

THE IMPACT OF CHRONIC PAIN ON THE SELF-CONCEPT

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Compared self-concepts of three groups, medical patients, chronic low back pain patients and chronic head pain patients ($N = 60$) to determine (1) whether chronic pain patients have self-perceptions that differ from other medical patients; (2) whether changes in self-perception are limited to physical attributes and capacities; and finally (3) whether persons who suffer different types of chronic pain would have differing self-concepts. Significantly lower self-concepts were obtained from groups of head pain and low back pain patients. Self-concept patterns for the two pain groups were quite similar with the exception of two self-concept components that were significantly lower for the head pain group. Differences were explained in terms of loss of many normal functions and disruption of normal life-styles. Implications for treatment of pain patients and for training of health professionals were discussed.

The importance of the self-concept in understanding an individual's internal frame of reference and as a critical variable in human behavior has been discussed thoroughly in the work of Fitts (1972a, 1972b) and Fitts and Hammer (1969). This self-perception, however, is not merely a person's acceptance or rejection of himself as a Gestalt, but rather, as shown by Akeret (1959), a person perceives different aspects of himself and evaluates them independently. Gary and Guthrie (1972) and McGowan, Jarman, and Pederson (1974) provide evidence of the relationship between a person's physical capacity and self-evaluations, and even more specifically, Collingwood (1972) and Solow, Silberfarb, and Swift (1974) have shown that improvements in an individual's physical capacities or attributes result in more positive self-attitude and self-acceptance. It therefore appears important that a fuller knowledge of the relationship between a person's self-concept and the experience of chronic pain (which frequently represents a dramatic decrement in physical functioning) be gained.

In a comparison of groups of old and new rheumatoid arthritis with other types of arthritis and other types of painful diseases, Robinson, Kirk, Frey, and Robertson (1972) suggested that not only are the studied characteristics of rheumatoid arthritis disease produced, but also that the presence of any painful disease could result in greater introversion and withdrawal from social contact. On the other hand, Sternbach, Wolf, Murphy, and Akesson (1973) reported significant differences between a group of 26 low back pain patients and a group of 28 rheumatoid arthritics. The low back patients endorsed more "invalidism" items and a strong trend toward endorsing more "depression" items on a Health Index. These two studies indicate that there may be important differences between various pain syndromes on measures of personality and also that some personality variables may be affected consistently by pain, regardless of the nature and location of the pain experienced.

This study investigated whether (1) chronic pain patients have self-perceptions that differ from those of other medical patients; (2) whether these effects, if present, are limited only to perceptions of physical attributes and capacities; and finally (3) whether persons who suffer different types of chronic pain have differing patterns of self-concept.

METHOD

Subjects

A total of 60 Ss were utilized in this study, 20 in each of three groups (Medical Patients, Low Back Pain, Head Pain). The Medical Patient (MP) group was

composed of hospitalized males (mean age = 47.8 years) who were referred for psychological evaluation. Criteria for inclusion were (1) hospitalization was for a problem other than a chronic pain syndrome; and (2) the patient was not referred or seen for further psychological evaluation or treatment. A summary of the diagnostic categories of these patients is presented in Table 1.

TABLE 1
PRIMARY DIAGNOSES OF MEDICAL PATIENT GROUP

Multiple Complaints	4	Weight Loss	1
Open Heart, preoperative	3	Coronary Heart Disease	1
Angina or Chest Wall Pain	3	Fatigue	1
Abdominal Pain	2	TB	1
Impotence	1	Diarrhea	1
Hypertension	1	Hand Swelling	1
		Total	20

The Low Back Pain (LBP) and Head Pain (HP) groups each were composed of 20 patients who had been referred to the Harry S. Truman Memorial Veterans Medical Center Pain Unit for evaluation. Criteria for inclusion consisted of having a primary diagnosis of low back or head pain that had persisted for 1 or more years. Ninety-five percent of the LBP patients were male, their mean age was 43.3 years, and the mean chronicity of pain was 7.9 years. The HP patients were all males, and had a mean age of 51.1 years and a mean pain chronicity of 8.9 years.

Procedure

Ten subscales of the Tennessee Self Concept Scale (TSCS) were employed as measures of self-perception. These scales comprise the part of the test that Ashcroft and Fitts (1964) refer to as "A phenomenological picture of how the individual perceives himself on a positive-negative continuum of self-perception. [p. 115]" These scales include Self Criticism, a measure of overt defensiveness; Total Positive, overall level of self-esteem; Identity Self, what and who the person is; Self-Satisfaction, feelings of self-acceptance; Behavior Self, perception of overt behavior and actions; Physical Self, evaluation of physical attributes including health and sexuality; Personal Self, sense of personal worth and adequacy; Family Self, feeling of adequacy as a family member and with close friends; and Social Self, generally adequacy and desirability in relation to all others. Fitts (1965) reported that the effects of demographic variables such as sex, age, race, education, and intelligence on the TSCS were negligible. Later research on the relationship of demographic variables to scores on the TSCS by Thompson (1972) supports this finding with the exception of age. Patterns of self-concept were found to vary significantly with the age of the S.

The TSCS was given as one of a battery of tests used for clinical evaluation and was administered to each of the 60 patients after they had been given a brief explanation as to the nature of the evaluation about to be taken. Scores for the three groups were compared by analysis of variance and where significant differences were obtained, differences between individual groups were compared by use of Duncan's New Multiple Range Test.

RESULTS

No significant differences were found either in the ages of the three groups ($df = 2/57$, $F = 3.140$) or in the comparison of the chronicity of the HP ($\bar{X} = 7.9$ years) and LBP ($\bar{X} = 8.9$ years) groups ($t = .6023$). Analysis of variance revealed significant differences ($p < .05$) among the three group means for each of the self-concept variables except Self Criticism and Social Self (cf. Table 2).

TABLE 2
COMPARISON OF LOW BACK PAIN, HEAD PAIN AND
MEDICAL PATIENT GROUPS FOR 10 SELF-CONCEPT VARIABLES AND AGE

Self-concept variable	Mean scores			F	p
	Medical patient	Low back pain	Head pain		
Self Criticism	33.7	34.0	33.8	.017	ns
Total Positive	363.2	332.7	324.4	8.105	.01
Identity Self	127.4	121.1	113.5	6.468	.01
Self Satisfaction	116.3	101.7	102.9	5.916	.01
Behavior	119.5	109.9	107.3	7.161	.01
Physical Self	67.3	59.0	54.2	13.779	.01
Moral-Ethical Self	76.3	68.7	71.1	5.453	.01
Personal Self	71.5	64.5	63.7	4.516	.05
Family Self	77.7	71.6	69.8	5.261	.01
Social Self	70.6	69.0	66.4	1.642	ns
Age	47.8	43.3	51.1	3.140	ns

These differences were all in the same direction; the MP group had higher self-concept scores in each category in which significant differences were found.

All of the self-concept measures for the Medical Patient group are well within the normal range; the lowest was Physical Self (T score = 43). The T scores for the Low Back Pain and Head Pain groups, while significantly lower than those of the Medical Patient group are also primarily within the normal range. T scores of 45 or lower were found for both pain groups in the areas of Total Positive, Identity Self, Behavior, and Physical Self.

TABLE 3
SIGNIFICANCE LEVELS OF DUNCAN'S NEW MULTIPLE RANGE COMPARISONS OF
INDIVIDUAL GROUPS FOR EACH SELF-CONCEPT VARIABLE

Self-concept variable	Raw score differences		
	Low back pain minus Medical patient	Head pain minus Medical patient	Low back pain minus Head pain
Self-Criticism	.3	.1	.2
Total Positive	-30.5*	-38.8*	7.9
Identity Self	-6.3*	-13.9*	7.6*
Self Satisfaction	-14.6*	-13.4*	-1.2
Behavior	-9.6*	-12.2*	2.6
Physical Self	-8.3*	-13.1*	4.8*
Moral-Ethical Self	-7.6*	-5.2*	-2.4
Personal Self	-7.0*	-7.8*	.8
Family Self	-6.1*	-7.9*	1.8
Social Self	-4.5	3.3	-7.8

*p < .01.

DISCUSSION

The effects of hospitalization for medical problems appear to have minimal relationship to the patient's self-perception. The group of medical patients had positive self-concepts in the majority of the measured areas with the exception of their Physical Self. Because this area is a measure of perceived health, physical attributes, etc., it is not surprising that it was the lowest self-concept component for the medical patients. It is important to note also that while lower than the other self-concept components, the mean score for Physical Self (T score = 43) was less than a standard deviation from the standardized norm.

The self-concepts of both of the pain groups differed markedly from that of the medical patients, with significantly lower scores on 8 of the 10 self-concept variables. These data indicate that the experience of pain over a protracted period is related strongly to an individual's negative self-perception. The changes in physical activities, family patterns, occupation, etc., all probably contribute to this lowering of the self concept, as can be seen in the fact that the Identity Self (who and what the person is) and the Physical Self (the perception of health and physical attributes and abilities) are the lowest of the measured self-concept components for all patient groups. The Medical Patients had scores that were low, but still within generally normal limits, while the two pain groups had considerably lower scores in these areas. Sternbach (1974, p. 17) hypothesizes that patients with chronic pain formerly had more normal-looking psychological profiles and that their life histories show that "most of them functioned quite adequately, at home, at work, and in social situations, prior to the disease or injury that resulted in persistent pain." In addition, Frank (1977) demonstrated that physicians, nurses and the general public all have negative stereotypes of the chronic pain patient as compared to the acute pain or general medical patient and that all three groups report significant negative feelings toward the treatment of chronic pain patients as compared to the other patient types. One logical explanation of the lowered self-concepts of pain patients then would be that the change in the individual's life patterns and abilities initiates the downward trend of the person's self-perception. Then as they continually confront negative, stereotypic attitudes from the general public, and more importantly from the health care professionals to whom they turn for relief, the decrement in self-evaluation is deepened.

Head Pain vs. Back Pain

The two chronic pain groups had almost identical self-concept profiles and differed significantly only in their scores on Physical Self and Identity Self. The data indicate that these two areas of self-perception are the most seriously affected by chronic pain and that impact of chronic head pain is more extensive on them than chronic low back pain. Why individuals with chronic head pain should have a lower evaluation of who and what they are and of their physical attributes and abilities can only be hypothesized. This finding actually is in the opposite direction of what logically would be expected, because frequently low back pain is accompanied by decreased mobility and loss of some physical abilities. It therefore would be more likely to place physical limitations on what the person could do. One plausible explanation then would be that head pain patients experience greater decrements in self-perception because their loss of function has no observable cause and, therefore, would be less socially acceptable. Furthermore, there are fewer appliances to legitimize head pain as compared to the braces, canes, walkers, etc., that publically legitimize the activity and behavior changes accompanying low back pain.

These findings have several implications for treatment of chronic pain. First, in addition to treating the physical components of pain, attempts should be made to help the patients deal with their feelings and attitudes toward themselves. Second, patients need to be taught to cope successfully with the attitudes and stereotypes that others have about them. Finally, an effort should be made in

the training of health care providers to sensitize them to the presence of these stereotypes and their consequence to the patients.

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