societies

MDPI

Appendix A

1

Evaluation questionnaire on the acquisition of Basic Life Support skills in 10th grade students

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I – Sociodemographic information			
A	Gender Male ❑1 Female ❑2		
B	Age ____ years old1	**C**	Completed 9th grade in the academic year _____/_____ 1
D	Designation of the course currently attended: Course of _____ 1		
E	School Grouping attended and location _____		

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II – Theoretical knowledge

	Please mark with an X your disagreement or agreement for each of the following statements.	Disagree	Agree
1	Basic Life Support (BLS) is any form of chest compression or artificial ventilation.	❑1	❑2
2	The goal of BLS, performed by the person who witnessed an out-of-hospital cardiac arrest (OHCA), is to maintain breathing and circulation until differentiated help arrives.	❑1	❑2
3	A Chain of Survival (CoS) is composed of four links of equal importance, corresponding to procedures in the recovery of a victim in OHCA.	❑1	❑2
4	The application of BLS measures, by the person who witnessed an OHCA, increases the likelihood of victim survival up to three times, when initiated within the first three minutes after collapse.	❑1	❑2
5	The links of the CoS are sequentially: early BLS initiation (resuscitate); early EMS access (dial 112); early defibrillation (restore); early ALS (stabilise).	❑1	❑2
6	Before approaching a victim, the rescuer must ensure safety for himself, for the victim and for others.	❑1	❑2
7	In OHCA, even if safety conditions are not guaranteed for the rescuer, BLS manoeuvres should be initiated.	❑1	❑2
8	During BLS contact with the victim's blood or other body fluids should be avoided (ex.: respiratory secretions, nasal secretions, sweat, tears, vomit).	❑1	❑2
9	Even if the rescuer does not have a pocket mask available, he/she can perform artificial ventilations on the victim of cardiac arrest (e.g. mouth-to-mouth).	❑1	❑2
10	When approaching the victim, one should look for clues as to what may have caused the emergency.	❑1	❑2
11	For the purposes of BLS, an infant is considered to be a baby up to two years of age.	❑1	❑2
12	To assess the reactivity of an adult victim, the rescuer stands to the side of the victim and lightly touches their shoulders and calls out to them.	❑1	❑2
13	A victim is considered unresponsive if they open their eyes but do not move or speak.	❑1	❑2
14	A victim who reacts to the assessment of his or her state of consciousness should be kept in the position in which he or she was found.	❑1	❑2
15	It is unnecessary to call 112 for help with a victim who is responsive.	❑1	❑2
16	Airway permeabilization should always be carried out in the case of an unresponsive victim.	❑1	❑2
17	The method of choice for airway patency in adults and children is head extension and chin elevation.	❑1	❑2
18	When permeabilizing the infant's airway, the ear should be aligned with the axis of the trunk.	❑1	❑2
19	Airway permeabilization, in situations of suspected trauma, is done with head extension and chin elevation.	❑1	❑2
20	Permeabilizing the airway and restoring breathing are essential goals in BLS.	❑1	❑2
21	Once the airway has been permeated, breathing should be assessed by observing chest movements, listening for breath sounds coming from the mouth/nose and feeling the exhaled air on the rescuer's face.	❑1	❑2
22	The breath assessment lasts up to 15 seconds.	❑1	❑2
23	A victim who is breathing normally should be placed in lateral safety position (LSP).	❑1	❑2
24	In assessing signs of breathing, a sigh from the victim is equivalent to breathing.	❑1	❑2
25	When a rescuer is unsure if the victim is breathing normally, they should act as if breathing is present.	❑1	❑2

26	If a child does not show signs of breathing, while maintaining airway patency, any obvious obstruction should be carefully removed.	❑1	❑2
27	A child should be checked for signs of spontaneous circulation (e.g. movement, coughing) within 10 seconds.	❑1	❑2
28	In infants, the search for signs of circulation may be by brachial or femoral pulse.	❑1	❑2
29	A child who has signs of circulation but is not breathing should receive up to one insufflation with exhaled air every 3 seconds.	❑1	❑2
30	A child without signs of circulation should receive 15 chest compressions alternating with two inflations.	❑1	❑2
31	LSP applies to victims who are unresponsive and not breathing effectively, pending the arrival of the emergency team.	❑1	❑2
32	A victim who recovers breathing after OHCA but remains unresponsive should be placed in LSP.	❑1	❑2
33	LSP ensures airway permeability.	❑1	❑2
34	LSP in infants may be replaced by lying the victim sideways, using a pillow or a folded sheet placed behind at back level.	❑1	❑2
35	An unconscious spontaneously breathing child should be placed in LSP following the same procedures as for an adult.	❑1	❑2
36	If an adult victim is not breathing normally, signs of circulation should be checked immediately before activating 112.	❑1	❑2
37	When calling 112, even if the victim can talk, the first-aider should provide the relevant information.	❑1	❑2
38	The exact location of the victim is decisive for the speed of rescue.	❑1	❑2
39	One should follow the advice of the operator who answers the phone, even if it takes a long time.	❑1	❑2
40	In an adult patient, 112 should be called as soon as no sign of breathing is detected.	❑1	❑2
41	In adult OHCA, 30 compressions should be performed on the external.	❑1	❑2
42	In adults, chest compressions should be interspersed with two inflations.	❑1	❑2
43	Chest compressions should be performed without loosing / removing the clothes covering the victim's thorax.	❑1	❑2
44	Resuscitation manoeuvres are stopped if the victim has a spontaneous opening of the eyes and reassessed.	❑1	❑2
45	Chest compressions, in adults, are performed on the lower half of the sternum.	❑1	❑2
46	In an adult patient, after assessing the signs of respiration, one should assess signs of circulation, such as the existence of a pulse.	❑1	❑2
47	After detecting that a child is not breathing normally, 5 insufflations should be performed.	❑1	❑2
48	Chest compressions in infants are performed on the lower half of the sternum, one finger above the xiphoid appendix.	❑1	❑2
49	Chest compressions on a child should depress the chest by at least 4 cm.	❑1	❑2
50	In an infant the chest compression is done with two fingers.	❑1	❑2
51	In a child the chest compression can be done with one hand only or using both hands.	❑1	❑2
52	In paediatric BLS, with only one resuscitator, the manoeuvres are maintained for one minute and only then, if still alone, is 112 called.	❑1	❑2
53	A victim of airway obstruction, by a foreign body, places his hand, in a sign of distress, in the area of the thorax.	❑1	❑2
54	In severe foreign body airway obstruction, breathing is loud and the victim maintains the effective cough reflex.	❑1	❑2
55	The foreign body choking emergency algorithm consists of the application of up to five back blows followed by up to five chest thrusts.	❑1	❑2
56	In an infant with airway obstruction due to a foreign body, back blows and chest compressions are applied.	❑1	❑2
57	In a mild airway obstruction by a foreign body, the victim should be suggested to cough.	❑1	❑2

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III – Perceptions about the theoretical training received

Please mark with an X your evaluation regarding the theoretical training received in each of the following topics.	The topic was not addressed	I don't feel prepared	I feel unprepared	I feel well prepared	I feel very well prepared

58	CoS and survival rate in OHCA.	❑1	❑2	❑3	❑4	❑5
59	Assessment of safety conditions when approaching a victim.	❑1	❑2	❑3	❑4	❑5
60	Assessment of the adult patient's response.	❑1	❑2	❑3	❑4	❑5
61	Assessment of the paediatric patient response.	❑1	❑2	❑3	❑4	❑5
62	Airway permeabilization.	❑1	❑2	❑3	❑4	❑5
63	Assessment of respiratory signs	❑1	❑2	❑3	❑4	❑5
64	Assessment of circulation signals.	❑1	❑2	❑3	❑4	❑5
65	Alarm procedures in case of emergency.	❑1	❑2	❑3	❑4	❑5
66	Adult BLS algorithm.	❑1	❑2	❑3	❑4	❑5
67	BLS infant and child algorithm.	❑1	❑2	❑3	❑4	❑5
68	Distinction between severe and mild foreign body airway obstruction.	❑1	❑2	❑3	❑4	❑5
69	Relief for mild airway obstruction.	❑1	❑2	❑3	❑4	❑5
70	Relief for severe airway obstruction in adults.	❑1	❑2	❑3	❑4	❑5
71	Relief for severe airway obstruction in an infant.	❑1	❑2	❑3	❑4	❑5
72	LSP.	❑1	❑2	❑3	❑4	❑5

73 On a scale of 1 (*very poor)* to 10 (*excellent*), please rate the theoretical training received on BLS. ***Please place an X in only one of the fields***

1	2	3	4	5	6	7	8	9	10
❑1	❑2	❑3	❑4	❑5	❑6	❑8	❑8	❑9	❑8

IV – Perceptions about the practical training received

Please mark with an X your evaluation about the practical training received in each of the following subjects.		The topic was not addressed	I don't feel prepared	I feel unprepared	I feel well prepared	I feel very well prepared
74	Practical training on adult patient response assessment.	❑1	❑2	❑3	❑4	❑5
75	Practical training on assessment of the paediatric patient response.	❑1	❑2	❑3	❑4	❑5
76	Practical training on airway permeabilization.	❑1	❑2	❑3	❑4	❑5
77	Practical training on assessment of respiratory signals.	❑1	❑2	❑3	❑4	❑5
78	Practical training on assessment of traffic signs.	❑1	❑2	❑3	❑4	❑5
79	Practical training on emergency alarm procedures.	❑1	❑2	❑3	❑4	❑5
80	Practical training on BLS algorithm for adults.	❑1	❑2	❑3	❑4	❑5
81	Practical training on adult chest compressions.	❑1	❑2	❑3	❑4	❑5
82	Practical training on adult artificial ventilation.	❑1	❑2	❑3	❑4	❑5
83	Practical training on paediatric BLS algorithm.	❑1	❑2	❑3	❑4	❑5
84	Practical training on chest compressions in children.	❑1	❑2	❑3	❑4	❑5
85	Practical training on artificial ventilation in children.	❑1	❑2	❑3	❑4	❑5
86	Practical training on chest compressions for babies.	❑1	❑2	❑3	❑4	❑5
87	Practical training on artificial ventilation in infants.	❑1	❑2	❑3	❑4	❑5
88	Practical training on adult airway obstruction relief.	❑1	❑2	❑3	❑4	❑5
89	Practical training on relief of severe airway obstruction in infants.	❑1	❑2	❑3	❑4	❑5
90	Practical training on LSP.	❑1	❑2	❑3	❑4	❑5

91 On a scale of 1 (*very poor*) to 10 (*excellent*), please rate the practical training received in BLS. ***Please place an X in only one of the fields***

1	2	3	4	5	6	7	8	9	10
❑1	❑2	❑3	❑4	❑5	❑6	❑7	❑8	❑9	❑10

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V – Perceptions on skills acquisition

Please mark with an X your evaluation regarding the skills acquired in each of the following topics.		The topic was not addressed	I don't feel prepared	I feel unprepared	I feel well prepared
92	Skills on how to ensure the safety of the victim and resuscitator.	❑1	❑2	❑3	❑4
93	Skills on assessing the response of the adult patient.	❑1	❑2	❑3	❑4
94	Competencies on the assessment of the paediatric patient response.	❑1	❑2	❑3	❑4
95	Airway permeabilization skills.	❑1	❑2	❑3	❑4
96	Skills in assessing signs of breathing.	❑1	❑2	❑3	❑4
97	Skills in assessing signs of circulation.	❑1	❑2	❑3	❑4
98	Skills in emergency alarm procedures.	❑1	❑2	❑3	❑4
99	Skills on the BLS algorithm for adults.	❑1	❑2	❑3	❑4
100	Skills about where to place your hands to do chest compressions for adults.	❑1	❑2	❑3	❑4
101	Skills to perform compressions with adequate force.	❑1	❑2	❑3	❑4
102	Skills to perform compressions at the appropriate frequency.	❑1	❑2	❑3	❑4
103	Adult artificial ventilation skills.	❑1	❑2	❑3	❑4
104	Skills on quantity and ratio of compressions/ventilations.	❑1	❑2	❑3	❑4
105	Skills to stop BLS when justified.	❑1	❑2	❑3	❑4
106	Paediatric BLS algorithm skills.	❑1	❑2	❑3	❑4
107	Skills on child chest compressions.	❑1	❑2	❑3	❑4
108	Skills on artificial ventilation in children.	❑1	❑2	❑3	❑4
109	Baby chest compressions skills.	❑1	❑2	❑3	❑4
110	Infant artificial ventilation skills.	❑1	❑2	❑3	❑4
111	Skills in relief of severe airway obstruction in adults.	❑1	❑2	❑3	❑4
112	Skills in the relief of severe airway obstruction in infants.	❑1	❑2	❑3	❑4
113	LSP skills.	❑1	❑2	❑3	❑4

114 On a scale of 1 (*very poor*) to 10 (*excellent*), please rate your skills to intervene in BLS. ***Please place an X in only one of the fields.***

1	2	3	4	5	6	7	8	9	10
❑1	❑2	❑3	❑4	❑5	❑6	❑7	❑8	❑9	❑10

7

q115-q128: Questionnaire Park not analysed in this paper. 8

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VII – Community intervention

Indicate with X the answer(s) that best describe the situation described.

129 If you are trained in BLS, indicate possible constraints that would prevent you from acting in case of CPR.

❑1 The victim being a relative ❑2 The victim being a friend ❑3 Lack of ventilation mask ❑4 Suspicion that the victim might have a contagious disease ❑5 There are many observers on site ❑6 The victim suffers an ostentatious traumatic accident, with other injuries ❑7 Another constraint.

129 a) Please indicate which:_____

130	On a scale of 1 (very weakly motivated) to 10 (highly motivated), please evaluate your motivation to intervene in BLS. ***Please place an X in only one of the fields***

1	2	3	4	5	6	7	8	9	10
❑1	❑2	❑3	❑4	❑5	❑6	❑7	❑8	❑9	❑10