

Online IPE Communication Module: Improving Students' Attitudes toward Interprofessional Practice (27)

Interprofessional Education Experience: Describing educational offerings when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes

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Background:

The lack of communication between healthcare providers causes medical errors; 70% of these errors are attributable to a failure in interprofessional communication. One of the most effective interventions to prevent miscommunications is introducing students to interprofessional Practice (IPP) and barriers to effective communications across different disciplines (Ruebling et al., 2014). Although there is a positive attitude toward IPE, there are some controversies over the subdomains of IPE and IPP. Kolb et al. (2017) reported that first-year medical and nursing students had a negative or neutral attitude to interprofessional interaction when medical students were more likely to have a negative attitude to interprofessional relationships. Evans, Sonderlund, and Tooley (2013) reported that online (a combination of synchronous and asynchronous activities) modules could significantly improve IPE subdomains, especially interprofessional interaction and interprofessional relationships, among students. Another study found that IPE can help students with "communication and teamwork" and "interprofessional relationships" (Ulrich, Homberg, Karstens, & Mahler, 2019).

The IPE Communication Module (IPECM) developed by the University of Michigan uses different asynchronous methods to help students learn more about barriers to effective communication and how to reduce their impacts on IPP. Using the IPECM for occupational therapy and public health students, Amini and Woodworth (2021) reported that students showed significant improvement in "communication and teamwork" and "interprofessional relationship," but no significant change in interprofessional interaction and interprofessional learning. To improve the interprofessional interaction, we added a case study and some synchronous activities, including question and answer sessions and case report presentations, to the module and included physician assistants and respiratory therapy students. After completing the IPECM, students from public health, occupational therapy, physician assistant, and respiratory therapy worked as an interprofessional team to manage a case with multiple injuries.

Actions, Methods or Intervention:

Assessment:

Students' opinions about the interprofessional practice were measured by the University of West England University (UWE) survey before and after taking the module and case study. UWE, a self-assessment tool, measures attitude toward interprofessional communication skills in four different subdomains: Communication and Teamwork (CTW), Interprofessional Relationship (IPR), Interprofessional Interaction (IPI), and Interprofessional Learning (IPL). There are 35 questions measured on a 4-point and 5-point Likert scale. For CTW, scores may vary between 9 and 36 when 9-20, 21-25, and 26-36 indicate positive, neutral, and negative attitudes toward CTW, respectively. The IPR score can vary from 8 to 40, when 8-20, 21-27, and 28-40 indicate positive, neutral, and negative attitudes. For IPI and IPL, 9-22, 23-31, and 32-45 indicate positive, neutral, and negative attitudes, respectively (Pollard, Miers, & Gilchrist, 2005). The surveys were anonymous and did not affect students' grades. The UM IRB exempted the study. Out of 92 students enrolled in the module, 48 completed both pre and post-test (Table 1).

Statistical analysis:

Because of the limited sensitivity to the categories, considering the limited number of participants, we compared the scores before and after using the Wilcoxon Signed-Rank test to compare changes before and after taking the module. A decrease in the score was considered shifting toward a positive attitude in

each subdomain.

Results:

The results of Wilcoxon Signed-Rank tests showed that attitude toward CTW, IPL, and IPR improved after taking the module significantly (Table 2).

When we separated students by each profession, OTD students showed the highest decrease in all subdomains, except IPL, in which PA students reported the highest reduction. Across all disciplines, RT students reported the smallest decline in all subdomains.

Lessons Learned:

Our study shows that the IPECM improved students' attitudes toward three out of four interprofessional communication subdomains, considered an effective intervention and IPE experience. Compared to our last year's experience (Amini and Woodworth, 2021), adding physician assistant and respiratory therapy students to the module, also the case study, improved IPL. Evans, Sonderlund, and Tooley (2013) tested the effect of an online interprofessional collaboration exploring the roles and responsibilities of different health professions; the last activity in their module was working on a case within an interprofessional team. They reported improvement in only two CTW and IPL subdomains using a combination of synchronous and asynchronous online IPE activities. Our study showed that educating students about effective communication and potential barriers accompanied by a case study can enhance attitude toward CTW, as Evans et al. reported; in addition, IPECM improved IPR significantly. The only subdomain that showed an increase in scores, shift from positive to neutral, was IPL.

Future Application and Next Steps:

We plan to revise the case and add more interactive and synchronous activities to the module. Next year, we also plan to add more interprofessional learning components to the IPECM.

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