

The impressions on the 11th International Scientific Summer School 2014 in Enez, Turkey

This year the 11th International Scientific Summer School (ISSS), which since 2006 had already become a regular event, was held at June, 9-14. For these days the campus of Trakya University situated in Enez, Turkey, housed 26 participants from 7 countries. Enez is a very small and quite town on the shores of the Aegean Sea. It requires 2.5 hours bus trip to reach from here to the nearest big city, Edirne. This quietness and distance position were among the reasons for choosing this place as an accommodation for ISSS to create an atmosphere which conduce the intensive course without distraction of the participants (1).

ISSS is a joined initiative of the Journal of Electrocardiology, the Croatian Medical Journal, the Anatolian Journal of Cardiology, Monitor of Medicine and Balkan Medical Journal aiming to promote the young researchers in their scientific career giving them a key for better understanding the process of research study development, as well as to show the principles of interdisciplinary and international collaboration in research process (2). The organizers can accept applications from anyone working in the health sciences (e.g. nurses, biomedical engineers, physiologists, students, etc...) who want to improve their skills in doing research and academic writing. The main language used during the workshop is English. The course is based on the Research Practicum of the Duke University, Durham, NC, USA (3). The study process is based on the principles of intensive and active practical learning. The teaching method itself avoids lecturing, which typically gives the students only a role of passive listeners, giving the priority to the self-initiative of the participants, their interac-

tion between themselves and faculty members and so-called "learning-by-doing". The participants must go themselves through the whole process of study development following all its steps. The role of faculty members for this kind of training lies mostly in providing participants with the feedback and promoting their own activity during both group and plenary discussion. The challenges participants have to come through during the workshop include not only those connected with the project itself, but also with team building. All the groups consist of specialists in different fields who came from different countries and speak different mother languages.

This year faculty group included Ljuba Bacharova, Slovakia, the Executive Editor of the Journal of Electrocardiology, Gulmira Kudaiberdieva, Turkey, Former Executive Editor of the Anatolian Journal of Cardiology, Mustafa İnan, Turkey, Executive Editor of the Balkan Medical Journal, and the participants of previous summer schools: Alpay Arıbaş; Turkey, Çiğdem Koca; Turkey, Aleksei Savelev; Russia. The participants came from 7 countries - Albania, Poland, Russia, Slovakia, Macedonia, Kosovo and Turkey. Among them were clinical doctors, dentists, medical biologists, nurse and medical student.

The program of ISSS, as had already become typical, consisted of 4 workshops (Figure 1, 2). During the first one – introduction to an outcomes research study – the participants had to create their project. They had to invent the research question, hypothesis, research proposal goal and find the rational for the study. Among the main questions discussed here were the following:



Figure 1. Group "Turtles" is on workshop



Figure 2. Group "Charlie's Angels" is on Workshop



“Why is the research topic you selected important?”

“What are the known and unknown objectives of this topic and is there any existing gap in knowledge?”

“What is the hypothesis of the study?”

“What is the title of your study?”

One of the top challenges, faced within this workshop, was to find some common idea consolidating their fields, which could be extremely difficult but sometimes finally resulted in finding some extraordinary idea having surprisingly strong rational. This day was also the hardest one as the main difficulties of teambuilding had to be overcome in parallel with the work process. An additional factor complicating the situation was the time limitation. So far one of the aims of the Summer School was also to train the skills of effective time management, the groups had maximally 2 hours for each workshop. The first plenary discussion also played a crucial role in the promotion of the study process as the participants had to get used to the teaching method and find out the general principles of interaction with the tutors and each other (Figure 3, 4).

The participants were divided into four groups each consisting of five people:

- “Mosquitoes” (Eva Blahovcova, Slovakia; Ksenia Sedova, Russia; Selma Korkmaz, Turkey; Onur Yıldırım, Turkey; Erion Cerekja, Albania), whose project was called “Cellular changes in infarcted tissue after the stem cells treatment in porcine model”;
- “Noisy” (Zuzana Kankova, Slovakia; Marina Vaykshnorayte, Russia; Edin Demiri, Kosovo; Erdoğan Bulut, Turkey; Serkan Balta, Turkey) willing to find out “Does the combination of prenatal and postnatal noise exposure affect cardiovascular parameters?”;
- “Turtles” (Arber Gashi, Kosovo; Sezin Fıccıoğlu, Turkey; Kıymet Tabakçioğlu, Turkey; Maros Kolomaznik, Slovakia; Çağatay Oltulu, Turkey) with the project called “DNA damage caused by Adalimumab on healthy liver cells”;
- “Charlie’s angels” (Enis Redjep, Macedonia; Emine Dilek, Turkey; Sinem Bağcı, Turkey; Silvia Smolarova, Slovakia; Agnieszka Narkun, Poland) whose project title was “Standard vs. intensive dietary advisement in hypertensive children with obesity”.

It was surprising in comparison to the previous ISSS that 3 of 4 projects were experimental versus only one clinical. It may reflect the difference in the consistency of participants with more prominent proportion of non-clinical specialists.

The second workshop (and the second day of school) opened out the way to the methods section. The participants started to deal with the concepts of study population and outcomes. They had to understand the benefits and drawbacks of various types of study design, choose a study population in accordance to the hypothesis and rational of their project, start the study design developing. Very often on this step the groups found out some mismatches in their initial idea which had not been seen at first. It could lead to massive changes in the initial concept or even to its total revision.



Figure 3. Preparing the presentation



Figure 4. During the plenary discussion



Figure 5. Lunch in Edirne

The third workshop continued the methods section turning the participants towards the discussion of data collection and analysis. Here the groups had to describe the process of collection, analyzing and interpretation of the study data. They needed to formulate the type of their study: whether it is prospective or retrospective, cross-sectional or longitudinal, observational or interventional. Perception of these terms along with those of outcome and predictor variables helps to structure understanding of the study developing process and to unite the goal and the hypothesis of the study with the technical aspects of its holding.

The final, fourth, workshop was focused on the research administration. The participants were encouraged to develop a project plan and time line along with the development of study budget. The particular importance of this stage is in showing the feasibility of the project and the ability of the team to embody the speculative idea of the virtual research into the framed and doable project. One of the questions discussed within this workshop was that of the potential obstacles of the study and the ways of overcoming them.

Apart from the workshops there was a half-day social program including a trip to Edirne, the second capital city of Ottoman Empire. The participants visited Selimiye mosque built by Mimar Sinan, and Bayezid II Külliye Health Museum and were also welcomed by Prof. Dr. Yener Yörük, Rector of Trakya University in Edirne during an excellent lunch on the shores of the Meriç River (Figure 5).

Generally, this intensive, short course turns to be very useful for the young scientists as it simulates the situation of develop-

ing the project under the circumstance of very strong time limitation which finally helps to lite out the connection between the different steps of this process and the logical structure of it. On the other hand, it was surprising to see the gradual changes in the mood and behavior of the participants: from the first day discussions primarily conducted by the faculty members with the shyness and confusion easily seen on the faces of participants towards the plenaries of the last workshop which required the minimal participation of the faculty and were even moderated by the participants themselves. There was another amazing sign: while at the first day during the lunch or dinner time the participants had chosen table to seat in accordance with their nationality, up to the last day they preferred to seat down together with their group members that made the team building process literally visible.

It worth mentioning that this type of learning shows impressive results forcing the participants to use their already existing but still passive knowledge and giving them some new tools necessary for their research work.

Since 2006 many young researchers went through this training and gained more skills necessary for the research work and academic writing (4, 5). The positive impact of these gains to a daily life was seen as a significant improvement in the academic productivity of the participants (5). Also, we are happy to see that some of the participants of previous Summer Schools have now returned as new faculty members supporting the further growth of the Summer School initiative.

The other benefit of ISSS definitely lies in the creation of international and interdisciplinary scientific communication



Figure 6. After the workshop. Sitting: Emine Dilek, Agnieszka Narkun, Gulmira Kudaiberdieva, Ljuba Bacharova, Mustafa İnan, Alpay Arıbaş, Aleksei Savelev, Çiğdem Koca, Selma Korkmaz. Standing: Enis Redjep, Silvia Smolarova, Sinem Bağcı, Maros Kolomaznik, Eva Blahovcova, Erion Cerekja, Ksenia Sedova, Onur Yıldırım, Edin Demiri, Serkan Balta, Çağatay Oltulu, Arber Gashi, Zuzana Kankova, Sezin Fıçıcıoğlu, Kıymet Tabakcıoğlu, Erdoğan Bulut, Marina Vaykshnorayte

network (Figure 6). The role of this fact can hardly be overestimated considering the tendency of globalization which has already become a highlight of the modern world and is of especial value for the progression of scientific research in the beginning of XXI century.

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Alpay Arıbaş¹, Aleksei Savelev²

¹Department of Cardiology, Meram Faculty of Medicine, Necmettin Erbakan University, Konya-Turkey

²Scientific, Clinical and Educational Center "Cardiology", Faculty of medicine, St. Petersburg State University, St. Petersburg-Russia

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