

COPING REVISITED: THE RELATION BETWEEN APPRAISED SERIOUSNESS OF AN EVENT, COPING RESPONSES AND ADJUSTMENT TO ILLNESS

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Introduction

Quality of life issues are a major concern for nurses caring for patients receiving chronic care. Nurses must constantly assess how patients are coping with and adjusting to their illness.

The majority of the coping literature reports on the coping behaviours people use in handling stressful life events (Billings & Moos, 1981; Cohen & Lazarus, 1979; Felton, Revenson & Hinrichsen, 1984; Folkman & Lazarus, 1980). For nurses, the implication of such research has been to focus on subjects with more noticeable dysfunctional coping behaviours. However, neither the objective severity of the life event (such as major-minor burn injury) nor coping behaviours per se, have explained much variance (<10%) in a person's adjustment to illness (Browne, Byrne & Brown, 1985; Felton, Revenson & Hinrichsen, 1984).

Recent attention paid to the cognitive appraisal of stressful events has been based on the assumption that the meaning one attributes to an event may effect coping (Lazarus & Folkman, 1984; McCrae, 1984; Moos & Billings, 1982; Viney & Westbrook, 1984). Early attempts to tap this dimension of appraisal or perceived seriousness included assigning objective weights and rankings to more or less serious (stressful) events (Holmes & Rahe, 1967; Holmes & Masuda, 1974). For example, death of a spouse might be considered more stressful than divorce. This method of assigning objective weights or ranks to indicate the seriousness of an event has undergone recent criticism

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(Dohrenwend, Krusnoff, Askenasy & Dohrenwend, 1982; Miller, 1981; Perkins, 1982; Schroeder & Costa, 1984). The criticisms have ranged from rejecting the premise underlying such scales to listing the detailed methodological pitfalls in the construction of the scale. Further, a more highly correlated relation between the seriousness of an event and outcome has been observed when the subjective evaluation of the magnitude of an event was used in the rating procedure (Dohrenwend, Krusnoff, Askenasy & Dohrenwend, 1982).

Haan (1977; 1982) reviewed the literature which related peoples' subjective evaluation of events and their adjustment outcomes. He concluded that adjustment was more difficult when the event was not anticipated, was perceived as hopeless, was viewed as negative or serious and when the onset or outcome was out of one's control. This comprehensive approach to the subjective weighting of the seriousness of an event evaluates distinct assessments made by the subject concerning the desirability or seriousness, controllability and anticipation of the life event (Streiner, Norman, McFarlane & Roy, 1981). Dohrenwend and Dohrenwend, (1974), Fontana, Hughes, Marcus and Dowds, (1979) also support the proposition that adjustment to an event is more difficult when the event is viewed as serious, undesirable and unanticipated.

As part of a larger study measuring the psychosocial adjustment to a burn injury (Browne et al., 1985), specific data on life events, coping styles and adjustment outcomes on subjects who had experienced a burn injury were analyzed. These subjects had varying degrees of burn severity, but all had experienced a similar, unanticipated life event with potential seriousness and undesirability.

The goal of this study was to determine if the objective severity of a selected event would have value in distinguishing types of subjective judgements about the seriousness of the event itself or types of coping by previously burned subjects. Thus the intent of the research was to determine if subjective appraisal of the seriousness of an event was more important than objective rankings in accounting for variance in coping behaviours of previously burned subjects? In addition, we wanted to know whether the subjective evaluation is related to specific methods and foci of coping. Subjects appraised their events as serious or less serious in that it affected their daily living, job, and/or relationships with family or friends. Thus, four hypotheses were addressed;

1. Burned subjects' subjective appraisal of the seriousness of events is not related to the objective rankings given life events by Holmes and Rahe (1967).
2. Specific methods and foci of coping, as described by Billings & Moos (1981), differ for those burned subjects who appraised their life event as a major and for those who rated it as a minor one.

3. The Psychological Adjustment to Illness Scale outcome (PAIS) (Morrow, Chiarello & Deragotis, 1978) differs for burned subjects who appraised their life event as serious and for those who rated it as less serious.

4. Burned subjects' perceived seriousness of an event has more power (R^2) than the objective life event rankings of Holmes and Rahe (1967), in explaining the variance of specific important methods or foci of coping.

Method

Procedure

This correlational study, as part of an historical prospective cohort analytic study of adjustment to burn injury (Browne et al., 1985), included 256 randomly selected adults who sustained burns over the last 12 years and who attended a regional Burn Unit in Southern Ontario, Canada. Subjects completed the Billings and Moos Coping Scale (1981), which asked them to name a problem (the burn injury, or any other problem) that they had dealt with over the past year. The Social Readjustment Rating Scale (Holmes & Rahe, 1967) was used by the authors to assign scores to the life event. Subjects were also asked to appraise the seriousness of the event as either major or minor (ie. a major event had adverse impact on daily living, jobs or relationships with family and friends; a minor event did not have impact in these areas). Following this, the subjects indicated whether or not they employed any of the behaviours listed in the Coping Scale when reacting to the problem. In addition, subjects were interviewed and completed a psychosocial adjustment scale (PAIS) that indicated their adjustments to the burn injury and any changes in their social, domestic or vocational roles following their burn injury.

Instrument

The Billings & Moos Coping Scale (1981) is a 33-item inventory scored on a four-point scale and is designed to investigate how patients deal with problems. When scoring, items are grouped into cognitive, behavioural and avoidance methods of coping, as well as being classified into five foci of coping described as problem solving, information seeking, logical analysis, emotional discharge and affective regulation. The internal consistencies (Cronbach's alpha) for these subscales ranged from 0.60 to 0.80.

The Psychosocial Adjustment to Illness Scale (PAIS) is composed of 45 questions scored from "improvement or no change" (0) to "a great deal of change" (3) since the burn injury, in the areas of health care orientation, vocational environment, domestic environment, sexual relationships, extended family relationships, social environment and psychological distress (Morrow, 1978). The overall reported interrater reliability is $r=0.83$. Construct validity was assessed by relating health care orientation with the subjects' satisfaction with the care they received ($r=0.27$ and with their expectations

regarding care ($r=0.47$). Conversely, there was a significant negative correlation ($r=-0.35$) between the domain of health orientation and the "number of days ill or injured in the preceding 2 days" (Morrow, 1978).

The Social Readjustment Rating Scale (SRRS) (Holmes & Rahe, 1967) gives a rank score to each life event or an objective measure of the stressfulness of the event. It contains an estimate of the magnitude or seriousness of life events as derived from populations enlisted by Holmes & Rahe. Scale estimates yielded high coefficients of correlation ($r=.82$ to $.90$) (Dohrenwend & Dohrenwend, 1974).

Results

Specific demographic characteristics of the 256 study respondents are described in Table 1. There were no significant differences in age, gender or burn severity between those subjects who appraised their event as serious and those who appraised it as non-serious.

Table 1

Demographic Characteristics of Subjects (N=256)

		Subjective Appraisal	
		Serious (n=217)	Less Serious (n=39)
Age (in years)	(mean \pm S.D.) (range)	42 \pm 16 21 - 85	40 \pm 16 20 - 100
Gender	male female	80% 20%	82% 18%
Burn Severity	major burn minor burn	47% 53%	44% 56%

The effect of representativeness and location rate of the subjects who presented at the regional burn unit has been described elsewhere (Browne et al, 1985). Two clinically important and statistically significant differences found between the group interviewed and the group unable to be interviewed, were that more members of the interviewed group were married ($\chi^2=21.76$, $p < .05$) and employed at the time of the burn ($\chi^2=28.62$, $p < .05$), whereas non-interviewed subjects were more likely to be single, widowed or divorced; retired; and to have sustained their burn injury at home (Browne et al., 1985).

Of the 256 respondents, 217 (85%) evaluated their event as serious (major). The authors arrived at a consensus in categorizing the problems identified by the subjects that were related to work, family, finances, social situations, crime, residence, and health issues (Table 2). Thirty-seven percent of the subjects related a problem dealing with a health issue. The next most frequently categorized problem arose with family issues.

Table 2

Description of the Subjective Appraisals of the Severity Attributed to Life Events

		Subjective Appraisal	
	Categories of Events	Serious (Major)	Less Serious (Minor)
1.	School / Work	12%	5%
2.	Family	17%	4%
3.	Residence	3%	1%
4.	Crime	1%	0%
5.	Finances	15%	3%
6.	Social	1%	1%
7.	Health	36%	1%
		n=217 (85%)	n=29 (15%)

To test the hypothesis that there would be a low association between the subjective appraisal of the seriousness of the problem or event and objective ranking using Holmes and Rahe, a Pearson Product Moment Correlation Coefficient ($r=0.379$) was calculated. This indicates a weak correlation between these two evaluations, (subjective and objective), of the stress or seriousness of life events.

The hypothesis that there would be significant differences in specific methods or foci of coping according to whether subjects appraised their event as a major or as a minor one, was tested using independent t-tests (Table 3). Avoidance coping was more often used by subjects who evaluated the event as serious ($p < .05$). There was no difference between the means for cognitive and behavioural coping for either group. Two foci of coping, information seeking and emotional discharge were more often employed by subjects who viewed their event as more serious ($p < .05$).

As indicated in Table 3, the subjective appraisal of the life event also indicates a difference between mean scores for adjustment to illness. Those

Table 3

Mean Scores for Major Serious and Minor Less Serious Appraisal Groups

Subjective Appraisal of Seriousness					
	Serious mean (S.D.)		Less Serious mean (S.D.)		t-test
Methods of Coping					
* Avoidance	4.45	(3.36)	2.69	(1.4)	3.22
Behavioural	20.85	(6.35)	19.49	(5.7)	1.26
Cognitive	16.89	(5.18)	15.72	(4.7)	1.60
Foci of Coping					
Logical Analysis	6.84	(2.7)	6.84	(2.5)	0.02
* Information Seeking	13.01	(3.8)	10.38	(3.4)	4.15
Problem Solving	8.75	(3.2)	9.42	(2.8)	1.60
Affective Regulation	6.81	(3.7)	6.15	(3.8)	1.03
* Emotional Discharge	3.82	(2.8)	2.69	(1.7)	2.50
Psychosocial Adjustment					
* Total (PAIS)	14.03	(14.9)	7.18	(7.7)	3.00

* $p < .05$

that had appraised their life event as serious have higher psychosocial adjustment (PAIS) scores ($p < .05$), indicating poorer adjustment to the burn injury.

Subjective appraisal distinguished specific types of coping; as such the hypothesis examining the relative importance of the subjective and objective descriptions of the seriousness of the event was tested using forward stepwise multiple regression analysis (Table 4). The subjective appraisal entered the equations first before the Holmes and Rahe rankings, indicating that it is more important than the objective description in explaining the variance in coping strategies, although neither contribute a great deal to the variance.

Table 4

The Importance of Subjective Appraisal and Objective Rankings in Predicting Specific Coping Scores

Forward Multiple Regression Analysis				
	Multiple		Independent	
	R	R ²	F Value	r
Avoidance Coping				
* Subjective Assessment	.20	.04	10.35	.20
Objective Ranking	.22		2.56	.17
Information Seeking				
* Subjective Assessment	.25	.06	16.4	.25
Objective Ranking	.25		1.1	.15
Emotional Discharge				
* Subjective Assessment	.15	.02	6.06	.15
Objective Ranking	.15		.01	.06

* p < .05

Discussion

There are four major findings from this study. First, objective and subjective ratings are not well correlated. This indicates that the individual does not always interpret a life event with the same seriousness as others (such as health professionals).

Secondly, the subjective appraisal distinguished between specific coping behaviours. Three coping behaviours (avoidance, information seeking and emotional discharge) indicated important differences between subjective appraisal groups ($p < .05$). Of interest is that those who view their own event as serious used more types of coping behaviours that include "avoided being with people in general" and "tried to reduce tension by smoking", "drinking" and "taking more tranquilizers" more often than those who did not. In addition,

these subjects used information seeking behaviours such as "sought help from persons", "talked with friends" and "tried to find out more about the situation".

Thirdly, those who had appraised their life event as serious also had higher psychosocial adjustment to illness scores, indicating a poorer adjustment to their burn illness.

Finally, the subjective method of appraisal tends to be more important than the objective weights in distinguishing important specific coping behaviours. Subsequently, the subjective appraisal of what is at stake may influence the coping response.

Implications

These findings suggest that nurses should be aware of the subjects' own appraisal of a problem or life event and to use this data when establishing priorities for psychosocial care for burned subjects or for patients who have undergone a similar stressful life event. Perhaps additional nursing research could test the value of having the patient restructure or reappraise the seriousness of a life event. This strategy may be useful in changing one's coping responses and, ultimately, in adjustment outcome.

Our future research will be designed to relate the importance of perceived seriousness of the event to a multitude of other meanings or judgements that people give their own illnesses, the consequences associated with treatment and the reaction of others. These meanings or judgements may include anticipation, desirability, controllability and degree of interference with previous roles or commitments and, they could have more value in explaining the variation in different patients' adjustments to illness.

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RÉSUMÉ

Un réexamen des modes d'adaptation: le rapport entre la gravité perçue d'un événement, les mécanismes d'adaptation et l'ajustement à la maladie.

Les schèmes d'adaptation et les questions de qualité de vie sont au cœur des préoccupations des infirmiers qui soignent les malades et, particulièrement, des sujets brûlés, qui ont souvent des préoccupations de santé à long cours.

Dans le cadre d'une étude sur l'adaptation à la suite de brûlures, 256 adultes choisis au hasard parmi des sujets qui avaient subi des brûlures au cours des 12 dernières années ont rempli la Billings & Moos Coping Scale et la Psychological Adjustment to Illness Scale (PAIS). Ces sujets ont identifié un problème auquel ils avaient eu à faire face au cours de l'année écoulée et l'ont évalué comme étant un événement personnel important (grave) ou peu important (moins grave). Cet événement a également fait l'objet d'une évaluation objective telle que déterminée par le Social Readjustment Rating Scale.

Les résultats ont indiqué qu'il n'existait qu'une faible corrélation entre l'évaluation subjective et l'évaluation objective ($r=0,38$). L'évitement, la recherche de renseignements et la décharge affective ont été les mécanismes d'adaptation utilisés le plus fréquemment par ceux qui évaluaient leur événement comme étant grave ($p 0,05$). L'évaluation subjective était plus importante que les évaluations objectives quand il s'agissait d'expliquer la variance de ces mécanismes d'adaptation. Le groupe de sujets qui a évalué ses problèmes comme étant plus graves était également celui chez lequel on trouvait l'ajustement psychosocial à la maladie le plus faible ($p 0,05$).

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