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MEETING ABSTRACT

A9.2

**Interprofessional students' pharmacology workshop:  
intervention to improve health profession students' attitudes  
toward physician–pharmacist collaboration**

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**Background:** The rapid advancement in pharmacotherapy concomitantly increases the possibility of medical errors and leads to the increase of total costs of health care. Collaboration between physicians and pharmacists is recognized as an important factor for reducing medical errors and improving patient outcomes. Previous studies have shown that medical students have significantly less positive attitude toward interdisciplinary collaboration than pharmacy students. Therefore, the aim of the study was to increase the attitude in medical and pharmacy students toward collaboration between pharmacists and physicians by organizing an interprofessional students' pharmacology workshop.

**Methods:** The three-hour workshop was organized at the University of Split School of Medicine. Participants were medical ( $n=42$ , 4th–6th year) and pharmacy students ( $n=38$ , 4th–5th year). Inclusion criteria for participation in the workshop were completed courses of internal medicine and pharmacology for medical students, and general and specialized pharmacology for pharmacy students. Three complex clinical cases were presented to students during the workshop: hypertension, asthma and metabolic syndrome. Each student had to identify drug related problems (DRP) and suggest the changes of pharmacotherapy and lifestyle in order to achieve the desired therapeutic goal for patients described in the clinical cases. There were three groups of information about each clinical case: (i) general information that was available to all students, (ii) specific information available only to medical students (clinical guidelines, physiological measurements, laboratory values, etc.), and (iii) specific information available only to pharmacy students (OTC and phytomedicine intake, drug compliance, lifestyle, etc.). Medical and pharmacy students were not allowed to exchange their specific information in the first case. After they solved the first case independently, they realized that limitations of available information, due to lack of interprofessional collaboration resulted in limited identification of DRPs and misjudged actions for achieving the therapeutic goal. Therefore, participants spontaneously engaged to collaborate in order to detect all DRPs and to achieve the therapeutic goal for the other two patients. To determine attitudes toward collaboration, students had to complete a validated questionnaire ("Scale of Attitudes Toward Collaboration Between Pharmacists and Physicians", SATCP<sup>2</sup>; [1]) at the beginning and at the end of the workshop. The total SATCP<sup>2</sup> score (TS) was calculated and data are expressed as mean  $\pm$  SD. The data were analyzed by non-parametric statistical tests and the results were considered statistically significant at  $p < 0.05$ .

**Results:** Pharmacy students showed a more positive attitude toward collaboration than medical students, both before ( $58.8 \pm 3.7$  vs.  $48.1 \pm 7.3$ ) and after ( $60.1 \pm 4.0$  vs.  $52.9 \pm 8.4$ ) the workshop. However, there was a statistically significant increase of TS in both groups after the workshop (+1.3% vs. +2.2% for pharmacy students and +4.8% vs. +10% for medical students, as relative change from baseline value). Gender did not influence the results in any group.

**Discussion:** The interprofessional students' pharmacology workshop significantly improved attitudes toward collaboration between physicians and pharmacists in both students' groups, with more marked changes observed in medical students.

**Reference**

1. Van Winkle LJ, Fjortoft N, Hojat M: **Validation of an instrument to measure pharmacy and medical students' attitudes toward physician-pharmacist collaboration.** *Am J Pharm Educ*, 2012; 75(9):178. doi:10.5688/ajpe759178

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