



**Klinik und Poliklinik für Psychiatrie,
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des Kindes- und Jugendalters**

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Köln, den 20.06.2024

To whom it may concern

Posttraumatic stress disorder (PTSD) is a condition characterized by persistent re-experiencing of the traumatic event, avoidance of traumatic triggers, negative alterations in cognition and mood, and increased arousal and reactivity (American Psychiatric Association, 2013).

Its exact pathophysiological mechanisms are not fully elucidated, however, a subjectively overwhelming trauma is exceeding the personal resources to cope with the experience. The extreme event exceeds brain's capacity to integrate the traumatic event into biographic memories. Thus it remains isolated, and with its sensory and emotional aspects "burns" unprocessed into the subjects memory. These memories intrude into conscience afterwards and persistently alter the brain's arousal level. The severity of the traumatic event, such as witnessing the death of a family member, close person or even unknown person, plays a role, which is moderated by the subjective experience of the situation and the self-efficacy / coping strategies to face the difficult situation.

A concern about teaching cardiopulmonary resuscitation (CPR) to school children is that compulsory teaching of CPR could increase their vulnerability to posttraumatic stress disorder and / or feelings of guilt by increasing situations where young children who cannot bear the responsibility to successfully resuscitate a victim or feel guilt because they were taught how to re-animate, but could not manage to save this life.

However, when CPR is introduced and taught in a way which teaches adequate knowledge about the probability to successfully resuscitate (low despite correct immediate CPR) and their personal age-dependent responsibility (none – the victim is dead already, there is nothing to lose, but everything to gain in case that the school child is lucky and the resuscitated subject survives without permanent brain damage), CPR training increases self-efficacy (the child can do something and is not just helpless) and thus will reduce and not increase the risk of posttraumatic

stress disorder. Easy instructions to call for help need to be implemented together with technical aspects of CPR.

Another important issue is post-resuscitation psychosocial support after non-successful resuscitation, which emphasizes that every action taken to help the subject was a great act and that unsuccessful resuscitation is not their fault. If teaching encourages the willingness to call for help and resuscitate, but does not blame ("you have to"), from a child and adolescent psychiatric point of view there needs to be no fear at all to induce or increase post-traumatic stress in school children by CPR education. In contrast, if teaching is implemented as suggested, it reduces and does not increase the probability of the child experiencing the situation as overwhelming and uncontrollable and feelings of guilt, because the training provides information beforehand ("inoculation") and during de-briefing that there is no guilt, but that the child has done everything possible to help, which is great. Even if it would freeze completely despite CPR training (lower probability than without CPR training), this is fine and completely comprehensible. The subject will be more likely to emotionally accept these arguments, if this knowledge transfer has been part of CPR training at school. In parallel, programs dealing with mourning and sadness after the loss of a beloved person, have yielded positive effects on resilience and did not induce a negative impact on the quality of life.

Therefore, from a psychiatric point of view, we support CPR education to school children, when implemented in a program animating their willingness to resuscitate without making them responsible to do so. If there is any effect on the frequency of PTSD, a reduction and not an increase has to be expected based on current knowledge.

Correctly implemented, there are no hints towards justified fears of doing harm to the pupils. These considerations are derived from similar situation with empirical evidence. So far, there is no data available about the quality of life and subjective experience of children or adolescence who performed CPR after school teaching (only report about the level of knowledge required). Thus a reporting system to monitor and prove, that the consideration above hold true, is recommended.

Köln, den 20.06.2024



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