# PEDAGOGICAL AND LEARNING OUTCOMES AFTER A WEBINAR IN UNIVERSITY STUDENTS

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## Background

A webinar is a web seminar that could be shared in nearly real time with remote locations, across geographically dispersed locations. Although web seminars are common at business level, their use as a tool in distance education is relatively recent, having attracted attention for its advanced technology that allows real-time communication, and enhances the interaction between the speaker and the listeners. This study aims to evaluate pedagogical outcomes of a training webinar session in the field of 'Obesity, Diet and Asthma'; and to compare the students' prior knowledge on the subject with the knowledge acquired after the webinar session, in university students from the Faculty of Nutrition, University of Porto.

## Methods

One hundred and twelve students, from the 2<sup>nd</sup> Grade of the Nutrition Lifecycle Course, from the Faculty of Nutrition, University of Porto were invited to participate in a webinar session in the field of 'Obesity, Diet and Asthma'. The webinar session was held in HD Telepresence Douro Room of the University of Porto, May 16 2011, at 2 pm. The webinar session was transmitted in real time (synchronous communication) to the classroom, through Collaboration Environment WEB Colibri, available from University of Porto, namely by the defined link (Link to the session: https://webconference.fccn.pt/colibri/public/FowardForParticipate.jsp?confid=6828; SessionID: 6828).

The 1h webinar session included a brief introduction to the subject, two presentations, 20 minutes each one, and moderation of questions from participants and final discussion. Two questionnaires were administered to participants: one pedagogical outcomes questionnaire of the webinar session, focusing on pedagogical issues, importance and relevance to knowledge on the topic and professional practice in future; and a questionnaire assessing knowledge and learning pre and post session. The pedagogical assessment of the webinar was held after the webinar, through a questionnaire adapted from a pedagogical assessment questionnaire used by the American Society for Nutrition, in similar webinars. Participation was voluntary and anonymous. Only participants who attended until the end of webinar and have answered to the both pre and post session questionnaires were included in the final statistical analysis.

### Results

One hundred and twelve students, 77.5 % female and between 19 and 33 years old, have participated in the webinar session. Fifty-five have answered to the pedagogical outcomes questionnaire, while 30 have answered to the learning questionnaire assessing knowledge in the field, pre and post session. Considering pedagogical assessment, most of the participants have considered the webinar session very positive, and they were in agreement regarding the usefulness of this tool for the acquisition of new knowledge and learning process. About 92.6 % of participants have considered the webinar session relevant to the learning process; 80.0 % for the professional practice; 94.4 % agreed that the webinar showed evidence linking obesity, diet and asthma; and 74.5 % considered the session content appropriate and balanced. About 89.1 % considered that the webinar session has provided ideas to help patients to develop changes regarding diet and body weight control, to reduce the risk of asthma or increased asthma control and 69.1% felt become more confident in their abilities to address this issue in practice with patients. Considering learning outcomes and the assessment of pre and post session knowledge, we observed a significant increase in the correct answers after the webinar session for all the questions.

## Conclusion

These results suggested that webinar sessions may have a very positive impact on the learning process, acquisition of knowledge and skills development in university students. Considering the global trend to increase the use of the new information technologies and the internet in the daily activities, this new approach should be included in pre and post graduate courses, in order to deliver skills to the future professionals and better prepare their learning activities throughout life (lifelong learning). Benefiting from the low cost and high potential for dissemination of the webinars, in the future should be very interesting to explore the possibility of using this tool for new approaches and content, and extended to different target audiences, including establishing national and international partnerships between institutions and Universities.