Original Article

Patient–staff agreement in the perception of spinal cord lesioned patients' problems, emotional well-being, and coping pattern

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Study design: Matched patient/staff study.

Objectives: To investigate spinal cord lesion (SCL) rehabilitation staff perceptions of SCL patient problems, coping efforts, and well-being, and to compare these evaluations with patient self-reports of the same aspects.

Settings: Spinal Unit, Sahlgrenska University Hospital, Göteborg, Sweden.

Methods: In all, 29 persons with SCL and 24 members of the caring staff participated. Each patient was matched to a staff person actually involved in his or her care. The participants completed a study-specific questionnaire containing 45 SCL-related problems covering six problem areas: somatic symptoms, functional limitations, role problems, family-related problems, psychosocial problems, and emotional problems. Coping activities were assessed by a self-report 47-item questionnaire covering eight aspects of coping: self-trust, problem focusing, acceptance, fatalism, resignation, protest, minimization, and social trust. The patients were instructed to respond to the items included in the questionnaires according to their situation during the last week, while staff members were instructed to reply as 'they thought that their matched patient would answer'.

Results: Moderate but statistically significant correlations were demonstrated between patient and staff ratings of most investigated problem areas. However, the staff systematically overestimated patients' emotional as well as family problems, and tended to underestimate patients' reported coping ability and mental health. Staff were most accurate in assessing patients' physical symptoms, functional limitations, and role problems, but less accurate in their perception of less visible symptoms.

Conclusion: Relatively high agreement between patients and staff concerning patients' problems and states is possible to obtain in a caring setting. This may be more related to the quality of caring in the studied unit than to the study methodology used. Small units with high staff density and a long stay and/or prolonged contact with the patients probably facilitate communication with and knowledge about the patients. Interventions aimed at increasing staff awareness of patients' coping efforts may further improve staff ability to understand and support patients in their adaptation process.

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Introduction

A good correspondence between patients' and their carers' perception of the patient's situation is very important for good caring and rehabilitation. In order to respond best to a patient's concerns and needs, it is

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important for the carers to have enough knowledge about the patients with regard to both the nature and the relative importance and magnitude of these concerns. This is particularly important in the care of patient groups from which reliable reports are difficult to obtain. Thus, it is essential in the care of the very old and young, those who are very sick or have problems to communicate.

Despite this, several studies have shown that the level of agreement is surprisingly low between patient self-reports and corresponding evaluations by their caring staff and significant others.^{1,2} The overall emerging picture is that the carers perceive those afflicted to have more problems,^{3,4} a less satisfactory adaptation,⁵ and a lower degree of 'positive' attributes (eg optimism)^{6,7} compared to patients' own judgements. Some studies indicate that staff are able to describe accurately what are the 'typical' problems of a certain group of patients, but they perform less well when asked to pinpoint the specific problems of individual patients for whom they are presently caring.^{3,8,9}

This lack of agreement has been found in a variety of patient groups,¹ including patients with spinal cord lesion (SCL). Rehabilitation staff have been reported to over-rate SCL patients' emotional distress compared to patients' own description, both when asked to estimate the distress of the average SCL patient^{6,7} and when trying to estimate individual patients' mood.^{10,11} It has been suggested that the rehabilitation staff have preconceived notions of how persons do or should react when afflicted by an SCL, and that the staff tend to consider the patients to be more demoralized than they are.⁶

According to Trieschmann,¹² such conceptions of the staff may 'create a psychological climate in which the person with SCI realizes that everyone considers him to be very unfortunate'. Such possible negative effects of staff' overestimation of emotional distress in SCL patients suggest that this issue requires special consideration in research.

Relatively few theoretical explanations have been offered that contribute specifically to the understanding of patient-staff discrepancies.^{1,2} However, several authors have noted that able-bodied people frequently state that life with SCL would not be worth living. Health-care professionals may be little different from the society and are likely to share pervasive cultural perspectives and attitudes. If depression and despair are expected, they are likely to be perceived.^{13,14} Another line of explanation suggests that patients' relatively low distress ratings may be the result of successful adjustment to or coping with their illness/disability.^{2,15,16} Such processes may be unknown and/or difficult to understand by the carers.¹⁵⁻¹⁹ Little is known about staff awareness and evaluation of their patients' coping abilities. The staff may put too much emphasis on the patient's illness and/or disability, focusing on patient problems/deficits rather than on abilities and coping resources.² This point to the importance of incorporating assessments of coping efforts in order to further understand patient-staff discrepancies.

A number of methodological limitations characterize several of the studies comparing patient and staff perceptions.^{1,2} Particularly, it has been stressed that the majority of studies have used a small staff sample assessing a larger patient sample. This leads to unwanted dependency between ratings in the staff sample since most or all staff members judge several patients. In some studies, the staff has even evaluated the patients as a group rather than as individual patients. Their ratings may then reflect stereotypes of patient groups rather than characteristics of individual persons. In many studies, the assessment methodology has been lacking in stringency. A sound methodology should include a dyadic design in which the evaluations of single staff members are compared with the self-reports of single patients, and the use of standardized assessments that are similar for both patients and staff.^{1,2}

The present study aims to apply a dyadic design to the investigation of SCL rehabilitation staff perceptions of SCL patient problems, coping efforts, and well-being, and to compare these evaluations with patient self-reports of the same aspects.

The following specific research questions are posed: to what extent do SCL patients and their caring and rehabilitation staff agree about:

- (1) SCL-related problems experienced by the patient?
- (2) Coping strategies used by the patient?
- (3) Emotional well-being and vitality experienced by the patient?

Methods

Patients

A total of 29 patients participated in the study. They consisted of two groups. The first group ($n = 14$) was a consecutive series of recently spinal cord-injured patients who were admitted to the spinal unit at the Sahlgrenska University Hospital (SU) in Göteborg. When patients were interviewed the time since lesion ranged from 3 to 7 months. The second group ($n = 15$) consisted of persons with SCL who had been injured for a longer period of time (2-16 years) and who regularly participated (once or twice a week) in an outpatient rehabilitation facility at the SU associated with the spinal unit. The inclusion criteria for both groups were: at least 3 months since being injured, able to understand the Swedish language, no psychiatric disease or brain lesion. In all, 27 of the participants (93%) were wheelchair dependent. Sociodemographic and clinical characteristics for the group are shown in Table 1.

Staff

In all, 24 members of the caring staff actively involved in the rehabilitation of SCL patients participated. The staff consisted predominantly of women (86%); only three were men. Among the staff, there were three nurses,

Table 1 Patient sociodemographic and clinical characteristics

	Participants (<i>n</i> = 29)
<i>Sex</i>	
Male	18 (62%)
Female	11 (38%)
<i>Age (years)</i>	
Median	33
Range	19–78
<i>Time since injury (months)</i>	
Median	24
Range	3–216
<i>Marital status</i>	
Married/cohabiting	11 (38%)
Stable partner relationship without living together	4 (14%)
Single	14 (48%)
<i>Cause of injury</i>	
Traffic	15 (52%)
Fall	5 (17%)
Sports	4 (14%)
Diving	3 (10%)
Nontrauma	2 (7%)
<i>Level of lesion</i>	
Cervical	21 (72%)
Thoracic	5 (17%)
Lumbar	3 (10%)
<i>ASIA</i> ³⁶	
A	10 (34%)
B	11 (38%)
C	6 (21%)
D	2 (7%)

10 nurse assistants, six physiotherapists, four occupational therapists, and one social worker. Their median age was 32 years (range 22–50 years), and their experience of SCL care ranged from 6 months to 20 years (median 4 years).

Principles of care and facilities

The spinal unit at the SU takes 14 patients (with flexibility up to 18), providing comprehensive transdisciplinary team care and a life-long follow-up. The rehabilitation process begins when the patient enters the unit and his or her medical condition is stabilized. Every team includes a doctor, a nurse, one to two nurse assistants, a physiotherapist, an occupational therapist, and a social worker. The team members are the same during the patient's total stay at the unit and anyone of these staff categories can be selected to be the patient's case-manager or 'key-person'. The rehabilitation programmes are patient focused and individually designed to meet each patient's needs. Goal setting

meetings are held regularly. Before discharge, domestic arrangements for independent or family living are completed and the details are structured for aftercare service. Average time for in-patient treatment after lesion is 6 months for tetraplegics and 3 months for paraplegics. The outpatient clinic is open for drop-in activities twice a week and the patients may telephone at any time. The staff at the outpatient clinic works at the unit as well.

Study design and procedure A dyadic design was employed, in which each patient was matched to a staff person involved in his or her care. For each participating hospitalized patient, one member of the patient's team was randomly selected by the patient's 'key-person'. In the outpatient group, each SCL person was randomly paired to one of the 10 staff members working in the outpatient setting. Owing to the small number of staff at the outpatient clinic, five of them assessed two patients each.

The Ethical Research Committee at the Göteborg University approved the study and informed consent was obtained from all participants. All patients and staff were given written information and were instructed individually in the use of the instruments by two of the authors (AS and MK). Patients and staff were reassured that their responses were to be handled confidentially.

The study procedure and the questionnaires were initially tested and refined in a separate pilot study prior to the main study. Patients were invited to participate in the study either about 3 months after being injured and admitted to the unit (*n* = 14) or during their visit at the outpatient clinic (*n* = 15). When a patient had agreed to participate, he or she was randomly paired to a staff member who had been actively involved in the patient's care and rehabilitation for at least 2 weeks. Most patients responded to the questionnaire independently. For those patients who could not physically mark their answers, one of the authors (AS or MK) marked his or her responses. Both patients and staff were asked to complete the instruments in the following order: The SCL-related problems questionnaire, the coping questionnaire, and the SF-36 subscales. The staff person was asked to complete a similar form for his or her patient within the same week as the patient completed his or her form. The staff completed the questionnaire on their own, without conferring with their patient.

Measurements

In order to compare staff and patient responses, two versions of the questionnaires were constructed. The patients were instructed to respond to the items included in the questionnaires according to their situation during the last week, while staff members were instructed to reply as 'they thought that their matched patient would answer'. Otherwise, the questionnaires were identical for patients and staff.

SCL-related problems A study-specific questionnaire concerning SCL-related problems was constructed, based on knowledge from earlier research, exploratory interviews with patients not included in the present study, and discussions with experienced staff. The questionnaire contains 45 problem descriptions covering six problem areas: somatic symptoms of lesion (eight items), functional limitations (nine items), role problems (six items), family-related problems (five items), psychosocial problems (nine items), and emotional problems (seven items) (see Table 2). The response scale had six grades, ranging from 'not at all' to 'very much'. Higher scores indicate a higher degree of perceived problems.

Coping Coping activities were assessed by a Swedish self-report questionnaire recently developed to measure cognitive, emotional, and action-oriented coping efforts in connection with somatic illness and/or physical disabilities. In its present version, it consists of 47 items, which have been found to cover eight aspects of coping in a study of patients with myocardial infarction.²⁰ These dimensions were self-trust (four items), problem focusing (four items), and acceptance (four items) with their negative counterparts fatalism (five items), resignation (three items), and protest (five items), and the bipolar factors minimization (eight items) and social trust (10 items). In the rich coping literature, all these aspects of coping have been shown to have substantial relations with indices of adjustment and quality of life among patients with physical disabilities and/or somatic illness. Self-trust, problem focusing, acceptance, minimization, and social trust have been found to be positively related to indices of quality of life, while fatalism, resignation, and protest have been found to have negative relations.^{17–19,21–27}

The respondents rated each item on a six-step response scale ranging from 'I always think or act like this' to 'I never think or act like this'. The staff was asked to respond as they thought their matched patient would. Scores on each subscale are calculated by computing the individual mean values of the items belonging to each factor, giving an average between 1.0 and 6.0.

Physical and mental well-being The two scales measuring vitality (four items) and mental health (five items) from the Swedish 'acute' version of the SF-36 Health Survey were used.^{28,29} According to the specified instructions for this version, the participants were asked to rate these states with a time window of the last 4 weeks. Assessments are made on a six-point scale from 'all of the time' to 'none of the time'. Higher scores indicate a higher degree of well-being. The two scales were scored according to the manual for the SF-36.^{28,29}

Background data Data on patient background characteristics were obtained from the medical records. Age,

gender, level and extent of lesion, wheelchair dependency, and duration of lesion were recorded for the SCL persons. Staff were asked to report their profession and to assess, on a 10-point scale, how well they knew their matched patient (from 'not at all' to 'extremely well'). The median rating on the 10-point scale was 6 with a range of 4–9. Staff were also asked how frequently they were actively involved in the patient's rehabilitation. All recently injured patients had daily contact with their matched staff member. For the patients in the outpatient clinic, the staff member usually met their patient once a week.

Statistical methods

The 29 patient-staff dyads were treated as dependent pairs. Each of the 45 items (Table 2) measuring the SCL-related problems was tested separately. Scale values were compared for the coping questionnaire and the SF-36 scales. Correlations between patient and staff ratings were assessed by the Kendall's tau, which is a nonparametric measure of association for ordinal data.³⁰ The coefficient varies between -1 and $+1$. The Wilcoxon's test was used to estimate level differences between staff and patients, that is, systematic over- or underestimation of patient ratings from the staff point of view. Both tests were used because high correlations do not exclude the possibility of systematic over- or underestimation. The best agreement is reflected in a high correlation and a nonsignificant Wilcoxon test. A high correlation and a significant Wilcoxon test suggests that the staff tend to recognize correctly those patients who have particularly high and/or low ratings, but they over- or underestimate the levels of these ratings. The software used was SPSS, version 10.1.³¹

Results

Table 2 shows the levels of group problem ratings for the patient and the staff. On the whole, patients reported low to moderate levels of perceived problems. The problems that were perceived as most troublesome were primarily of a somatic and functional nature, for example, 'paralysis', 'emptying the bladder', 'hand and finger function', 'sexuality', and 'walking'. Among the psychosocial problems, 'dependence' and 'loss of life plans' were perceived as most problematic.

The coping activities reported to be used most often by the patients were 'social trust', 'self-trust', 'problem focusing', 'minimization', and 'acceptance' (Table 3). It was less common to react with more negative types of coping, for example, 'resignation', 'fatalism', and 'protest'.

Compared to an age- and sex-matched reference group ($n = 110$) from the Swedish norm database for the SF-36 version 2.0 ($n = 2188$),²⁹ the SCL patients scored lower on vitality and mental health. The mean value for vitality was 55.9 and for mental health 68.2 in the SCL group. The corresponding values for the Swedish reference group were 68.0 and 80.5, respectively. Thus,

Table 2 Agreements and discrepancies between patient ($n = 29$) estimation and staff ($n = 29$) ratings of individual problem items

	<i>Patients mean (SD)</i>	<i>Staff mean (SD)</i>	<i>Kendall's tau r P-level</i>	<i>Wilcoxon P-value</i>	<i>Over/under- estimation +/–</i>
<i>Symptoms</i>					
Pain	3.24 (1.8)	3.48 (1.6)	0.53**	0.43 NS	
Spasticity	3.41 (1.7)	3.17 (1.6)	0.52**	0.30 NS	
Sensory loss	3.45 (1.4)	3.61 (1.5)	0.50**	0.57 NS	
Paralysis	4.24 (1.5)	4.24 (1.5)	0.53**	0.80 NS	
Contractures	2.46 (1.6)	2.10 (1.2)	0.48**	0.29 NS	
Oedema	2.14 (1.4)	1.83 (1.1)	0.38*	0.20 NS	
Skin problems	2.21 (1.6)	2.17 (1.3)	0.44**	0.98 NS	
Hypotension	2.31 (1.5)	2.24 (1.5)	0.39**	0.87 NS	
<i>Functional limitations</i>					
Urinary continence	2.69 (1.6)	2.93 (1.9)	0.43**	0.51 NS	
Emptying the bladder	3.72 (1.9)	3.59 (1.6)	0.25 NS	0.74 NS	
Bowel continence	1.79 (1.4)	2.31 (1.6)	0.24 NS	0.06 NS	
Emptying the bowel	3.31 (1.7)	3.83 (1.6)	0.25 NS	0.07 NS	
Personal hygiene	2.96 (2.0)	3.14 (1.6)	0.50**	0.63 NS	
Sexuality	3.26 (1.9)	3.62 (1.4)	0.39**	0.26 NS	
Hand and finger function	3.72 (2.2)	3.72 (2.1)	0.63**	0.95 NS	
Balance	3.36 (1.4)	3.90 (1.5)	0.32*	0.10 NS	
Walking	4.72 (1.7)	4.52 (1.4)	0.25 NS	0.35 NS	
<i>Role problems</i>					
Relations with relatives	1.73 (1.4)	1.79 (0.9)	0.26 NS	0.79 NS	
Partnership	1.96 (1.6)	2.55 (1.7)	0.47**	0.18 NS	
Parenthood	1.16 (0.4)	1.54 (1.2)	0.64**	0.26 NS	
Relations with friends	1.23 (0.6)	1.66 (0.9)	0.02 NS	0.11 NS	
Spare time activities	3.38 (1.6)	3.79 (1.6)	0.33*	0.56 NS	
Domestic work	3.26 (1.7)	3.17 (1.4)	0.20 NS	0.47 NS	
<i>Family problems</i>					
Financial difficulties	1.86 (1.5)	2.41 (1.4)	0.34*	0.04*	+
Disturbed family relations	2.24 (1.7)	3.21 (1.6)	0.34*	0.01**	+
Being a burden for the family	2.10 (1.5)	2.76 (1.4)	0.39**	0.02*	+
Worry for partner	1.93 (1.4)	2.59 (1.9)	0.68**	0.02*	+
Worry for children	1.34 (1.0)	1.61 (1.4)	0.61**	0.58 NS	
<i>Psychosocial problems</i>					
Loss of self-confidence	2.34 (1.7)	2.72 (1.5)	0.36*	0.19 NS	
Loss of life plans	3.62 (1.7)	3.62 (1.6)	0.38**	0.98 NS	
Dependence	3.79 (1.7)	3.55 (1.8)	0.71**	0.18 NS	
Dislike the body	2.79 (1.8)	2.97 (1.4)	0.54**	0.30 NS	
Feel alienated	2.34 (1.2)	2.76 (1.4)	0.35*	0.09 NS	
Others do not understand	1.52 (1.2)	2.34 (1.2)	–0.01 NS	0.01**	+
Avoid social contacts	1.66 (1.1)	1.69 (1.2)	0.47*	0.78 NS	
Feel isolated	1.97 (1.6)	2.41 (1.3)	0.29 NS	0.08 NS	
Problems to get friends	1.19 (0.4)	1.41 (0.7)	–0.02 NS	0.29 NS	
<i>Emotional problems</i>					
Worry/anxiety	2.45 (1.6)	3.10 (1.7)	0.40**	0.04*	+
Depression	2.28 (1.7)	2.86 (1.6)	0.50**	0.03*	+
Bitterness	2.07 (1.4)	2.90 (1.7)	0.38*	0.01**	+
Anger/irritation	2.03 (1.3)	3.00 (1.6)	0.32 NS	0.00**	+
Shame/guilt	1.45 (1.1)	1.90 (1.4)	0.58**	0.02*	+
Tired of life	1.93 (1.6)	2.21 (1.5)	0.55**	0.19 NS	
Loneliness	1.72 (1.1)	2.24 (1.5)	0.35*	0.05	+

* $P < 0.05$ ** $P < 0.01$

NS = nonsignificant

Table 3 Agreements and discrepancies between patient ($n = 29$) estimation and staff ($n = 29$) ratings of patient's coping and well-being

	<i>Patients, mean (SD)</i>	<i>Staff mean (SD)</i>	<i>Kendall's tau r P-level</i>	<i>Wilcoxon P-value</i>	<i>Over/ underestimation (+/-)</i>
Coping					
Self-trust	4.80 (1.0)	4.27 (1.1)	0.31*	0.02*	—
Problem focusation	4.65 (1.1)	4.29 (1.1)	0.30*	0.09 NS	
Acceptance	3.66 (1.5)	3.17 (1.1)	0.52**	0.03*	—
Minimization	4.05 (1.1)	3.37 (0.9)	0.40**	0.00**	—
Social trust	5.00 (0.8)	4.80 (0.7)	0.26 NS	0.10 NS	
Fatalism	2.48 (1.3)	2.47 (1.1)	0.50**	0.68 NS	
Protest	2.51 (1.3)	2.98 (1.1)	0.48**	0.01**	+
Resignation	1.85 (1.0)	1.95 (0.9)	0.20 NS	0.55 NS	
SF-36					
Mental health	68.9 (22.8)	60.4 (21.4)	0.37*	0.04*	—
Vitality	55.9 (24.0)	51.0 (20.8)	0.35*	0.19 NS	

* $P < 0.05$ ** $P < 0.01$

NS = nonsignificant

on both scales the present SCL group differed more than 10 score points compared to the general population, which is a difference regarded to be clinically significant.²⁸ The SCL patients' values were equivalent to those from the SCL populations studied by Westgren and Levi³² and Elfström *et al.*³³

Patient-staff correlations

Table 2 shows that there were significant correlations between patient ratings and staff estimations for most items in all problem areas, for example, somatic symptoms, functional limitations, family problems, psychosocial problems, as well as emotional problems. The correlations were particularly high for the somatic symptoms.

Concerning coping, the correlations between patient and staff ratings were relatively high (Table 3). The correlations were positive and significant for six of the eight coping domains. The highest correlations between patients and staff were found for 'acceptance', 'minimization', 'fatalism', 'protest', and 'minimization'.

Staff estimations of patients' mental health and vitality (SF-36) were also significantly related to the patient ratings (Table 3).

Patient-staff discrepancies

Despite the relatively high correlations between patient and staff ratings, there were tendencies to systematic over- and underestimation on the part of the staff (Tables 2 and 3). Particularly, the staff tended to significantly overestimate patients' emotional problems and problems for the family/household, for example, 'anxiety', 'depression', 'bitterness', 'anger/irritation', 'shame/guilt', 'loneliness', 'financial difficulties', 'disturbed family relations', 'being a burden for the

family/partner', and that 'others do not understand'. The staff also underestimated patient ratings on the Mental Health scale of the SF-36. Thus, the emotional and social consequences of the lesion were not perceived to be so problematic by the patients as the staff perceived them to be.

The staff also significantly underestimated patients' use of certain coping activities, for example, 'self-trust', 'acceptance', and 'minimization', and overestimated their use of 'protest' (Table 3). This suggests that the patients believed in their own capacity (self-trust), and tried to play down cognitively the consequences of the lesion (acceptance and minimization), to a larger extent than was believed by the staff. The patients also experienced their situation to be less 'unfair' (protest) than the staff believed.

Patient-staff agreement

Thus, on the whole, the participating staff appeared to have an adequate picture of which problems were more or less troublesome for their patients, their perceived mental health and vitality, as well as their predominant modes of coping. However, the staff tended to overestimate the magnitude of their patients' emotional and social problems. The staff also tended to underestimate the frequency of their patients' use of coping activities aiming to overcome the negative consequences of the lesion.

Discussion

The primary aim of the present study was to explore staff perceptions of individual patient problems, coping efforts, and well-being, and compare these with patient self-reports. Moderate but statistically significant correlations were demonstrated between patient and staff

ratings of most investigated problem areas, indicating that staff ratings corresponded fairly well with patients' own reports. However, the staff systematically overestimated patients' emotional as well as family problems. In addition, the staff tended to underestimate patients reported coping ability and mental health. Staff were most accurate in assessing patients' physical symptoms, functional limitations, and role problems, but less accurate in their perception of less visible symptoms. This is in agreement with other studies.^{6,7}

The relatively high correlations between patient and staff ratings differ from the results of previous studies of SCL patients.^{6,7} These showed highly contrasting patient-staff perceptions concerning SCL patients' distress and psychosocial concerns. The relatively high agreement in the present study may have several explanations. It may depend partly on the fact that a dyadic design was used, that is, a single staff member judged each individual patient independently. This design should increase agreement since staff members rate individuals who are known to them, rather than 'typical' patients. However, in several of those studies in which a dyadic design was used, weak associations were demonstrated between staff and patient ratings.²

Another explanation may be that most of the questionnaire items were specifically developed to assess typical problems facing SCL patients. Also, the coping questionnaire tapped aspects of coping reported to be common among people with somatic illness and/or disabilities. It is probably easier to evaluate concrete patient problems compared to more abstract questions about quality of life or well-being, particularly for the staff. The agreement in terms of high correlations between ratings and low levels of over- or underestimation were also higher for the items concerned with somatic symptoms and functional limitations. In the present study, the questionnaires were tested and discussed by both patients and staff prior to the study. This ensured the relevance and understanding of the questions by both categories of raters.

The many methodological problems in studies of agreement/discrepancies between patient and staff ratings of patient problems have been discussed in the literature. However, less attention has been paid to differences in the caring characteristics between the settings that have been studied. Thus, high agreement between patients and staff might simply reflect a high standard of caring at the investigated unit. A small-sized unit with high staff density as well as highly motivated, well-trained and experienced staff and a long stay for the patients at the unit should facilitate close contact and effective communication between patients and staff. Continuous assessment of physical symptoms and functional limitations is part of the daily work. Working in a team and participation in regular team meetings probably also facilitates part taking and discussions about the patients with other team members. The spinal unit in the present study is characterized by such communication, facilitating aspects of caring. The staff also reported a relatively high level of familiarity with

their patients. The same staff members are involved in the acute care of the patients, the rehabilitation procedures, the follow-up visits, and the outpatient facilities. This organization may provide particular opportunities for the staff to gain experience and knowledge of SCL patients also in a long-term perspective. Our results give additional support for the requirement for spinal injury care and rehabilitation to be undertaken in specialized units, being able to provide an integrated process of management including rehabilitation from injury and onwards.³⁴

The finding that staff tended to overestimate patients' psychosocial and emotional problems is in accordance with previous reports from SCL^{6,7,10,11} and cancer care.²⁻⁵ One explanation given by Cushman and Dijkers¹¹ is that staff creates an expectation of a 'negative mood state' for SCL patients, either through a 'requirement of mourning'^{23,35} or based on their projection of how they themselves might respond to an SCL. Thus, they may imagine how they would feel if they were in the patient's situation. This hypothesis may provide an explanation of the findings that staff overestimated patients' feelings of negative emotions. Furthermore, estimation of patient emotional states may be more difficult than the assessment of physical problems. The caring staff may be better trained to assess and take care of patients' somatic problems. Evaluation of the individual patient's emotional well-being based on the patient's own perception are not performed routinely, thus making staff less aware of patient psychological distress. In addition, patients may withhold and under-report their negative emotions and may feel an obligation to appear strong and cheerful.

Another explanation of staff overestimation of patients' emotional distress may be that they are not sufficiently aware of patients' coping abilities. This is supported by the present finding that staff tended to underestimate the extent to which the patients employed potentially constructive coping, for example, self-trust, acceptance and minimization, and overestimated their use of protest. As noted above, the use of these strategies has been shown to be closely related to emotional well-being and high quality of life.¹⁷⁻¹⁹

A number of measures were taken to avoid methodological deficiencies that may negatively influence patient-staff agreement. A dyadic design was used and patient and staff versions of the same instruments were employed. Careful instructions were given with regard to the time period that should be assessed and there was no or at most 1-week interval between patient and staff assessments. A limitation of the design is the small study sample. However, a larger sample could not be included due to the small number of staff working in the outpatient setting.

There are at least 3 potentially important clinical implications of the present findings. The first is that relatively high agreement between patients and staff concerning patients' problems and states is possible to be obtained in a caring setting. The second implication is the suggestion that this may be more related to the

quality of caring in the studied unit than to the study methodology used. Small units with high staff density and a long stay and/or prolonged contact with the patients probably facilitate communication with and knowledge about the patients. The third implication is that interventions aimed at increasing staff awareness of patients' coping efforts may further improve staff ability to understand and support patients in their adaptation process.

Most studies conducted on patient-staff perceptions of patient problems and needs include nurses as the only staff category. Thus, future research is needed to determine potential differences between staff categories concerning their assessment of patient problems, coping efforts, and well-being. It has also been suggested that the longer a staff member works with SCL patients, the more insensitive he or she becomes to patients' reactions.^{6,11} Hence, it would be valuable in future studies to examine patient-staff agreement in relation to staff profession and comparing staff with varying duration of experiences with SCL patients.

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