

ECOCARDIOCHIRURGIA 2010

CATENA DELLA SOPRAVVIVENZA

La mia esperienza personale....
interessante e divertente



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BACKGROUND

- ◆ Most witnessed out-of-hospital cardiac arrest (OHCA) do not receive bystander cardiopulmonary resuscitation (CPR).
- ◆ The incidence of lay persons' CPR could be increased by widespread training.
- ◆ We thought to evaluate the effect of distribution of CPR educational material to high school students in the area of Como, Italy.

THE COMOCUORE EXPERIENCE

- ◆ From January 2008 to October 2009 we distributed 3200 resuscitations manikins to pupils (62% males, mean age 16.5 ± 0.8 years) at 20 high schools in the area of Como.
- ◆ Afterwards, they were encouraged to train CPR at home with friends and relatives (second tier) utilizing the kit.
- ◆ Eight months afterwards a questionnaire was randomly submitted to a sample of 600 students (19% of the distributed manikins).

THE COMOCUORE EXPERIENCE



CARDIOPULMONARY RESUSCITATION TRAINING IN HIGH SCHOOL ADOLESCENTS BY DISTRIBUTING PERSONAL MANIKINS. THE COMO CUORE EXPERIENCE IN THE AREA OF COMO, ITALY.

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Purpose of the study: Bystander CPR improves survival after out-of-hospital cardiac arrest (OHCA). Nevertheless, witnessed OHCA infrequently receive bystander CPR. Previous studies demonstrated the feasibility of school children self training in CPR by distributing personal manikins. We thought to evaluate the effect of distribution of CPR educational material to high school students in the area of Como.



Materials and methods: from January to April 2008 Como Cuore, a no-profit association aimed at reducing cardiovascular morbidity, distributed to pupils (15-18 yr) 2000 resuscitation manikins Mini Anne (Laerdal Medical, Stavanger, Norway) with a teaching DVD. All students had a 40 minutes school training in CPR (Fig 1). Afterwards, they were encouraged to retrain with friends and relatives utilizing the Mini Anne kit. 8 to 10 months afterwards a questionnaire was submitted to a sample of 358 students (195 females) 17.9% of the distributed manikins.

Results: Project and CPR training scoring are depicted in Fig 2: 54.2% revised CPR maneuvers at home with the manikin, 45% did not, 0.5% doesn't know, 57.6% declared their availability to practice CPR maneuvers if necessary, 41.6 were still not available, 0.8 didn't know (Fig 2). One pupil performed an effective CPR during mother's OHCA. The second tier consisted of 641 persons (multiplier effect: 1.79 per pupil).

Conclusions: likewise similar experiences in Europe we found that CPR training can be disseminated using personal manikins distributed to pupils. Multiplier effect was close to 2. Most scholars declared themselves rather trained and willing to start bystander CPR if necessary. One successful CPR was effectively performed.

Conflict of interest: none

Fig. 1

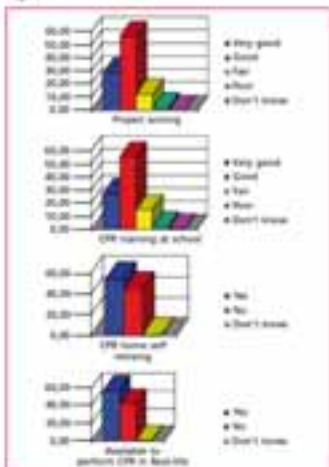


Fig. 2



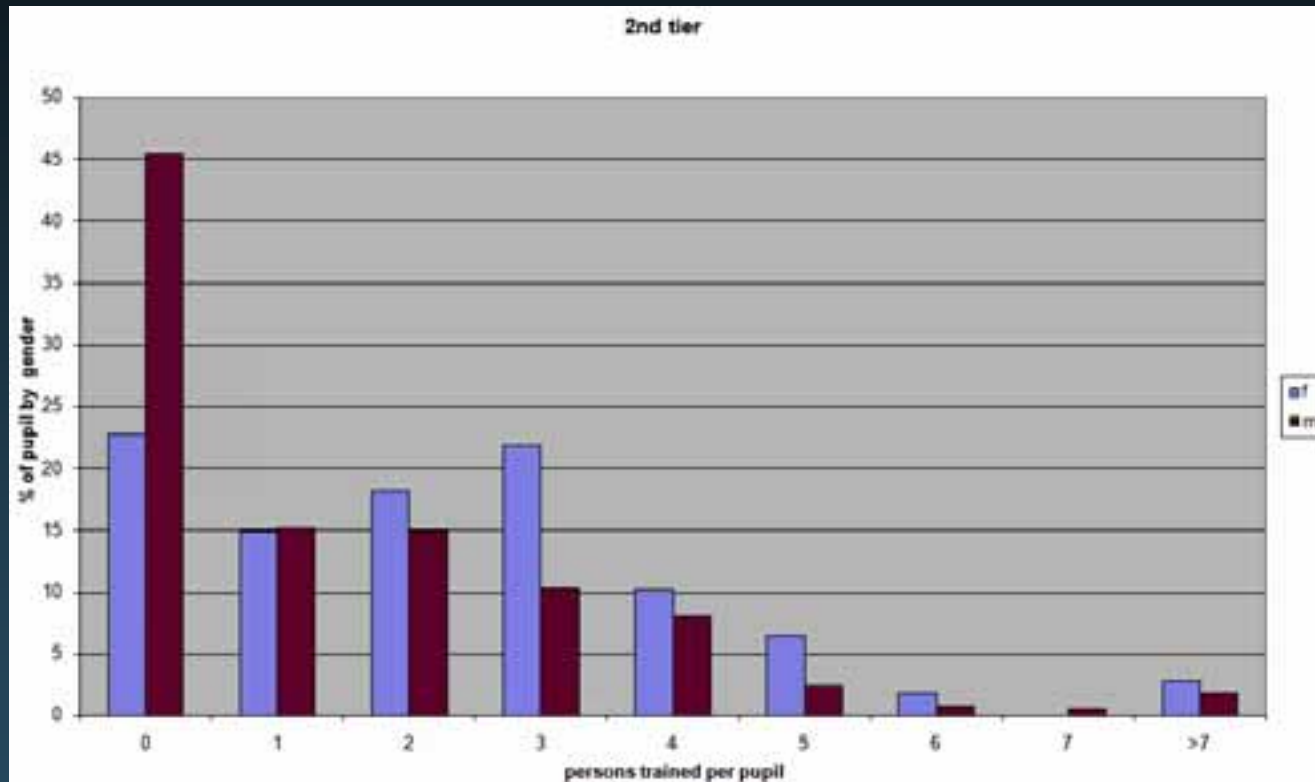
THE COMOCUORE EXPERIENCE

TABLE 2. Results from 600 questionnaires returned from schoolchildren

Questions	Answer	N°	Percentage (%)
1. Had you previously heard of CPR ?	Yes	472	78.6
	No	127	21.2
	NA	1	0.2
2. Have you previously attended a CPR course?	Yes	104	17.3
	No	494	82.3
	NA	2	0.4
3. How is your evaluation of the training ?	Very good	162	27
	Good	340	56.7
	Fair	85	14.1
	Poor	11	1.8
	Do not know	2	0.4
4. How was the quality of the training material ?	Very good	142	23.6
	Good	260	43.3
	Fair	139	23.2
	Poor	53	8.8
	Do not know	6	1.1
5. Did you revise CPR at home with your personal manikin ?	Yes	300	50
	No	296	49.2
	NA	4	0.8
6. Do you think to have learned the basics of CPR ?	A good deal	320	53.3
	Sufficiently	250	41.7
	Not much	28	4.6
	Do not know	2	0.4
7. Do you feel yourself inclined to practice CPR if necessary ?	Yes	374	62.2
	No	222	37
	Do not know	4	0.8

- ◆ 95% pupils considered themselves enough trained in CPR
- ◆ 62.3% declared their availability to effectively practice CPR if necessary.
- ◆ One pupil performed an effective CPR during mother's OHCA.

THE COMOCUORE EXPERIENCE



- ◆ The 600 kits had been used to train 1058 from the second tier (mean, 1.77 persons per pupil; 95% CI 1.62 to 1.93).
- ◆ Boys had a significantly lower multiplier effect than girls: 1.45 ± 1.01 vs 2.26 ± 1.89 ($P < 0.0001$).

THE COMOCUORE EXPERIENCE

- ◆ **Conclusions:** CPR training can be disseminated using personal manikins distributed to pupils. Most scholars declared themselves rather trained and willing to start bystander CPR if necessary. One successful CPR was effectively performed.

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