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Understanding adjustment following traumatic brain injury: Is the Goodness-of-Fit coping hypothesis useful?

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ABSTRACT

Coping efforts have been recognised as an important aspect of resilience following traumatic brain injury, but little is known about what constitutes effective coping in this population. This longitudinal research examined the usefulness of the Goodness-of-Fit hypothesis, drawn from the Lazarus and Folkman [(1984). *Stress, appraisal and coping*. NY: Springer.] theory of stress and coping, as a way of understanding coping effectiveness. The hypothesis suggests that the nature and success of specific coping strategies will be associated with the controllability of the event. If an event is relatively uncontrollable, then emotion-focused or perception-focused coping may be more effective than problem-focused coping. In contrast, a controllable event may be best managed through problem-focused coping. Ninety people with traumatic brain injury, drawn from the inpatient rehabilitation unit of a major metropolitan hospital in Australia, and their relatives participated in this longitudinal study. No support was found for the Goodness-of-Fit model, either in the short term or the long term. Although the use of problem-focused coping strategies was positively associated with short-term and long-term role functioning, it was not associated with long-term emotional well-being if the situation was perceived to be controllable. The findings suggest that the persistent use of problem-focused coping in response to the difficulties created by traumatic brain injury can be associated with emotional distress in the long term. Reasons for this finding are explored and its implications are discussed.

Introduction

Traumatic brain injury is a non-degenerative, non-congenital insult to the brain caused by an external mechanical force, such as a motor vehicle accident. Although most people would consider brain injury to be an extremely traumatic and stressful experience, it appears to be associated with a diverse range of outcomes and levels of adjustment. Indeed, for over a decade now, researchers have noted that adjustment difficulties do not occur uniformly across this population (Kendall & Terry, 1996), with a large proportion of the population demonstrating considerable resilience (i.e., positive adaptation despite experiences of significant adversity – Luthar, Cicchetti, & Becker, 2000). Determining the factors that contribute to resilience following traumatic brain injury can reveal important information for rehabilitation, treatment and long-term service provision.

In this regard, coping has been promoted as an important aspect of resilience following brain injury (Curran, Ponsford, & Crowe, 2000; Kendall & Terry, 1996). According to Folkman and Moskowitz (2004), the greatest motivation for us to study coping is the assumption that strategies differ in their effectiveness and that knowledge

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of this kind can be used to design interventions. However, little is known about what constitutes effective coping in this population. Only limited research has been conducted in this area, and has tended to yield inconclusive results.

In this paper, we propose that the Goodness-of-Fit coping hypothesis (Lazarus & Folkman, 1984) might shed some light on this question. Coping strategies have been described as falling into one of three categories, namely problem-focused (attempts to actively manage problem situations), emotion-focused (attempts to escape from the problem or the emotions associated with the situation) and perception-focused (attempts to minimize the experienced intensity of the problem) (see McColl, Lei, & Skinner, 1995). According to Lazarus and Folkman (1984), coping strategies are only likely to be implemented in response to situations that are appraised as being stressful.

Although all types of coping strategies are likely to be used in most stressful encounters (Lazarus, 1990), the Goodness-of-Fit hypothesis suggests that the extent to which each strategy will be effective is determined by the perceived controllability of the event (Lazarus, 1993). If an event is viewed as relatively uncontrollable, then emotion-focused or perception-focused coping may be more effective than problem-focused coping, presumably because it enables individuals to manage the negative impact of an event that cannot be changed. In contrast, greater controllability is likely to result in the use of problem-focused coping. Further, in a controllable situation, problem-focused coping should be more successful than other types of coping because it is intended to change one's circumstances. Lazarus (1993) noted that a poor fit between the appraised controllability of the event and the focus of coping might not only be ineffective, but could actually be counterproductive.

This Goodness-of-Fit model of coping effectiveness has received mixed support. For instance, some researchers have found that emotion-focused coping is more commonly associated with poor adjustment irrespective of the controllability of the event (Terry & Hynes, 1998). Similarly, other researchers have found problem-focused coping to be the most effective coping strategy, regardless of the level of control in a situation (Conway & Terry, 1992). In contrast to these findings, some support has been found for the hypothesis among people with HIV (Park, Folkman, & Bostrom, 2001), non-injured adults in their daily lives (Zakowski, Hall, Klein, & Baum, 2001) and in situations of experimentally manipulated control (Endler, Macrodimitris & Kocovski, 2000). In an early study, Vitaliano and colleagues found that depressive symptoms were more likely to be associated with the use of problem-focused coping when situations were perceived to be uncontrollable than when they were considered to be amenable to change (Vitaliano, DeWolfe, Maiuro, Russo, & Katon, 1990). Similarly, Terry and Hynes (1998) found that problem-focused coping was associated with poor adjustment following an event that offered little opportunity for control, namely, a failed in vitro fertilization treatment. In the same situation, attempts to minimize the stressfulness of the event (i.e., perception-focused coping) were associated with higher levels of adjustment, at least in the short term.

In the brain injury population, Moore, Stambrook, and Peters (1989) found that people who reported using a wide range of emotion-focused coping strategies reported higher levels of social and emotional disturbances than those who reported the frequent use of a small set of problem-focused strategies. In contrast, however, clinicians have observed that, over time, problem-focused coping may become less effective in response to the complex difficulties associated with brain injury (Hinkeldey & Corrigan, 1990).

The notion that controllability might influence outcome is not surprising. For several decades, evidence has suggested that individuals will create opportunities for control, or at least the illusion of control, even in the most adverse circumstances (Taylor & Brown, 1988). Indeed, the perception of control has been linked not only to mental well-being in a range of populations, but also to more chronic and traumatic circumstances such as brain injury (Moore & Stambrook, 1995). However, little is known about how this factor might interact with coping efforts.

As noted by Folkman and Moskowitz (2004), the Goodness-of-Fit concept is based on sound logic and some empirical support, but there is a clear need for research to explore this theory further before any conclusions can be drawn. The lack of research on this topic is particularly evident in the area of brain injury. However, in their recent review of coping research, Folkman and Moskowitz (2004) noted that coping strategies are not likely to be uniformly associated with particular outcomes. They concluded that a particular coping strategy may be effective with respect to one outcome, but may have a negative impact on another outcome. Thus, the current study will focus on two components of outcome, namely emotional well-being and social role functioning.

Further, there is a likelihood that the effectiveness of coping might change over time (Folkman & Moskowitz, 2004), necessitating a study that can track two distinct outcomes over time. Thus, the purpose of the current study was to determine whether or not the Goodness-of-Fit hypothesis can explain the mixed findings about coping that have emerged in relation to brain injury. The study will examine the hypothesis during the first year following brain injury, which is the time when rehabilitation professionals are most likely to be engaged in an individual's life. As a result, the study will contribute to knowledge about the way in which coping strategies can be promoted in rehabilitation to facilitate positive emotional and social outcomes for this population.

Method

To examine the impact of the interaction between coping and perceived control on these outcomes over time, the current study employed a longitudinal design, with three waves of data collection, namely, at discharge from hospital (Time 1), two months post-discharge (Time 2) and eight months post-discharge (Time 3). The first assessment at the time of discharge was intended to assess outcomes prior to experiencing community re-entry. The Time 2 assessment was conducted two months after discharge to coincide with the period when the problems