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COPING AND ADAPTATION FOLLOWING ACUTE SPINAL CORD INJURY: A THEORETICAL ANALYSIS

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Abstract. Coping and adaptation theory is used to synthesise existing data concerning psychological recovery from acute spinal cord injury. Psychological reactions to spinal cord trauma are similar to those of mourning and other situations of severe loss. Each reaction plays a specific role in fostering or hindering recovery depending upon when it occurs. Premorbid personality and the influence of significant others play a central role in coping with injury. These factors partly explain why some patients cope better than others to equally serious disability. A critique of research methodologies and suggestions for new studies are provided.

Key words: Spinal cord injuries; Coping; Adaptation; Psychological.

Introduction

In this paper we are concerned with the psychosocial processes that may foster or hinder optimal rehabilitation from acute spinal cord injury. Our theoretical orientation concerns the notion of coping and adaptation which, as far as we know, has only been applied once to acute spinal cord injured patients (Adams *et al.*, 1974). One of the major problems of much of the previous research concerning psychosocial recovery from acute spinal cord injury has been the absence of any theory, well grounded in the psychology and psychiatry disciplines, which would serve to integrate our observations of the patient's psychological state. The coping and adaptation literature would appear to be an important step forward in this respect since it reveals a high level of agreement between our own more theoretical analysis and the clinical observations of others (for example, Guttman, 1976; Weller *et al.*, 1977).

The process of coping and adaptation to other severe life crises has received increased attention and includes: patients with severe burns (Hamburg *et al.*, 1953); parents of children suffering from leukaemia (Chodoff *et al.*, 1964); stroke patients (Schlesinger, 1965); patients with myocardial infarction (Croog *et al.*, 1968); concentration camp internees (Kogon, 1958); and more recent studies of patients with breast cancer, recovering from open heart surgery, cystic fibrosis, renal disease and cardiac transplants (Moos, 1977). Although spinal cord injury, because of its sudden onset and severity, poses one of the most extreme psychological insults of all forms of trauma, the manner in which patients cope with injury and adapt to the disability has received surprisingly little theoretical analysis. To be sure, some of the concepts we will discuss in this paper have received wide currency in the spinal cord literature. Our purpose here is to provide a synthesis of those observations from a coping and adaptation perspective. In this paper we are principally concerned with the coping process, that is the more immediate

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psychological defence reactions to injury. Adaptation is used to refer to longer-term psychological and social changes demanded by permanent disability. Since coping and adaptation fulfil different psychological needs the distinction between them is of theoretical and practical importance if we are to understand more fully the patient's total response to spinal cord injury.

A number of reviews of the psychosocial literature concerning spinal cord injury already exist which take their departure from somewhat different theoretical positions. These include: the medical, psychological and vocational aspects of the special problems facing patients with quadriplegia (O'Connor *et al.*, 1971); the more severe psychiatric problems, including suicidal tendencies, that accompany severe disability due to paraplegia (Petrus *et al.*, 1953); and a broad review of many aspects of the spinal cord patient's life including special problems in adjustment, social, economic and vocational problems and the role of motivation in rehabilitation (Mueller, 1962). Since the present review seeks to organise existing research findings within a coping and adaptation framework the literature has been selectively, rather than comprehensively, examined.

A. Coping and Adaptation at Different Stages of Acute Spinal Cord Injury

1. The Nature of the Reaction Stages

One of the principal difficulties in understanding psychological reactions to acute spinal cord injury concerns the different form such reactions may take, and the different meaning of each reaction, at various times after injury. Thus, denial of disability may be a more common and more adaptive response early after injury but becomes maladaptive if continued into the rehabilitation stage. We shall discuss this in more detail later. Yet another problem confronting our understanding of psychological reactions to cord injury is that other biological changes may precipitate emotional disorders. These will usually resolve themselves once the organic condition is recognised and treated. For example, inadequate treatment which results in urinary tract infections and pressure sores may produce increased tiredness resulting in complete apathy. Other patients may be labelled as uncooperative or hostile because they show outbursts of irritability and rudeness, all of which may be due to organic disorders secondary to cord injury rather than the cord injury itself and any resulting disability (Guttmann, 1976).

On a fairly simplistic level one might characterise the post-trauma reactions by the following stages: denial, rage and anger, bargaining, depression and, eventually, acceptance. It is, of course, no coincidence that these are almost precisely the stages described in the terminally ill patient, and mourning in the bereaved, by Kubler-Ross (1975). Our fundamental psychological response to any major loss, be it limbs, libido or life itself, is unlikely to vary significantly. Just as there is a limit to variability of biological phenomena—most of us weigh between 100 and 200 pounds—we should expect definable limits to our psychological repertoire for coping with crisis.

A number of investigators have identified most of these reactions at various times among spinal cord patients. It would appear, however, that there is a lack of agreement on the sequence with which these events occur. How much of this disagreement is due to a difference in what has actually been observed and how much is the result of a general lack of rigour in many of the studies is unclear. Nor is there any significant amount of data which would tell us how long various reactions may last. Thus, it is unknown at what point after injury most patients

begin to accept their disability; the usual length of time that depression predominates; or the average periods of denial, anger or bargaining. The normal range of these reactions would be extremely important information on both clinical and theoretical grounds since the abnormal extension of any stage would become a maladaptive response to the injury. Siller (1969) has described adaptation as follows: 'Ties to the lost part or function are represented by hundreds of separate memories; for each of these memories, the dissolution of the tie is carried through separately . . .' a process which is essential because it 'prevents the complete breakdown of the ego' (p. 292).

The importance of recognising these stages has been noted by Kerr and Thompson (1972) because it is necessary to anticipate and support rather than repress them. Not only must patients be allowed to grieve but physicians should give their patients as accurate a prognosis as they are able so that patients do not set themselves unrealistic expectations for the future nor postpone grieving longer than necessary (Roberts, 1972).

Among the more commonly reported reactions of spinal cord reactions which have also been described in the dying patient are: denial in the acute stage of injury (Wittkower *et al.*, 1954; Vincent, 1975) and also in later stages (Lipp *et al.*, 1968); anger (Wittkower *et al.*, 1954; Vincent, 1975) and reactive depression soon after injury (Mueller *et al.*, 1950; Nagler, 1950; Mueller, 1962; Siller, 1969). While investigators do not always share the same view concerning the nature of the different psychological stages following injury there is a consensus of opinion on the normality of them in all patients, at least to some degree or other, and the importance of experiencing them if the injury is to be eventually adapted to.

There is considerable disagreement in the literature over what is being measured. Many investigators have relied heavily upon clinical case histories, personal interviews, and unstructured as well as structured questionnaires. In addition, a variety of tests have been used to measure similar reactions to injury. Thus future vocational interest has been measured by the Kuder Preference Record and the California Occupational Interest Inventory (Mueller *et al.*, 1950). Psychosocial reactions have been examined using thematic perception, level of aspiration, Rosenweig's picture frustration, Bender-Gestalten and the draw-a-person tests (Wittkower *et al.*, 1954). Other measures have included Eysenck's neuroticism score, Secord's body disturbance score, Cattell's second-order anxiety score and Garrison's rehabilitation adjustment rating (Mitchell, 1970). Adjustment to disability has been examined using the Rorschach psycho-diagnostic procedures (Wittkower *et al.*, 1954; Hirschenfang, 1966; Mitchell, 1970). The Zung index has been used to measure depression (Crosby, 1969), and attitudes toward the disability itself examined using the Bell Disability Scale of Adjustment and the Attitude Toward Disabled Persons Scale (Bell, 1967). Measures of personality have been determined using the California Psychological Inventory (Kemp *et al.*, 1971) and the Minnesota Multiphasic Personality Inventory (Bourestom, 1965). Intelligence scores have included the Wechsler Adult Intelligence Scale (Hirschenfang *et al.*, 1966; Kemp *et al.*, 1971); Wechsler-Bellevue (Mueller *et al.*, 1950; Wittkower *et al.*, 1954); the Otis Self-Administered test (Mueller *et al.*, 1950); and the vocabulary for level of intellectual functioning section of the Shipley-Hartford test (Bell, 1967).

2. *The Role of Psychological Reactions in Coping and Adaptation*

If there is little consensus among investigators about the order and measurement of psychological reactions following acute spinal cord injury there is even

less concerning what these stages represent. Adaptation and coping theory suggests two discrete components will be found in coping with acute spinal cord injury: 1, defence; and 2, other coping reactions. Although in actuality these are not entirely independent, in that defensive behaviour is a form of coping, it is useful to consider them separately.

Defensive reactions. The almost instantaneous passage from physical well-being to total or partial paralysis is among the most shocking of all human experiences and the very first reactions are of an instinctual self-protective nature. Jerome Bruner (1966), in a different context, has described this as a 'strategy whose objective is avoiding or escaping from problems for which we believe there is no solution that does not violate our integrity' (p. 129). Defence mechanisms are vital to protect the ego from being overwhelmed by the extent of the injury until the full impact of the trauma can be assimilated. Maintenance of self-esteem and a sense of self-worth at this stage are absolutely essential to the ultimate optimal recovery of the patient. Among the classic defence mechanisms that might be used at this stage are repression, denial, reaction formation, regression, projection, displacement, negation and isolation, all of which avoid or minimise from consciousness the distressing aspects of the personal trauma. While not necessarily conflicting with this perspective, Guttman (1976) has commented that some of these apparent defence mechanisms might be due to physical factors such as oxygen deficiency in the newly injured patient.

Denial is the most commonly discussed defensive reaction although there is no clear impression that it is used to describe the same observations by all investigators. At least one study makes a distinction between denial and anosognosia (Wittkower *et al.*, 1954). In addition, many studies do not report precisely when, in terms of clinical progress, different ego defensive reactions have been observed. There is, however, considerable agreement that denial in the 'early stage' of trauma plays a positive role as a defence mechanism whereas denial in later stages, and certainly during rehabilitation, interferes with rehabilitative progress (Petrus *et al.*, 1953; Wittkower *et al.*, 1954; Lipp *et al.*, 1968; Siller, 1969; Murphy, 1974; Vincent, 1975; Guttman, 1976). Roberts (1972) has noted that patients who deny their disability before being directly told about the loss by professionals are more likely to remain unrealistic about the return of their bodily functions. It has also been observed that perceived loss of masculinity is one of the specific objects of denial (Winston *et al.*, 1969). A number of authors have found that if denial extends into the rehabilitation period it is almost always followed by severe depression (Roberts, 1972; Stern *et al.*, 1975; Vincent, 1975).

Affective reactions. Following the initial ego defensive period when the reality of the trauma begins to impinge on the consciousness of the spinal cord patient, there follows very strong affective reactions protesting the trauma. Hostility, anger and even hysteria will be found. In Freudian terms these might be conceptualised as an energetic reaction to the trauma which involves voluntary and involuntary reactions. If 'reaction energy' is not released it interferes with subsequent coping. Like other processes this stage has positive value if it occurs in the natural order of the adaptation process, but if it continues into later stages will interfere with the rehabilitation process.

According to the Kubler-Ross model, we would expect anger to follow denial and this has been observed as an early reaction to spinal cord injury (Wittkower *et al.*, 1954; Vincent, 1975). The object of anger becomes the person or situation

considered to be responsible for the injury. While anger may be expressed openly it may also show itself through rebellion (Kerr *et al.*, 1972), spite and deviousness (Siller, 1969). Kerr and Thompson (1972) regard these reactions as being essential in order to 'shake off dominance by others in order to reach maturity and recover an adult relationship with people' (p. 95). As we would expect from the coping and adaptation literature, it has been observed clinically that a stage of anger is necessary and indicates that the patient is trying to recuperate. Moreover, the prognosis for rehabilitation is better for these patients (Siller, 1969).

Continuing comparison of the Kubler-Ross model with reactions to acute spinal cord injury, we would predict that the stage described by her as one of bargaining would follow that of anger. Such a stage has not been described in the spinal cord literature. This may be because the concept has not been operationalised and measured. It may also be a relatively brief stage. Moreover, the analogy with the terminally ill may break down here: dying patients are bargaining for something which has not yet happened, death. The spinal cord patient, however, is already disabled and bargaining may be a less meaningful stage for them.

While the initial affective reaction is characteristically one of anger, it is usually followed by strong reactive depression. While reactive depression usually disappears when the condition which induced it disappears, this is not possible for the permanently paralysed patient. What does change is the feeling of utter hopelessness and despair which is replaced by an understanding that life after injury can be meaningful and rewarding.

Periods of depression at this stage are so common that they should be considered normal for all patients. Indeed, it has been proposed that patients who are not depressed should be a matter of concern (Siller, 1969). Prolonged depression has been reported to be quite rare (Nagler, 1950); more common in the first 6 months after injury and may be alleviated by a good relationship with the patient's doctor (Mueller *et al.*, 1950; Vincent, 1975; Guttmann, 1976). If depression extends into the rehabilitation period, on more than an episodic basis, it has been observed to interfere with satisfactory rehabilitations (Heijn, 1971; Stern *et al.*, 1975), and may even lead to suicide attempts (Guttmann, 1976).

Another affective reaction which has received some attention in the spinal cord literature is excessive dependency. Acute spinal cord injury immediately imposes a state of dependency. A failure on the part of the patient to reduce this dependency has been noted as a deterrent to satisfactory adjustment. These have included excessive dependence on hospital staff and other medical personnel (Thorn *et al.*, 1946; Nagler, 1950; Wittkower *et al.*, 1954) or excessive reliance on medications (Nagler, 1950; Wittkower *et al.*, 1954). Related reactions which have been observed and which relate to the notion of dependency are feelings of: indifference (Nagler, 1950; Guttmann, 1976), utter hopelessness (Mueller, 1962), and 'autistic thinking' as manifested by an unrealistic attitude about future capabilities (Thorn *et al.*, 1946).

Siller (1969) has remarked that a truly independent personality may display an overdependent reaction through excessive questions, self-derogation, a fear in trying new tasks and leaning on others. Alternatively, a display of 'pseudo-independence' may occur represented by overt obstinacy, inappropriate confidence, inability to accept appropriate help and the pursuit of inappropriate goals. Siller considers this is a form of denial in that the patient is rejecting the reality of his situation.

Coping reactions. After the initial ego defensive and affective reactions have occurred there comes a period of cognitive acceptance. While acceptance of the injury is necessary for a subsequent optimal outcome, it is not sufficient. For spinal cord patients, acceptance should lead to a more creative phase of coping realistically with one's life contingent upon the physical limitations of the disability. To paraphrase White's term, it is necessary to master the 'new' environment (White, 1974). The new environment being the obstacles and hurdles which heretofore familiar and comfortable facets of life now present to the paralysed patient.

Mechanic (1974) considers that three fundamental components are necessary for successful adjustment: 1, the coping abilities themselves; 2, the motivation to meet environmental demands; and 3, the maintenance of psychological equilibrium. Although we learn a variety of coping skills from birth (Murphy, 1974) little is actually known about the precise dynamics of the coping process. It has been suggested by Lazarus, Averill and Opton (1974) that the acquisition of coping skills may be part of the normal developmental sequence in the growth of an individual similar to the acquisition of conceptual and cognitive skills. Whether the coping skills necessary for dealing with a catastrophic event, such as paralysis, are simply quantitatively more than those used in everyday life or whether they are qualitatively different is uncertain. Moreover, failure to cope with acute spinal cord injury may result from: developmental malfunctioning; psychological inability; that coping skills necessary to meet the traumatic event have never been learned; or combinations of all of these.

Prolonged affective reactions also interfere with the coping process. While long-lasting depression was rare in Nagler's study (Nagler, 1950), those who experienced it have more difficulty adjusting to their illness. Roberts (1972) has commented previously that 'the most evident characteristic of an abnormal reaction is its excessive nature and prolonged course' (p. 117).

B. Influence of Pre-morbid Personality on Coping

Since personality structures consist of attitudes, beliefs and motives the nature of the pre-morbid personality is almost certainly critical in the coping reactions of the spinal cord injured patient. Janis (1958) has remarked that response to victimisation is an arousal of deeper layers of the personality and a return to earlier childhood patterns of adaptation; a phenomenon observed in some spinal cord patients (Guttmann, 1976).

The patient's pre-morbid personality has been found to be a fairly reliable predictor of the manner in which the injured will cope with their disability. Among the measures of pre-morbid personality found to correlate with better coping reactions are what have been called more 'stable' personalities (Thorn *et al.*, 1946; Mueller, 1962; Winston *et al.*, 1969; Cibeira *et al.*, 1972; Kerr *et al.*, 1972). Roberts (1972) reported that patients with high ego strength and the ability to delay gratification were better able to cope with their disability. Patients who were characterised as being ambitious and exhibiting intense personal effort were not found to cope well in another study (Thorn *et al.*, 1946). The effect of intelligence on coping is less clear. Roberts (1972) observed that the patient with greater intellectual ability 'has more opportunities to engage in a variety of activities following his disability than a person with less intellectual ability' (p. 1115). In Thorn's study patients with 'little intellectualisation' showed superior coping patterns (Thorn *et al.*, 1946).

Siller (1969) has suggested that a passive personality may be a useful protection to the extent that such people may avoid taking any chances and thereby do not find themselves in embarrassing situations in which they might experience failure. Patients with dependent passive personalities were found by Wittkower (1954) to adjust better than patients with other personality make-ups. In addition, conscientious individuals who have attained a higher level of psychosexual and personality maturation show more motivation to adjust to their disability. Kerr (1972) also found a direct positive relationship between optimal psychological adjustment and a stable personal background.

Psychopathic personalities often react badly to the reality of their disability by exhibiting demanding and uncooperative behaviour (Mueller *et al.*, 1950; Guttmann, 1976) and by being openly aggressive and hostile (Nagler, 1950; Guttmann, 1976). Harris *et al.* (1973) suggest that it is possible for latent psychopaths or other psychiatric abnormalities to surface following acute spinal cord injury. These disturbances are not likely to appear before the 2nd week after injury. Genuine psychotic reactions are few (Guttmann, 1976), and of three reported by Nagler (1950) an evaluation of one of the cases showed the factors causing the break had their origins in early childhood.

Finally, in this section, we should note one of the more serious methodological problems with all studies of psychological response to spinal cord injury which is that measures of personality have not been measured before injury. Since the incidence of acute spinal cord injury is so low, approximately 30 per million population (Kraus *et al.*, 1975), it is difficult to conceive of a study in which pre-morbid personality could actually be measured. None the less, the fact that all measures of 'pre-morbid' personality are made after injury should sound a note of caution when considering the results of these studies. This problem becomes particularly acute if, as Stern (1975) and Fordyce (1964) have suggested, the pre-morbid personality may also contribute to the injury. Although there is a fairly extensive literature on the psychological nature of accident proneness (Tillman *et al.*, 1949; Selzer *et al.*, 1962; Tabachnick, 1967) there is currently little empirical data to support a hypothesis that certain pre-morbid personality traits increase the risk of acute spinal cord injury.

C. The Influence of Significant Others on Coping

Another group of crucial factors in the process of coping concerns the relationship of the patient with significant others in his life and the nature of their own reactions to his injury. Stable supportive relationships between the injured and his family have been found to be of great importance (Thorn *et al.*, 1946; Petrus *et al.*, 1953; Wittkower *et al.*, 1954; Cibeira *et al.*, 1972; Kerr *et al.*, 1972; Guttmann, 1976). Hamburg and Adams (1967) believe that patients cope more effectively with disability when they have a firm sense of belonging to highly valued groups such as the family or the home community including close friends or even the hospital ward, including patients and staff. A person not only needs to feel his presence is valued by significant others but it also indispensable to them. Harris *et al.* (1973) suggest the relationship of the injured to his family often determines the reaction of the patient to his injury. For those who have an unsettled home situation there may be difficulties in adapting to the disability. In a small number of patients Dinsdale (1971) found those with the most difficulty adjusting to their injury were a group of eight young single males with poor

personal and family resources who were from broken homes or families beset with social problems.

The first response of families to the injury of one of its members is almost always one of kindness, consideration and solicitude. However, if the patient does not show improvement and rehabilitation is seemingly not successful, the family may experience resentment, albeit concealed (Wittkower *et al.*, 1954). The family's expectation that the patient will improve, or at least try to improve, supports the classic Parsonian notion of the sick role in which significant others are only willing to continue to 'forgive' the patient his normal social duties if he shows a desire to leave the sick role as soon as possible (Parsons, 1951). In order to help the family adjust, a therapeutic approach is often aimed at assisting the family with their own responses to the injury. Other family members are taught to assume the caretaker role without encouraging 'regression' in the injured member of the family (Adams *et al.*, 1974; Guttman, 1976).

The role of hospital personnel as significant others and their impact on coping cannot be overlooked. Kubler-Ross (1975) suggests that denial may be subconsciously maintained in patients to make it easier for hospital personnel. By doing so they are protecting themselves from facing their own feelings about death. She goes on to say that hospitals are not designed to cope with a patient's anger, bargaining or grieving. There has been little formal investigation of the effect of ward and rehabilitation personnel behaviour patterns on the ability of the spinal cord injured patient's ability to cope.

Discussion

The use of coping and adaptation as an organising concept for examining psychological reactions to acute spinal cord injury is helpful in several respects. Much of it is familiar territory; many of the component ideas have been widely used by researchers and clinicians for a great number of years. More importantly, however, the concept points to a number of serious gaps in our knowledge of spinal cord injury. These deserve more attention from investigators because they are likely to have significant clinical pay-offs.

First, it is necessary to document the range of reactions to spinal cord injury and their prevalence. While available research indicates that some reactions are very common in spinal cord patients there has been little work to determine their temporal nature. Thus, while denial, depression or anger are widely reported we do not know when such reactions typically begin, how long they last and when they finish. In addition, there is no available data to tell us under what conditions these reactions might re-occur, the personal characteristics of patients who might experience more severe forms of these reactions, or the family and social situation in which these conditions might be exacerbated or ameliorated. While there is some support in the literature for what, at face value, seems an obvious positive relationship between greater severity of injury and a stronger psychological reaction to it, the literature also indicates that the severity of disability only accounts for a small amount of variance in psychological reactions. Patients with almost identical injuries can react psychologically in vastly different ways. While the literature suggests that the patient's pre-morbid personality and social support from significant others are important determinants of reaction to injury much research is difficult to interpret because it is based on small numbers of patients with different levels of injury, uses a wide range of measures and examines these reactions at different times after injury. Moreover, some studies included among patients with acute

spinal cord injury others paralysed due to complications from other diseases. Yet another problem with many studies of psychological response to cord injury is that the time interval between injury and test measurement is not controlled for in analyses nor even often reported. This is a relatively easy piece of data to collect and should be presented in all psychological studies.

Another difficulty in fully interpreting the available literature is the wide variety of measures used to assess disability. Some studies describe their patients in terms of clinical measures of motor dysfunction or sensory dysfunction. There is little attempt to examine both and yet loss of sensory rather than motor function might result in a variety of reactions by different people (Bracken *et al.*, 1978). Other studies use measures of functional status which are more concerned with how much assistance patients need for their activities of daily living. The difficulty of this particular measure is the determination of cause and effect. A finding that patients who were depressed during rehabilitation performed less well on some task of daily living could mean depression led to the poor performance or vice versa. It is somewhat easier to impute a casual relationship between clinical measurements of disability based, for example, on response to pin-prick and psychological reactions. The only truly reliable method of assigning causality to an association, however, is by knowing the temporal relationships of the variables involved. There is a strong need, therefore, for studies using repeated measures of both psychological and clinical variables on the same patients. We have also found, in this review, that statistical analyses of data are not widely used. The difficulties of measuring psychological reactions must not preclude investigators from applying statistical tests to their data.

In light of these methodological problems it is not surprising that some studies, but not others, find psychological correlations with clinical outcome. If denial is common to almost all patients in the first weeks after injury it will have no predictive value at all when measured at that time. A variable found in all patients cannot, of course, discriminate between them. Denial measured during rehabilitation, however, might well predict subsequent outcome. The coping and adaptation perspective, therefore, demands that we determine precisely when, in terms of injury, reactions occur. Not only are most psychological reactions normal but the *absence* of a reaction at the appropriate time might predict later difficulties in adaptation to disability.

Finally we would comment on a problem found in all the studies we examined. Nowhere was there an attempt to examine data for curvilinear relationships. This is unfortunate since not only is the time when a psychological reaction occurs important for coping but so is its intensity. We have argued throughout this paper that if, for example, a period of anxiety is not experienced then adaptation will be more difficult. However, if very high anxiety is experienced it too will prove maladaptive. Extreme anxiety is, of course, detrimental to many intellectual and physical endeavours. If anxiety is to be appropriately channelled as a motivating force for rehabilitation it must be present but at moderate levels. Investigations which can examine psychological reactions to acute spinal cord injury in this manner are urgently required to assist clinical personnel in their treatment and counsel of the acute spinal cord injured patient.

RÉSUMÉ

Les théories de l'adaptation immédiate et à long terme sont employées pour synthétiser les données concernant le rétablissement après les accidents aigus à la moëlle épinière. Les réactions psychologiques dues aux accidents à la moëlle épinière ressemblent à celles

du deuil at aux autres cas de perte éprouvante. Chaque réaction joue un rôle spécifique soit pour aider soit pour entraver le rétablissement psychologique selon la périodicité de sa manifestation. La personnalité prémorbide et la présence d'autres personnes exercent un rôle prédominant dans l'adaptation au traumatisme. Ces facteurs expliquent en partie pourquoi certains malades s'adaptent mieux que d'autres à une maladie de la même gravité. Une critique des méthodologies et des suggestions pour de nouvelles études sont proposées.

ZUSAMMENFASSUNG

Mit sich selber fertig zu werden und die Anpassungs-Theorie werden hier angewandt, um die existierenden Daten in Bezug auf psychisch-soziale Genesung einer akuten Rückenmark Verletzung zu einem Ganzen zu entwickeln. Psychologische Reaktionen nach einem Unfall, die das Rückenmark betreffen, sind ähnlich wie beim Trauern oder in anderen Situationen nach schweren Verlusten. Jede Reaktion spielt eine spezielle Rolle, entweder zur Förderung oder zur Verlangsamung (Verhinderung) des Genesungsprozesses, und zwar abhängig davon, wann die Reaktion eintritt. Die vor dem eigentlichen Unfall vorhandene Persönlichkeit und der Einfluss wichtiger anderer Eigenschaften spielen eine Hauptrolle, mit der Verletzung fertig zu werden. Diese Tatsachen erklären teilweise warum manche Patienten mit einer ernsthaften Körperbehinderung besser fertig werden (oder sie akzeptieren) als andere Patienten mit einer gleichfalls schweren Körperbehinderung. Wissenschaftliche Untersuchungsmethoden und Vorschläge für neue Studien werden kritisch diskutiert.

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