



Available online at
ScienceDirect
www.sciencedirect.com

Elsevier Masson France
EM|consulte
www.em-consulte.com



Review

Behavioral and affective disorders after brain injury: French guidelines for prevention and community supports



J. Luauté^{a,*,b}, J. Hamonet^c, P. Pradat-Diehl^d, le groupe SOFMER

^a Service de médecine physique et de réadaptation, rééducation neurologique, hôpital Henry-Gabrielle, CHU de Lyon, 69230 Saint-Genis-Laval, France

^b Équipe IMPACT, Inserm, U1028, CNRS, UMR 5292, centre de recherche en neurosciences de Lyon (CRNL), Lyon, France

^c Service de médecine physique et réadaptation, CHU de Limoges, 87042 Limoges, France

^d Service de rééducation, hôpital de la Salpêtrière, AP-HP, CHU de Paris, Paris, France

ARTICLE INFO

Article history:

Received 2 August 2015

Accepted 30 October 2015

Keywords:

Traumatic brain injury

Behavioral disorders

Affective disorders

Outpatients

Community

Support systems

ABSTRACT

Objective: The purpose of this study was to elaborate practice guidelines for the prevention of behavioral and affective disorders in adult outpatients after traumatic brain injury (TBI); but also to identify the support systems available for family, caregivers of patients with TBI within the community.

Methods: The elaboration of these guidelines followed the procedure validated by the French health authority for good practice recommendations, close to the Prisma statement. This involved a systematic and critical review of the literature looking for studies that investigated the impact of programs in community settings directed to behavioral and affective disorders post-TBI. Recommendations were then elaborated by a group of professionals and family representatives.

Results: Only six articles were found comprising 4 studies with a control group. Two studies showed a beneficial effect of personalized behavior management program delivered within natural community settings for persons with brain injury and their caregivers. Two other studies showed the relevance of scheduled telephone interventions to improve depressive symptoms and one study emphasized the usefulness of physical training. One study investigated the relevance of an outreach program; this study showed an improvement of the patients' independence but did not yield any conclusions regarding anxiety and depression.

Discussion and recommendations: In addition to the application of care pathways already established by the SOFMER, prevention of behavioral and affective disorders for brain-injured outpatients should involve pain management, as well as development of therapeutic partnerships. It is recommended to inform patients, their family and caregivers regarding the local organization and facilities involved in the management of traumatic brain injury. The relevance of therapeutic education for implementing coping strategies, educating caregivers on behavioral disorder management, follow-up telephone interventions, and holistic therapy seems established. The level of evidence is low and preliminary studies should be confirmed with larger controlled trials.

© 2015 Elsevier Masson SAS. All rights reserved.

1. Introduction

Traumatic brain injury lasts a few seconds while its consequences can linger for a lifetime. This radical rupture will considerably change the trajectory and the life project of patients with TBI and their closed ones. Several personal and environmental factors will influence the patient's mood and behaviors and eventually lead to excesses or contrarily to withdrawing from others. Epidemiological studies showed that behavioral disorders are one of the most frequent complications at a distance from a

severe traumatic brain injury [1,2]. It has been established that aggressive behaviors were correlated to the existence of a dysexecutive syndrome [3], anxiety or depression [4], pain [5], noisy environment [6], family dysfunction [7] or poor social functioning [8]. Furthermore, the risk of developing depression remains quite high at a distance from TBI, affecting about 30% of patients [9]. Several environmental factors promoting the onset of depression were also identified: isolation, low socioeconomic status, substance abuse, feuds... [10].

Furthermore, the severity of behavioral disorders like the patient's psychological state can explain for a big part the depressive state and burden felt by closed ones and caregivers [11,12].

* Corresponding author.

E-mail address: jacques.luaute@chu-lyon.fr (J. Luauté).

It is essential to take into account these different factors having mutual and reciprocal influences if one wants to attenuate behavioral disorders, depressive reactions as well as their family and society consequences when returning home, especially since a certain number of factors can be changed with adapted support.

To date, most studies concerned hospital care management, which is the first step of the care pathway for TBI patients (see the care pathway established by the French Society of Physical and Rehabilitation Medicine [SOFMER] [13]). This first hospital-based step is often quite short compared to the duration of behavioral and affective disorders triggered by the traumatic brain injury. In a retrospective study concerning 343 patients with moderate or severe TBI, 94% went home in the first year following the trauma [14].

Patients and their families are often powerless to cope with behavioral disorders once at home and their main expectations are long-term follow-up and interventions (see [15]). A few studies reported the effects of a post-hospitalization rehabilitation program in patients with TBI (e.g.: [16,17]) but most often, these studies did not specifically focus on the impact of behavioral or affective disorders.

The objective of our study was to determine follow-up measures beyond the hospital stay that could reduce behavioral disorders, depression and constraints for closed ones, based on data from the literature and experts' consensus.

2. Methods

In order to address the issue of follow-up and prevention of behavioral and affective disorders secondary to TBI, a review of the literature was conducted on the Medline database, in French and English between January 1990 and March 2012 (research conducted by the services of the French High Authority for Health according to the clinical practice recommendations). The research strategy on Medline was based on the combination of the following keywords:

("Craniocerebral trauma" [Majr] or "Brain injuries" [Majr] or (Brain injur* or Brain trauma* or Head injur* or Head trauma*) [title] and "General practitioners" [Mesh] or "Social support" [Mesh] or "Family practice" [Mesh] or "General practice" [Mesh] or "Continuity of patient care" [Mesh] or "Rehabilitation/organization and administration" [Mesh] or "Case management" [Mesh] or "Social work" [Mesh] or "Social work" [Mesh] or "Family therapy" [Mesh] or "Ambulatory care facilities" [Mesh] or "Family" [Mesh] or "Patient education as topic" [Mesh] or "Caregivers" [Mesh] or "Social support" [Mesh] or "Case management" [Mesh] or "Rehabilitation, vocational" [Mesh] or Community integration or social reintegration or return to work or community integration [title] NOT "Critical care" [Mesh] or "Child" [Mesh] or "Infant" [Mesh] or "Pediatrics" [Mesh] or "Adolescent" [Mesh] or (Critical care or child* or infan* or paediatr* or pediater* or adolescent*). An additional study was performed up to 2015 without the use of the services of the French High Authority for Health. Finally, an additional research was conducted on books and articles not referenced in this database.

Only articles describing a support program upon discharge from the hospital or interventions aiming to treat, alleviate or prevent behavioral or affective disorders in patients with TBI after their hospitalization, were considered for this work. Studies with a control group, open studies without a control group, case series and clinical case reports were included in this review of the literature. Results from the articles retained were analyzed according to evidence-based medicine criteria (see Table 1 for the level of evidence and recommendation grades).

Recommendations were formulated by an expert group made of professionals (9 PM&R physicians, 4 psychiatrists, 3 psychologists,

Table 1
Levels of evidence and grades of recommendations.

Level of evidence	Types of interventional studies	Grades of recommendation
1	High power randomized controlled trials (RCT) Meta-analysis of RCT	Grade A Established scientific evidence
2	Low-power RCT Non-randomized comparative studies Cohort studies	Grade B Scientific presumption
3	Case-control studies	Grade C
4	Comparative studies with considerable bias Retrospective studies Case series	Low level of evidence

1 primary care physician, 1 physical education professor, 1 social worker, 1 lawyer, 1 director of a medicosocial structure) and 2 persons representing the families of patients with TBI. Afterwards, these recommendations were read and criticized by a reading group also made of professionals (10 PM&R physicians, 7 psychologists, 2 head nurses, 1 psychiatrist, 1 neurologist, 1 primary care physician, 1 physician working in a prison setting, 1 physical education professor, 1 social worker, 1 physical therapist, 1 occupational therapist, 1 lawyer, 1 magistrate, 1 director of a medicosocial structure, 1 person representing the insurance companies and 2 representatives of associations of families of patients with TBI) (see introductory article of Mathé and Luauté in this issue). This good practice recommendation received the label from the French High Authority for Health, meaning that these recommendations were established according to the methodological guidelines and procedures recommended by HAS (see: http://www.has-sante.fr/portail/jcms/c_431294/recommandations-pour-la-pratique-clinique-rpc; the website of the French High Authority for Health (HAS) gives access to documents in English). The protocol lists several criteria (criteria 1, 2, 3, 5, 6, 7, 9, 13, 15) of the PRISMA method [7].

3. Results

Overall, 980 articles were identified from the selected keywords; 146 abstracts were read and only 6 articles (329 persons included in the different protocols) answered the question asked and the criteria defined for this literature review (see Table 2 and Fig. 1).

More specifically for behavioral disorders, only 2 studies were found [18,19]. In the first one (level 2), on 47 patients with brain damage, including 24 with TBI, the frequency of behavioral disorders was evaluated in three different groups: a control group without changes to the usual care management, a therapeutic education program for caregivers (one 2-hour session weekly over a 4-week period) and a more comprehensive program that included a first phase of therapeutic education for 4 weeks, followed by a second phase of 8 additional weeks (according to the same frequency of one weekly session) dedicated to individualized help for behavioral disorders [18]. A significant decrease in behavioral disorders frequency was reported at the 3-month follow-up visit in the group that benefited from the comprehensive program vs the group that received only therapeutic education and the control group.

In a pilot study, a therapeutic education program for caregivers was implemented using a web-based, videoconferencing training to help manage behavioral disorders in patients with TBI. This study showed the feasibility of this type of program and the satisfaction of participants who, at follow-up, reported being able

Download English Version:

<https://daneshyari.com/en/article/4040484>

Download Persian Version:

<https://daneshyari.com/article/4040484>

[Daneshyari.com](https://daneshyari.com)