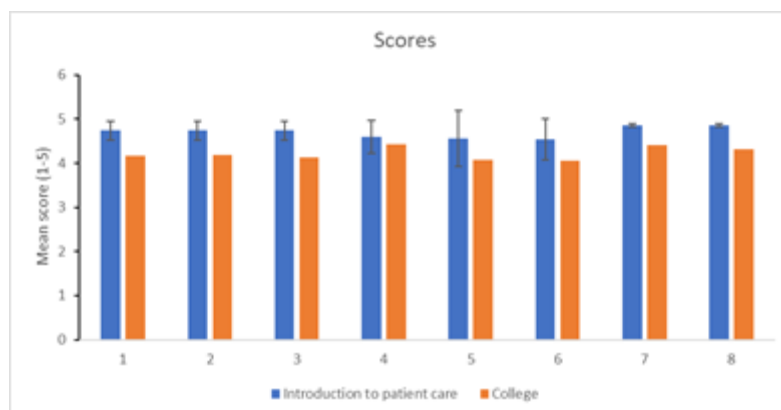
Table 1. Feedback from students using questionnaire designed specifically for course n=64.



Table 2. Questions from general feedback form from HAC.

The lessons were given in a clear and organized manner
The course resources helped to understand the material
The assignments contributed to understanding the course
The lecturer was available for help and questions
The teaching methods were appropriate for the course
The learning experience was positive
The course site is easy to navigate
The course materials were available, organized and suitable for study

Table 3. Feedback from students using general form from HAC n=65.



6. Discussion / conclusions

The feedback from the students shows a high level of satisfaction with the course, both with achieving the aims of this course and in comparison to other courses in the college. Towards the end of the semester students demonstrated a marked improvement in their communication and analysis skills during the workshop.

We recommend the implementation of workshops of this kind in other clinical degrees. The workshop helps to develop self-reflection and interpersonal/communication skills of the student. The course prepares students for patient interaction, increases the students' self-confidence, and enables them to integrate and apply their knowledge from different areas of the curriculum. In addition, the students learn the practical value of using EBP in clinical practice.

References

- Asokan, Rashima & Ramani, Krishna Kumar. (2016). Innovations in Optometric Education. *Sci J Med & Vis Res Foun.* 2016. 11-14.
- Bostock, S. (2000). Student peer assessment. *Learning Technology*, 5(1), 245-249.
- Deepa R & Ieva S (2012) Exploring the potential of role play in higher education: development of a typology and teacher guidelines, *Innovations in Education and Teaching International*, 49:4, 427-436.
- Doron, R., Eichler, R., & Rajhans, V. (2022). Effectiveness of online learning in improving optometry student's reflective abilities. *Journal of Optometry*. 2022 Nov 15:S1888-4296(22)00066-8
- Flood LS, Robinia K. (2014) Bridging the gap: strategies to integrate classroom and clinical learning. *Nurse Educ Pract.* Aug;14(4):329-32.
- Foutch, B K., Awad-Amani C, and Belloli Conner A. (2020) Case-Versus Lecture-Based Learning in a Public Health Course for Optometry Students: A Pretest-Posttest Design. *Pedagogy in Health Promotion*: 2022;8(1):41-48. doi:10.1177/2373379920944968
- Lytton, K., Woolley, T., Rasalam, R., Gorton, S., & Heggarty, P. (2019). Benefits of simulated General Practice clinics in the preparation of medical students for primary healthcare. *Education for Primary Care*, 30(5), 275-281.
- Nestel, D., Tierney, T. (2007) Role-play for medical students learning about communication: Guidelines for maximising benefits. *BMC Med Educ* 7, 3 <https://doi.org/10.1186/1472-6920-7-3>
- Rønning SB, Bjørkly S. (2019) The use of clinical role-play and reflection in learning therapeutic communication skills in mental health education: an integrative review. *Adv Med Educ Pract.* Jun 18; 10: 415-425.
- Stanton, J. D., Sebesta, A. J., & Dunlosky, J. (2021). Fostering metacognition to support student learning and performance. *CBE—Life Sciences Education*, 20(2):fe3. doi: 10.1187/cbe.20-12-0289
- Thistlethwaite, J, et al. (2012) The effectiveness of case-based learning in health professional education. A BEME systematic review: BEME Guide No. 23. *Medical teacher* 34.6: e421-e444.
- Twa, M. D. (2019). Implementing evidence-based clinical practice in optometry. *Optometry and Vision Science*, 96(8), 539-541.