The impact of “Kids Save Lives” program on Knowledge, Skills and Attitude of Greek students

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Purpose: To evaluate the level of theoretical knowledge, willingness to perform Cardiopulmonary resuscitation (CPR) and active skills of Greek secondary school students on the subject of Basic life Support before and after a “Kids Save Lives” program.

Material – Method: Data collection took place on the academic period of 2017-2018 and was performed in secondary schools of Thessaly’s region. A total of 2408 students (52.2% female, mean age 14.7 years) participated on the “Kids save Lives” program according to the European Resuscitation Council (ERC) and World Health Organization (WHO) statement. A 12-question questionnaire was answered by the students before and after the “kid saves lives” program, while practical skills were evaluated on manikins by experienced ERC Basic Life Support (BLS) Instructors. The answers were evaluated and a total percentage of the correct answers were calculated. All questions had the same impact on the total.

Results: The training improved significantly the theoretical knowledge regarding Cardiopulmonary resuscitation (CPR), with the percentage of correct answers being 48.44% and 81.36%, before and after the course respectively (p<0.001). The increase on the percentage of correct answers both before and after the

courses between different school grades was linear with the highest increase being recorded on the C Lyceum Grade (Final Secondary School Grade) as it is shown on the chart. The participants willingness to perform bystander CPR significantly increased after the completion of the course (92.3% before to 96.9% after, p<0.001). Regarding knowledge on theoretical questions, only 25% of the participants could recognize CA as a threshold, with that percentage reaching 69% at the end of the course (p<0.001). More than 70% of the students answered correctly 8 of the 11 questions after the completion of the 2hr course. Almost all of the participants (98.9%) could

Percentage of correct answers to theoretical knowledge questions before and after the “Kids Save Lives” course.

Photo taken from the 1st official ERC BLS course in a Greek school of Efseinoupoli Magnisias (<https://www.erc.edu/news/greek-students-save-lives>).

recognize the correct position near the victim and 91% performed chin lift maneuver and recognized cardiac arrest. More than 90% of the students performed chest compressions on the correct position by placing their hands on the center of the chest, as was shown by their instructors.

75% of the participants performed adequate chest compressions, whereas 25% did not reach the desired compression depth of 5 to 6 cm. This can be attributed to the physical effort needed and was statistically verified with the male participants being more effective [84.2% and 65.4% of the male and female students, respectively performed acceptable chest compressions (p<0.001)]. Almost 90% of the students had the desired compression rhythm. The physique of the participants also played a key role

Percentage of Correct Answers to the Theoretical Knowledge Questions

Theoretical knowledge Questions	% of correct answers	
	Before the course	After the course
1. Occurrence of CA	81.9	88.1
2. Recognition of CA	25.5	68.5
3. Recognition of Breathing	57.3	95.3
4. EMS call	93.6	98.4
5. Initial steps during CPR	76.3	90.3
6. Chest compressions/rhythm	9.8	78.3
7. Chest compressions/ratio	53.4	90.4
8. Postion of hands	57.2	84.1
9. Knowledge on resque breaths	15.3	53.5
10. Knowledge on AED's	46.3	84.6
11. CPR sequence of actions	46.3	70.8

with the male students having better results (p<0.05).

Conclusions: The overall results strongly depict the benefits of “Kids Save Lives” program by improving the

theoretical knowledge, the practical skills and the attitude of Greek students towards CPR and indicate the necessity of implementation in a greater scale nationwide.