

ESPELMA PROJECT: EFFECTIVENESS OF PSYCHO-EMOTIONAL SUPPORT IN ACUTE SPINAL CORD INJURY

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1. Summary of the project

BACKGROUND

The disability caused by a traumatic acute spinal cord injury (T-ASCI) often involves a high level of psycho-emotional suffering of patients and their families. The maladaptative psycho-emotional responses are associated with lower participation in the recovery process of both patients and their families, lower satisfaction with care received during hospitalization and, as a consequence, lower and slower functional recovery. Additionally, health professionals that must face these negative feelings might experience increased stress and increased risk of burnout.

METHODOLOGY

Goals and hypothesis

The **main goal** of the ESPELMA project was to assess the impact of a specific training for all professionals working in a Spinal Cord Injury (SCI) Unit on satisfaction with care received in a sample of patients and their families or primary caregivers. Specifically, the **primary objective** was to provide tailored training and coaching sessions (based on their specific needs) to the whole staff of professionals responsible for the care and rehabilitation of patients with T-ASCI, and then to indirectly assess its effectiveness considering the satisfaction of patients. In parallel, the following **secondary objectives** were pursued:

- 1. Improve family members' and / or caregivers' satisfaction with care received.
- 2. Improve patients' satisfaction and reduce the stress level of the professionals who care for these patients, by increasing their ability to handle possible negative emotional contingencies from both the patient and their social and family environment.
- 3. To identify training needs within the field of psychology and psychiatry among the health professionals working in the SCI Unit and to integrate them into a tailored training program.
- 4. To develop a guide of psycho-educational recommendations on key issues in the care of the psycho-emotional aspects of patients with ASCIs and their relatives. It is **hypothesized** that building capacity among SCI professionals will serve to foster patients' (and relatives' and/or main caregivers') satisfaction, considering that the training was focused on improving communication skills and management of patients' distress during hospitalization.

Design

A quasi-experimental pre-post control group design was carried out, including a sample of ASCI patients admitted to the University Hospital Vall d'Hebron in Barcelona, during a 1-year period. During this period, a main caregiver or relative per patient was assessed too. The absence of relatives or main caregivers was not considered an exclusion criterion. All patients ≥ 15 years old admitted in the SCI Unit for T-ASCI were included in the study, regardless of their neurological level and/or ASIA classification. Patients under 15 years old were excluded as well as those with non-traumatic SCIs. The training intervention was offered to the entire SCI Unit staff. These are: rehabilitation physicians, nurses, assistant nurses, physiotherapists and physiotherapy assistants, fitness instructors, occupational therapists, social workers and hospital attendants.

Assessment tools and procedure

Assessment tools for patients:

- Medical and demographical data: pre
- ASIA Scale (ASIA classification): pre/post
- SCIM-III (Spinal Cord Independence Measure): pre/post
- HADS (Hospital Anxiety and Depression Scale): pre/post
- RS-25 (Resilience Scale): post
- WHOQoL-BREF (World Health Organization Quality of Life Scale Brief): post
- PPE-33 (Picker Patient Experience Questionnaire): post
- Assessment tools for relatives and / or main caregivers:
- Demographical data: pre
- ZARIT (Zarit Burden Interview): post
- RS-25 (Resilience Scale): post
- VAS for satisfaction with emotional support, informative support and medical quidelines provided: post
- Assessment tools for health professionals (pre / post):
- Demographical data
- JSPE (Jefferson Scale for Physicians Empathy)
- MBI (Maslach Burn-out Inventory)
- RS-25 (Resilience Scale)
- Job Content Questionnaire
- VAS for satisfaction and job-related stress

• Previous to the intervention, focus groups with professionals were carried out to identify difficulties and training needs to design the contents of the course. These contents encompassed: 1) Communication and interpersonal skills (including active listening, empathy), 2) Skills to manage personal / professional stress, 3) Skills to manage difficult patients.

2. Results

A total of 46 and 43 patients were assessed pre and post-intervention respectively, with a mean age of 40 years (78% men and 79%, respectively). Approximately 60% in both groups were single or married and most had T-ASCI due to casual or traffic accidents. Forty-six and 43 relatives or primary caregivers were also assessed pre and post-intervention respectively. There were no significant differences in medical and socio-demographic data in the pre / post samples of patients and relatives. Finally, the entire SCI Unit staff was assessed (N = 61 pre; N = 46 post-intervention). Overall, patients were quite satisfied with the treatment and care received. However, certain aspects related to the type and quality of information received during their hospitalization seemed to need certain improvement. The tailored training failed to improve these aspects, but it did not worsen them either. Even if it is true that empathy and accessibility of professionals improved after training as stated by patients, this did not serve to improve overall patients' satisfaction assessed by means of the PPE-33. It is possible that training features need to be improved (format, schedule, supervised practice, etc.), as does the selection of target variables to detect changes in both professionals and patients after such training. Thus, intensive courses and scheduled follow-ups may not have been sufficient or not sufficiently comprehensive to facilitate the acquisition of the knowledge and its incorporation in their routines. It is also possible that the disposition and attitude of professionals towards specific aspects and /or claims of patients with T-ASCI have improved, but these aspects have not been properly assessed, as comprehensive as possible, or even no sensible measures to assess such effects have been selected in the present study. However, it is worth stressing some relevant conclusions of this research:

- Training is well received by professionals. They describe it as very useful and, in most cases, they are willing to recommend or repeat it.

- The problems referred to by patients show the need to improve the approach to different aspects during hospitalization. Besides, following our results it might be recommendable to perform continuous assessment of patients' (and relatives') satisfaction with the treatment and care received during hospitalization. Although a high percentage of patients ($\geq 90\%$) refers to feeling treated with respect an dignity and being generally satisfied with the care received, there are still areas with high references for improvement that deserve further attention.
- Patients' anxious-depressive symptoms at admission and at discharge are high. This shows that at present, the patients' suffering is high and professionals must manage it properly.
- Global scores (pre / post) of relatives of patients with T-ASCI show medium-to-high levels of resilience (RS-25) and medium level of caregiver burden (ZARIT). The same is true for satisfaction scores, as all are above 3 points (in a 1-4 range). No statistically significant pre/post differences were observed for any of the variables considered.
- In the sample of professionals, pre/post-intervention scores showed high levels of empathy and resilience, an absence of burnout and medium-to-high job-related satisfaction (approximate average of 4 in a 1-5 range). The only pre/post difference observed was for job-related stress (t = -3.369(57); p = 0.001; CI 95 % -1.869 0.476), still showing an average medium score (3 points in a range of 1-5).

3. Relevance and possible implications

SCI is a very complex problem that requires the work of a multidisciplinary and highly specialized team to address not only the physical, but also the psychological, domains of the patient. It is precisely in this aspect where professionals show greater concerns and insecurities.

To our knowledge, this project is the first initiative that has carried out a tailored intervention training addressed to the whole staff of an SCI unit. This training has served to reinforce appropriate practices already performed in the SCI Unit, and to increase the confidence of professionals. Also, they have been trained

in different communication strategies and interpersonal skills, which they have practiced with their patients, they have been able to integrated such practices into their professional routines and moreover, they have considered this training very positively. However, the specific effect of these strategies on overall patient satisfaction with care received is still unspecific and unclear.

While it is true that we started with a sample of patients who were highly satisfied with overall care received, we believe more accurate and specific measures to properly assess and rate main effects of this training are needed. Although this is an innovative and pioneering training based on the contents and principles of motivational interviewing, it is possible that the duration of the program is inadequate and more extended sessions are needed (not longer duration), with timely reminders of strategies and concepts learned. Moreover, the fidelity of implementation and integration of such strategies by professionals should have been assessed and monitored to more accurately assess the professional-patient interaction, and to more accurately register results in terms of patient satisfaction. Finally, it is worth noting that following these results, there appears to be an enormous need for mental health professionals in hospitalization units for severe injuries / illnesses such as SCI Units; and this is true not only to support and intervene with patients, but also with relatives, primary caregivers and the healthcare providers too.

4. Literature from the project

Scientific papers

- Lusilla-Palacios, P., Castellano-Tejedor, C. Training a SCI rehabilitation team in motivational interviewing: Does it modify burnout, empathy and satisfaction at work? Rehabilitation Research and Practice (in press).
- Lusilla-Palacios, P., Castellano-Tejedor, C. Acute spinal cord injury patients' satisfaction with care: results from an intervention study in a specialized rehabilitation unit. *Journal of Health Psychology (in press)*.

- Lusilla-Palacios, P., Castellano-Tejedor, C. Spinal cord injury and substance use disorders: a systematic review [Lesión medular y trastornos por el uso de sustancias: una revisión sistemàtica]. *Adicciones*, 2015, 27(4), 99-115.
- Lusilla-Palacios, P., Castellano-Tejedor, C., Ramírez-Garcerán, L., Valero-Ventura, S., Rodríguez-Urrutia, A., Parramon-Puig, G., Navarro-Sanchís, J. A., Cuxart-Fina, A (2015). Training professionals' communication and motivation skills to improve patients' satisfaction and clinical outcomes: Study protocol of the ESPELMA trial. *Journal of Health Psychology*, 20(10), 1357 1368. DOI:10.1177/1359105313512351.
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Oral communications

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- Lusilla-Palacios, P., Navarro Sanchís, J.A. Formando a profesionales de la salud para mejorar la satisfacción del paciente (iy del profesional!): Proyecto ESPELMA. II Fórum GETEM (Grupo Español de Trabajo en Entrevista Motivacional), Santiago de Compostela, España, 24-25 de octubre del 2014.
- Castellano-Tejedor, C. Meta-análisis sobre la efectividad de la entrevista motivacional en ámbito sanitario y atención primaria. II Fórum GETEM (Grupo Español de Trabajo en Entrevista Motivacional), Santiago de Compostela, Espanya, 24-25 d'octubre del 2014.

- Lusilla-Palacios, P., Castellano-Tejedor, C., Navarro-Sanchís, J.A., Rodríguez-Urrutia, A., Parramon-Puig, G. Building capacity among health care professionals to improve patients' satisfaction. European Association for Physician Health (EAPH) 2013 International Conference. Dublin, 11-12 April 2013.
- Lusilla-Palacios, P. MI implementation in a health care clinic: examples from a spinal cord injury unit. MINT Forum Krakow 9-12 October 2013.
- Internal dissemination; Psychiatry clinical sessions, University Hospital Vall d'Hebron of Barcelona.

Scientific posters

- Lusilla, P., Castellano-Tejedor, C. Resiliencia y Burnout: ¿Dos caras de la misma moneda en profesionales sanitarios? First CORE Seminar in Mental Health, Hospital de Sant Pau, Barcelona, Spain, 29 October 2014.
- Lusilla-Palacios, P., Castellano-Tejedor, C., Navarro-Sanchís, J.A., Rodríguez-Urrutia, A., Parramon-Puig, G. Building capacity among health care professionals to improve patients' satisfaction. European Association for Physician Health (EAPH) 2013 International Conference. Dublin, 11-12 April 2013.
- Lusilla-Palacios, P., Castellano-Tejedor, C., Cuixart-Fina, A., Ramírez-Garcerán, L., Valero-Ventura, S., Navarro-Sanchís, J. A., Rodríguez-Urrutia, A., Parramón-Puig, G. Effectiveness of Psycho-emotional support in acute spinal cord injury. ESPELMA project. ICMI 2012 International Conference on Motivational Interviewing. Venice, Italy, June 18-20 2012.