



Factors associated with self-efficacy for managing recovery in the trauma intensive care population: A prospective cohort study



Fiona R. Connolly^{a,*}, Leanne M. Aitken^b, Marion Tower^c, Bonnie Macfarlane^b

^a Clinical Nurse, Princess Alexandra Hospital, Brisbane, Queensland, Australia

^b Centre for Health Practice Innovation, Griffith University and Princess Alexandra Hospital, Brisbane, Queensland, Australia

^c Griffith University, Nathan, Brisbane, Queensland, Australia

ARTICLE INFO

Article history:
Accepted 4 May 2013

Keywords:
Self-efficacy
Psychosocial factors
Trauma
Injury
Intensive care unit
Quality of life
Nurses
Nursing
Recovery
Patient outcome

ABSTRACT

Objective: The aim of this paper was to identify factors associated with self-efficacy for managing recovery in the trauma intensive care population.

Introduction: Injury accounts for 6.5% of disease burden in Australia, with similar levels being reported in other developed countries. While some studies regarding self-efficacy have identified a relationship to patient recovery post acute injury, others have been inconclusive. This study will identify factors associated with self-efficacy for managing recovery in the trauma intensive care population.

Methods: A prospective cohort study of patients aged ≥ 18 years, admitted to a metropolitan tertiary hospital in South East Queensland between June 2008 and August 2010 for the acute treatment of injury. Demographic, injury, acute care and psychosocial factors were considered. The primary outcome was self-efficacy measured by the 6-item self-efficacy scale (SES) 1 and 6 months post hospital discharge. All factors significant ($p < 0.10$) on univariate analysis were included in multivariable modelling where $p < 0.05$ was considered significant.

Results: A total of 88 patients were included. The mean self-efficacy score at 1 and 6 months was similar (6.8 vs 6.9 respectively). Self-efficacy at 1 month, psychological distress (K-10) Score and illness perception (K10) Score accounted for 68.4% (adjusted R^2) of the variance in 6 month self-efficacy ($F_{3,75} = 57.17$, $p < 0.001$). Illness perception was the strongest contributor to 6 month self-efficacy (beta = -0.516), followed by psychological distress (beta = -0.243) and self-efficacy at 1 month (beta = 0.205).

Conclusion: Significant factors associated with self-efficacy for managing recovery at 6 months included 1 month self-efficacy, illness perception and psychological distress. To promote patient recovery, screening patients at 1 month in order to commence relevant interventions could be beneficial.

© 2013 Elsevier Ltd. All rights reserved.

Introduction

Injury is estimated to account for 6.5% of the burden of disease in Australia, with similar levels being reported in other developed countries.^{1,2} Injuries are a leading cause of death and disability in the Western world resulting in significant health burden on all populations, regardless of age, sex, income, or geographical region.³ The physical, cognitive and psychological disabilities due to injury can lead to reduced quality of life (QOL) and long term disability placing a significant economic and social burden on society.^{4–6}

Various factors have been identified as being related to patient recovery post injury including age, gender, income, level of education, self-efficacy and acute psychological response.^{7–9} One study found that an individual's acute psychological response to injury directly predicted both the level of disability and the QOL twelve months post traumatic injury.⁹ In a further study, 20.7% of trauma patients twelve months post injury had developed post traumatic stress disorder (PTSD) and 6.6% had developed depression, affecting patients return to work and functional recovery.¹⁰

Self-efficacy (SE) has been proposed as an important psychological factor that may be related to patients' recovery post injury.^{11–13} The concept of SE is a core concept of social cognitive theory. Bandura¹⁴ describes SE as a person's belief (confidence) in their ability to perform a set of actions; the greater a person's belief, the more likely they will initiate and continue with activities and attain a positive outcome.¹⁴ SE has been found to influence various health outcomes including pain-related disability, compliance with

* Corresponding author. Tel.: +61 7 3372 7724.
E-mail addresses: fiona_connolly@health.qld.gov.au,
fionaconnolly25@gmail.com (F.R. Connolly).

discharge instructions, locomotion recovery and QOL.^{12,15–18} Few studies have investigated factors found to significantly improve SE in the acute injury population.^{11,13,19,20} There is some literature to suggest that education has been found to improve SE in acute musculoskeletal and whiplash injury groups,^{11,13} but results of studies testing educational, physical and psychological interventions have been inconsistent.^{19,21–24} Given the burden of injury on society and the health care system, identifying strategies that may potentially improve SE is important. The aim of this paper was to identify the factors associated with SE for managing recovery in the patient with trauma admitted to the intensive care unit (ICU). This information might inform the development of future interventions and enhances practices for a range of health care providers.

Materials and methods

Research design

This project is a 6-month sub-study of a larger 2-year prospective cohort study designed to determine factors related to QOL in trauma patients requiring admission to ICU up to 24 months post hospital discharge.⁴⁶ SE is relatively stable in the absence of an intervention and therefore this timeframe was considered appropriate to measure SE after injury. The study was conducted in a metropolitan tertiary hospital in South-East Queensland, Australia.

Study participants were screened daily by the ICU research nurse over a 2 year period from June 2008 to August 2010 for potential enrollment, with liaison with the Trauma Registry Nurse Coordinator to determine eligibility.

Participants and procedure

Convenience sampling included adults 18 years and older, admitted to ICU for acute treatment of injury and allocated an injury code (ICD-10-AM code: S00 – S99, T00 – T35, T63, T66 – 72 or T 75 – 77). Participants with spinal cord injuries, burns, severe traumatic brain injuries, or a history of psychosis were excluded due to the different recovery pathways experienced by participants (Table 1). All patients who met the study criteria over the 2 years of enrollment were considered eligible for inclusion in the study.

The initial questionnaire containing demographic data was completed in hospital after a research assistant obtained consent. Self-administered questionnaires were posted by mail at 1, 6, 12 and 24 months post discharge with telephone follow-up by the research assistant to obtain results or participants could return completed questionnaire by mail. Up to 4 attempts to contact participants were made at each time point. For the purpose of the sub-study being reported in this paper data at 1 and 6 months were used.

Table 1
Exclusion criteria.

Exclusion criteria
1. Spinal cord injuries with sensory and/or motor loss
2. Burn injuries to >20% body surface area
3. Traumatic brain injuries with a Glasgow Coma Score < 14 after 24 h or on extubation
4. History of psychosis or self-inflicted injury
5. Inability to communicate in English
6. Where follow up would be problematic, e.g. prisoners, no telephone access
7. Palliative care/patients expected to die

Measures

Data were collected from multiple sources including participants, their health care records and the Queensland Trauma Registry (QTR). The primary outcome was SE during recovery measured by the 6-item self-efficacy scale (SES)²⁵ 1 and 6 months post hospital discharge as a measure of each participant's belief in their ability to perform a set of actions to aid their recovery. The proposed factors included: demographic details (age, gender, marital status, income and employment); injury and acute care characteristics (ISS, body injury location, hospital length of stay [LOS] and ICU LOS). The post acute factors included (post traumatic stress disorder symptoms, psychological distress, perceived social support and perceptions of illness).

Self-efficacy

The SES is a 6-item Likert scale for managing recovery. This chronic disease SES has been adapted to reflect recovery post injury.²⁵ It measures participants' confidence in undertaking activities such as reducing emotional stress, managing their injury, pain and fatigue so as not to interfere with daily activities. The total mean score ranges from 1 (not at all confident) to 10 (totally confident) with the total SES derived by taking the average of the 6 items.²⁵ Reliability of the 1 and 6 month SES in the present study was good (internal consistency coefficient $\alpha = 0.93$ and $\alpha = 0.94$ respectively, which is in accordance with the psychometric data presented by Lorig et al.²⁵)

Post traumatic stress

The PTSD Checklist – Civilian Version (PCL-C) measures trauma related stress.²⁶ It consists of a self-report rating scale comprising of 17 items with a 5-point Likert scale (1 = not at all, 5 = extremely) designed to elicit information about personal feelings over the preceding month.²⁶ All items were summed to give a total severity score ranging from 17 to 85, higher scores reflecting more post traumatic stress. Reliability of the PCL-C in the present study was good (internal consistency coefficient $\alpha = 0.93$), which is in accordance with previously reported psychometric data.^{27,28} Evidence of convergent validity were also reported.²⁹

Psychological distress

The Kessler Psychological Distress Scale (K-10)³⁰ yields a global measure of psychological distress at 6 months post injury. It consists of ten items based on questions about anxiety and depressive symptoms experienced by the person in the preceding four weeks. Participants rate items on a scale ranging from 1 (none of the time) through to 5 (all of the time); items were summed to give scores ranging from 10 to 50, where 50 indicates high risk for anxiety or depressive disorder. Reliability of the K-10 in the present study was also good (internal consistency coefficient $\alpha = 0.93$), which is in accordance with previously reported psychometric data.³¹

Social support

The Multidimensional Scale of Perceived Social Support Questionnaire (MSPSS) assesses an individual's perception of how much he or she receives outside social support from either family, friends and significant others at 6 months.³² The 12-item scale uses a 7-point Likert-type response format (1 = very strongly disagree to 7 = very strongly agree). The 3 subscales (i.e., family, friends, significant other) are assessed with 4 items each, which are then summed and divided by 4 to give scores.³³ The score of individual items was summed and divided by 12 to give the total score ranging from 1 to 7, with higher scores suggesting greater levels of perceived social support.^{32,33} Reliability of the total MSPSS and for each subscale in the present study was assessed between α

Download English Version:

<https://daneshyari.com/en/article/3239836>

Download Persian Version:

<https://daneshyari.com/article/3239836>

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