Training Tomorrow's Scientists

POSTER SUNUM ÖZETLERİ
[POSTER PRESENTATION ABSTRACTS]**PP-01****AN EXAMPLE OF A SPECIAL STUDY MODULE IN DOKUZ EYLUL SCHOOL OF MEDICINE: THE PROTECTIVE EFFECTS OF LIPOIC ACID VIA PI3K/AKT SIGNALING PATHWAY AGAINST ON CISPLATIN INDUCED TESTICULAR INJURY**

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Special Study Modules (SSMs) are a learning method which is given the students opportunity in order to search, study and carry out some experiments regarding their own concerns. Since 1997, SSMs are get off the ground in Dokuz Eylul University.

Here, we describe an example of a laboratory research SSM entitled "The Protective Effects of Lipoic Acid via PI3k/Akt Signalling Pathway Against on Cisplatin Induced Testicular Injury". The main purposes of this SSM to train the students about research methodology and practical laboratory work.

This SSM was planned as a mini-research project, and five second year medical students worked with together for it. They carried out western blotting and immunohistochemistry applications. They found total akt and p-akt protein expressions were decreased in the cisplatin induced damaged group compared to control group and the expressions were increased with the LA ($p < 0.05$). Immunohistochemical findings was similar to western blot findings. It was showed that LA can be used as a supporting agent in the treatment of cisplatin.

In the end, they gave some feed-backs and prepared a scientific poster and scientific report. According to feed-back results, students thought that a scientific research was really hard, but exciting activity.

Keywords: special study module, medical education, wet-lab study

PP-02**INVESTIGATION OF MIDWIFERY STUDENTS' APPROACH TO LEARNING BIOCHEMISTRY**

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Background: Approach to learning can be defined how the intend, behavior and study habits of student evolve according to perception of the learning task. The object of the research was to investigate the approach of midwifery students to learning of Biochemistry.

Materials and Methods: Research was a descriptive and a cross-sectional study. The population of the research consisted from students of 2017-2018 season 1st and 4th class of Manisa Celal Bayar University Health Science Faculty Midwifery Department (n:170). The data was collected using face-to-face interview technique. 86.47% (n:147) of the volunteer students were reached in a random way. Data were collected by using the "Introductory Information Form" (11 items) and the "Learning Approach Scale" (20 items) and evaluated in the SPSS package program by performing number, percentile, mean, standard deviation, independent t test, correlation analysis.

Results: The mean age of the students were 20.82±1.81. It was found that 95.2% of students stated that biochemistry lesson was necessary, 59.9 % of students think that their biochemistry knowledge was inadequate; 87.8% of them believe that the lesson would benefit their professional career. Mean score of deep approach for Learning Approach Scale was 34.13±6.07 (min:19,00-max:50,00), and mean score of superficial approach for Learning Approach Scale was 26.94±6.37 (min:15,00-max:50,00). There was a significant relationship between thinking that biochemistry lessons could facilitate their professional life with deep approach scale score ($p < 0.05$).

Conclusions: Students who thought that biochemistry is necessary for their professional career had a higher motivation for learning

biochemistry. It is proposed that creating effective and dynamic educational environment that supports deep learning is necessary for enhancing the output of learning of biochemistry.

Keywords: Midwifery Student, Biochemistry Lesson, Learning Approach

PP-03**ROLE AND LONG-TERM EFFECTS OF SPECIAL STUDY MODULES: RESEARCH TRAINING FOR MEDICAL STUDENTS**

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Special Study Modules (SSM) are integrated into the first three years of Dokuz Eylul University School of Medicine. The objectives of SSMs are to train the students in independent learning, team working, the basic principles of scientific methodology, and writing scientific report, preparing scientific poster and oral presentation for the results of scientific research.

Starting from this point, we designed a cross-sectional study to assess the role and long-term effects of SSMs on medical students. We chose five different wet-lab SSM that were carried out in Dokuz Eylul University Research Lab between years 2009-2014. We designed a survey that included 11 questions to assess long-term effects of SSMs and sent it via e-mail to totally 20 medical students who took these SSMs. The survey was focused on experimental and transferable skills.

Among 20 medical students, 16 of them (80%) participated in the study. Through this survey, contribution levels of SSMs on scientific and educational skills of students, current status of application of the competencies that during SSM, and their opinion regarding the SSMs were investigated. The most impressive data were related to their awareness of research techniques. 92.9% of participants thought that the SSM affected their awareness of research techniques. More than half of the participants indicated that they benefitted from SSM in the fields of writing a scientific report or paper, preparing an experimental plan, and doing oral presentation. 85.8% of students indicated that the SSMs made a significant contribution on their further educational life, for instance their specialist training.

In conclusion, we found that the SSMs that are designed for the medical students in Dokuz Eylul University Research Lab influenced the students positively in terms of scientific and educational skills not only when they were applied, but also in long-term period.

Keywords: special study modules; medical education; research culture; experimental skills; transferable skills

PP-04**HACETTEPE UNIVERSITY GRADUATE SCHOOL OF HEALTH SCIENCES BIOCHEMISTRY POST-GRADUATE PROGRAMME**

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Hacettepe University is one of the leading research universities in Turkey and Graduate School of Health Sciences is awarded by ORPHEUS since April, 2018. Biochemistry Post-Graduate Programme is a multidisciplinary programme conducted by the Department of Biochemistry of Medical and Pharmacy Faculties. Currently, there are 7 professors, 9 associate professors, 2 assistant professor, and 13 research assistants, 3 MSc. and 15 Ph.D. students are maintaining their education. During the first year of MSc, students take their courses and laboratory practice to evolve technical knowledge. Also, they learn how to prepare a research proposal. In the second year, they begin to carry out thesis experiments and complete MSc. programme. In the first year of Ph.D. training, the student starts to work with their supervisor, related to his/her own specific research interest. Ph.D. students are expected to undertake a formal programme of coursework to develop and enhance technical knowledge, in addition writing a research proposal for a grant and getting the approval of the ethical committee are major goals during the first 2 years. Following the defense exam, they start to work on thesis project. While doing interdisciplinary research, they are encouraged to apply for a grant to collaborate with other international