



Predictors of emotional state in hospitalized middle-aged and older adults: The role of coping styles

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Abstract

Increasing age may lead to the onset of illness, posing one form of psychological stress that may elicit a variety of coping reactions. Our objective is to explore the relationship between different aspects of coping to emotional distress in middle-aged and older adult patients without cognitive impairment from two Western Australia hospitals. Coping was assessed with the Coping with Health Injuries and Problems Scale (CHIP)^{1, 2} while emotional state was assessed with three scales from the Personality Assessment Inventory (PAI),³ namely anxiety, depression, and somatization. We predicted stronger associations of emotion-focused coping with all three measures of emotional distress. Hierarchical regression analysis using the PAI subscales as criteria indicated Emotional Preoccupation Coping as being consistently associated with the domains of emotional state. The Coping scales consistently showed more predictive utility than demographic and health status measures. Other results are discussed in terms of the relationships between physical and mental health status in the process of adjusting to illness or injury.

Key words: Coping; personality; depression; anxiety; older adults





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The frequency and severity of physical illness associated with increasing age has been attributed to changes in biological systems such as those for temperature regulation, functions of the thymus, and immune system.⁴ Physical illness, in particular illness associated with pain, is recognized as one cause of psychological stress regardless of age. For example, personal injury or illness ranks as the sixth highest stressful life event on the widely used Social Readjustment Rating Scale.⁵ Reactions to stressful events such as illness may be adaptive in reducing distress, or maladaptive through increasing emotional distress. Coping mechanisms have thus received greater attention recently in terms of research on stress and illness. Similar to personality traits, coping abilities tend to be stable across the adult years but may increase in flexibility as one ages.^{6, 7} More effective coping skills can therefore be developed with increased age as one learns which approaches to coping are the most functional in which contexts.⁴

The cumulative experience of other stressful events may therefore contribute significantly to the processes of recovering from illness or injury or of dealing with chronic conditions. Maladaptive personality traits may be more likely to lead to patterns of maladaptive coping with stressful conditions such as chronic illness. For example, Lindsay and Powell⁸ reported poorer recovery rates among highly anxious patients, depressive symptoms have been found to predict poorer outcomes in cardiac patients,⁹ and trait anxiety has been found to predict stress-related outcomes.¹⁰ Costa, Somerfield, and McCrae¹¹ contended that personality and coping behavior are part of a continuum based on adaptation. In this context, Ferguson¹² found support for conceptual links between models of personality and coping, suggesting the possibility of coping 'trait complexes.'¹² Alternatively, an increasing frequency or severity of illness with older age could act to erode existing coping skills due to the depletion of psychological resources. To date the literature on coping and illness has not explored these matters in depth with samples of middle aged and older people, although recent work suggests that gender differences may be relevant in some situations.^{13, 14}

Coping can be defined as cognitive and behavioral attempts to change, modify or regulate internal or external factors, and which may be adaptive or maladaptive.¹ Lazarus and Folkman¹⁵ have distinguished between problem-focused coping in which people attempt to change the situation directly, and emotion-focused coping, in which people attempt to accept and manage their feelings.^{10, 16} Types of problem-focused coping include problem solving and cognitive reinterpretation, while an example of an emotion-focused coping strategy is emotional expression.¹⁷ Emotion-focused coping has, however, been proposed to be adaptive within the context of stressors that cannot be minimized or resolved.¹⁸ With older adults who have serious health problems, there is likely to be more issues that are not resolvable with active coping strategies. The relationship of emotion regulation to coping in general, and emotion-focused coping in particular, has also been described, with both of the concepts of emotion regulation and emotion-focused coping proposed as being subsumed within the broader notion of affect regulation.¹⁹

Research on whether middle-aged and older adults use different coping strategies from younger adults has been inconclusive, but the evidence with younger samples suggests that greater psychological distress is related to less positive health outcomes related to illness.^{20, 21, 22} Lachapelle and Hadjistavropoulos²³ reported age-related declines in the use of both problem-





and emotion-focused coping strategies, possibly related to decreasing use of coping strategies overall associated with increasing age. At the same time, older adults have generally been consistently under-represented in studies involving coping. Development of a more integrated approach towards coping would take into account age-related changes in life-context and the nature of the stressors in later life.²³

Psychological distress can be expressed in many ways. Greene and Adelman²⁴ note that the most frequent psychosocial problems among medical patients are anxiety and depression. Both the 1997 and 2007 Australian National Surveys of Health and Well-being of Adults^{25, 26} reported a lower prevalence of anxiety and depression with increasing age compared to higher levels in the second through fourth decades of life. Such epidemiological findings suggest that older adults may have a lower base rate of anxiety and depression prior to the onset of physical illness and hospitalization than do younger age groups. There is less information on the role of somatization as a measure of emotional distress, and this study is one of the few to examine the relationship of coping to aspects of somatization, in addition to those of anxiety and depression.

The psychological associates of illness and hospitalization have not often been studied systematically.²⁷ While pain has been reported to be a major factor related to psychological distress,²⁸ coping efficacy appears to be a function of both the type of activity and the form of adaptation being evaluated.²⁹ The use of different coping strategies by middle-aged and older people in hospital can thus serve either to increase the impact of illness upon psychological distress or to decrease it. For example, depression can promote the reporting of physical distress,³⁰ suggesting the importance of anxiety and depression among those hospitalized as the development of further medical complications can be promoted both by anxiety^{10,31} and by depression.^{9, 32} The role of somatization in such processes is less clear, as those with pre-existing high levels of somatization may be already primed to report higher levels of other forms of emotional distress under increased stress, and thus not change substantially when experiencing higher levels of physical illness.

Within this context, a more detailed analysis of the relationship between coping strategies and psychological distress could extend the understanding of some aspects of the impact of physical illness for middle-aged and older adults. Given the proposition that the problem-focused versus emotion-focused view of coping is overly simplistic,⁷ we adopted a multidimensional measure of coping as well as a more refined measure of emotional distress that includes somatization. This study first examines the extent of use of different coping strategies in hospitalized middle-aged and older adults in order to determine the pattern of coping strategies used. Second, the extent to which different coping strategies were associated with aspects of depression, anxiety, and somatic complaints among middle-aged and older hospitalized medical patients was evaluated, with a prediction that higher levels of emotion-focused coping would be associated with higher scores on all three measures of emotional distress.





Method

Participants

Participants were recruited from three inpatient units of Fremantle and Sir Charles Gairdner Hospitals in Perth, Western Australia. Consecutive admissions to each unit who appeared cognitively intact and who were not delirious were approached as potential participants over a period of four weeks. All participants remained in hospital a sufficient length of time to be approached for consent and completion of the materials which usually required approximately 5 days, thus providing adequate time both the person to adjust to the hospital environment and for coping methods to emerge and stabilize and for the investigator to determine eligibility, contact the person for informed consent, and to complete the measures. Over 95% of those approached agreed to participate, suggesting that the face-to-face administration of the study interview and questionnaires facilitated such a high response rate. The sample includes 133 older hospitalized patients with a variety of illnesses. Forty-two patients were recruited from the Fremantle Hospital Rehabilitation ward, 27 from the Fremantle General Medicine ward and 51 patients from the orthopedics wards of Sir Charles Gairdner Hospital. Thirteen people were excluded as being under 40 years of age or with incomplete data, leaving a final sample of 120. Ages of the remaining participants ranged from 42 to 98 years, with a mean age of 70.8 years ($SD = 12.9$). There were 48 male and 72 female participants. The largest number (40%) of participants were married, with 16% being divorced or separated, 5.8% being single, and 38.3% being widowed.

The project received approval from the Edith Cowan University Human Research Ethics Committee and both the equivalent hospital committees prior to data collection.

When contacted, patients had experienced the health condition leading to their current hospitalization for 2 to 2160 days ($M = 139.6$, $SD = 294.42$), with a mean of 3.8 lifetime hospitalizations ($SD = 1.4$; any number of hospitalizations greater than 5 were recoded to 5 in order to reduce the skewness of the variable). For the purposes of this study, illness refers to a patient's self-reported medical condition related to the current hospitalization. A self-report rating system for the severity of illness was used for patients to rate their present illness, ranging from 1 (not at all severe) to 5 (extremely severe), with a mean of 4.3 (quite severe, $SD = 0.9$). The most common health problems in question included fractures (32), heart disease and stroke (20), pain-related conditions, such as arthritis (14), planned surgery (14) and infections (13). Trauma and accidents (8) and respiratory conditions (9) were fairly common, with neurological and renal conditions, cancer, and bone disorders constituting the remainder.

Materials

The Coping with Health Injuries and Problems scale (CHIP)^{1, 2} has four subscales related to various coping strategies that one may use in response to injury or illness. It is intended to give a more extensive evaluation of responses to changes in physical health than other measures of coping, focusing more upon psychological sources of stress. It provides a self-report measure of coping strategies towards physical health-related experiences, with 32 items (8 items per scale) that are each rated on a five-point scale, ranging from "not at all" to "very much". Scores on each CHIP scale therefore range from a minimum of 8 to a maximum of 40. The subscales are: Distraction Coping (focusing attention on more pleasant experiences, engaging in unrelated activities, or seeking the company of others), Palliative Coping (attempts to alleviate the unpleasantness of a health problem), Emotional Preoccupation Coping (focusing on the emotional consequences of having a health problem), and Instrumental Coping (a task-





oriented approach towards health problems). It has been reported to have high test-retest reliability over a two- to three-week period, ranging from .8 to .9, and satisfactory internal consistency reliability, ranging from .7 to .9 in the samples reported. Hadjistavropoulos, Asmundson, and Norton³³ reported it to be reliable in assessing coping in a sample of people with chronic pain. Values of Cronbach's alpha in the present sample are reported in Table 1.

The Personality Assessment Inventory (PAI)³ is a self-report inventory of psychopathology, with 22 non-overlapping scales. It has established validity against other measures and acceptable levels of reliability.³¹ For this study, only the Depression (DEP), Anxiety (ANX), and Somatic Complaints (SOM) subscales were used with the permission of the publisher, Psychological Assessment Resources. The Anxiety and Depression scales have subscales to assess the Affective, Cognitive, and Physiological aspects of those conditions, while the Somatic Complaints scale has component subscales of Conversion, Health Concerns, and Somatization. The full scales each have 24 items, with 8 items for each subscale. Responses to PAI items use a 4-point rating that ranges from *False, Not at all true* to *Very true*.

Other demographic information was collected from the patient record or through the direct interview with the patient. The questionnaires were administered at the time of the face-to-face interview, with the entire session lasting 45 to 60 minutes. Most participants appeared to prefer the face-to-face administration format of the questionnaires. The interview and demographic data collection were conducted by the same researcher.

Analysis

Descriptive statistics were obtained for all measures, together with correlations. The primary method of analysis was hierarchical multiple regression, using the three subscales of each PAI scales as the criterion variables, with the four coping subscales and demographic measures of age, number of lifetime hospitalizations, severity of illness, duration of illness, and marital status as the independent variables. The number and range of medical conditions in the sample precluded including diagnosis in any meaningful way without leading to more variables that could reasonably be accommodated in the analysis, consistent with the argument of Clark, et al.³⁴ that older adults tended to use the same coping tasks across disease types. The demographic and illness-related measures were entered as the first level of each hierarchical analysis, with the coping measures at the second level, and each PAI subscale as the dependent variable.





Results

A preliminary analysis showed that the patients of the Rehabilitation Ward were significantly older (78.3 years) than the patients at the other two wards (66.6 years for General Medicine, and 67 years for Sir Charles Gairdner). There were no differences on other demographic measures, and so the three samples were pooled for further analyses.

Table 1 reports means, standard deviations, and internal consistency reliability for the dependent variables and the major independent variables, as well as their intercorrelations. Using the conventional *T*-score of 70 as a cut-off for significant clinical distress (with higher scores reflecting more distress),³ 14.2% of the sample was above this level on the Depression scale, 12.5% on the Anxiety scale, and 7.5% on the Somatic Complaints scale. Of the CHIP scales, Instrumental Coping had the highest mean score, and Distraction Coping had the lowest mean (Table 1). The values on the CHIP vary somewhat from the normative values provided by Endler et al.,¹ but do not differ appreciably from those in the normative sample.

The results of the hierarchical regression analyses are summarized in Tables 2 through 4, which report the figures for the final level of each analysis. The reported values of the standardized weights for the independent variables in each table are those from the second, final level. Results using the full scales (Anxiety, Depression, and Somatic Complaints) of the PAI as a criterion are also included in the Tables. The interpretation however, will focus on the three separate subscale dimensions (Cognitive, Affective, and Physiological) of each of the full PAI scales. The Tables report the values of the squared multiple correlation for both levels of the hierarchical analysis.

The first step of the regression analysis with the Affective subscale of the PAI Anxiety scale was not significant, with no individual predictors showing any relationship ($R^2 = .030$). When the four coping scales were added, the value of R^2 increased to .28. Only Emotional Preoccupation Coping added to the predictive ability, with Distraction Coping associated with increased affective anxiety, with a probability just over the conventional value ($p = .06$; Table 2). When the Cognitive subscale was the criterion, the demographic and health status measures were once again not predictive ($R^2 = .012$). Emotional Preoccupation and Distraction Coping were both significant predictors ($R^2 = .270$), with the use of less Distraction Coping and more Emotional Preoccupation Coping being associated with Cognitive aspects of Anxiety when the coping scales were added. As for the Physiological subscale, health and demographic factors were again not predictive ($R^2 = .046$), with only Emotional Preoccupation as a significant predictor at the second level ($R^2 = .235$). All subscales were predicted approximately equally well when all variables were used.

When the PAI Depression subscales were used as the criterion in the hierarchical regressions, the only significant association among the demographic and health variables at the first level for the Affective subscale was the severity of illness ($R^2 = .055$). When the four coping scales were added, the value of R^2 increased to .394, and again the Emotional Preoccupation and Distraction Coping scales had the same relationship with Affective Depression as for Cognitive Anxiety (Table 3). A similar pattern was seen for the Cognitive subscale of Depression, with no demographic or health variable as a significant predictor at the first or second level ($R^2 = .044$), and Emotional Preoccupation and Distraction Coping as statistically significant predictors at the second level ($R^2 = .333$). When the Physiological subscale of Depression was the criterion, no health or demographic variable was a notable predictor in the regression at the first level ($R^2 = .028$), while only Emotional Preoccupation predicted significantly among the coping scales at the





second level ($R^2 = .196$). The Physiological subscale thus was the least predictable among the three Depression subscales, with the least variance accounted for by the two sets of predictors. The outcome with the subscales of the PAI Somatic Complaints scale was different in that the regression equation at the first level was significant for the Health Concerns subscale ($F(6, 113 \text{ df}) = 4.94, p < .001, R^2 = .208$), with the reported duration of illness being associated with higher scores ($p = .010$). When the four coping scales were added, the amount of variance accounted for increased to .367 and the contribution of variables changed. Duration of illness remained significant ($p = .007$), while gender ($p = .020$) and number of hospitalizations ($p = .016$) were also significant. Once again, Emotional Preoccupation Coping was associated with increased Health Concerns, while Distraction Coping had a probability value just above the conventional level of significance ($p = .064$) in the same direction (Table 4). The case of the Conversion subscale showed a pattern similar to the subscales for Anxiety and Depression, with no significant health status or demographic variable being significant at the first level ($R^2 = .043$), and Emotional Preoccupation and Distraction Coping being significant when the CHIP scales were added at the second level ($R^2 = .350$). As for the Somatization subscale, the number of hospitalizations and duration of illness were predictive at the first level ($R^2 = .117, F(6, 113 \text{ df}) = 2.50, p = .026$), and when the coping scales were added at the second level, both remained predictive in addition to Emotional Preoccupation and Distraction Coping ($R^2 = .272$). This subscale was the only one in which Palliative Coping approached the conventional level of significance ($p = .062$).

Discussion

The levels of coping scores reported in the sample showed some modest departures from the norms provided by Endler et al.¹ There was little difference for Instrumental Coping, but the present sample of middle-aged and older adults had somewhat higher means for Emotional Preoccupation, Distraction, and Palliative Coping. The findings suggest that this sample (with more health problems relative to most younger age samples) engages in more extensive use of coping strategies than the younger sample reported by Endler et al.,¹ but does not use problem-solving approaches any more extensively. Problem-solving approaches may also be much easier to implement outside of the constraints imposed by hospitalization.

The results provided evidence for significant levels of clinical distress in the sample, with between 7% to almost 15% of the sample exceeding the common cut-off score for clinical significance on the three PAI scales. These levels are somewhat higher than would be expected from the population figures reported in a 1997 national survey of Australians,²⁵ which reported rates of depression no higher than 3% in people over the age of 65, and rates of anxiety from 4.5% in men over 65 to 7% in women over 65. A similar survey conducted in 2007,²⁶ reported prevalence rates of under 5% for anxiety disorders and 2.5% for affective disorders among those aged between 75 and 85 years. Jorm³⁵ suggests that current cohorts of older people have lower levels of anxiety and depression than younger cohorts. In his review, the present research base lacks sufficient evidence from longitudinal studies and in its consistency of findings to differentiate ageing processes from cohort effects. Certainly the severity of the health problems in many individuals in the present sample could be reasonably expected to lead to heightened levels of emotional distress. The present findings on the prevalence of anxiety and depression





could therefore be a characteristic of both the particular sample and the broader cohort of older adults.

There is also support for the relationship between coping strategies and psychological distress. Specifically, our prediction that Emotional Preoccupation Coping would be associated with all three dependent measures of psychological distress was supported. Indeed, all nine subscales

reflecting emotional distress were correlated with the CHIP scale for Emotional Preoccupation. Distraction Coping was associated with only the cognitive aspects of the PAI Anxiety and Depression scales, and with all aspects of the PAI Somatic Complaints scale. This suggests that coping strategies other than emotion-focused coping, may be used by middle-aged and older adults, particularly in attempts to divert thought patterns from their health problems. Of the health status and demographic measures, only the number of lifetime hospitalizations, gender, and duration of illness had some influence on the Somatic Complaints scale, with no health status or demographic variable being associated with any subscale of the PAI Anxiety or Depression scales. This pattern of correlations suggests that both the coping style and the actual severity of illness are important in determining the exact manner in which someone reacts emotionally, and particularly how their concerns about their physical health are expressed. These results are also consistent with previous findings of the importance of negative affect with regard to coping,^{10, 22, 30, 36, 37, 38} and suggest that the psychological reactions to illness are more important than the overt severity of illness or injury. The present results are based upon a different measure of coping that evaluates different coping styles than the established Ways of Coping scale³⁹ used in much of the previous research, and from this perspective are thus more detailed in showing that the dominant influence upon emotional distress was a focus on emotion. While such a conclusion may appear to be tautological, the wording of items used in these instruments is such that the measures are not simply repeating the same content.

The significant negative association between the CHIP Distraction Coping scale and depression is consistent with previous findings.⁴⁰ In general, there is accumulating evidence that avoidance as a form of coping is among the least effective methods of dealing with problems in living over time⁴¹ and may be associated with poor regulation of endorphins and the immune system^{4,42} in addition to depressed mood. Whether this reaction is a temporary one associated with the increased external pressures resulting from hospitalization can best be answered by a more extensive longitudinal study providing follow-up assessments six to twelve months post discharge. Therefore the cross-sectional nature of this study serves as a limitation in this regard, however the resources available for this study precluded such a lengthy follow-up.

Previous research has indicated that coping strategies can moderate the severity of psychological distress.¹⁵ The consistency of the Emotional Preoccupation Coping scale as a predictor of all indices of emotional status and somatic complaints implies a relationship over the short term between this potentially maladaptive emotion-focused strategy and psychological well-being, consistent with previous research.^{40, 43} Our results are also consistent with the general findings in these two studies that negative affect is usually associated with overt psychological distress. While the cross-sectional nature of the present study cannot support a causal relationship, it may be that part of the way that individuals with high negative affect react is to use certain emotion-focused strategies, perhaps resulting in a deleterious cycle of maladaptive forms of emotion-focused coping leading to increasing distress.^{30, 38, 44} It should also be considered that measures of emotion-focused coping, such as the Emotional Preoccupation Coping scale of the CHIP, may have overlapping content with measures of psychological distress. Nevertheless, the use of a multidimensional measure of coping showed





different levels of coping used by this sample of middle-aged and older adults with significant health problems that go beyond the dichotomy of emotion-focused and problem-focused coping. This measure demonstrated the utility of Distraction Coping for the Cognitive dimension of both Anxiety and Depression, for the Affective dimension of Depression, and for all the dimensions of the PAI Somatic Complaints scale. No other CHIP scales showed significant associations with the PAI subscales reflecting emotional distress.

At the same time, none of the nine hierarchical analyses accounted for more than 40% of the variances in measures of emotional distress. The figures for measures of Somatic Complaints were notably below this level. These results suggest that additional factors beyond health status, demographic measures, and coping strategies remain important in accounting for individual differences in emotional distress. Personality factors may be among such relevant characteristics.

One of the limitations of this study is the use of convenience samples. We are fairly confident the present sample was generally representative of the residents of the wards at the time of the study because of the high participation rate. The relatively high proportion of older women is consistent with the general population in this age bracket. The possibility of variation over time is present, but is fairly limited given the general uniform climate of Perth that reduces the likelihood of seasonal variations in conditions such as falls or heart conditions related to atypical exertion. A larger sample would have permitted more explicit analysis of specific diagnostic groups to evaluate if coping strategies and emotional distress varied across medical conditions. For example, coping with conditions arising from degenerative diseases may be different from those arising from injuries and infections. One additional factor not included in our data was the presence of medical complications beyond the illness that led to the hospitalization. Such a factor could well have led to additional psychological distress and altered coping responses. Furthermore, the presence of the researcher involved in data collection at the hospital sites may have served as a confounding variable by leading at least some participants to focus more upon their emotional states.

Other limitations of the study include that the range for the length of time with illness appears to be relatively broad, and this may have impacted coping. Thus it may have been more useful to limit the sample to those with hospitalizations occurring within the previous five-year period. At the same time, length of hospital stay may not function as a measure of length of illness, given the multiple factors other than those related to illness severity that may influence length of stay within hospital. Additionally, the geographically restricted area raises the question of how well the results may be generalized to other samples in other regions. Inclusion of a measure of social support in the study may have also offered further salient data.

In conclusion, the present study documents the presence of psychological distress and the influence of coping strategies upon emotional states in hospitalized middle-aged and older adults. The presence of this relationship suggests that psychological interventions for this group could usefully include an assessment of the coping strategies used by middle-aged and older adults in addition to standard measures of mood and anxiety, within the context of health-related stressors such as illness or injury. Those coping strategies particularly related to an excessive orientation towards emotional state, could facilitate the targeting of interventions aimed at redirecting maladaptive strategies into adaptive coping strategies with regard to health-related stressors.





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Note

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Table 1.
Means, Alpha Coefficients, and Inter-correlations for the PAI* and CHIP- Scales with Health and Demographic measures

	Means (N = 120)	SD	Reliability Coefficients			Intercorrelations							
			(Alpha)	2	3	4	5	6	7	8	9	10	11
PAI T-scores													
1. Depression	58.9	12.05	.86	.79	.53	.17	.51	-.12	-.21	.06	.02	-.02	.16
Affective	17.9	5.09	.84			.22	.51	-.08	-.22	.04	-.01	-.11	.15
Cognitive	18.1	4.37	.73			.15	.39	-.20	-.27	.08	-.02	.02	.17
Physiological	22.9	5.05	.75			.06	.37	-.05	-.04	.03	.08	.05	.08
2. Anxiety	51.8	14.21	.87	--	.44	.14	.46	-.04	-.13	.02	.07	-.04	.05
Affective	18.7	5.27	.81			.08	.46	-.07	-.15	-.08	.09	-.03	.08
Cognitive	17.3	5.62	.76			.15	.43	.03	-.18	-.04	.01	-.08	.04
Physiological	15.9	4.73	.70			.15	.37	-.09	-.02	.18	.10	-.02	.02
3. Somatic Complaints	50.8	11.68	.80		--	.17	.46	.21	.16	-.06	.17	.28	.18
Conversion	15.3	5.21	.80			.19	.38	.29	.39	-.01	-.01	.15	.11
Health Concerns	18.1	4.74	.69			.06	.41	.16	.12	-.16	.20	.17	.18
Somatization	17.5	4.65	.54			.15	.30	.03	-.17	.02	.23	.08	.15
CHIP scores													
4. Palliative Coping	26.8	4.93	.59			--	.13	.18	.15	.30	-.03	-.22	-.02
5. Emotional Preoccupation Coping	25.8	7.61	.79				--	.06	.06	-.13	-.05	.03	.10
6. Instrumental Coping	28.6	5.60	.74					--	.29	-.11	-.02	.09	-.01
7. Distraction Coping	23.1	6.10	.68						--	.21	-.08	.05	-.07
Demographic & Health													
8. Age	70.8	12.85	-							--	.03	-.16	-.08
9. Number of Hospitalizations	3.8	1.36	-								--	.15	.11
10. Duration of Illness	139.6	294.42	-									--	.13
11. Severity of Illness	4.3	0.86											--

*Note: PAI = Personality Assessment Inventory, CHIP = Coping With Health Injuries and Problems Scale. Correlations in excess of .195 are statistically different from 0 at $p < .05$ and are noted in bold.





Table 2.
Final Regression Table for PAI Total Anxiety and 3 Subscales

Predictors	R ²	Total			Affective			Cognitive			Physiological					
		B	Beta	Significance	R ²	B	Beta	Significance	R ²	B	Beta	Significance	R ²	B	Beta	Significance
Demographic	.016				.030				.012				.046			
Age		.064	.06	.54		-.02	.04	.61		.01	.02	.81		.07	.20	.04
Duration		-.001	-.02	.84		-.00	.00	.73		-.00	.00	.70		.00	.02	.83
Gender		2.97	.10	.26		1.05	.97	.28		1.27	.11	.23		.66	.07	.47
Hospitalizations		.82	.08	.35		.39	.32	.23		.06	.01	.87		.37	.11	.22
Marital Status		1.52	.11	.25		.63	.49	.20		.47	.08	.37		.43	.09	.34
Severity		-.09	-.01	.95		.10	.52	.85		-.08	-.01	.89		-.12	-.02	.81
<i>Coping</i>	.291			<.001	.282				.270				.235			
Emotional		.95	.51	<.001		.34	.06	<.001		.34	.46	<.001		.27	.43	<.001
Preoccupation																
Palliative		.18	.06	.50		.04	.10	.69		.09	.08	.37		.05	.05	.62
Instrumental		-.04	-.02	.85		-.06	.08	.53		.07	.07	.43		-.06	-.07	.44
Distraction		-.48	-.21	.03		-.15	.08	.06		-.26	-.28	<.005		-.07	-.09	.33





Table 3.
Final Regression Table for PAI Total Depression and Three Subscales

Predictors	Total			Affective			Cognitive			Physiological			
	R ²	B	Beta Significance	R ²	B	Beta Significance	R ²	B	Beta Significance	R ²	B	Beta Significance	
Demographic	.036		.65	.055		.37	.044		.52	.028		.78	
Age		.12	.12		.04	.09		.29		.06	.17		.06
Duration		-.00	.03		-.00	-.07		.36		.00	.09		.26
Gender		1.56	.06		.10	.01		.91		.66	.07		.40
Hospitalizations		.06	.09		-.04	-.01		.95		-.18	-.06		.50
Marital Status		1.11	.09		.49	.10		.26		-.15	-.03		.70
Severity		1.43	.10		.68	.12		.14		.53	.10		.21
<i>Coping</i>	.392		<.001	.394		<.001	.333		<.001	.196		<.001	.006
Emotional		.87	.55		.35	.53		<.001		.24	.42		<.001
Preoccupation													
Palliative		.26	.11		.14	.14		.10		.12	.14		.12
Instrumental		-.18	-.08		-.03	-.03		.73		-.11	-.14		.10
Distraction		-.54	-.27		-.24	-.28		.001		-.24	-.33		<.001





Table 4.
Final Regression Table for PAI Total Somatic Complaints and Three Subscales

Health Concerns Predictors	Total Somatization			Conversion		
	R ²	B	Beta Significance	R ²	B	Beta Significance
Demographic	.136	.01	.043	.53	.21	<.001
Age	-.01	-.01	.87	-.01	-.03	.74
Duration	.01	.24	<.005	.00	.12	.16
Gender	-3.18	-.13	.11	-1.11	-.10	.21
Hospitalizations	1.37	.16	.04	.05	.01	.88
Marital Status	-.25	-.02	.81	.14	.02	.85
Severity	1.49	.12	.16	.53	.09	.29
Coping	.382	<.001	.35	<.001	.37	<.001
Emotional Preoccupation	.60	.39	<.001	.21	.31	<.001
Palliative	.37	.16	.06	.12	.12	.18
Instrumental	.23	.11	.19	.14	.15	.09
Distraction	.24	.12	.15	.30	.35	<.001



This article is conform to the original.

Prof. Michael Fonti, M.D.

Editor



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