



# VCU

Virginia Commonwealth University  
VCU Scholars Compass

---

Theses and Dissertations

Graduate School

---

1980

## The Relationship Between Self-esteem and Duration of Low Back Pain

Betty Sue Holliday Ashby

Follow this and additional works at: <https://scholarscompass.vcu.edu/etd>



Part of the [Nursing Commons](#)

© The Author

---


Downloaded from


<https://scholarscompass.vcu.edu/etd/4510>


This Thesis is brought to you for free and open access by the Graduate School at VCU Scholars Compass. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of VCU Scholars Compass. For more information, please contact [libcompass@vcu.edu](mailto:libcompass@vcu.edu).

SCHOOL OF NURSING  
VIRGINIA COMMONWEALTH UNIVERSITY

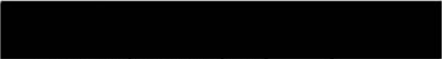
This is to certify that the thesis prepared by Betty Sue Holliday Ashby entitled The Relationship Between Self-Esteem and Duration of Low Back Pain has been approved by her committee as satisfactory completion of the thesis requirement for a degree of Master of Science.


  
Director of Thesis

  
Committee Member

  
Committee Member

  
School Director ~~of~~ Graduate Study

  
Department Chairman

  
School Dean

11-25-80  
Date

THE RELATIONSHIP BETWEEN SELF-ESTEEM  
AND  
DURATION OF LOW BACK PAIN

A thesis submitted in partial fulfillment of the  
requirements for the Degree of Master of Science at  
Virginia Commonwealth University

by  
Betty Sue Holliday Ashby  
B.S.N., University of Virginia, 1970

Director: Dr. Marya Olgas, Chairman  
Department of Medical-Surgical Nursing

Virginia Commonwealth University  
Richmond, Virginia  
December, 1980

## ACKNOWLEDGMENTS

I would like to thank the following members of my thesis committee for their guidance and support:

Marya Olgas, R.N., Ph.D.  
Chairman, Department of Medical-Surgical Nursing  
School of Nursing, Medical College of Virginia  
Virginia Commonwealth University

Sally Strauss, R.N., Ph.D.  
Assistant Professor, Maternal Child Nursing  
School of Nursing, Medical College of Virginia  
Virginia Commonwealth University

Katherine C. Bobbitt, R.N., M.S.  
Assistant Dean  
School of Nursing, Medical College of Virginia  
Virginia Commonwealth University

Additionally, I would like to acknowledge, with gratitude, the assistance of the following persons:

Mrs. Ruth Arnold, my very accomplished typist.

Dr. Clementine Pollok, my employer.

Finally, I would like to thank my husband, Carl, and my children, Rodney and Jason, for their understanding and support.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
LIST OF FIGURES	vi
Chapter	
1. THE PROBLEM	1
Introduction	1
Purpose of the Study	2
Problem	2
Definition of Terms	2
Delimitations	2
Assumptions	3
Theoretical Rationale	3
Hypothesis	4
Significance of Study to Nursing	4
2. RELATED LITERATURE	6
Pain	6
Self-Esteem	9
Definitions	9
Development of Self-Esteem	11
Factors Affecting Self-Esteem	13
Psychological Characteristics of Patients with Pain	17
Summary	22
3. METHODOLOGY	23
Selection of Sample	23
Selection of Instrument	25
Reliability and Validity	26
Scoring	27
Data Collection	27
4. ANALYSIS OF DATA	29
Introduction	29
Findings	29
Discussion	34

	Page
5. SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS	38
Summary and Conclusions	38
Implications	39
Recommendations for Further Study	39
REFERENCES	41
APPENDICIES	44
A. Tennessee Self Concept Scale	44
B. Patient Informed Consent	53
C. Data Collection Consents	55
VITA	64

## LIST OF TABLES

Table	Page
1. Sex and Race Distribution of Subjects by Study Group	24
2. Age Distribution of Subjects by Study Group	24
3. Comparison of Self-Esteem Scores Between Chronic Low Back Pain Group and Acute Low Back Pain Group	29
4. Comparison of Norm Scores to Study Group Scores on the Categories of Self-Esteem	33

LIST OF FIGURES

Figure	Page
1. Comparison of Means Between Study Groups and Norms	30



## CHAPTER I

### THE PROBLEM

#### Introduction

Low back pain is one of the most common types of chronic pain. Sternbach et al. (1973) have estimated that the chief complaint of at least seventy percent of the patients presenting at the Pain Clinic associated with the School of Medicine of the University of California, San Diego is back pain. They feel that the major reason for this phenomena is the failure of physicians to recognize it as a psychosomatic illness. Brena (1978) concurs with this conclusion. He notes that back pain is not always caused by something as straight forward as a ruptured disc. He feels that chronic pain can result from a multitude of mechanisms and has strong elements of learned behavior in it. Also, if one has the need for pain, the back is a prime site because of the large number of role models available to mimic.

Wilfling, Klonoff and Kokan (1973:153) state that "it has become increasingly apparent during the past two decades that relationships exist among low back symptoms, their effect on the patient's functioning and the patient's psychological status." Associated with these circumstances are emotional reactions which may include hopelessness, anxiety about the future and loss of self-esteem (Jourard, 1963). Research findings (Hanvik, 1951; Phillips, 1964; Sternbach et al., 1973, Wilfling, Klonoff and Kokan, 1973) have supported a relationship between personality characteristics and low back pain as well as self-esteem and chronic pain (Elton, Stanley and Burrows, 1978).

Self-esteem of low back pain patients has not been studied in relationship to duration of pain.

### Purpose of Study

The purpose of this study was to explore the relationship between self-esteem and duration of low back pain.

### Problem

Do individuals with chronic low back pain demonstrate lower self-esteem than those with acute low back pain?

### Definition of Terms

Throughout this study the following operational definitions were used:

Acute pain - that experienced for less than six months (Sternbach et al., 1973).

Chronic pain - that experienced for greater than six months (Sternbach et al., 1973).

Low back pain - that originating in the back from the lowest thoracic vertebrae to the coccyx as documented by a physician.

Self-Esteem - the worth one attributes to himself as indicated by the total positive score on the Tennessee Self Concept Scale (TSCS).

### Delimitations

All subjects selected for this study were hospitalized adults admitted for low back pain. Since the severity of their symptoms was sufficient to require hospitalization for treatment, a more homogenous

sample was obtained. In addition, each subject was mentally and physically able to take the written test.

#### Assumptions

1. Low back pain is a psychosomatic disorder.
2. Personal satisfaction and effective functioning are associated with level of self-esteem.
3. Self-esteem can be measured.

#### Theoretical Rationale

Melzack and Wall's (1977) gate control theory of pain postulates that a gate control system in the spinal cord modulates sensory input before pain perception and response is evoked. The T cells, which activate the neural mechanisms responsible for perception and response, are influenced via the substantia gelatinosa by fibers descending from the brain as well as peripheral nerve input. This theory allows for both physical and psychological influences in regard to perception and response to pain.

Coopersmith (1967) notes that self-esteem is developed at some time preceding middle childhood and remains relatively stable over a period of years. He also notes, however, that shifts in self-esteem can be caused by specific incidences. Brena (1978) identifies five individual consequences frequently associated with chronic pain: drug misuse, dysfunction, disuse lesions, disability and depression. These consequences do not appear to be compatible with effective functioning and personal satisfaction which Coopersmith (1967) states are significantly associated with self-esteem.

Thus, with pain theory indicating psychological as well as physiological influences regarding perception and response, it leads one to question the state of self-esteem in relationship to duration of pain. If only physical influences affected the pain state, there would be a pain stimulus followed by a response and when the stimulus was removed the response would not occur. However, when psychological influences affect the pain state, there is a cumulative effect. It might be postulated that, over time, the consequences caused by the continued pain lead to decreased self-esteem.

### Hypothesis

The adult patient with chronic low back pain will have a lower self-esteem than the adult patient with acute low back pain.

### Significance of Study to Nursing

Because such a large percentage of patients with chronic pain have chronic low back pain, could nursing measures during the acute stage prevent the chronicity? Self-esteem could be a significant variable in the process of recovery and rehabilitation since it profoundly affects ones thinking processes, emotions, desires, values, and goals (Branden, 1963). The experimental study done by Elton, Stanley, and Burrows (1978) supported the thesis that the self-esteem of patients with chronic pain could be improved with psychological treatment. In addition it was demonstrated that there was a significant decrease in the amount of pain reported by their subjects.

Data from this study will provide nursing with guidelines for the type and timing of implementation of psychological interventions

affecting self-esteem. If self-esteem is found to be high in patients with acute low back pain, then measures should be implemented to maintain self-esteem at this time. If self-esteem is found to be low during the acute phase, then measures to increase self-esteem should be implemented. The objective in both instances is to prevent the chronic pain state from developing. If self-esteem is found to be low only in patients with chronic low back pain, then measures to increase self-esteem should be part of the plan of care for these patients at this time.

## CHAPTER 2

### RELATED LITERATURE

#### Pain

Pain is frequently a symptom for which one seeks medical help. It is a subjective experience and Stewart (1977) notes that neither the quality nor intensity can be fully appreciated by an observer. Pain perception threshold, the point at which a stimulus is said to be painful by the subject, has been found to be relatively constant among individuals; however, pain tolerance, the point at which the subject says an experience is unbearable, varies widely among individuals (Bond, 1979).

At the present time, Melzack and Wall's gate control theory seems to be the most advanced explanation of pain production, even though there are still some explanatory gaps (1977). The gate control theory includes concepts from the earlier specificity and pattern theories as well as the additional concept that a gate control system modulates sensory input before pain perception and response is evoked. It postulates that nerve impulses from the skin travel over large and small diameter nerve fibers to three spinal cord systems: "(1) the cells of the substantia gelatinosa in the dorsal horn, (2) the dorsal column fibers that project toward the brain, and (3) the central transmission (T) cells in the dorsal horn" (Melzack and Wall, 1977:10). The diameter of the nerve fibers affect the effectiveness of afferent impulses. The impulses carried by large diameter fibers are thought to decrease the effectiveness of afferent volleys while impulses carried

by small diameter fibers are thought to increase the effectiveness of the afferent volleys.

Melzack and Wall have proposed that

(1) the substantia gelatinosa functions as a gate control mechanism that modulates the afferent patterns before they influence the T cells; (2) the afferent patterns in the dorsal column system act, in part at least, as a central control trigger which activates selective brain processes that then influence, by way of descending fibers, the modulating properties of the gate control system; and (3) the T cells activate neural mechanisms which comprise the action system responsible for perception and response of pain (1977:10).

There is interaction among all three systems.

Since the proposal of the gate control theory of pain in 1965, further research has necessitated some changes. It has been found that visceral afferent impulses converge directly onto the T cells rather than first being modulated through the substantia gelatinosa. Also some questions have emerged as to the actual mechanism underlying gate control theory. However, the concept of the balance between small diameter and large diameter afferent fibers seem to have been further validated (Melzack and Wall, 1977).

As can be deduced from the gate control theory, pain production is influenced by fibers descending from the brain as well as by afferent fibers originating in the periphery. Thus, this theory allows for both physical and psychological influences on pain production. Historically, Beecher (1952:161) summarized as an established principle that "subjective responses are the resultant of the action of the original stimulus and the psychic modification of that stimulus."

The gate control theory also identifies two components of pain, i.e. perception and reaction. The reaction component can modify

the sensation of pain, making it disproportionate to the stimulus (Huskisson, 1974). The intensity of the reactive component has been shown to vary among individuals and among various groups of individuals. Rangell (1953:23) feels that the wide individual differences in the perception of pain and especially in reactions to painful sensations "depends in large measure on the past life experiences of the individuals, the types of personalities involved, and the specific associations which exist, both conscious and unconscious for the situation in which the painful stimulus arises." Zborowski (1969) notes that one's response to pain is learned through socialization and is part of one's cultural heritage. His classic research comparing patients of Jewish, Italian, Irish and Old American origin demonstrated that responses to pain by these patients varied with ethnicity.

Merskey and Spear (1967) reviewed the literature to identify psychological theories of pain. They extracted three principle theories:

- (1) That pain is a consequence of hostility, either as a substitute following repression of hostility (Eisenbud, 1937; Weiss, 1947) or as an expression of guilt for overt hostility (Engel, 1951, 1956).
- (2) That pain arises in patients of a certain personality type, called 'pain prone', who use the complaint of pain as a means of communication and of emotional expression (Engel, 1958, 1959).
- (3) That pain arises as a consequence of a threat to the integrity of the body. Here the body is regarded as an object of concern to the self. The threat may not be apparent to an outsider and the pain will then be classed as 'psychogenic' (Szasz, 1957).

Of the three psychological theories, Merskey and Spear felt that Szasz's theory should be accepted as the most satisfactory general theory because both physical and psychological influences were considered.



A general theory of pain which considers psychological and physical influences is critical in the study of low back pain since this problem is frequently viewed as a psychosomatic condition. Although many factors conceivably influence the psychological dimension of pain the effect self-esteem has on one's perception and reaction to pain has been selected for further study.

### Self-Esteem

#### Definitions

Coopersmith (1967:2) defines self-esteem as a "personal judgment of worthiness that is expressed in the attitudes the individual holds about himself." This value judgment is experienced as a feeling of approval or disapproval of oneself. No other feeling is more important than self-esteem because it plays a part in every other feeling one possesses. It profoundly affects one's thinking processes, emotions, desires, values and goals (Branden, 1969). The extent to which one believes himself to be capable, significant, successful and worthy is indicated by one's self-esteem. A widely held belief is that self-esteem is significantly associated with personal satisfaction and effective functioning (Coopersmith, 1967). The desire or need for self-esteem is evidenced by Branden's (1969) description of it as being as urgent or imperative as a basic need.

Jourard (1963:255) defines self-esteem as "the name given to the complex cognitive-affective response which accompanies behavior in accordance with the conscious." The cognitive response is a verbal judgment indicating one is a good and worthwhile person. The affective response is a feeling which is satisfying and pleasant. Rarely

is one aware of his self-esteem; awareness occurs when one has accomplished a very difficult task or more often when one has failed to accomplish a task or goal.

Branden (1969) states self-esteem has two interrelated aspects: a sense of personal efficacy and a sense of personal worth, the integrated sum of which is self-confidence and self-respect. Self-confidence is needed, or confidence in the individual's mind, in order to deal with reality, that is, to know, to think and to judge. Without this self-confidence helplessness is experienced. The degree of personal worth or self-respect an individual possesses is determined by the extent to which personal goals are accomplished. Self-respect is needed to permit the individual to act to achieve these goals. In order to act, however, the results of the goals must be valued. For example, individuals must consider themselves worthy of happiness in order to act to attain happiness. Self-confidence and self-respect are interrelated in that worthiness to live is achieved through development of competence to live. Self-confidence is expressed through development of competence, and self-respect is the belief of worthiness of oneself.

Maslow (1970) has identified self-esteem as a motivational need. In his work he identified five sets of needs and ordered them in a hierarchy as follows: physiological needs, safety needs, belongingness and love needs, esteem needs, and the need for self-actualization. In moving up the hierarchal ladder, the more basic needs must be at least partially satisfied before a higher need emerges. "Satisfaction of self-esteem needs leads to feelings of self-confidence, worth, strength, capability, and adequacy, of being useful and necessary in the world. But thwarting of these needs produces feelings of inferiority, of

weakness and of helplessness" (Maslow, 1970:45). Included in Maslow's esteem needs is the desire to be esteemed by others. To be esteemed by others gives one prestige, status and reputation.

Self-esteem fosters two desirable consequences for an individual. One is the generation of positive feelings about the self. The second is the influence upon one's interpersonal relationships. Establishment of healthy personal relationships is much more likely for an individual with high self-esteem than for one who is possessed by inferiority feelings (Jourard, 1963). Persons with feelings of inferiority avoid close relationships fearing exposure of their inadequacies (Coopersmith, 1967). Individuals who have a high degree of self-esteem accept and approve of their overall personality (Jourard, 1963).

#### Development of Self-Esteem

Coopersmith (1967) concludes that there are four major factors which contribute to the development of self-esteem. First and most important is the amount of respect, acceptance, and concern received by the individual from significant others. One values oneself as he is valued by others. The second factor contributing to the development of self-esteem is one's history of successes. Successes bring recognition, status, and a position in the world in which one lives. Successes are also accompanied by social approval. The third factor is related to one's values and aspirations. A specific successful event will not be equally valued by every individual. The personal significance that the event holds for one is in relation to his values and aspirations. If the event is highly valued, then success enhances self-esteem.

The last factor contributing to the development of self-esteem is one's manner of responding to devaluation. One may respond to de-meaning events by decreasing his self-esteem or he may be able to defend his self-esteem despite the negative implications of the event. To be able to defend one's self-esteem reduces anxiety and helps to maintain personal equilibrium. Defense mechanisms assist individuals to maintain their sense of worth despite devaluation. Thus, respectful, accepting and concerned treatment from significant others, a history of successes, being successful in events that one values and responding to devaluation by the use of defense mechanisms, all contribute to the development and maintenance of a high self-esteem.

Branden (1969) discusses two basic conditions necessary for the development of a high level of self-esteem. The first condition is the "indomitable will to understand" (Branden, 1969:115). Clarity, intelligibility, comprehension and interaction of all that is in one's awareness is involved. As long as there is a struggle to understand, regardless of the anguish, individuals are psychologically safe. The desire for efficacy is still intact. If, however, individuals resign themselves to the incomprehensibility of some aspect of reality it tends to spread to more and more areas. The growth of the mind is determined by the goals one sets. If the individual continues to have the desire to understand, a process of growth and development occurs which increases the power of the mind.

The second condition necessary for the achievement of a high level of self-esteem is to learn that emotions are not adequate guides to action. Emotions are feelings, not tools of cognition. They are consequences of value judgments which may or may not be appropriate to

reality and therefore should not be used as criteria for judgments. This is not to say that emotions are unimportant. Healthy emotional spontaneity may be appropriate, but only reason can judge. Thus, one needs to be able to differentiate between knowledge and emotions. To act, based on emotionalism, may lead to disaster with consequent fear of one's emotions and loss of self-esteem. If one develops healthily, harmony is achieved between mind and emotions.

A general appraisal of self-worth is developed at some time preceding middle childhood; self-worth remains relatively stable over a period of years. Limited shifts can be caused by specific incidences, but when the person's situation returns to normal, so does the self-esteem (Coopersmith, 1967). Smith (1978) conducted a longitudinal study of self-esteem of students over a three year period, during which racial integration of the school system occurred. He found no significant difference in the self-esteem of White, Black or Mexican-American students when the original self-esteem scores were compared to the self-esteem scores obtained at the end of the three year period.

Branden (1969) points out that individuals do not consciously create their own characters. Day after day choices are made, and subconsciously the nature and implications of these choices are summed up. The sum is one's character and one's sense of self. It follows then that self-esteem does not need to be static; changes can occur over time if the individual's habits of interacting with the environment change.

#### Factors Affecting Self-Esteem

Coopersmith (1967) researched the effect that social background, parental characteristics, and parent-child interaction had on the

development of self-esteem. In regard to social background, social class was positively correlated to self-esteem. Also, of the religious denominations, Jews reported higher self-esteem than Catholics or Protestants. Findings related to work history revealed that boys of unemployed fathers had a significantly lower self-esteem than boys of employed fathers. No relationship existed between the child's self-esteem and the extent to which the mother was presently employed or had been employed during his earlier childhood. However, when only the children of working mothers were studied, a high self-esteem was positively correlated with the children of mothers who had worked for a long time and expressed favorable attitudes toward their work.

Various parental characteristics were related to self-esteem with the interpretation of the findings revolving around the role model which the parent provides for the child. Mothers of children with high self-esteem tended to be stable, resilient, and self-reliant, even though these mothers were no more successful than mothers of children with low self-esteem. Because of the stated characteristics of mothers of children with high self-esteem, their children perceived them to be successful. There were only limited differences in the social and occupational status of the fathers in the study; however, the fathers of children with high self-esteem appeared more concerned and involved with their sons and had greater authority in their household than fathers of children with low self-esteem. In relationship to parental values, findings indicated that parents of children with medium or high self-esteem valued achievement whereas parents of children with low self-esteem placed great value on making oneself acceptable to others. In handling devaluating experiences, the mothers of children with high

self-esteem tended to deal with them directly, realistically and effectively, thus providing a clear, strong role model for coping with stress in a constructive manner. It was concluded that children with high self-esteem were more likely to have parents who provided impressions or experiences of success.

Parent-child relationships were found to be quite different between children with high self-esteem and children with low self-esteem. In the homes of children with high self-esteem, demanding regulations were made and carried out with firmness and care. Reward rather than punishment was the preferred method of affecting behavior, but when punishment was required, it was meant to manage the undesired behavior rather than being harsh treatment or loss of love. The total amount of punishment did not differ in the home of high and low self-esteem children. In the homes of children with low self-esteem, lack of parental guidance and relatively harsh and disrespectful treatment existed. Guidelines were not established, yet punishment rather than reward was used to influence behavior. Force and loss of love were the methods of punishment and they were inconsistently and emotionally carried out, most likely by the mother. Parents of children with high self-esteem were more likely to use discussion and reasoning in solving problems with their children than parents of children with medium or low self-esteem.

As for the characteristics of the child, Coopersmith's (1967) research indicated that self-esteem is higher among first and only children than it is among children in other ordinal positions. There is no relationship in regard to family size. Frequent nonserious problems are less likely to have been experienced by children with high

self-esteem, although they were just as likely to have experienced serious physical trauma. Children with high self-esteem were more likely to have had good social relationships with peers and siblings during their early childhood years. Results indicated that frequent positive congenial experiences occurred more frequently in early childhood of children who had high self-esteem.

Even though self-esteem is developed at some time preceding middle childhood and remains relatively stable over a period of years, various stresses are added through out life. The juvenile gains self-esteem outside the family from being a member of a group such as a club or team. Peers affect the self-esteem of teenagers, however, his self-esteem remains closely linked to the esteem he has for his parents. The self-esteem of women is frequently linked to the capacity to have children and when this capacity is lost, self-esteem may falter. A final stress to self-esteem occurs in senescence. The self-sufficiency which enhanced self-esteem throughout the years is then lost (Lidz, 1968). Kohut (1978) points out that reliance on several sources of self-esteem is a safer way of psychological survival.

Research conducted by Coopersmith (1967) indicates that self-esteem is significantly related to the individuals basic style of adapting to environmental demands. An individual with high self-esteem accepts an internal frame of reference as the most trustworthy guide of personal behavior. This characteristic allows him to defend threats to his adequacy better than a person with low self-esteem who has a more external frame of reference. The individual with low self-esteem is more cautious when dealing with environmental demands. Self-consciousness and preoccupation with inner problems restricts one's involvement



with the outside world. Thus adaptation to environmental demands is influenced by level of self-esteem.

#### Psychological Characteristics of Patients With Pain

Phillips (1964) points out that few if any studies describe persons before they developed disease or disability, therefore, statements of causal relationships cannot be made. However, various studies have investigated psychological characteristics of persons who already have disease or disability. For example, Sternbach et al., (1973) studied various psychological characteristics of patients with chronic low back pain. Their research indicated that disturbance of affect, a skewed self-concept and life style, and a peculiar way of relating to physicians are all associated with persons who have chronic low back pain. Sixty-eight subjects, 41 men and 27 women, were taken serially from an orthopedic low back pain clinic. Eight of the patients were classified diagnostically as having acute back pain, which he arbitrarily defined as being less than six months in duration. The remainder of the patients were classified diagnostically as having chronic low back pain which he defined arbitrarily as having a duration of longer than six months. Forty-four of the patients had organic findings on physical examination; 24 had no such findings. These patients were grouped together because there were no significant differences in MMPI scores of the two groups.

Composite scores on the MMPI indicated an elevation of the hypochondriases, hysteria and depression scales when compared to the norms for this test. Scores on the Health Index Test revealed that the patients with chronic low back pain had adopted an invalid's self-

concept and life style. When patients with chronic low back pain were compared to patients with moderate to severe rheumatoid arthritis, a significant difference ( $p < .01$ ) was found, indicating that patients with low back pain have more pain complaints and a greater change in life style than the arthritic patients. It was also found that patients with low back pain had a significantly greater struggle with doctors than did the arthritic patients ( $p < .01$ ). Throughout the study, no significant difference was found between the test results of patients who had physical findings and those who did not.

Phillips (1964) conducted a study very similar to that of Sternbach et al. (1973). Several populations of orthopedic cases were studied over the period of a decade; patients with low back pain were examined from 1960-1962. Subjects consisted of 25 women with an average age of 38.55 years and 33 men with an average age of 43 years.

Findings from the MMPI revealed that both the women and the men had elevations of the scores on the hypochondriasis, depression and hysteria scales when compared to the norms for this test; however, the women had higher score elevations than did the men on all three scales. Elevation of the scores on these three scales were similar to the findings of Sternbach et al. (1973). Phillips goes on to point out that this type of finding, an elevation of the scores on the hypochondriasis, depression, and hysteria scales, is typical of the neurotic triad. He defines neurotic as the tendency to show these three symptoms rather than alternative patterns or symptoms.

Hanvik (1951), like Sternbach et al. and Phillips, studied patients with low back pain using the MMPI. His study was undertaken to determine if and to what extent the MMPI could be used to differentiate

between patients with functional low back pain, in that diagnostic tests did not delineate any pathology, and patients with known organic low back pain. Sixty male inpatients, 30 in each group, were the subjects. Twenty-eight of the 30 subjects who had organic lesions had undergone back surgery and were in the postoperative phase at the time of the study.

His results demonstrated marked differences between the two groups. The functional low back pain group showed an elevation in scores on the hypochondriasis and hysteria scales and a relative low score on the depression scale when compared to the norms for this test. When graphed these three scores gave a "V" configuration. The group with organic low back pain showed less elevation and approximately equal scores on the hypochondriasis, depression and hysteria scales.

Hanvik's findings were different from those of Sternbach et al. (1973) and Phillips (1964). While Hanvik noted a significant difference between the scores on the hypochondriasis, depression and hysteria scales for the group of patients with functional low back pain and the group of patients with organic low back pain, Sternbach et al., did not note any significant difference. Phillips did not group his patients according to functional and organic low back syndrome and his findings coincided with Sternbach et al. (1973). When only the functional group studied by Hanvik is considered, those findings are similar to the findings of Sternbach et al., and Phillips (1964) with the exception that the depression scores were not as high. The major difference among all these findings was in the patient group with low back pain of organic origin who showed equal elevation of the scores on the hypochondriasis, depression and hysteria scales. A possible explanation could

be the fact that 28 or the 30 patients in this group had undergone recent surgery in an attempt to correct their low back pain problem.

However, Wilfling, Klonoff and Kokan (1973) studied a group of 26 males who had undergone lumbar intervertebral fusion for relief of low back pain from two to nine years prior to the study. The subjects were grouped according to success/failure of the fusion in restoring the patient to normal functioning. Seven subjects were categorized as good in regard to functioning, 12 as fair, and seven as poor. The subjects were also categorized into two groups based on number of operative procedures for fusion; 15 patients had undergone one fusion and 11 had undergone more than one.

The MMPI showed some significant differences among the groups. On the hypochondriasis scale, the poor and fair group scored significantly higher than the good group ( $p < .02$  and  $p < .01$  respectively). On the depression scale the poor group scored significantly higher than the good group ( $p < .02$ ). On the hysteria scale, both the poor and fair groups showed borderline elevations but only the fair group's scores were significantly higher than the good group ( $p < .05$ ). The multiple operated group showed higher elevation of scores on the hypochondriasis, depression and hysteria scales than did the singly operated group. A significant difference in scores was revealed between the two groups on both the hypochondriasis and hysteria scales ( $p < .05$ ).

These results (e. g. elevation of the scores on the hypochondriasis, depression, and hysteria scales, when compared to the norms for the MMPI) are consistent with the findings of Sternbach et al. (1973) and Hanvick's (1951) functional low back pain group. The subjects in

this study with good functional results from the surgical fusion revealed scores similar to those of Hanvik's (1951) organic low back pain group.

Whereas the above researchers studied psychological characteristics and their relationship to low back pain, Elton, Stanley and Burrows (1978) studied self-esteem and chronic pain. They compared the self-esteem of a group of patients with nonorganic chronic pain and a group with organic chronic pain to two groups of pain free subjects. One group of pain free subjects consisted of 10 male and 10 female university students with a mean age of 20.1 years; the other pain free group consisted of 10 males and 10 females with a mean age of 39.7 years. The measurement tool for self-esteem was a revision of the Butler-Haigh Q-sort Test.

Results showed that on the pre-test the nonorganic pain group had a significantly lower self-esteem score than the organic or control groups ( $p < .001$ ). The self-esteem scores of subjects in the organic pain group were not significantly different from the self-esteem scores of the subjects in the two control groups. No significant difference was found between the two control groups which indicated that age and socio-economic class were not strongly related to self-esteem. The nonorganic pain group was retested after a fourteen week course of therapy using hypnosis, bio-feedback, placebo and interaction with staff. These patients showed a significant decrease in reported pain experiences and a significant increase in self-esteem scores ( $p < .001$ ). The self-esteem scores of the two control groups did not change significantly in the 14 week time span which indicates that time alone does not have a great influence on self-esteem.

### Summary

Pain is a frequently occurring symptom which has both physical and psychological influences. It's components are perception and reaction, both of which vary among individuals. With low back pain being considered a psychosomatic disorder, self-esteem could be a factor affecting one's perception and/or reaction to pain.

Self-esteem is the value one has for himself. It is developed at some time prior to middle childhood with the level of self-esteem being influenced by social background, parental characteristics and parent-child interactions. The way one adapts to environmental demands is related to one's self-esteem. Limited shifts in self-esteem can occur as a result of specific incidences.

Research indicated that certain psychological characteristics are related to patients with low back pain, namely hypochondriasis, hysteria, and depression. Self-esteem was found to be low in patients with chronic pain of various origin, however, it was also found that self-esteem could be increased and frequency of reported pain decreased by psychological interventions.

## CHAPTER 3

### METHODOLOGY

#### Selection of Sample

The setting for this study was a 464 bed urban hospital located in the southeastern United States. This hospital serves two cities and five counties.

The sample consisted of 40 adult patients admitted with a diagnosis of low back pain originating in the spinal column, somewhere between the lowest thoracic vertebrae and the coccyx, as documented by a physician. All patients were contacted in serial order based on the day of admission. Those who were contacted and consented to participate in the study were equally divided, by chance, into the two study groups, i. e. 20 presented with chronic back pain and 20 presented with acute back pain. The 20 subjects in the chronic pain group consisted of eight males and 12 females; the 20 subjects in the acute pain group consisted of nine males and 11 females. The age range for the chronic group was 26 years to 64 years with a mean age of 41.55. The age range for the acute group was 25 to 60 years with a mean age of 38.70. Tables 1 and 2 depict this demographic data.

Table 1

## Sex and Race Distribution of Subjects by Study Group

Study Groups	Sex			Race		
	Female	Male	Total	Caucasion	Negro	Total
Chronic Low Back Pain Group	12	8	20	8	12	20
Acute Low Back Pain Group	11	9	20	8	12	20
Total	23	17	40	16	24	40

Table 2

## Age Distribution of Subjects by Study Group

	Chronic Low Back Pain Group	Acute Low Back Pain Group	Total Subjects
20-29	2	6	9
30-39	5	5	10
40-49	9	4	13
50-59	3	4	7
60-69	1	1	2
Total	20	20	40



## Selection of Instrument

### Tennessee Self-Concept Scale (TSCS)

The TSCS developed by William H. Fitts (1964) was used to determine the self-esteem of the subjects (Appendix A, p. 44). In the development of the scale, Fitts first compiled a pool of self-descriptive items drawn from other self-concept measures and from written self descriptions of patients and non-patients. After these items were edited, seven clinical psychologists used a phenomenological system for classifying the items on the basis of what each itself was saying. Of these items, 90 were selected for the final Scale. All the judges were in perfect agreement on the classification of each item selected.

Three major categories are reflected in the Scale. The first category is identity, which relates to who one is as he sees himself. The second category is self-satisfaction or self-acceptance which describes how one feels about the self he perceives. The third category reveals what one does or how he acts. Items in these three categories are again categorized to evaluate one's physical self, moral-ethical self, personal self, family self and social self. The final 10 items of the 100 item Scale were taken from the L-scale of the Minnesota Multiphasic Personality Inventory (MMPI) and comprise the Self Criticism Scale. These items are slightly derogatory, but most people admit that they are true for themselves.

The same 100 item scale may be scored on either a Counseling Form or a Clinical Research Form. The Clinical Research Form utilizes more variables and requires more complex analysis and interpretation than the Counseling Form. The Counseling Form, however, does measure self-esteem and therefore was used for this study.

Norms for the TSCS were established from a sample of 626 people ranging in age from 12 to 68 years. An equal number of males and females and both Negro and White subjects were included in the sample. Various parts of the country and all levels of social, economic, and intellectual classes were represented. Subjects' educational level ranged from sixth grade through the doctoral degree (Fitts, 1965).

### Reliability and Validity

Reliability was determined by the test-retest method with 60 college students serving as subjects. A two week period separated the two test dates. The score measuring self-esteem showed a reliability coefficient of 0.92 (Fitts, 1965).

Fitts (1965) discusses four validation procedures in relationship to the TSCS. Content validity was based on the fact that there was unanimous decision of seven judges in the categorization of each item used in the test. To determine the ability of the TSCS to differentiate between groups, the Scale was administered to a variety of groups. Highly significant differences were found between psychiatric patients and non-patients (mostly at the .001 level). It was also found that people characterized as high in personality integration differed from the norm group in the direction opposite that of the psychiatric patient group. The TSCS was able to further differentiate type and degree of disorder in the patient group. Other groups which the Scale was able to differentiate between were delinquents and non-delinquents and military personnel who could and could not succeed in paratrooper training. No findings were reported which would indicate

that testing had been done to determine if the TSCS could differentiate between male and female groups.

Correlations were made with other measures including the MMPI. "Most of the scores of the scale correlate with MMPI scores in ways one would expect from the nature of the scores" (Fitts, 1965:24). To determine personality changes under particular conditions pre- and post-tests were given which provided evidence to support the thesis that self-concept does change as a result of significant experiences. Significant experiences included psychotherapy and passing or failing by para-trooper trainees.

### Scoring

The scoring protocol was that outlined by Fitts (1965) for the Counseling Form. The total positive score reflects one's overall level of self-esteem. Categories from which the total positive score is derived include identity, self-satisfaction, behavior, physical self, moral-ethical self, personal self, family self and social self. The total positive score was used to test the hypothesis.

### Data Collection

Permission to collect data in the designated agency was obtained (Appendix C, p. 55). Permission was also obtained from selected physicians to ask their patients to participate in the study (Appendix C, p. 55). Daily hospital admission records were reviewed to identify patients admitted with low back pain. All who were admitted with this diagnosis were then individually contacted by the investigator. The purpose of the study was explained, confidentiality assured and

questions answered. Those agreeing to participate signed an informed consent form (Appendix B, p. 53). Forty of the 48 patients contacted consented to be subjects for the study. The eight refusals consisted of five females and three males. The medical records of the consenting patients were then reviewed to determine if they met the pre stated criteria. All did meet the pre stated criteria and each was assigned to one of the two study groups. Subjects were then given the TSCS with an explanation of the directions and were left alone to complete the scale. The investigator returned at a predetermined time to collect the completed Scale. All who consented to be subjects completed the TSCS.

## CHAPTER 4

### ANALYSIS OF DATA

#### Introduction

This study was conducted to explore the relationship between self-esteem and duration of low back pain. The stated hypothesis was tested using the student t test. A probability level of  $< 0.05$  was accepted.

Hypothesis: The adult patient with chronic low back pain will have a lower self-esteem than the adult patient with acute low back pain.

#### Findings

No statistically significant difference was found between the self-esteem of subjects with acute low back pain and the self-esteem of subjects with chronic low back pain (Table 3). Thus, the hypothesis was not supported.

Table 3  
Comparison of Self-Esteem Scores  
Between  
Chronic Low Back Pain Group and Acute Low Back Pain Group

Study Groups	N	$\bar{X}$	S.D.	t	p
Chronic Low Back Pain Group	20	343.95	29.39	-0.001	NS
Acute Low Back Pain Group	20	339.45	30.36		

In addition, neither the mean self-esteem scores nor the standard deviation for the self-esteem scores of either group varied greatly from the standardization group from which the norms for the TSCS were developed (Fitts, 1965:14). The scores of both study groups fell within the -1 standard deviation of the norm (Figure 1).

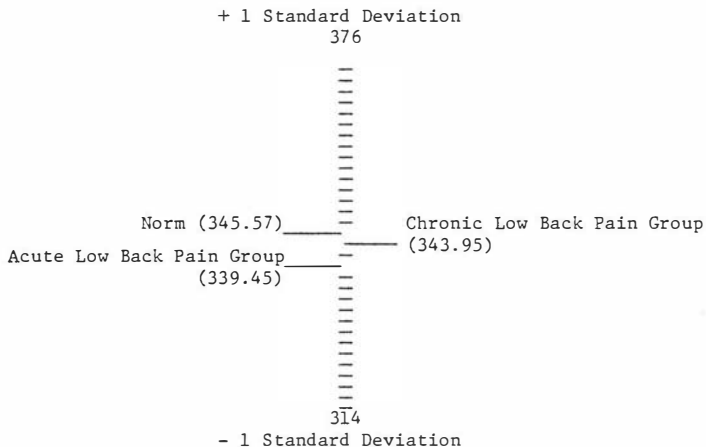


Figure 1

#### Comparison of Means Between Study Groups and Norm

The range of the self-esteem scores for the chronic low back pain group was 287 - 411, the median score was 342. The range for the acute low back pain group was 260 - 381, with a median score of 344.

The TSCS is subdivided into eight categories - 1) Identity, 2) Self-Satisfaction, 3) Behavior, 4) Physical Self, 5) Moral-Ethical Self, 6) Personal Self, 7) Family Self, and 8) Social Self. It also contains a scale for Self-Criticism and a method for determining Variability of Responses and Distribution of Responses. All of these

areas were analyzed, again using the student t test, and no significant differences were found between the scores of the chronic low back pain group and the scores of the acute low back pain group.

The chronic low back pain group and the acute low back pain group were each further divided on the basis of sex. Application of Chi-Square indicated that there was no significant difference in the distribution of sex in the four groups at the 5 percent level of significance, thus allowing for further analysis of the data. The relationship of each group to the remaining three groups was then analyzed using the student t test. Significant findings were revealed as follows: The total positive score, reflecting overall level of self-esteem, was significantly lower for females with chronic low back pain than males with chronic low back pain ( $t = -2.46, p < 0.05$ ). Analysis of the behavior category revealed the acute male low back pain group scoring significantly lower than the chronic male low back pain group ( $t = -2.37, p < 0.05$ ). The acute, male low back pain group as well as the chronic, female low back pain group scored significantly lower than the chronic male low back pain group in the moral-ethical self category ( $t = -2.93, p < 0.05$  and  $t = -2.76, p < 0.05$  respectively). In the personal self category, again the acute male low back pain group scored significantly lower than the chronic male low back pain group ( $t = -2.846, p < 0.05$ ). The acute female low back pain group also scored significantly lower than the chronic male low back pain group in the personal self category ( $t = -2.11, p < 0.05$ ).

Analysis of the mean for each group in each of the categories when compared to the norm mean and standard deviation revealed an unsuspected finding. All of the study groups in all of the TSCS

categories were within one standard deviation unit from the norm with one exception. The chronic female low back pain group fell into the -1 to -2 standard deviation area in the physical self category (Table 4).



Table 4

Comparison of Norm Scores to Study Group Scores on the Categories of Self-Esteem

Categories of Self-Esteem	Mean Scores					-1 to +1 S.D. Range for Norm
	Chronic Male Low Back Pain Group	Chronic Female Low Back Pain Group	Acute Male Low Back Pain Group	Acute Female Low Back Pain Group	Norm	
Identity	131.00	121.58	124.00	126.63	127.10	117.14 - 137.06
Self-Satisfaction	111.25	98.17	102.55	104.55	103.67	89.88 - 117.46
Behavior	119.88	112.08	107.33	112.82	115.01	103.79 - 126.23
Physical Self	67.13	60.58	65.78	66.73	71.78	64.11 - 79.45
Moral-Ethical Self	76.38	67.42	63.67	72.18	70.33	61.63 - 79.03
Personal Self	73.63	64.58	64.44	66.45	64.55	57.14 - 71.96
Family Self	72.13	69.17	69.44	70.00	70.83	62.40 - 79.26
Social Self	72.88	69.75	70.56	68.64	68.14	60.28 - 76.00
Self-Criticism	34.88	36.08	36.44	33.91	35.54	28.84 - 42.24
Variability of Responses	47.25	54.67	49.78	53.27	48.54	36.12 - 60.96
Distribution of Responses	140.13	121.33	126.00	116.00	120.44	95.45 - 144.63

### Discussion

The hypothesis for this study, that adult patients with chronic low back pain will have a lower self-esteem than adult patients with acute low back pain, was not supported by the findings. No significant difference in the overall self-esteem of these two groups was found. One possible cause could be that all subjects participating in this study were hospitalized at the time with either an initial or recurrent episode of low back pain. The sample did not include chronic low back pain patients who were in remission. The effect of the exclusion of this segment of the chronic low back pain population is not known. Could it be that the self-esteem of those in remission is lower than the self-esteem of those who are hospitalized. Does the stress of low back pain in addition to the stress of a normal workload make the self-esteem lower than when they are only coping with their low back pain? The literature review did not reveal studies comparing these two groups.

Even though no significant differences were found between the acute and chronic groups, when the sample was further divided into four groups (acute male low back pain group, acute female low back pain group, chronic male low back pain group and chronic female low back pain group) and analysis based on the component parts of the TSCS was done, some significant differences were revealed as related to duration of back pain and sex.

Studies related to low back pain have spoken to sex in the discussion of the findings. Phillip's (1964) research revealed a difference between men and women on the MMPI. Both male and female groups, when compared to the same sex of patients with fractures, scored higher

on the neurotic triad than did the fracture group, but the females scored higher than the males. Aitken's (1952) research on employment of patients having had surgery for disc protrusion revealed that 29 percent of the total group had not returned to gainful employment, but when sex was considered, 84 percent of the females were subsequently unemployed. These studies are somewhat supportive of the findings revealed by the research of the present investigator. The chronic male group scored significantly higher than the chronic female group on overall self-esteem and in the category of moral-ethical self. The chronic male group also scored significantly higher than the acute female group in the moral-ethical category.

Duration of low back pain has not been spoken to in research findings related to low back pain. Sternbach et al. (1973) in the description of subjects for their study, identified the number of acute and chronic subjects but did not mention this categorization in the discussion of their findings. For the present study, duration seemed to be a factor when it was considered in relationship to sex. The chronic male low back pain group had a significantly higher self-esteem in the categories of behavior, moral-ethical self and personal self than did the acute male low back pain group. The chronic male low back pain group also scored significantly higher than the acute female low back pain group in the personal self category. Although no data was collected concerning outside work, it could be assumed that all the men had outside jobs to support their families. The number of women in the sample who were employed outside the home is unknown, however following the testing period, comments made by the majority of the women indicated that they indeed were employed outside the home as well as carrying out

their homemaking responsibilities. This issue will be discussed further, later in this study. It would be interesting to know if the chronic male low back pain group would continue to score higher than the other group if the study were conducted with a larger population drawn from a different setting.

Elton, Stanley and Burrows (1978), utilizing a revised version of the Butler-Haigh Q-Sort Test, found in their study of patients with chronic pain, part of whom had low back pain, that the self-esteem of the chronic nonorganic pain group was significantly lower than the self-esteem of the control groups and the organic pain groups. The origin of pain was not determined for the subjects in the present study. However, when the mean of the acute low back pain group and the mean of the chronic low back pain group are considered in relationship to the mean and standard deviation of the standardization group, the scores from the former groups are included within the -1 standard deviation area of the later group, with one exception. The chronic female low back pain group, in the category of physical self, is included within the -1 to -2 standard deviation area. If any category were going to be low, it is most logical that the physical self category would be the one, since all of the subjects for this study were hospitalized for the treatment of low back pain at the time that the Scale was completed. It would have seemed that all of the groups would have been low in the physical self category based on their perception and reaction to pain which necessitated hospitalization. These findings bear further study.

An interesting observation was made by the investigator during the process of data collection. Even though no data was collected in relationship to how the back pain had affected the subjects' life style,

many volunteered information in this area. It seemed that most of the men talked largely about their jobs, but were not overly concerned since they were on workman's compensation or sick leave. Most of the women talked about both their job and their home responsibilities and seemed to have about equal concern for each. The jobs held by most of the women seemed to be low paying ones without the benefit of workman's compensation or sick leave or else their length of employment had not been sufficient to acquire them. The lack of this source of funding to meet family needs was a serious consideration for these women. In addition, the women continued to have home responsibilities where as the sick role seemed to have completely relieved the men of their responsibilities. This observation regarding women did not seem to be as obvious in subjects having an initial episode of back pain as it did in women with subsequent exacerbations. Some of the women implied that it was the resumption of household chores which prevented them from "getting well" after the first attack or that the combination of job plus household responsibilities precipitated the present attack. Research to study the roles of patients with low back pain might indicate a need for more specific patient teaching related to the pacing of resumption of normal activities, and family counseling regarding reallocation of household functions.

Since the TSCS has not been used to measure self-esteem of patients with low back pain, no direct comparison can be made between previous studies and the present one. However, the studies which were done to establish reliability of the TSCS compared the TSCS with the MMPI, which was the instrument used in most of the low back pain studies. Therefore, indirect comparison has validity.

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Summary and Conclusions

This study, utilizing an ex post facto design, was conducted to explore the relationship between self-esteem and duration of low back pain. The hypothesis was stated as follows: The adult patient with chronic low back pain will have a lower self-esteem than the adult patient with acute low back pain.

Forty adult subjects equally distributed into two groups, acute low back pain and chronic low back pain, were tested using the TSCS. Data were statistically analyzed using the student t test. Results of the analysis revealed no significant difference between the two sample groups in this study. Thus, the hypothesis was not accepted. However, application of the student t test to the data after each group was further categorized by sex and by component parts of the TSCS, did yield some significant findings. Of the four groups (chronic male low back pain group, chronic female low back pain group, acute male low back pain group and acute female low back pain group), the chronic male low back pain group had a significantly higher self-esteem in several categories (i.e. behavior, moral-ethical self and personal self) than did the other study groups. The chronic female low back pain group had a significantly lower overall self-esteem and was significantly lower in the category of moral-ethical self. The acute male low back pain group had a significantly lower self-esteem in the categories of behavior, moral-ethical self and personal self;

the acute female low back pain group had a significantly lower self-esteem in the category of personal self.

### Conclusions

There was no significant differences between the self-esteem of adult patients with acute low back pain and the self-esteem of adult patients with chronic low back pain in the sample for this study.

### Implications

Findings from this limited study indicate that both women and men need more nursing interventions aimed at maintaining or building self-esteem. In addition, since women deal with more homemaking responsibilities, specific teaching related to the pacing of resumption of normal activities in relationship to household chores and family counseling regarding reallocation of household functions is needed. It may be appropriate for the husband and other family members to take on tasks which require heavy lifting, extended periods of time on "ones feet" and bending like: moving furniture during the cleaning process, ironing, vacuuming, scrubbing, and bathing children in low tubs.

### Recommendations for Further Study

It is recommended that:

1. This study be replicated using a larger sample size.
2. This study be replicated using a clinic setting as well as an in-house setting to determine if hospitalization is a variable to be considered.

3. This study be replicated changing the definition of "acute" to "initial episode" and "chronic" to "more than one episode".

4. A study be done investigating roles and responsibilities of low back pain subjects.

5. A study be done to determine if the TSCS can differentiate between male and female groups.



## REFERENCES

## REFERENCES

- Aitken, Alexander. 1952. Rupture of the Intervertebral Disc in Industry. American Journal of Surgery 84:261-267.
- Beecher, Henry K. 1952. Experimental Pharmacology and the Measurement of the Subjective Response. Science 109:157-162.
- Bond, Michael. 1973. Personality Studies in Patients with Pain Secondary to Organic Disease. Journal of Psychosomatic Research 17: 257-263.
- \_\_\_\_\_. 1979. Pain - It's Nature, Analysis and Treatment. New York: Churchill Livingstone Company.
- Branden, Nathaniel. 1969. The Psychology of Self Esteem. New York: Bantam Books, Incorporated.
- Brena, Steven, editor. 1978. Chronic Pain. New York: Atheneum Publishers.
- Coopersmith, Stanley. 1967. The Antecedents of Self Esteem. San Francisco: W. H. Freeman and Company.
- Crue, Benjamin L. 1979. Chronic Pain. New York: Spectrum Publications, Incorporated.
- Elton, Deana, Gordon V. Stanley and Graham D. Burrows. 1978. Self Esteem and Chronic Pain. Journal of Psychosomatic Research 22: 25-31.
- Felker, Donald W. 1974. Building Positive Self Concepts. Minneapolis: Burgess Publishing Company.
- Fitts, William H. 1972. The Self Concept and Behavior: Overview and Supplement. Nashville: Counselor Recordings and Tests.
- \_\_\_\_\_. 1972. The Self Concept and Psychotherapy. Nashville: Counselor Recordings and Tests.
- \_\_\_\_\_. 1964. The Tennessee Self Concept Scale. Nashville: Counselor Recordings and Tests.
- \_\_\_\_\_. 1965. Tennessee Self Concept Scale Manual. Nashville: Counselor Recordings and Tests.
- Hanvik, Leo J. 1951. MMPI Profiles in Patients with Low Back Pain. Journal of Consulting Clinical Psychology 15:350-353.
- Huskisson, E. C. 1974. The Treatment of Chronic Pain, editor F. Dudley Hart. Philadelphia: Davis Company.

- Jacox, Ada and Mary Stewart. 1973. Psychosocial Contingencies of the Pain Experience. Boston: Little, Brown and Company.
- Jourard, Sidney M. 1963. Personal Adjustment: An Approach Through the Study of a Healthy Personality. 2d ed. New York: The Macmillan Company.
- Kohut, Heinz. 1978. The Search for Self, editor Paul H. Ornstein. New York: International Universities Press, Incorporated.
- Lidz, Theodore. 1968. The Person: His Development Throughout the Life Cycle. New York: Basic Books, Incorporated.
- Maslow, Abraham H. 1970. Motivation and Personality. 2d ed. New York: Harper and Row Publishers.
- Melzack, Ronald and Patrick D. Wall. 1977. Pain: A Source Book for Nurses and Other Health Professionals, editor Ada K. Jacox. Boston: Little, Brown and Company.
- Merskey, H. and F. G. Spear. 1967. Pain: Psychological and Psychiatric Concepts. London: Bailliere, Tindall and Cassell.
- Phillips, E. Lakin. 1964. Some Psychological Characteristics Associated with Orthopaedic Complaints. Current Practice in Orthopaedic Surgery 2:165-176.
- Polit, Denise and Bernadette Hungler. 1978. Nursing Research: Principles and Methods. Philadelphia: J. B. Lippincott Company.
- Rangell, Leo. 1953. Psychiatric Aspects of Pain. Psychosomatic Medicine 15:22-37.
- Smith, Strart B. 1978. A Longitudinal Study of the Relation of Mother, Peer, and Teacher Ratings on Self Esteem of Students. Dissertation Abstracts International 38:5101.
- Sternbach, R. A., S. R. Wolf, R. W. Murphy and W. H. Akison. 1973. Aspects of Chronic Low Back Pain. Psychosomatics 14:52-56.
- \_\_\_\_\_. 1973. Traits of Pain Patients: The Low Back "Loser". Psychosomatics 14:226-229.
- Stewart, Mary. 1977. Pain: A Source Book for Nurses and Other Health Professionals, editor Ada K. Jacox. Boston: Little, Brown and Company.
- Wilfling, F. H., H. Klonoff, and P. Kokan. 1973. Psychological, Demographic and Orthopaedic Factors Associated with Prediction of Outcome of Spinal Fusion. Clinical Orthopaedics and Related Research 90:153-160.
- Zborowski, Mark. 1969. People In Pain. San Francisco: Jossey-Bass Incorporated.

APPENDIX A

Tennessee Self Concept Scale

# TENNESSEE SELF CONCEPT SCALE

by

William H. Fitts, PhD.

Published by

Counselor Recordings and Tests

Box 6184 - Acklen Station

Nashville, Tennessee 37212

## INSTRUCTIONS

On the top line of the separate answer sheet, fill in your name and the other information except for the time information in the last three boxes. You will fill these boxes in later. Write only on the answer sheet. Do not put any marks in this booklet.

The statements in this booklet are to help you describe yourself as you see yourself. Please respond to them as if you were describing yourself to yourself. Do not omit any item! Read each statement carefully; then select one of the five responses listed below. On your answer sheet, put a circle around the response you chose. If you want to change an answer after you have circled it, do not erase it but put an X mark through the response and then circle the response you want.

When you are ready to start, find the box on your answer sheet marked time started and record the time. When you are finished, record the time finished in the box on your answer sheet marked time finished.

As you start, be sure that your answer sheet and this booklet are lined up evenly so that the item numbers match each other.


















Remember, put a circle around the response number you have chosen for each statement.

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

You will find these response numbers repeated at the bottom of each page to help you remember them.

1. I have a healthy body.....	1
3. I am an attractive person.....	3
5. I consider myself a sloppy person.....	5
19. I am a decent sort of person.....	19
21. I am an honest person.....	21
23. I am a bad person.....	23
37. I am a cheerful person.....	37
39. I am a calm and easy going person.....	39
41. I am a nobody.....	41
55. I have a family that would always help me in any kind of trouble.....	55
57. I am a member of a happy family.....	57
59. My friends have no confidence in me.....	59
73. I am a friendly person.....	73
75. I am popular with men.....	75
77. I am not interested in what other people do.....	77
91. I do not always tell the truth.....	91
93. I get angry sometimes.....	93

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

2. I like to look nice and neat all the time..... 
4. I am full of aches and pains..... 
6. I am a sick person..... 
20. I am a religious person..... 
22. I am a moral failure..... 
24. I am a morally weak person..... 
38. I have a lot of self-control..... 
40. I am a hateful person..... 
42. I am losing my mind..... 
56. I am an important person to my friends and family..... 
58. I am not loved by my family..... 
60. I feel that my family doesn't trust me..... 
74. I am popular with women..... 
76. I am mad at the whole world..... 
78. I am hard to be friendly with..... 
92. Once in a while I think of things too bad to talk about..... 
94. Sometimes, when I am not feeling well, I am cross..... 

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5



7. I am neither too fat nor too thin.....	7
9. I like my looks just the way they are.....	9
11. I would like to change some parts of my body.....	11
25. I am satisfied with my moral behavior.....	25
27. I am satisfied with my relationship to God.....	27
29. I ought to go to church more.....	29
43. I am satisfied to be just what I am.....	43
45. I am just as nice as I should be.....	45
47. I despise myself.....	47
61. I am satisfied with my family relationships.....	61
63. I understand my family as well as I should.....	63
65. I should trust my family more.....	65
79. I am as sociable as I want to be.....	79
81. I try to please others, but I don't overdo it.....	81
83. I am no good at all from a social standpoint.....	83
95. I do not like everyone I know.....	95
97. Once in a while, I laugh at a dirty joke.....	97

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

8. I am neither too tall nor too short. . . . . 8
10. I don't feel as well as I should. . . . . 10
12. I should have more sex appeal. . . . . 12
26. I am as religious as I want to be. . . . . 26
28. I wish I could be more trustworthy. . . . . 28
30. I shouldn't tell so many lies. . . . . 30
44. I am as smart as I want to be. . . . . 44
46. I am not the person I would like to be. . . . . 46
48. I wish I didn't give up as easily as I do. . . . . 48
62. I treat my parents as well as I should (Use past tense if parents are not living). . . . . 62
64. I am too sensitive to things my family say. . . . . 64
66. I should love my family more. . . . . 66
80. I am satisfied with the way I treat other people. . . . . 80
82. I should be more polite to others. . . . . 82
84. I ought to get along better with other people. . . . . 84
96. I gossip a little at times. . . . . 96
98. At times I feel like swearing. . . . . 98

Responses -	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

13.	I take good care of myself physically . . . . .	13
15.	I try to be careful about my appearance . . . . .	15
17.	I often act like I am "all thumbs" . . . . .	17
31.	I am true to my religion in my everyday life . . . . .	31
33.	I try to change when I know I'm doing things that are wrong . . . . .	33
35.	I sometimes do very bad things . . . . .	35
49.	I can always take care of myself in any situation . . . . .	49
51.	I take the blame for things without getting mad . . . . .	51
53.	I do things without thinking about them first . . . . .	53
67.	I try to play fair with my friends and family . . . . .	67
69.	I take a real interest in my family . . . . .	69
71.	I give in to my parents. (Use past tense if parents are not living) . . . . .	71
85.	I try to understand the other fellow's point of view . . . . .	85
87.	I get along well with other people . . . . .	87
89.	I do not forgive others easily . . . . .	89
99.	I would rather win than lose in a game . . . . .	99

Responses -	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

14. I feel good most of the time ..... 14
16. I do poorly in sports and games ..... 16
18. I am a poor sleeper ..... 18
32. I do what is right most of the time ..... 32
34. I sometimes use unfair means to get ahead ..... 34
36. I have trouble doing the things that are right ..... 36
50. I solve my problems quite easily ..... 50
52. I change my mind a lot ..... 52
54. I try to run away from my problems ..... 54
68. I do my share of work at home ..... 68
70. I quarrel with my family ..... 70
72. I do not act like my family thinks I should ..... 72
86. I see good points in all the people I meet ..... 86
88. I do not feel at ease with other people ..... 88
90. I find it hard to talk with strangers ..... 90
100. Once in a while I put off until tomorrow what I ought to do today ..... 100

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

APPENDIX B

Patient Informed Consent

## Patient Informed Consent

I, the undersigned, of my own free will, agree to participate in a study conducted by Betty Sue Ashby. I agree to mark some items as I see them in describing myself. I also agree for her to look at my chart to determine if the physician feels that the low back pain originates in the spinal column. I understand that the purpose of the study is to help nurses give more effective care to patients with low back pain.

I agree not to discuss my test with other patients who have low back pain because, should they participate in the study, their answers may be affected by the discussion.

I understand that there is no risk involved with participation in the study. The tests will be identified by a number, not by name. I understand that participation or nonparticipation in this study will in no way affect my care while I am in the hospital.

In addition, I understand that I may terminate my participation in the study at any time.

Date \_\_\_\_\_ Subject \_\_\_\_\_

Witness \_\_\_\_\_

Page 55 missing at time of scan.



# Petersburg General Hospital

501 SOUTH ADAMS STREET, PETERSBURG, VIRGINIA 23803 TELEPHONE 732-7320

July 20, 1980


Mrs. Betty Sue Ashby  
Instructor, School of Nursing  
Petersburg General Hospital  
Petersburg, Va. 23803

Dear Mrs. Ashby:

I have reviewed your proposal to conduct research on patients with low back pain.

In accordance with your request for permission to collect data at Petersburg General Hospital, permission is hereby granted to conduct this reaserch in accordance with your proposal.

Sincerely yours,




Kirby H. Smith, Jr.  
Executive Director

KHSJr:emc




July 17, 1980

Betty Sue Ashby  


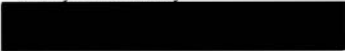
Dear Mrs. Ashby:

I have reviewed your proposal to study the relationship between the self-esteem of patients with acute low back pain and the self-esteem of patients with chronic low back pain. I am giving you permission to use my patients as subjects for this study. I understand that each patient who participates will also give his permission.

Yours truly,  


Dr. John P. Guillermin

July 17, 1980

Betty Sue Ashby  


Dear Mrs. Ashby:

I have reviewed your proposal to study the relationship between the self-esteem of patients with acute low back pain and the self-esteem of patients with chronic low back pain. I am giving you permission to use my patients as subjects for this study. I understand that each patient who participates will also give his permission.

Yours truly,  


Dr. Milton Ende

August 14, 1980

Betty Sue Ashby  


Dear Mrs. Ashby:

I have reviewed your proposal to study the relationship between the self-esteem of patients with acute low back pain and the self-esteem of patients with chronic low back pain. I am giving you permission to use my patients as subjects for this study. I understand that each patient who participates will also give his permission.

Yours truly,

Dr. Alfred G. Johnson


July 17, 1980

Betty Sue Ashby  


Dear Mrs. Ashby:

We have reviewed your proposal to study the relationship between the self-esteem of patients with acute low back pain and the self-esteem of patients with chronic low back pain. The physicians at the Petersburg Orthopedic Center, Ltd. give you permission to use their patients as subjects for this study. I understand that each patient who participates will also give his permission.

Yours truly,

Dr. Leo Crosier  


Dr. David M. Haines

August 18, 1980

Betty Sue Ashby  


Dear Mrs. Ashby:

I have reviewed your proposal to study the relationship between the self-esteem of patients with acute low back pain and the self-esteem of patients with chronic low back pain. I am giving you permission to use my patients as subjects for this study. I understand that each patient who participates will also give his permission.

Yours truly,  


July 17, 1980

Betty Sue Ashby  


Dear Mrs. Ashby:

I have reviewed your proposal to study the relationship between the self-esteem of patients with acute low back pain and the self-esteem of patients with chronic low back pain. I am giving you permission to use my patients as subjects for this study. I understand that each patient who participates will also give his permission.

Yours truly,  
  


Dr. Calvin H. Thigpen /



July 16, 1980

Mr. Kirby H. Smith, Jr.  
Executive Director  
Petersburg General Hospital  
Petersburg, Virginia 23803

Dear Mr. Smith:

I am a graduate student in the Master of Science in Medical Surgical Nursing Program at Virginia Commonwealth University Medical College of Virginia. One requirement for completion of the program is a research study. I am proposing to study the relationship between self-esteem and patients with low back pain. The Tennessee Self Concept Scale, which is a written standardized test, would be used for the collection of data.

I wish to secure your permission to collect data at Petersburg General Hospital. Enclosed for your perusal is a copy of my research proposal including the Tennessee Self Concept Scale. It is my belief that findings of this study may have important implications for nursing practice.

I am looking forward to receiving your decision. Thank you for your consideration of this request. If any further information is needed, I would be glad to meet with you at your convenience.

Yours truly,

Betty Sue Ashby

BSA/rha  
Enclosure

## VITA

