

MEASURING PATIENT COPING

Jane E. Graydon

When faced with a threatening event an individual will utilize various strategies in an attempt to cope with it and lessen its emotional impact. Most people find hospitalization a very threatening experience and although many patients cope effectively with this experience, some do not. For the individual who has difficulty coping, both the course of his illness and the subsequent quality of his life may be adversely affected (Mechanic, 1977). Identifying patients who are having difficulty coping should, therefore, be a concern of the nurse. If a nurse could measure the extent to which patients were coping she would be able to identify those patients who were having difficulty coping and, thus, in particular need of her attention. There is, however, no generally accepted, valid way to measure patient coping. Without such a measure nurses are unable to identify, with any certainty, which patients are having difficulty coping. The present study was, therefore, undertaken to assess whether one particular method of measuring patient coping provides a valid measure.

Coping has been defined in different ways by different authors. It has been defined by Lazarus and his associates as the efforts, both action-oriented and intrapsychic, which an individual makes to manage environmental and internal demands which tax or exceed his resources (Lazarus & Launier, 1978). Although different problems require different solutions Lazarus and Launier (1978) identify four modes or forms of coping. These are direct action such as fight or flight; information seeking; intrapsychic in which attention deployment, defensive thought processes or wish-fulfilling fantasies are used to neutralize the threat or achieve the desired goal; and inhibition of action which involves refraining from actions which are impulsive or which might be dangerous or embarrassing. Lazarus (1968, 1974) makes no distinction between the merits of the various coping responses. Any of the coping modes may be used by the individual either to alter a stressful person-environment relationship or to control his emotional response to the situation (Lazarus & Launier, 1978).

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Unlike Lazarus, Weisman and Worden (1976-77) differentiate between coping and defending. According to them, coping involves the individual taking active measures which result in mastery, control or resolution of an identified problem and, as a consequence, relief of distress. The use of defence mechanisms, they believe, results in the individual's distress being relieved because of avoidance or denial of the problem, not its resolution (Weisman & Worden, 1976-77). Coping is seen as involving a conscious problem-solving process which is undertaken in response to a problem which has been identified as such by the individual. They believe that the individual faced with an identified problem responds with a coping strategy. The coping strategy employed either does or does not lead to a resolution of the problem. If the problem is resolved the individual will have coped effectively with it (Weisman & Worden, 1976-77).

According to this definition of coping, individuals should be able to identify the problems they are facing, the coping strategies they have used and the extent to which the problems have been resolved. This is an attractive definition for nurses as it should be relatively easy for the nurse to obtain this information from patients. It is the validity of this method of measuring coping which was assessed in this study.

A number of factors may influence an individual's coping. An individual's coping may be influenced by the events occurring in his life such as the problems and concerns he is having to deal with and the emotions he is experiencing (Lazarus, 1974). Having many concerns is thought to strain the individual's coping ability, resulting in less effective coping. The intensity and quality of the emotions an individual experiences is also believed to be directly related to the effectiveness of his coping (Lazarus, 1968, 1974). In addition, for a person who is ill, the seriousness of his illness is thought to affect his coping. Being highly concerned, having a serious illness and having high emotional distress have all been associated with less effective coping.

The present study examined the criterion-related validity of the coping scores obtained by a nurse following the procedure Weisman and Worden used to assess coping. Weisman and Worden interviewed patients concerning their problems, the strategies they had used, and the extent of resolution of the problems. The purpose of the present study was to determine if a nurse measuring coping in this way would obtain a valid measure of patient coping.

The validity of an instrument indicates the extent to which the instrument measures what it was intended to measure (Magnusson, 1976). To determine the validity of the coping scores obtained by the nurse, an assessment was made of the extent to which these scores

related to factors which are associated with coping. The size of the correlations provided a direct measure of the extent of the validity (Nunnally, 1978). The amount of concern experienced by the patient, the seriousness of the patient's illness, and the emotional distress of the patient were the criterion measures used to assess the validity of the coping scores.

SAMPLE

The data for this study were collected during a six-week period in a 750-bed general hospital situated in the downtown area of a large metropolitan city. The study sample consisted of 20 patients, 10 medical and 10 surgical. When interviewed the patients had been in the hospital between three and seven days and the surgical patients were at least three days postsurgery.

INSTRUMENTS

Concern. The amount of concern experienced by the patients was identified from their responses to the statements on the Inventory of the Current Concerns (ICC) developed by Weisman and Worden in 1977. The ICC was developed for use with cancer patients but has been used with both cancer and cardiac patients by McCorkle and Benoliel (1982). McCorkle and Benoliel report an average internal consistency reliability for the ICC of .94 and a test-retest reliability of .63 on interviews a month apart. The ICC is a list of 72 statements which might be true for anyone who is ill. The statements cover seven areas of possible concern; health, religion, work-finance, family, existential concerns, friends, and self-appraisal. For each statement the patients were asked to indicate on a three-point scale the extent to which it had been true for them. To obtain a score for the amount of concern experienced, the procedure developed by Weisman and Worden was followed. Each "true" response on the ICC was assigned a value of 2 and each "somewhat true" response a value of 1. The patient's score was then expressed as a percentage of the total score possible on the ICC and this figure was used as the measure of the amount of concern experienced by the patient.

Coping. The measure of coping was obtained by the nurse interviewing patients concerning the resolution of their problems. The extent to which their identified problems were resolved was used as the measure of coping. To obtain this measure, the procedure used by Weisman and Worden (1976-77) was followed to identify the problem, the coping strategies used, and to obtain the measure of coping. For each concern identified on the ICC the patients were asked how this had been a problem for them in order both to determine if it had

been a problem and to clearly identify the nature of the problem. For each problem identified the patient was asked "What did you do (or are you doing) about it?" in order to learn the coping strategies used.

To learn the extent to which the strategies that had been used resulted in a resolution of the problem the patients were asked "How did it work (or is it working) out?" The answers to this question were categorized according to one of four resolution categories. The resolution scores for all problems identified by one patient were averaged to give a coping score. A high coping score indicated good coping and a low score indicated poor coping.

A second measure of patient coping was obtained by having the patients self-rate how well they were coping. The patients were asked two questions regarding their coping, one concerning coping with the hospitalization and the other concerning coping with their illness. For each of these questions they were asked to rate themselves on a four-point scale which ranged from "very well" to "very poorly."

Emotional distress. The Profile of Mood States (POMS) was used to measure the patient's level of emotional distress. This tool consists of a list of 65 adjectives which measure the moods of tension, anger, vigour, fatigue, depression, and confusion. The patients were asked to indicate how they had been feeling during the preceding few days by rating each adjective on a five-point scale which ranged from "not at all" to "extremely." McNair, Lorr and Droppleman (1981) reported that the mood scales had concurrent validity as a result of finding significant correlations between them and a number of other measures. Internal consistency reliabilities for the mood scales have been reported as ranging from .84 to .95 (McNair et al., 1981).

Seriousness of illness. The relative placement of the patient's medical diagnosis on the list of diseases developed by Wyler, Masuda and Holmes (1968) was used as the measure of the seriousness of the patient's illness. This list ranks 126 different diseases according to their relative seriousness. Seriousness of illness could have been measured either by an objective measure such as provided by this ranking of diseases or by a more subjective measure such as the patients' assessment of their symptoms. The objective measure was thought to provide a more accurate measure of the concept seriousness of illness and was, therefore, used in this study. Wyler et al. (1968) developed the list of diseases by having 117 physicians and 141 non-physicians rank 126 diseases according to their relative seriousness. The mean rank order correlation between the physician and non-physician groups was highly significant ($Rho = .95$) and so the rankings of the two groups were combined, giving one rank order of diseases (Wyler et al., 1968).

PROCEDURE

Patients who met the sample criteria and who were available to be interviewed were approached by the investigator who explained to them the nature of the study and asked if they were willing to participate in it. If they were, the data collection procedure always followed the same sequence. The subjects were given the ICC to complete. This was followed by a taped interview concerning their problems and their coping. Finally the subjects were given a questionnaire to complete which included the POMS and the questions about their coping.

RESULTS

Sample. The subjects were all English speaking and their ages ranged from 21 to 62 years of age, with a mean of 37 years. There were 11 males and 9 females in the sample; 11 of them were married, 6 were single and 3 were divorced. There was no difference between the medical and surgical patients with respect to age, sex or marital status. Eighteen of the patients had been hospitalized previously. The sample consisted of patients with a variety of medical diagnoses in order to have some variability in the criterion to measure the seriousness of the patient's illness. The medical group included patients with diabetes (5), hypertension (1), hyperthyroidism (1), lymphangitis (1), nephritis (1), and pneumonia (1). The surgical group included patients who had had the following surgeries: abdominal hysterectomy (2), appendectomy (2), cholecystectomy (1), corrective jaw surgery (1), inguinal herniorrhaphy (2), and mastectomy (2).

When interviewed the surgical patients had been in the hospital longer than the medical patients. The medical patients were interviewed 3 to 6 days after admission to the hospital, mean of 4 days; the surgical patients were interviewed 3 to 7 days after admission, mean of 5.3 days. Analysis using a t-test for independent samples revealed that this difference was significant ($t(18)=2.41, p<.05$). Although the surgical patients were interviewed 3 to 5 days after their surgery, mean 3.9 days, most of them had spent a period of time in the hospital prior to the surgery and this accounted for them having been in the hospital longer than the medical patients when interviewed. The number of days that they had been in the hospital prior to their surgery ranged from 0 days, for one patient who was admitted with acute appendicitis and taken directly to surgery, to 3 days, with a mean of 1.4 days.

There was no difference between the medical and surgical patients with respect to any of the variables measured in the study. There was no difference in either their coping, the amount of their concern or the amount of their emotional distress when their scores for these were compared using t-tests for independent samples, or the seriousness of their illness when these scores were compared using the Mann Whitney U test.

Neither the amount of emotional distress the patients experienced, the extent of their coping, nor the seriousness of their illness was related to the length of time they had been in the hospital when interviewed. There was, however, a relationship between the number of days they had been in the hospital and the amount of concern they experienced ($r(19) = -.61, p < .01$). Those who had been in the hospital a longer time were less concerned than those who had been in the hospital a shorter time.

Coping. The coping scores obtained by the nurse ranged from 1.29 to 3.5 with a mean of 2.48, median of 2.35, and standard deviation of .66. Although 4 patients had a score of 2.0 the distribution of the scores was fairly even, with 13 of the 20 patients receiving coping scores between 2.0 and 3.0 inclusive. There was only slight skewness of the distribution (.16). The reliability of these scores was determined by having a random sample of four interviews (20% of the total sample) analyzed independently by another rater. The extent of resolution of the 17 problems identified by these patients was compared. There was 71% agreement between the resolution scores obtained by the investigator and those obtained by the independent rater.

The coping strategies the patients used to deal with their problems were categorized according to the list of 15 coping strategies developed by Weisman and Worden (1976-77). However, some of the strategies utilized by the patients were difficult to categorize. As a result of the difficulties encountered, no analysis of the coping strategies was carried out.

Concern. The scores for the amount of concern experienced by the subjects ranged from 2.08 to 45.83 with a mean of 20.87, median of 20.14, and standard deviation of 14.45. The distribution of the scores was fairly even with only slight skewness (.24) in a positive direction. The correlation between the coping scores obtained by the nurse and the concern scores was significant and negative ($r(18) = -.56, p < .01$) indicating that the more concerned the patients were, the poorer their coping (Table 1).

Table 1
Correlations Between Coping Scores
and Criterion Measures

	Amount of concern	Seriousness of illness ^a	Emotional distress
Coping	— .56**	.02	— .53*
Amount of concern		— .25	.42
Seriousness of illness ^a			.19

^a Data available for only 18 subjects

* $p < .05$

** $p < .01$

Seriousness of illness. The list of diseases developed by Wyler et al. (1968) ranks diseases and does not include surgical procedures. The surgical patients were, therefore, ranked according to the diseases which necessitated the surgery. The diagnoses of two of the patients were not on the list and thus a measure of the seriousness of illness was obtained for only 18 patients. The illnesses of the 18 patients ranged in seriousness from rank 34 to rank 125 with a median score of 81. As can be seen in Table 1, no relationship was found between the coping scores and the seriousness of the patients' illness ($Rho = .02$).

Emotional distress. The patients' scores for emotional distress ranged from -15 indicating high vigour and no distress to 86 indicating high emotional distress, with a mean of 28.40 , median of 21.00 and standard deviation of 32.91 . The distress scores were fairly evenly distributed along the range of -13 to 86 with only slight skewness ($.26$) in a positive direction. There was a significant negative correlation between the coping scores obtained by the nurse and the scores for emotional distress ($r(18) = -.53$, $p < .05$), indicating that the higher the patients' emotional distress, the poorer their coping (Table 1).

Self-rating of coping. Although the patients rated the extent to which they were coping with the hospitalization and with their illness on four-point scales, there was little variance in their responses. Of the 20 patients, 18 indicated that they were coping either "well" or "very well" with both the hospitalization and their illness. Only two patients indicated that they were coping poorly with either the hospitalization or their illness and no one indicated that they were coping poorly with both.

The coping scores obtained by the nurse were compared with the patients' self-ratings of their coping. There were significant correlations between the coping scores obtained by the nurse and the patients' self-ratings of their coping with both the hospitalization ($Rho(18) = .63, p < .01$), and their illness ($Rho(18) = .81, p < .01$).

DISCUSSION

Significant correlations were found between the coping scores obtained by a nurse interviewing hospitalized patients concerning their problems and the resolution of these problems and two of the three criterion measures used to assess the validity of these scores. Both the amount of concern and the amount of emotional distress experienced by the patients were significantly correlated with the coping scores. Thus this method of measuring coping possibly provided a valid measure of coping outcome. However, no relationship was found between the coping scores and the third criterion measure, the seriousness of the patient's illness. The fact that no relationship was found between these measures raises some questions concerning the validity of the coping scores.

There are three possible reasons for the lack of relationship between the seriousness of the patient's illness and the coping scores: either no relationship exists between these two concepts, in which case seriousness of illness was not an appropriate criterion measure, or the coping scores were not valid and did not measure coping, or the seriousness of illness scores used in the study did not measure the seriousness of the patient's illness.

Although it is possible that no relationship exists between the seriousness of a patient's illness and his coping, Weisman and Worden (1976-77) in a study of patients newly diagnosed with cancer found that such a relationship did exist. They found that those patients who were more seriously ill as a result of having a more advanced stage of the disease and more symptoms had poorer coping than those who were less seriously ill. The reason this relationship was not found in the present study may, therefore, be due to the way either coping or the seriousness of the patient's illness was measured. However, the expected correlations were found between the coping scores and two of the three criterion measures used in the study. This suggests that the lack of relationship between the coping scores and the seriousness of the patient's illness was not due to the way coping was measured but rather to the way seriousness of illness was measured.

The seriousness of the patient's illness was measured by the relative placement of the patient's medical diagnosis on the list of diseases developed by Wyler et al. (1968). Patient coping may not be influenced,

however, by an objective assessment of the seriousness of the medical diagnosis, such as provided by this list, but rather by the patient's subjective appraisal of his illness. According to Lazarus (1974), individuals who are presented with identical situations may each appraise the situation somewhat differently. Even slight differences in their cognitive appraisals will result in the individuals' experiencing different emotional reactions and attempting quite different solutions in their efforts to cope with the situation (Lazarus, 1974).

In this study five patients all had the same diagnosis, diabetes. They were, however, being affected quite differently by the illness and this undoubtedly influenced their appraisals of their illness. This suggests that the patients' own assessment of the seriousness of their illness should be measured in future studies.

The results of this study are inconclusive. While the study indicated that the coping scores obtained by the nurse interviewing patients concerning their problems and the resolution of these problems were possibly valid measures of patient coping, significant correlations were found between the coping scores and only two of the three criterion measures. Additional research should, therefore, be carried out to further substantiate the validity of this method of measuring coping before it is adopted and utilized in nursing research and practice.

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RÉSUMÉ

Evaluation de la façon de composer (coping) du patient

Cette étude a porté sur la validité des notes obtenues suite à l'utilisation de la technique proposée par Weisman et Worden pour mesurer la façon de composer des patients. Cette étude avait pour objectif de vérifier si une infirmière chargée de mesurer la façon de composer des patients selon cette méthode obtiendrait des résultats valides. La validité des résultats a été déterminée par la qualité de la relation qui existe entre les notes elles-mêmes et trois autres critères: le degré d'inquiétude du patient, la gravité de sa maladie et son degré de détresse affective. L'échantillon se composait de 20 patients: 10 soumis à des soins médicaux et 10 soumis à un traitement chirurgical. Les raisons de leur hospitalisation étaient diverses. Des corrélations significatives ont été obtenues entre les notes de *coping* établies par l'infirmière et le degré d'inquiétude et de détresse affective des patients. Aucun lien n'a pu être établi entre les notes de *coping* et la gravité de la maladie des sujets. Par conséquent, les résultats de cette étude démontrent que la valeur de cette méthode analytique sur la façon de composer n'est pas concluante.

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