

A cognitive behavioural group program for managing anger and aggressiveness after a traumatic brain injury

This protocol was designed by Tatiana Aboulaflia Brakha^{1,2} and Carole Greber Bushbeck² in the context of a pilot intervention study for patients with chronic moderate to severe traumatic brain injury (>1 year).

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Our semi-structured outpatient intervention protocol was elaborated based on a cognitive-behavioural therapy frame-work (Greenberger & Padesky, 1995; Gross, 2002; Padesky & Greenberger, 1995) and inspired from previous anger management programs (Alderman, 2003; Hart et al., 2012; Medd & Tate, 2000; Walker et al., 2010). We made use of visual support materials (schemes, written handouts and paperboard) and role-playing for stimulating discussion and interaction between participants. Inter-sessions homework tasks were encouraged in order to better understand individual emotion regulation skills. Such tasks were mostly characterized by the observation of specific anger-related situations that occurred in the previous week and by the application of various acquired strategies for the management of emotions.

In order to compensate for possible cognitive difficulties, we frequently repeated and reformulated the information, used concrete examples and distributed a personal booklet with a reminder of the anger management strategies discussed and personal examples given during the sessions at the end of the program. Logorrhea and digression during the meetings were minimized by timing speeches and signalling (“red card” notifications).

Sessions were held once-a-week during eight weeks.

<p><u>Session 1</u> <i>Presentation, general rules and brief psychoeducation</i></p>	<p>At first, we focused on restating the purpose of the study and identifying expectancies. We then defined general rules such as punctuality, confidentiality and proactive engagement and gave a brief explanation of the possible consequences of a TBI, with particular emphasis on emotion regulation. We finally gave the group participants the opportunity to familiarize with each other through a structured activity called the “journalist method” in which, after a brief one-to-one discussion, they introduced one of their fellow participants to the rest of the group and/or therapist. Current social and professional status, personal preferences (for integration purposes) and history of their accident were registered and discussed.</p>
<p><u>Sessions 2 and 3</u> <i>Identification of emotions/self-awareness</i></p>	<p>We introduced basic concepts of functional analysis. Globally, it consists of the observation and analysis of a given situation by unscrambling its different components, such as the <i>context</i>, the <i>emotion</i> felt, the <i>physical reactions</i> and the <i>automatic thoughts</i>. We thus encouraged the participants to describe in detail</p>

	<p>situations in which they manifested some kind of aggressive behaviour, define the emotion associated with it (for example, anger, irritability, frustration...) and grade its intensity by giving a score from one (extremely weak) to ten (extremely intense). Grading is important so that participants can learn to compare the intensity of emotions throughout situations described during the program. We further focused on the identification of the physical reactions elicited in the situation, such as sweating, tachycardia, shivering, and muscle tension, and on the description of the <i>overt behaviour</i> (reactions that can be observed). Other components of the analysis are described in the next topic. For illustrative purposes we describe, in Figure 1, the functional analysis of a situation reported by a participant during a group session.</p>
<p><u>Session 4</u> <i>Managing emotion in emergency situations</i></p>	<p>In order to manage the intensity of emotion once it has already taken place, participants learned simple relaxation techniques such as deep breathing, upper body muscle relaxation and attention-focus deviation with guided visual imagery. Emotion arousal was graded before and after each relaxation technique in order to verify the usefulness of each method for each participant. After the initial session on relaxation technique, we included five minutes of guided breathing at the end of each session. Methods of behaviour interruption were also proposed.</p>
<p><u>Session 5</u> <i>Cognitive restructuring and alternative thinking</i></p>	<p>We moved deeper into the functional analysis already started in the initial sessions by emphasizing the self-observation of <i>automatic thoughts</i> and by practicing the formulation of <i>alternative thoughts</i>. The basic idea is that thoughts are tightly associated with emotions and behaviour and that by changing the way one thinks, we can change the way one feels or behaves. In order to reinforce this concept, besides collecting personal examples (Figure 1), we proposed role-playing of life situations based on the material developed by Greenberger and Padesky (1995).</p>
<p><u>Sessions 6 and 7</u> <i>Prevention strategies</i></p>	<p>We focused on prevention strategies for recurrent and highly intense aggressive-related emotions, firstly by identifying situations of vulnerability. We emphasized that these situations may vary among individuals and throughout life, and asked the participants to make their own lists and afterwards compare them with those of other members of the group, in order to add or remove items. Among situations of vulnerability to the occurrence of anger and aggressiveness, we identified internal states such as fatigue, hunger, cognitive effort and alcohol consumption, or external events and specific situations such as noise, just after waking-up, managing unexpected events, multi-tasking and discussions related to the head trauma. Internal and external events were sometimes related. In another session, we focused on pleasurable or “resourcing” activities that may promote general wellbeing and decrease the likelihood of experiencing high levels of aggressive emotions. The activities listed included socializing with friends, exercising, eating out with the family, reading, listening to music and napping. This theme was treated at the end of the program in order to end on a positive note.</p>

<p><u>Session 8</u></p> <p><i>Recall of previous sessions and closure</i></p>	<p>Even though we constantly recalled previous sessions, in this last session we placed a special emphasis on each strategy discussed previously and its purpose. We then proposed an activity with play dough in order to finish the program with a symbolic product that could summarize the acquired strategies and serve as a reminder to use them. The choice of play dough took into account its relaxing qualities. Participants were then encouraged to speak about what they had made. For instance, one of the participants made a <i>loaf of bread</i> and explained that bread is symbol of sharing and reminded him of the exchanges between the group members who shared similar issues. Another participant made a <i>question mark</i> and said he had learned to question and to observe himself, which allowed him “a better management of emotional experiences”.</p>
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Situation /Context	Emotion (intensity)	Physical reaction	Behavior/ reaction	Automatic thoughts	Alternative thoughts (formulated during session)
<i>On Sunday afternoon I was preparing a cake while my wife was cleaning up the kitchen; I asked her to pass me the whisk, whose name I had momentarily forgotten. She kept on suggesting different utensils, but not the right one"</i>	Anger ("reaching 10/10 in a few minutes") Frustration	Tachycardia Muscle- tension Stomach-pain	Rise in voice tone Verbalizing aggressive thoughts	"She doesn't listen to me" "she does not make an effort to understand me" " I am stupid"	"She is trying to help me" "Maybe I stress her"

Figure 1. Functional analysis of a situation reported by one participant involving the feeling of anger

Coming soon: supplementary material.