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Relation of health related hardiness to health perception and psychosocial adaptation in adult hispanics with chronic hepatitis C

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

RELATION OF HEALTH RELATED HARDINESS TO HEALTH PERCEPTION
AND PSYCHOSOCIAL ADAPTATION IN ADULT HISPANICS
WITH CHRONIC HEPATITIS C

A thesis submitted in partial satisfaction of the

requirement for the degree of

MASTER OF SCIENCE

IN

NURSING

by

Darlene M. Boytell

1996

To: Linda Simunek, Ph.D, ARNP, School Of Nursing

This thesis, written by Darlene M. Boytell, and entitled Relation of Health Related Hardiness to Health Perception and Psychosocial Adaptation in Adult Hispanics with Chronic Hepatitis C, having been approved in respect to style and intellectual content, is referred to you for judgement.

We have read this thesis and recommend that it be approved.

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Date of Defense: April 10, 1996

This thesis of Darlene M. Boytell is approved.

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Dr. Richard L. Campbell
Dean of Graduate Studies

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DEDICATION

I dedicate this thesis to my parents, sisters, and aunts. Without their inspiration, support, patience, confidence and most of all love, the completion of this work would not have been possible.

Olivier, thank you for your love, and forever believing in me, especially in motivating me to strive for my goals. To my friends, especially Andres, that have been supportive and forever providing me with encouragement and motivation.

Above all, I thank the Lord for providing me with the guidance and spiritual strength for the perseverance to complete my studies.

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A very special thank you goes to Dr. Doug Coffin and my major professor, Dr. Martha Velasco - Whetsell, your encouragement, support, love, understanding and confidence in me, allowed me to complete this dream.

ABSTRACT OF THE THESIS

RELATION OF HEALTH RELATED HARDINESS TO HEALTH PERCEPTION AND PSYCHOSOCIAL ADAPTATION IN ADULT HISPANICS WITH CHRONIC HEPATITIS C

by

Darlene M. Boytell

Florida International University, 1996

Miami, Florida

Professor Martha Velasco - Whetsell, Major Professor

The purpose of this study was to investigate the role of hardiness in health perception and psychosocial adaptation in adult hispanics with chronic hepatitis C (n = 32). The Health Related Hardiness Scale and the Psychosocial Adaptation to Illness Scale were administered to 32 adult hispanics diagnosed with chronic hepatitis C at a gastroenterology center. The results indicate that a comparison of subjects with low and high hardiness scores did not reveal significant differences on any of the PAIS domains (health care orientation, sexual relationships, psychological distress, vocational, domestic and social environments). Furthermore, hardiness subscales of control and commitment did not have any influence on patient's psychosocial adaptation nor in its domains. However, a comparison of subjects with low and high challenge scores indicates that those with low challenge had lower total psychosocial adaptation scores ($M = 5.55$, $SD = 2.13$) than subjects with high challenge scores ($M = 4.24$, $SD = .67$), $t = (1, 30) = 2.34$, $p < 0.05$. Differences were also found for the domains of health care orientation, psychological distress, social and vocational environment. Lastly, there were significant differences on perceived health rating (poor, fair, and good) for the total hardiness score ($F = (2,29) = 5.49$, $p < 0.05$), control ($F = (2,29) = 4.09$, $p < 0.05$), commitment ($F = (2,29) = 3.76$, $p < 0.05$) and challenge ($F = (2,29) = 4.92$, $p < 0.05$). Thus, those patients who rated their health as poor had lower hardiness levels. Findings have implications for promoting hardiness for better health perception and in certain aspects of psychosocial adaptations in adult hispanics with chronic hepatitis C.

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CHAPTER 1

INTRODUCTION

In the past 10 years, researchers have made great strides in understanding viral hepatitis. The disease which afflicts several hundred million people worldwide can have a mild effect or cause permanent liver damage and death (Schiff, 1991). A patient may suffer an acute attack and recover naturally, or the hepatitis may become chronic. Chronic hepatitis C which occurs in both acute forms with life threatening consequences, is the most common viral cause of primary liver cancer in the United States (Heathcote, 1994). Hepatitis C virus accounts for more than 90% of non-A, non-B hepatitis cases attributable to intravenous drug use, blood transfusion, and other percutaneous exposures (Brown et al, 1994). The patient is usually asymptomatic, and quite often the exact mode of infection is unknown. Hepatitis C virus is a silent, yet slowly progressive disease that has become a major public health problem. There are no clues as to why, but, hispanics have a four times higher incidence of non-A, non-B hepatitis than whites or blacks in the United States (Cotton, 1991).

When a patient is newly diagnosed with a chronic disease, the patient is subjected to immense stress. This stressor totally disrupts psychosocial functioning and thus unables the patient to adjust. This phenomenon has been studied by several researchers. But, psychosocial problems are not restricted to one group and clinically, it is noted that some patients adapt to stressors better than others. Adaptive responses to chronic illnesses has been investigated by Pollock (1986, 1989, 1989b) and Pollock & Sands (1992). The presumption was that persons who have adaptive behaviors in chronic

illnesses depict a personality structure or characteristic called hardiness that differentiates them from chronically ill persons who have maladaptive behaviors. Perhaps patients who have been diagnosed with chronic hepatitis C can be enlightened (educated, informed) about hardiness and in turn improve their psychosocial adaptation to the disease. As evidenced by numerous studies, possessing the personality characteristic of hardiness would positively influence (promote) higher levels of perceived health status, thus allowing the patient to have control over their chronic illness, and curtail anxiety and overcome or decrease psychological distress. As stated by Lambert & Lambert (1987), individuals experiencing chronic illness would be prime candidates for hardiness instruction as they cope with the stress of their illness.

Antonovsky (1979) theorized the presence of generalized resistance resources to explain variations in adaptation to stress (cited in Pollock, 1989b, p.54). Kobasa (1979) identified resistance resources in the concept of hardiness (i.e., commitment to self, internal locus of control, and change as challenge). Studies have consistently shown that hardiness acts as a mediator in the stress-illness response in healthy adults. Pollock (1986) subsequently investigated the presence of hardiness in adults with diabetes mellitus and found hardiness significantly related to psychosocial adaptation. Later, Pollock (1989b) proposed the concept of health related hardiness to describe the relationship between hardiness and adaptation to actual or potential health problems. The presence of health related hardiness was significantly correlated to psychosocial adaptation, greater perceived health status, and adaptive coping behaviors in adults with diabetes mellitus (Pollock, 1989b).

The author's review of literature did not reveal research in the identification of hardiness related to psychological adaptation in persons diagnosed with chronic hepatitis C. Hardiness may have a significant impact on how well the individual adapts to chronic hepatitis C and its potential life threatening nature.

PURPOSE

The purpose of this descriptive study is to examine the level of health related hardiness in adult hispanics with chronic hepatitis C and determine if a relationship exists between health related hardiness, perceived health status and psychosocial adaptation.

PROBLEM STATEMENT

Chronic illnesses are the foremost health problem in the world. Human responses to chronic illnesses is a major concern for the nursing profession. Since hardiness has been found to explain variability in human responses, recognizing this characteristic in a chronically ill individual has strong implications for nursing practice. Understanding the positive influence of hardiness and its promotion of adaptation, nurses can assist the chronically ill individuals diagnosed with chronic hepatitis C gain a sense of hardiness and these strategies may promote a positive health perception along with psychosocial adaptation to their chronic illness.

SPECIFIC PROBLEMS

1. To what extent does hardiness positively influence health perception in chronically ill individuals diagnosed with chronic hepatitis C?

2. To what extent does health related hardiness influence psychosocial adaptation in hispanic adults with chronic hepatitis C?

VARIABLES

This descriptive correlational study examines three variables. The variable are health related hardiness, health perception and psychosocial adaptation.

DEFINITION OF TERMS

HEALTH RELATED HARDINESS:

Health related hardiness is the personality characteristic that enables individuals to adapt to actual or potential health problems through control, commitment, and challenge (Pollock, 1989).

1. Control is the use of resources necessary to appraise, interpret and respond to health stressors through an internal locus of control, or both (Pollock, 1989).
2. Commitment is an involvement in health related activities appropriate for dealing with health stressors (Pollock, 1989).
3. Challenge is the reappraisal of health stressors as potentially beneficial, and views change as an opportunity for growth (Pollock, 1989).

HEALTH PERCEPTION:

A person's understanding of his or her current physical condition.

PSYCHOSOCIAL ADAPTATION:

The level of mental status and behavior (psychological and social) in society.

ADULT:

Any individual 18 years of age or older.

HISPANIC:

Any individual who is born of Spanish, Portuguese or Latin American origin.

CHRONIC HEPATITIS C:

Is a virus that causes the liver to become inflamed, and may cause serious liver damage. The diagnosis of chronic hepatitis C will indicate those individuals that have been diagnosed with hepatitis C for the past 6 months as evidenced by a liver biopsy and/or by virology.

BASIC ASSUMPTIONS

1. Everybody experiences stress one time or another.
2. Stress can be disruptive for some and motivating for others.
3. There are personality traits or variables that mediate the impact of stress on one's life process.

SIGNIFICANCE OF THE STUDY

This study has the potential to contribute to the understanding of hardiness as it relates to person's health perception and their ability to psychosocially adapt to their actual health problem, chronic hepatitis C. By understanding these variables, nurses can assist and teach the chronically ill patients how to better adapt to their illnesses. Nurses may focus on utilizing the HRHS (health related hardiness scale), as an assessment tool for evaluating the level of hardiness and gear nursing interventions towards developing this personality trait. This proposed study may provide further empirical validation of the

HRHS as an accurate tool to measure health related hardiness in chronically ill patients.

Additionally, it will also contribute to the body of theoretical nursing knowledge.

Furthermore, this study has the potential to provide a body of knowledge regarding the hispanic population in respect to hardiness, health perceptions and how they

psychosocially adapt to chronic illnesses, such as the illness under study. Moreover, the

study may potentially provide nursing research with information to further explore

hispanics with chronic illnesses to assist in fostering self care and coping practices.

CHAPTER II

REVIEW OF LITERATURE

INTRODUCTION

Adults with chronic hepatitis C experience a sequence of distressing physical, psychologic and spiritual responses that challenge personal resources for coping. Chronic hepatitis C presents unique demands on the patient and mixed responses to the stress of their illness. However, psychosocial problems are not restricted to one group and clinically, it is noted that some patients adapt to stressors better than others. Antonovsky (1979) theorized the presence of generalized resistance resources to explain variations in adaptation to stress (cited in Pollock, 1989b, p.54). The resistance resources include numerous variables; one of which includes a sense of coherence. This sense of coherence is a perception that one's life has worth, meaning and purpose. Being in control is also a part of coherence as is confidence that "things will work out". Another variable identified by Antonovsky was a personality variable called hardiness which promotes coping and enables patients to resist stress. To add, Kobasa and associates described three components of hardiness: control, commitment, and challenge (Kobasa, 1979a, 1979b, 1982, Kobasa, Maddi Puccetti, & Zola, 1985). Hardy persons tend to believe their own ability to influence life events rather than being helpless; they are actively involved, not passive or alienated, and they perceive change as an opportunity for growth. Pollock (1986, 1989) extended the construct to include a disposition toward health and resistance of illness. Hardiness in the chronically ill is said to influence the use of social resources for successful coping (Pollock, 1986), psychologic health

(Norwack, 1989) and psychologic well-being (Lambert, Lambert, Klipple & Mewshaw, 1989; Lambert & Lambert, 1987). Therefore, hardiness bolsters endurance throughout unpredictable challenges of chronic illnesses.

Furthermore, the presence of health related hardiness was significantly correlated to psychosocial adaptation, greater perceived health status, and adaptive coping behaviors in adults with diabetes mellitus (Pollock, 1989b). Likewise, Hughes (1990) identified that there was a positive relationship between psychosocial adaptation and health related hardiness among adults with epilepsy. She further demonstrated a significant correlation between perceived health status and psychosocial adaptation. On the other hand, the author's review of literature did not reveal research in the identification of personality variables related to psychosocial adaptation to chronic hepatitis C. Personality variables may have a significant impact on how well the individual adapts to chronic hepatitis C and its potential life threatening nature. Through the identification of variables related to successful adaptation to chronic hepatitis C, health professionals may plan and test interventions which will maximize psychosocial adaptation.

Furthermore, how patients with chronic hepatitis C interpret unexpected experiences and how they solve problems they face are believed to play important roles in how they adapt to their illness. Nursing strategies can improve these challenges by utilizing the Roy Adaptation Model to promote activities that enhance self esteem and identify personal strength which will further enhance self concept. The Roy Adaptation Model (Roy, 1970) is one of the most useful in chronic care nursing. In the adaptation

model, nursing is rooted in a concern for man as a total being along a health-illness continuum, with assessment and intervention directed toward helping the patient to adapt. By applying the model, nurses can teach the chronically ill patients with chronic hepatitis C how to better adapt to their illness. As stated by Johnson and Lauver (1989), it may not be possible to reverse disability, but knowledge about coping strategies can moderate the psychological impact of the illness. The quality of life for hispanic adults diagnosed with chronic hepatitis C affects their illness phenomena, perceptions, functional capacity and personal resources. This unique manner in which the patient deals with the demands of a chronic illness, influences the degree and nature of lifelong adjustments the patient must cope with. This study will examine the presence of health related hardiness in adult hispanics with chronic hepatitis C and determine if a relationship exists between health related hardiness, perceived health status and psychosocial adaptation.

CHRONIC HEPATITIS C:

Chronic hepatitis C, formerly known as non A, non B hepatitis, is estimated to affect over 350 million people worldwide (Foster & Thomas, 1994). At present, the worldwide prevalence rate and mode of transmission of the hepatitis C virus (HCV) infection are not exactly known. However, here in the United States, an average of 170,000 people a year are infected with HCV (Brown,et al., 1994), with hispanics having four times higher incidence than white or blacks (Cotton, 1991). Hepatitis C accounts for more than 90 % of cases attributable to intravenous drug use, blood transfusions and other percutaneous exposures. Moreover, greater than 80% of communicable - acquired

non a, non B hepatitis can be traced to HCV infection. The discovery of HCV and the ability to test for antibodies to HCV have led to a new classification of chronic hepatitis C (Ansgar, et al., 1994). The incidence of post - transfusion hepatitis (PTH) has been very variable in different parts of Europe and North America, with a declining trend during the 1980's. Due to the implementation of hepatitis B antigen screening of donors in the 1970's, over 90% of PTH has been related to then non a, non B hepatitis. Presently, HCV is known to have caused the vast majority of these cases and donor anti - HCV screening is almost universally practiced since 1990 - 1991 (Ebeling et al, 1994). Furthermore, Ebeling (1994) states that epidemiological studies have shown that intravenous drug addicts form by far the largest known risk group for HCV, accounting for 40% of infections (Brown, 1994). Intravenous drug users form an occupational hepatitis risk for health care personnel and usually do not cooperate in hepatitis treatment (Ebeling, 1994). Former drug users are often carriers of HCV, and may transmit the infection after more than 10 years of abstinence.

Since the pre - screening donors, transfusion is now associated with just 6% of cases. Heterosexual transmission is less common than with hepatitis B, accounting for 10 - 15% of hepatitis C, according to the Centers for Disease Control and Prevention (Brown et al., 1994). Moreover, two ambiguous categories remain; (1) persons with low socioeconomic status and (2) persons with no identifiable risk factors, account for about 40% of HCV cases. The diagnosis of chronic hepatitis C is based on abnormalities in liver function tests and signs and symptoms of liver disease that persists for longer than 6 months (Doughty, 1993). Most liver specialists recommend a

biopsy up to six months after initial diagnosis of chronic hepatitis C for confirmation, especially if the health care practitioner is inclined to treat (Brown et al., 1994). Chronic hepatitis C is often a silent disease (Heathcote, 1994). Likewise, patients may remain asymptomatic for numerous years or perhaps for a lifetime. Likewise, patients may remain complaint free even with elevated liver enzymes. The most common clinical symptom is fatigue or overall malaise. Chronic HCV infection represents a prominent etiologic factor for cirrhosis and hepatocellular carcinoma. Furthermore, cirrhosis may occur in 10 - 20% of chronically infected patients, and an estimated 60 - 70 % of cirrhotic patients are positive for anti-HCV antibodies or HCV RNA (Brown, et al., 1994; Heathcote, 1994). Seef, Bales, & Wright et al., (1992 as cited in Brown et al, 1994)) found that with almost 20 years of follow-up, patients with chronic, post transfusion hepatitis C did not have significantly higher mortality when compared to an un - infected control group.

Presently, alpha 2b Interferon (Intron A) is the only approved treatment for HCV. The regimen consists of 3 million units subcutaneously three times weekly for 6 - 18 months. This regimen leads to a clinical remission in 40 - 50% of treated patients, but 70 - 80% of patients who go into remission have recurrence of active disease within 6 - 12 months of discontinuing therapy (Brown et al, 1994). Moreover, protocols are being assayed for continuing the patient on a maintenance therapy at the lowest effective dose to maintain eradication of HCV RNA and the attainment of normal range of liver enzymes, primarily the serum alanine aminotransferase (ALT) levels. Many studies like Glaumann, et al., (1994) have concluded that patients with chronic hepatitis C who

respond biochemically and virologically to long term interferon treatment will also significantly improve their histology, including the parameters portal inflammation, piecemeal necrosis, spotty necrosis and fibrosis.

Hepatitis C infections have widespread implications and is considered now to be a public health problem. Hopefully, in the near future a vaccine will be available to effectively eradicate the HCV virus, but until then, nurse practitioners must assist the HCV patients to cope and adapt to this silent, progressive and possible mortal chronic illness.

HARDINESS:

Hippocrates [460 - 377 B.C.] wrote: " It is more important to know what sort of person has a disease than to know what sort of disease a person has (Schindler, 1985, p. 594). The concept of hardiness can be originally found in writings by Hans Selye (1956), and by existential psychologists, Jean Paul Sarte (1964) and Heidegger (Blitz, 1981). Selye (1975) believed that an individual's "constitutional strengths" were important because a physical breakdown occurred in weak organs and bodily systems, in the face of stressors (once there has been a breakdown in adaptation) (Selye, 1956). Thereafter, research demonstrated that psychological stress was associated with illness (Dohrenwend & Dohrenwend, 1974), and researchers continued to investigate psychosocial characteristics that might moderate this stress - illness reaction (Funk, 1987). This led to the inception of the concept of hardiness (Kobasa, 1979).

Hardiness is a developing concept that is of particular relevance to the nursing profession, especially to the nurse practitioner. The relationship between stress and

health is important in health promotion, which represents a central function for nurse practitioners (Bigbee, 1985). Current health promotion research has focused on resistance factors that contribute to long term health. Antonovsky (1979) first proposed a conceptual model for understanding health including generalized resistance resources that facilitate healthy maintenance in the face of stressors. These resistance resources are characterized of the person, group or environment that serve to maintain health (Antonovsky, cited in Nicholas, 1993). Meanwhile, research began to focus on psychosocial characteristics that may moderate this stress - illness relationship (Dohrenwend & Dohrenwend cited in Funk, 1992). It was in this search that the construct of hardiness was introduced. Suzanne Kobasa, an existential psychologist, first identified the personality characteristic that is termed hardiness. Kobasa (1979) regarded hardiness as the inherent health promoting factor in stressful human environment. Kobasa (1979) further explained that the hardy persons are considered to possess three general characteristics: (a) the belief that they can control or influence the events of their experience, (b) an ability to feel deeply involved in or committed to the activities of their lives, and (c) the anticipation of change as an exciting challenge to further development (Kobasa, 1979). The disposition towards the three general characteristics of hardiness (commitment, control and challenge) functions prospectively as a resistance resource. Likewise, in a study of middle and upper level management male executives, Kobasa (1979) was able to identify individuals who remained healthy from those who reported becoming ill by using a scale chosen because of its ability to measure the constructs of commitment, challenge and control. Those persons who experienced high degrees of

stress without becoming ill had a personality structure differentiating them from persons who became sick under stress. The personality construct responsible for this was hardiness. The presence of this constitutional predisposition in someone experiencing stressful events may maximize the likelihood of illness. However, the additional presence of personality-based hardiness may decrease the effects of constitutional predisposition and stressful events (Kobasa, Maddi & Courington, 1981).

Furthermore, utilizing a prospective design, Kobasa, Salvatore & Kahn, (1982) clearly demonstrated that hardiness functioned as a resistance resource, in buffering the effects of stressful events in the previous 1979 executive male study. It can then be concluded that a hardy persons (by virtue of their generally disciplined and realistic approach) might engage most conscientiously in positive health practices (Kobasa, Maddi & Kahn, 1982).

To add, a hardy person have considerable curiosity and tend to find their experience interesting and meaningful. Further, they believe they can be influential through what they imagine, say and do. At the same time, they expect change to be the norm, and regard it as an important stimulus to development (Kobasa, Maddi & Puccetti, 1982). In this same study, Kobasa, Maddi and Puccetti (1982) looked at personality variables and physical exercise and found independent and additive buffering effects from both in the stressful life events and in general illness relationships. To add to this foundation, Kobasa and Puccetti (1983) emphasized that persons high in hardiness easily commit themselves to what they are doing (rather than feeling alienated), generally believe that they can at least partially control events (rather than feeling powerless), and regard change to be a normal challenge or impetus to development (rather than a threat).

Furthermore, Kobasa, Maddi & Zola (1983) found that if health is to be preserved in the encounter with stressful events, it would appear important that one's driven concern for reaching extrinsic goals (high type A behavior) be mitigated by an ability to experience the intrinsic interest and value of the activities and tasks encountered along the way (high hardiness). Therefore, it appears that for even relatively healthy individuals, personality and perceptual factors play important roles in the stress - distress relationship (Rhodewalt, & Agustsdottir, 1984). Further supportive research includes, the findings of positive self esteem, internal control over health, perceived support and low negative attitude towards the illness contributed to higher quality of life in a study of 94 adults with arthritis (Burckhardt, 1985).

Conceptually, all this research helps in understanding prior findings in which hardiness appears to protect health. On the contrary, previous hardiness research has been based heavily on retrospective studies and this is thought to weaken the interpretation of hardiness as a stress resistance resource. If hardiness is to be interpreted as a stress buffer, it must be shown that stress adversely affects health and that hardiness mitigates these negative changes (Hanson and Pichert, 1986). In there study, hardiness did not work through stress to affect illness cause; stress itself had a weak direct effect. Although hardiness did not appear to change the effect of stress on illness, this factor did appear to mediate the impact of stress on health practices. Furthermore, the buffering effect of hardiness has been investigated by Ronald, Treuren & Virnelli, (1987), and they also report little evidence of its effects on hardiness. Instead, lack of commitment and lack of control appear to be associated with illness by virtue of being psychologically

stressful. Conflicting opinions regarding the validity of the measuring of hardiness scale (Allred & Smith, 1989; Rhodewalt & Zone, 1989) suggested that the hardiness scale inadvertently measure the negative personality characteristic of neurotism (Costa & McCrae, 1985, 1987 cited in Funk, 1992). Despite these opinions, literature continuously supports the positive effects of personality hardiness as a resistance to the negative effects of chronic illness. Hence, hardy individuals appear to maintain better health practices while experiencing stress than do non hardy individuals. This evidence, as McCranie, Lambert and Lambert, (1989) points out, provides further support that the hardy personality style may serve to diminish the potentially negative effects of life stressors. Likewise, high hardiness has been related to high self-esteem, high sociability, low shyness, low social anxiety, low public self-consciousness and lower psychological distress (Hull, Treuren,& Virnelli, 1987). Similarly, the presence of low hardiness has been related to depression (Compton, 1988; Funk & Houston, 1987; Hull et.al., 1987 cited in Hughes, 1990). Moreover, Frederick, Rhodewalt & Zone (1989) supported work of Funk & Houston, (1987) in that it is not hardy individuals who are particularly stress resilient but non hardy people who are psychologically maladjusted. Another supportive study done by Allred & Smith, (1989) reconfirms that hardy persons because of their adaptive, cognitive style and reduced level of physiological arousal, are resistant to stress - induced illnesses. To add, the hardy individual reported more positive self - statements in the high stress condition than did high hardy subjects in the low stress conditions. Although earlier hardiness studies were conducted mainly on male populations, subsequent studies on female population have indicated that hardiness may function

similarly in both sexes as a moderating variable in health & illness (Rhodewalt & Zone 1989; Schmied & Lawler 1986 cited in Nicholas, 1993). Furthermore, Sheppard, & Kashani, (1991) found that hardiness components of commitment, and control positively interacts with stress and gender in predicting health outcomes in a sample of 75 male and 75 female adolescents. However, there is lack of significance between age and hardiness or age and self-care practices (Nicolas, 1993).

HEALTH RELATED HARDINESS:

To overcome the lack of empirical support for the effect of hardiness on adaptation to chronic illnesses, a health related hardiness concept was proposed. The concept was proposed to link hardiness more closely to the context of health and illness (Pollock, 1986). Pollock (1986) extended the hardiness construct to study adaptation in chronic illness. The synthesis of the health related hardiness characteristic on adaptation to actual or potential health problems incorporated concepts from existential psychology, coping and adaptation, and development tasks of adulthood (Pollock, 1989). Pollock (1986) found high hardiness, control and commitment significantly related to psychosocial adaptation in individuals with diabetes mellitus; commitment was significantly related to psychosocial adaptation in individuals with hypertension, and rheumatoid arthritis. Pollock further theorized the presence of control may promote psychosocial adaptation to rheumatoid arthritis. This was supported by the perception of the subjects with diabetes mellitus who believed they had some control over their disease, whereas the individuals with rheumatoid arthritis felt helpless in controlling their disease even if their therapy was effective (Pollock, 1986) Pollock,

(1989) further refined the concept to include theoretical and operational definitions that can be useful to investigate the effects of hardiness as it relates to illness and illness behavior: (a) control is the use of ego resources to cope with health stressors; (b) commitment is involvement in appropriate health related activities; and (c) challenge is the reappraisal of health stressors as having the potential to be beneficial or rewarding. Consequently, she revised the Health Related Hardiness Scale.

Additionally, Pollock (1989b) found the presence of health related hardiness significantly related to appraisal of diabetes as having potentially beneficial or harmful outcomes and combined use of emotion - focused coping was associated with low levels of health related hardiness and appraisal of diabetes as a threat. Therefore, the presence of health related hardiness was significantly related to higher levels of perceived health status, engagement in health promotion activities and greater use of social resources (Pollock, 1989a). As stated by Lambert and Lambert (1987), individuals experiencing chronic illness would be "prime candidates for hardiness instruction as they learn to cope with the stress of their illness". Furthermore, Maddi and Kobasa, 1984, also believe that hardiness can be learned at any time in life.

Health related hardiness has also induced prominent success with physiological responses. Contrada (1985) noted that respondents high in hardiness had lower diastolic pressure than respondents low in hardiness during a difficult sensorimotor task. Furthermore, Solomon, Temoshok, O'Leary & Zich (1987) found higher lymphocyte counts were significantly associated with lower hardiness scores in Acquired Immune Deficiency Syndrome (AIDS) patients. The researchers also related a delayed conversion

to high hardiness scores in patients with AIDS related complex. On the contrary, researchers such as Hull, Van Treuren & Virnelli (1987) have criticized the research on hardiness concluding that hardiness may have a direct association to self reported health, but that the association to actual health remains unclear.

ADAPTATION:

Adaptation is a concept that is vital to the survival of all living organisms. In 1964, Helson took the concept of adaptation from biology and applied it to sensory physiology. Helson further stated that adaptation required energies initiated internally and externally (Helson, 1964). Nurse theorist, Sister Callista Roy later adapted Helson's theory and synthesized the basic concepts and applied it to nursing. According to Sister Callista Roy (1970), man is a biopsychosocial being that is constantly interacting with his changing environment and in order to cope, he uses both innate and acquired mechanisms which are biologic, psychologic and social in origin. Roy's Adaptation model views adaptation as a dynamic state of equilibrium between the organism and environment. Furthermore, a positive response to environmental changes requires adaptation (Roy, 1970). Antonovsky (1979) suggested that variability in adaptation to stressful events is related to the presence of "generalized resistance resources". Therefore, adaptation is brought about by a complex of processes started by a focal stimulus (stressor) and mediated by the effects of the contextual and residual stimuli (Pollock, 1984). The purpose of adaptation is to promote psychological, physiological and social integrity of the individual (Pollock, 1984, 1989). Adaptation is a result of effective problem - solving behavior that is aimed at reducing or minimizing stressors;

search for relevant information, assimilation of information in an unbiased manner, and appraisal of the alternatives before making a choice (Janis & Mann, 1977 cited in Hughes, 1990).

PSYCHOSOCIAL ADAPTATION TO CHRONIC ILLNESS:

Numerous studies have been reported on psychosocial adaptation to chronic illnesses but no related studies, to the author's knowledge, have been reported on psychosocial adaptation to chronic hepatitis C. However, since chronic hepatitis C is a chronic illness, it will be used as an instance. Therefore, a person newly diagnosed with a chronic disease, like chronic hepatitis C, is challenged to cope with a range of demands. This stressor totally disrupts psychosocial functioning. Psychosocial adaptation requires that these patients' re-examine their relationships, sense of self, aspirations and commitments. As nurses, we can contribute to patients' adaptation by attending to factors that promote coping with chronic diseases.

Human responses to actual or potential stress is of primary concern to the nursing profession in promoting and maintaining adaptation Pollock, (1984). The goal of adaptation in nursing is to bring out an adaptive state in the patient which frees him to respond to other stimuli (Roy, 1970). The primary focus of the five research studies investigated by Pollock, 1986, 1989; Pollock, Arklie & Sands, 1990; Pollock & Sands, 1992, was on the development of knowledge about adaptive responses to chronic illnesses. As a result, psychosocial adaptation did not differ among the chronic illness groups whereas there were significant differences in physiological changes, the process of psychosocial adaptation is similar (Pollock, 1993). It was proposed that persons who

have a chronic illness and adaptive behavior have a personality structure (hardiness) differentiating them from persons who have a chronic illness and maladaptive behavior (Pollock, 1986). It is known from this study (Pollock, 1986) that persons who are hardy do have chronic illnesses and that this characteristic was related to their psychosocial adaptation. Furthermore, hardiness was positively correlated with psychosocial adaptation measured by the psychosocial adjustments to illness scale (Derogatis, 1983), but not related to physiological adaptation, assessed by physiological adaptation to rheumatoid arthritis scale (Pollock, 1986). Brooks and Matson (1982) found of in 103 individuals that duration of disease was positively associated with psychosocial adjustment in the 3 of the 4 duration groups. Likewise, Felton, Revenson, & Hinrichsen, (1984) studied the usefulness of stress and coping paradigm for explaining psychological adjustment to chronic illnesses of 170 individuals with Diabetes Mellitus, Cancer, Hypertension, and Rheumatoid Arthritis. The different coping strategies did not differ among the illnesses, however, perceived disability was central to the perception of overall health. Furthermore, cognitive coping strategies were related to positive effects, and emotional strategies were related to negative effects, low self-esteem, and poor adjustment to chronic illness. More studies of chronic ill persons have examined either psychological or physiological reactions to a specific diagnosis. Such as in Viney and Westbrook (1982) study in which they compared the psychological reaction of 126 patients with newly diagnosed chronic illnesses to a group of 54 well adults; Patients' experienced higher levels of anxiety, depression, and directly and indirectly expressed anger, and perceived themselves to be more helpless than the well adults. The best index

of patients' emotional reaction to a chronic illness was their perception of how the illness would handicap them. Furthermore, numerous psychological variables have been shown to affect adaptation to chronic illness, including anxiety, depression, anger, self concept, locus of control, uncertainty, and hardiness. (Pollock, Christian & Sands, 1990). The hardiness characteristic was the only major variable that related to both physiologic and psychologic adaptation. in various diagnostic groups (Pollock, 1986, 1989).

According to Ribble (1985 cited in Byers, 1993) it was suggested that stress and anxiety may be reduced for those individuals who participate in support groups. The study suggest that the impact of social support and support groups lessen psychosocial stressors and fosters well being.

HEALTH PERCEPTION:

Combs and Snygg (1971, as cited in Trygar, 1988) postulated that behavior is not determined by an objective reality or by a reality as seen by others, rather an individual's perceptions provide the meaning and context within which behavior is enacted. Furthermore, perceived health status is a general summary statement about one's view of their current health and is derived from various objective and subjective aspects of health, as proposed by an individual (Tissue, 1972). Emphasis on health perception has increased in recent years because health care workers find that people behave according to what they perceive and feel about themselves in terms of health (Becker et al, 1977 cited in Ware, 1984). Researchers state that by utilizing the single self - report item asking: How would you rate your health? followed by the responses of excellent, good, fair and poor has been found, to be the strongest predictor of mortality independent of

physical status (Goldstein et al., 1984, Murnaghan, 1981; Murray, Dunn & Tarnopolsky, 1982; Ware, 19884, cited in Lee, 1991). While other researchers believe that subjective assessments have to correlate with objective assessments in order to be valid (Ferraro, 1980; Maddox, 1963; Maddox & Douglas, 1973, 1974; Mossey & Shapiro, 1982). On the contrary, according to Lin & Lin, (1980) how one feels subjectively is equally, and at times even more important than how one should feel objectively. Furthermore, Among adults, self - assessment of health is the strongest predictor of life satisfaction (Larson, 1978; Palmore & Luikert, 1974), and this association increases with age (Spreitzer & Snyder). In fact some studies of self reported health in the older adults have suggested that they frequently report good health as they grow older, and that they may over estimate their health status (Haberman, 1969, Maddox & Douglas, 1973). On the contrary to other studies, it has been suggested that older individuals tend to rate their health accurately (Fillenbaum, 1979, Linn & Linn, 1980). However, some researchers report women, nonwhites, older respondents and persons with a higher number of chronic health problems tend to rate their health as poorer. On the other hand, individuals with higher socioeconomic status as measured by education, family income, and employment status report a more positive perception of health (Goldstein et al., 1984). Overall, health satisfaction appears to be more important determinant of life satisfaction and well-being than actual health status (Magnani, 1990).

Psychosocial factors has been correlated with health perception. Researchers have linked that by having a greater health perception, one will have an internal locus of control which will in turn lower anxiety, depression, and psychological distress (Smith &

O'Rourke, 1988; Cockerham et al., 1988 as cited in Hughes, 1990). Therefore, psychological distress was significantly related to lower perceived health (Cockerham et al., 1988; Tessler & Mechanic, 1978). Furthermore, Smith & O'Rourke (1988 as cited in Hughes, 1990) found perceived health status to be a predictor for returning to work following a first myocardial infarction. To add, Laffrey & Crabtree, (1988) found that greater perceived health was significantly related to a greater sense of well-being. Pollock (1989) found health related hardiness significantly related to higher levels of perceived health status. Furthermore, hardiness & self care practices are important predictors of perceived health status in older adults (Nicholas, 1993).

THEORETICAL FRAMEWORK

For the purpose of this research study, health perception and psychosocial adaptation are viewed as feelings and behaviors that the researcher expects will be related to hardiness when hispanic patients are confronted with a chronic illness like chronic hepatitis C. The Roy's Adaptation Model (1984) will provide the overall framework and direction for this study.

Sister Callista Roy has devised the "Adaptation Model" of nursing and is committed to the philosophical belief in the innate capabilities, purpose, and worth of the human person. In the Adaptation Model, Roy (1984) described adaptive behavior as effective response to stimuli while ineffective behavior indicates problems. She further refers to human behavior as actions or reactions under specified circumstances. "Human behavior assessed by the nurse can be summarized as the person's responses to environmental changes that require further adaptive responses." (Roy, 1984, p.46).

Moreover, Roy (1984) proposes that adaptation is brought about by a complex process started with focal stimulus and mediated by the effects of the contextual and residual stimuli. For the purpose of this study, the focal stimuli is the immediate threat or stressor that is confronting the patient (the diagnosis of chronic hepatitis C). The contextual stimuli are other stimuli that may alter the focal stimuli (patient's own health perception, their ability to psychosocially adapt), and the residual stimuli consists of behavior patterns, personality traits that influence the present situation (possessing the characteristic of hardiness). Furthermore, within the Roy Model, human behavior is assessed in relation to four modes: physiologic, self - concept, role function, and interdependence (Roy, 1984, p.45). The physiological mode as described by Roy is associated with the way a person responds physically to stimuli from the environment (Andrews & Roy, 1986, p.111). The self-concept mode focuses specifically on the physiological and/or spiritual aspect of the person (Andrew & Roy, 1986, p.123). The role function mode refers to the roles a person occupies in society (Andrew & Roy, 1986, p. 135). The interdependence mode focuses on interactions related to the giving and receiving love, respect, and value or the feeling of security in nurturing relationships (Andrews & Roy, 1986, p.151).

Thus, on the basis of the Roy's Adaptation Model, the following hypotheses are formulated:

1. Adult hispanics with chronic hepatitis C that score high on the health related hardiness scale (HRHS) will have higher perceived health status than those who scored low on the HRHS.

2. Adult hispanics who have higher levels of hardiness would be more likely to psychosocially adapt to their diagnosis of chronic hepatitis C.

The following questions are posted:

1. Are there differences in psychosocial adaptation between adults hispanics with chronic hepatitis C who are low or high in hardiness?
2. Which component (s) of health related hardiness has the strongest influence on patient's psychosocial adaptation ?
3. Which component (s) of health related hardiness has the strongest influence on patient's health perception ?
4. To what extent is hardiness influenced by sociodemographic status?

CHAPTER III

METHODOLOGY

This chapter describes the design and procedures applied in the study. It includes description of the research design study, setting, data collection, and method of data analysis.

DESIGN AND SETTING:

A descriptive correlational design was used to study the relationships between health related hardiness, health perception, and psychosocial adaptation in hispanic adults with chronic hepatitis C. The sample consisted of 32 patients who have been diagnosed with chronic hepatitis C at The Gastrointestinal Center, a freestanding physician office/outpatient surgical center in Hialeah, Dade County, Florida. All subjects were asked to complete three questionnaires which include the Health Related Hardiness Scale (HRHS), the Psychosocial Adjustment to Illness Scale (PSAIS), and a health perception question that was included in the sociodemographic questionnaire.

SAMPLE AND SAMPLING METHOD:

The subjects for this research were from a convenience sample of hispanic adults that have been referred to the center for evaluation, diagnosing, counseling, and treatment of chronic hepatitis C. The criteria for inclusion for this study was as follows: subjects 18 years of age or older, male or female of hispanic origin who have been diagnosed with chronic hepatitis C and who are able to speak, read and understand Spanish. The criteria for exclusion to this study was as follows: the presence of neurological illness, resulting in neurological or cognitive deficits. For this may affect

the subjects' ability to interpret questionnaires and result in erroneous data.

The investigator reviewed the medical records to determine if the patient met the criteria for the study. Those patients who do meet the criteria were approached by the investigator who introduced herself by name and position. The investigator gave an overview of the study and asked the patient if he or she was interested in participating. Each patient interested in participating were escorted to a private room in The Gastrointestinal Center and given a letter describing the study. The investigator allowed time for the patient to read the letter and answer any questions. Patients who agree to participate were given the informed consent.

PROTECTION OF HUMAN SUBJECTS:

All participants read and signed the informed consent form prior to the study. The consent form listed exactly what was expected of the participants. The informed consent along with the instruments in the study were translated from english to spanish. Anonymity and confidentiality were ensured; names of the subjects were known only to the investigator.

Verbal and written information and introduction indicated: 1) all data was handled by the principle investigator, the faculty supervisor and the statistician; 2) all subjects were given a code number and subsequent data analysis were performed by code only; 3) findings were reported in terms of group data only.

The participants were further assured that if they choose not to participate in the study, that it would not affect, in any way, their care and treatment they receive at the center. Moreover, participants were informed of the right to withdraw from the study at

any time and that their anonymity will be preserved. If in agreement with the study, the subjects were given the opportunity of learning the results of the study once they are completed. This will be addressed by including a statement at the conclusion of the demographic data questionnaire which will state: "If you would like to be informed and receive a summary of the results, please provide your mailing address. When the research is completed, a summary of the results will be mailed to you".

INSTRUMENTS:

The three instruments that were used in this study were the spanish translated Health Related Hardiness Scale (HRHS), The Psychosocial Adjustment to Illness Survey (PSAIS), and a self - report health perception question that was included in the sociodemographic form.

1. The Health Related Hardiness Scale (HRHS):

The Health Related Hardiness Scale (HRHS) was developed to measure the hardiness characteristic in the chronically ill (Pollock, 1984a). The HRHS contains a 34 item scale on a 6 point Likert - type scale. The first factor (20 items) encompasses the dimensions of challenge and commitment, and the second factor (14 items) accounts for the control dimension. It has been stated that hardy individuals dealing with a chronic illness may not separate health into discrete categories but appraise the condition as a challenge because they are committed to maintaining their health (Pollock,1990). She believed the three elements of hardiness work in combination as a variable to facilitate general resistance to stress, hence improving adaptation to chronic illness (Pollock, 1986, 1989c). Moreover, the total HRHS demonstrates high internal consistency with a

standardized alpha coefficient of .91 and .87 for both the 20 - item commitment / challenge subscale and the 14 - item control scale (Pollock & Duffy, 1990). Test - retest reliability (N=150) for six months was .76 for the total HRHS, and .74 and .78 for the commitment / challenge and control scales respectively. As Wagnild and Young (1991) noted, there is evidence for predictive power in the HRHS challenge scale, unlike Kobasa's instruments.

Hardy individuals dealing with a chronic health problem may not separate health into discrete categories but appraise the condition as a challenge because they are committed to maintaining their health (Pollock, 1990).

2. The Psychosocial Adjustment to Illness Scale (PSAIS):

The Psychological Adjustment to Illness Survey (PSAIS) is a self - report measure composed of seven relatively independent scales with responses related on a 4-point Likert scale. Seven scales, with a total of 31 items, are used to measure psychosocial adaptation to chronic illness. The vocational and domestic domains (14 items) are used to measure role function; the extended family and social environment domains (11 items) are used to measure social support; the psychological distress domain (6 items) are used to measure the intrapsychic function aspect of psychological adjustment (Derogatis, 1983). Scores are summed for each domain and for an overall adjustment score. It was further revealed that the PSAIS subscales were relatively independent of one another, though contributing to the total score. This lends support to the construct validity of the PSAIS. Criterion validity was supported by significant correlations of the subscales with assessment of subjects' function in related areas (Pollock, 1986).

Reliability coefficients for the PSAIS demonstrated high internal consistency in a sample of renal dialysis, lung cancer and cardiac patients. Derogates (1985) states that as the instrument is utilized with more diversified illness groups, the PSAIS will prove further cogent predictable relationships. For the moment, the PSAIS has proven reliable and valid.

3. Health Perception / Sociodemographic Questionnaire:

In addition to the routine sociodemographic information, a questions was included: How would you rate your current health? A five point likert scale provides choices ranging from poor to excellent. The variable of perceived health has been widely used primarily because it assesses the individual's total complex of health (Ferraro,et al., cited in Magnani, 1990). Furthermore, it is postulated self - report of health perception and patient satisfaction will add a potential predictive element to the data. This questionnaire will be completed at the same time as the HRHS and PSAIS scales. It is anticipated that this questionnaire will assist the investigator to examine the hardiness characteristic in hispanics with chronic hepatitis C.

DATA COLLECTION:

The investigator meet with the physician who has diagnosed and evaluated the patients and a confirmation on their diagnosis of chronic hepatitis C was established. An introduction of the investigator took place. Following the counseling session, the investigator provided the subjects with an invitation to participate in the research study. A brief explanation of the purpose of the study and the absence of risk was included. Patients were assured that a decision not to partake would not jeopardize their treatment,

counseling or care they would receive at the center. More importantly, the patients' confidentiality and anonymity was guaranteed. It was also explained that numerical identifying codes were placed to their corresponding questionnaires, more clearly, their names were not placed on the questionnaires. After informing the prospective subjects, and after allotting time for questions and obtaining the informed consent, the subjects were provided with the instruments to complete. Verbal instructions on how to complete the questionnaires were provided.

Pivacy along with writing materials were provided to the subjects. The approximate average time to complete the questionnaires were from 30 - 45 minutes. The investigator collected and secured the consent form, and completed questionnaires. These were kept in a locked cabinet in The Gastrointestinal Center accessible only by the principal investigator.

DATA ANALYSIS:

The data and study variables were analyzed by utilizing descriptive multivariant statistics. Further testing were performed by examining each of the hardiness, psychosocial adaptation and sociodemographic variables separately with directional t test. The One-way Anova was used to examine the relations among hardiness and perceived health and length of disease. The Pearson Product Moment Correlation Coefficient was used to examine age with total hardiness and with challenge, commitment and control. The computer program Statistical Package for the Social Sciences (SPSS) was utilized for basic summary statistics. Data will be analyzed at the 0.05 level of significance.

CHAPTER IV

PRESENTATION OF FINDINGS

The data collected to examine the research questions and hypotheses are discussed in this chapter. Each research question will be considered individually. Descriptive information in the form of means, standard deviations, mean differences and statistical significance (p values) are reported. Square root transformations were performed on skewed variables to normalize their distribution. Transformed variables included the vocational domain, domestic environment domain, the psychological distress domain and the total PSAIS score. The means and standard deviations for these domains will not represent transformed variables, it will be done solely for presentation purposes; it does not disturb the level of significance in any manner. The extended family domain was not included in the following analyses because a large percentage of subjects (66%) did not report problems in this domain. For purposes of this study, high hardiness scores indicate a person who possesses high hardiness characteristics, and a high PSAIS score indicates difficulty adapting with that particular psychosocial domain. Tables summarizing the data are presented.

Sample Characteristics

The non random sample consisted of 32 adult hispanics (Males: n = 15, 47%; Females: n= 15, 47%; 6% did not respond) diagnosed with chronic hepatitis C from a South Florida outpatient gastroenterology center. From the initial sample of 36 patients approached by the investigator, 32 agreed to participate. Two declined due to the lack of time to participate, and two refused because they were not interested in participating in

the study.

The mean age for the sample was 51.84 years (SD = 13.05) ranging from 24 - 72 years old. The majority of hispanics were from the anglo race (white hispanics: n = 27, 84.4%, black hispanics: n = 2, 6.3%). Nine patients (9.4%) choose not to select their race. A sizable number of patients were married (n = 18, 56%), single (n = 7, 22%), divorced(n = 3, 10%), widow/ed (n = 2, 6%), and 2, 6% failed to report marital status. Educational levels varied amongst the sample, with 9% receiving a college degree, 19% partially completing college (at least one year or specialized training), 28 % obtained their high school diploma, 22% partially completed high school (completed 10th or 11th grade), 12% completed junior high and 10% received less than a 7th grade education. The majority of the patients had no occupation, or were dependents or were on welfare (n = 13, 41%), others had clerical or sales jobs (n= 6, 19%) or technical or semiprofessional occupations (n = 5, 16%); others made up of managers and administrators as well as semiskilled to unskilled workers (n = 8, 24%). The median annual income for the sampled group was \$ 10,000 - \$ 19,000. When asked how the patients rated their health, seven, (22%) rated their health as poor, with the majority rating their health as fair (n=19, 59%), and only six patients (19%) rated their health as good. Zero of the patients reported their health as excellent. Furthermore, the majority of patients (n = 20, 65%) reported feeling lonely on multiple occasions. Also, findings demonstrated that the patients are religious, with 88% (n=28) believing in a supreme being such as God.

A large percentage of sampled patients (n = 21, 66%) rarely (once a week or less)

involved themselves in health promotion activities. When asked what particular health promoting activity they engaged in, only 34 % (N=11) performed some form of exercise, 6% (N=2) engaged in some form of nutritional counseling and solely 1 person (3%) engaged in some form of psychotherapy. With regards to the use of alternative therapy, only 9% (N=9) use meditation and other stress management programs. It was discouraging that 48 % of the sampled group did not take part in any activity to improve their health status including the participation in forms of alternative therapy.

Regarding the hepatitis C virus, patients were asked how they feel they contracted their chronic illness, and 44% (n=14) believed they contracted the virus from post blood transfusions. Ten patients (31%) did not know the source and (25%) indicated that they contracted the virus from intravenous drug use, sex or other methods, such as tattooing. Ninety percent of the patients have been diagnosed with the hepatitis C virus within the past 5 years. Over fifty percent (53.1%) of the patients felt they have fair control of their chronic illness. Thirty six percent (N=12) of the patients felt that their health problem has made them feel moderately debilitated and 41% (N=13) reported that their illness has slightly interfered with their daily activities.

Internal Consistency of Health Related Hardiness Scale:

The internal consistency of the health related hardiness scale and subscales were computed to ensure the reliability of the translated version. Hardiness for the present sample (total score and subscales) revealed good to excellent reliabilities. The alpha reliability for the total score was .86. The alpha reliabilities for the subscales were control = .74; commitment = .74; and challenge = .62.

Research Questions and Hypotheses:

Research Question 1: Are there differences in psychosocial adaptation in adult hispanics with chronic hepatitis C who are low or high in hardiness?

In order to compare subjects with low and high hardiness on the psychosocial adaptation to illness scale (PSAIS), a median split was conducted on the total hardiness scale. Two groups were then created, those with low hardiness ($n = 16$) and those with high hardiness ($n = 16$).

A comparison between subjects with low hardiness ($M = 29.06$, $SD = 19.55$) and those with high hardiness ($M = 24.44$, $SD = 18.63$) on the total score for psychosocial adaptation was not statistically significant, $t(1, 30) = .69$, $p = ns$. The means and standard deviation (SD) for each of the psychosocial domains for low and high hardiness are presented in Table 1. As can be seen in Table 1, there were no statistical significant differences between low and high hardiness on the various psychosocial adaptation domains (health care orientation, vocational, domestic, sexual, social and psychological distress).

Health Care Orientation:

An independent sample t test comparing health care orientation (a domain of the PSAIS that evaluates patients health care posture) for subjects with low or high hardiness, revealed no statistically significant differences, $t(1, 30) = 1.47$, $p = ns$.

Vocational Environment:

An independent sample t test comparing vocational environment (a domain of the PSAIS that evaluates disruption in job performance, and satisfaction) for subjects

with low or high hardiness, revealed no statistically significant differences, $t(1, 30) = .20$, $p = ns$.

Domestic Environment:

An independent sample t test comparing domestic environment (a domain of the PSAIS that evaluates illness - induced difficulties that arise in the home and family) for subjects with low or high hardiness, revealed no statistically significant differences, $t(1, 30) = .02$, $p = ns$.

Sexual Relationship:

An independent sample t test comparing sexual relationship (a domain of the PSAIS that evaluates any shifts in the quality of sexual behavior or relationships attributable to the present illness) for subjects with low or high hardiness, revealed no statistically significant differences, $t(1, 30) = 1.07$, $p = ns$.

Social Environment:

An independent sample t test comparing social environment (a domain of the PSAIS that evaluates the degree to which the patient has suffered incursions due to illness into his/her social activities) for subjects with low or high hardiness, revealed no statistically significant differences, $t(1, 30) = .112$, $p = ns$.

Psychological Distress:

An independent sample t test comparing psychological distress (a domain of the PSAIS that evaluates dysphoric thoughts and feelings that accompany the illness) for subjects with low or high hardiness, revealed no statistically significant differences, $t(1, 30) = .45$, $p = ns$.

TABLE 1. Means and Standard Deviation of the PSAIS domains as compared with low and high hardiness in adult hispanics with chronic hepatitis C.

	Low Hardiness Mean (SD)	High Hardiness Mean (SD)
Total PSAIS	29.06 (19.55)	24.44 (18.63)
Health Care Orientation	5.38 (3.44)	3.88 (2.22)
Vocational Environment	4.06 (3.71)	4.00 (3.83)
Domestic Environment	3.88 (3.96)	3.69 (3.97)
Sexual Relationship	3.93 (3.52)	2.63 (3.32)
Social Environment	5.13 (3.40)	3.69 (3.83)
Psychological Distress	5.38 (3.40)	3.88 (3.90)

Research Question 2: Which dimension (s) of health related hardiness has the strongest influence on patient's psychosocial adaptation?

Control: A median split was conducted in order to compare subjects with low and high control for each of the subscales on the PSAIS. Independent sample t test (s) comparing subjects with low and high scores on the hardiness subscale of control, revealed no statistically significant differences for any of the psychosocial adaptation domains. These results indicate that the subscale control has no influence on patient's psychosocial adaptation. A comparison of the dimensions of health related hardiness and psychosocial domains are presented in Table 2.

Commitment: A median split was conducted in order to compare subjects with low and high commitment for each of the subscales on the PSAIS. Independent sample t test(s) comparing subjects with low and high scores on the hardiness subscale of

commitment, revealed no statistically significant differences for any of the psychosocial domains. Thus, the subscale, commitment, has no influence on patient's psychosocial adaptation. A comparison of the dimensions of health related hardiness and psychosocial domains are presented in Table 3.

Challenge: A median split was conducted in order to compare subjects with low and high challenge for each of the subscales on the PSAIS. Independent sample t test(s) comparing subjects with low and high scores on the hardiness subscale of challenge, revealed no statistically significant differences in the domestic environment ($M = 4.94$, $SD = 4.74$ for low challenge, and $M = 2.63$, $SD = 1.59$ for high challenge), and sexual relationship domains ($M = 4.13$, $SD = 4.10$ for low challenge, and $M = 2.44$, $SD = 2.50$ for high challenge) of the PSAIS. However, there were marginal differences in the health care orientation domain, ($M = 5.56$, $SD = 3.40$ for low challenge, and 3.69 , $SD = 2.12$ for high challenge), $t(1, 30) = 1.87$, $p = 0.07$ and in the psychological distress domain, ($M = 6.50$, $SD = 4.53$ for low challenge, and $M = 3.75$, $SD = 1.53$ for high challenge), $t(1, 30) = 1.72$, $p = < 0.10$. Indicating that patients with low challenge scores have marginal difficulty psychosocially adapting in the health care orientation and psychological distress domains. Moreover, significant differences were revealed between low and high challenge on vocational environment, $t(1, 30) = 2.02$, $p = .05$; social environment, $t(1, 30) = 2.47$, $p = < .05$; and the total PSAIS score, $t(1, 30) = 2.34$, $p = < .05$. These results indicate that those with high challenge scores demonstrate no difficulties adapting psychosocially in the vocational environment, and social environment domains. A comparison of the subscale challenge and psychosocial domains are presented

in Figure 1.

Table 2. Means and Standard Deviations of the hardiness subscale control and psychosocial adaptation of adult hispanics with chronic hepatitis C.

	Control	
	Low M (SD)	High M (SD)
Total PSAIS	29.13 (19.51)	24.38 (18.66)
Health Care Orientation	5.44 (3.60)	3.81 (1.90)
Vocational Environment	4.13 (3.80)	3.75 (0.90)
Domestic Environment	3.94 (4.01)	3.63 (3.42)
Sexual Relationship	3.93 (3.52)	2.63 (3.32)
Social Environment	5.00 (3.56)	3.83 (3.73)
Psychological Distress	5.38 (3.42)	4.88 (3.90)

Table 3. Means and Standard Deviations of the hardiness subscale commitment and psychosocial adaptation of adult hispanics with chronic hepatitis C.

	Commitment	
	Low M (SD)	High M (SD)
Total PSAIS	27.22 (19.68)	26.13 (20.00)
Health Care Orientation	5.05 (3.08)	4.07 (2.89)
Vocational Environment	3.67 (2.90)	4.50 (4.64)
Domestic Environment	3.67 (4.07)	3.93 (3.22)
Sexual Relationship	3.77 (3.55)	2.64 (3.30)
Social Environment	4.78 (3.52)	3.93 (3.85)
Psychological Distress	5.00 (3.16)	5.29 (4.23)

Research Question 3: Does the total health related hardiness score and its subscales have a strong influence on patient's health perception?

Total Hardiness: A one way anova revealed a significant effect for perceived health on total hardiness, $F(2, 29) = 5.49, p < .05$. Furthermore, a follow up comparison using student - Neuman - Keuls test indicates that patients who perceived their health as poor had lower total hardiness scores than those who rated their health as fair. However, they did not differ significantly from patients who rated their health as good. Patients with "fair health perception" did not significantly differ from those with "good health perception". Findings are presented in Table 4.

Control: A one way anova revealed a significant effect for perceived health on hardiness subscale, control, $F(2, 29) = 4.09, p < .05$. A follow up comparison using student - Neuman - Keuls test indicates that patients who perceived their health as poor had lower control scores than those who rated their health as fair. However, they did not differ significantly from patients who rated their health as good. Patients with "fair health perception" did not significantly differ from those with "good health perception". Findings are presented in Table 4.

Commitment: A one way anova revealed a significant effect for perceived health on hardiness subscale, commitment, $F(2, 29) = 3.76, p < .05$. Furthermore, a follow up comparison using student - Neuman - Keuls test indicates that patients who perceived their health as poor had lower commitment scores than those who rated their health as fair. However, they did not differ significantly from patients who rated their health as good. Patients with "fair health perception" did not significantly differ from those with

"good health perception". Findings are presented in Table 4.

Challenge: A one way anova revealed a significant effect for perceived health on hardiness subscale, challenge, $F(2,29) = 4.92, p < .05$. Furthermore, a follow up comparison using student - Neuman - Keuls test indicates that patients who perceived their health as poor had lower challenge scores than those who rated their health as fair, and also those who rated their health as fair have higher challenge scores than those who rated their health as good. These findings are contrary to expectations. Findings are presented in Table 4.

Table 4. Perceived health and health related hardiness (HRHS)

	Health Perception		
	Poor M (SD)	Fair M (SD)	Good M (SD)
Total HRHS score	130.86 (16.88)	162.79 (20.17)	140.50 (37.84)
Control	47.86 (7.54)	60.37 (8.95)	52.50 (16.79)
Commitment	29.43 (6.78)	36.05 (4.40)	33.00 (7.38)
Challenge	53.57 (5.83)	66.37 (10.43)	55.00 (15.54)

Research Question 4: To what extent is hardiness influenced by sociodemographic factors?

Gender: A comparison between males and females on the total health related hardiness score did not reveal a statistically significant finding. For males $M = 156.20, SD = 25.23$; and for females $M = 152.00, SD = 27.15, t(1, 28) = .44, p = ns$. In addition, there were no significant differences between the subscale means of control,

commitment or challenge between the genders.

Age: Age was not significantly correlated with total health related hardiness score ($r = .16$, $p = ns$), control ($r = .06$, $p = ns$), commitment ($r = .22$, $p = ns$), and challenge ($r = .18$, $p = ns$).

Education: A median split was conducted in order to compare those who graduated with a at least a high school diploma and with those who did not. No statistically significant findings were revealed for total health related hardiness $t(1, 30) = .66$, $p = ns$. In addition, there were no significant differences between the subscale means of control, commitment or challenge.

Marital Status: A comparison between those who were married and those who were not (single, divorced, widow (ed)), revealed no statistically significant findings for total health related hardiness $t(1, 28) = -.15$, $p = ns$. In addition, there were no significant differences between the subscale means of control, commitment or challenge.

Income: A comparison between those who annually earned \$19,000 or less with those who earned more than \$19,000 annually, revealed marginally statistical significant findings for total health related hardiness $t(1, 29) = 1.99$, $p = 0.06$; for the component of control, $t(1, 29) = 1.70$, $p = 0.10$ and in the challenge, $t(1, 29) = 2.00$, $p = 0.06$. In addition, there were no significant differences in the subscale means of commitment ($t(1, 29) = 1.53$, $p = ns$). Indicating that those with lower income ($< \$19,000$) were marginally harder than those with higher income ($> \$19,000$); This is a not a meaningful finding.

Length of Time Diagnosed with HCV: A one way anova revealed no significant

effect for length of time diagnosed with chronic hepatitis C on the total hardiness scale, $F(2,29) = .96$, $p = ns$, or in any of the subscales, challenge, $F(2,29) = .70$, $p = ns$; commitment, $F(2,29) = .73$, $p = ns$; and control, $F(2,29) = .56$, $p = ns$. Indicating that chronicity has no relation with hardiness in this sample.

CHAPTER V

DISCUSSION OF FINDINGS, CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

In this study, total hardiness among hispanic patients diagnosed with chronic hepatitis C was not significantly correlated with psychosocial adaptation, thus concluding that the first research question was not supported. However, correlations between hardiness subscales (control, commitment and challenge) and the PSAIS for chronic hepatitis C patients revealed a positive relationship. Challenge and commitment were not loaded together in this study, instead, they were analyzed separately to further secure significant relationships. When loaded together, the commitment and challenge items resulted in a significant relationship only with the health care orientation domain of the PSAIS ($t(1,30) = 2.15, p < 0.05$), and a marginal difference in the sexual relationship domain of the PSAIS ($t(1, 29) = 1.87, p = .07$). However, when the hardiness subscales were examined independently, challenge was the single component that demonstrated positive correlations with psychosocial adaptation, thus sufficing research question 2. In particular, the total PSAIS score along with its respective domains of health care orientation, psychological distress, vocational and social environments were significantly correlated to the challenge component of hardiness. Indicating that those patients with low challenge scores have marginal difficulty adapting to those particular domains.

Furthermore, these findings indicate that there are specific psychosocial activities that may be facilitated by hardiness in adaptation in hispanic adults with chronic hepatitis

C. Rather than hardiness having total effect on psychosocial adaptation in this particular group, its presence may enable the patient to demonstrate better health care orientation, role and intrapsychic functions because they may be using challenge as a coping strategy. The hypothesis that adult hispanics who have higher levels of hardiness would be more likely to psychosocially adapt to the diagnoses of chronic hepatitis C was partially supported in this research study.

However, several issues need to be addressed as possible explanations why the latter research question was not supported. First, more knowledge is needed regarding the interrelationship of psychosocial domains of adaptation, particularly in hispanic populations and with the chronic illness of hepatitis C. Second, further studies could benefit from more concentration on the specific elements of hardiness rather than total hardiness. As suggested by Funk (1992), if hardiness is not consistently and strongly related to various outcomes than any one dimension, then it would be more advantageous to study the dimensions separately. Lastly, it can be assumed that total hardiness posed as many problems as benefits to the psychosocial adaptation of chronic hepatitis C in hispanic patients when testing certain psychosocial domains.

Explanation for the differences among the components of hardiness and psychosocial adaptation may be postulated. First, it is the first time that the health related hardiness scale has been translated into spanish. Moreover, the first time that the construct of hardiness has been tested on hispanics, let alone in adults with chronic hepatitis C. Second, as suggested by Carver, 1989 (as cited in Funk 1992), the multidimensional constructs of hardiness should be examined separately since the different

components may exert their effects in different ways. Likewise, Goodwin (1988), studied psychosocial adaptation and health related hardiness in hemodialysis clients and also confirmed no significant correlation between the total PSAIS and the total HRHS scores. As our findings demonstrated, patients who reported harder challenge levels reported fewer adjustment problems in four PSAIS domains: health care orientation, vocational, social and psychological distress. Similarly, Pollock (1989) who reported that various chronic illnesses (diabetes, hypertension, and arthritis) revealed significant relationships between hardiness and the various psychosocial domains. In her study, hardiness significantly influenced role function in the diabetic and hypertensive groups, social support in the arthritic and hypertensive groups, and intrapsychic functioning in the arthritic and diabetic groups. These findings suggest that specific psychosocial activities may be facilitated by the presence of hardiness, thus supporting the indirect effect of hardiness on adaptation (Pollock, 1989).

The level of health at which the chronic hepatitis C patient perceives herself or himself appeared to be significantly correlated with their level of hardiness. The hypothesis that adult hispanics with chronic hepatitis C that score high on the Health Related Hardiness Scale (HRHS) will have higher perceived health status than those who scored low on the HRHS was supported. Therefore, higher levels of hardiness among patients with chronic hepatitis C would be more likely to have a better perceived health. Furthermore, the correlations between hardiness subscales and health perception were also significant. A substantial amount of research further confirms our findings that a significant relationship exists between hardiness and perceived health (Pollock,1986;

Nowack, 1989; Magnani, 1990; Lee, 1991; Nicholas, 1993). Nevertheless, this study further supports the relation of personality and health.

Interestingly, but not an expected finding is that patients who perceived their health as fair had higher challenge scores than those who perceived their health as good. This partially supports our second hypothesis because low challenge scores signifies poorer health perception, however, those rating their health as good are not demonstrating higher challenge scores. It is difficult to draw conclusions from this rather small sample size, however, Lee (1991) pointed out an interesting assumption. In his study, challenge did not enter in any of the health perceived regression equations, and he postulated that this subscale is measured with items about economic security. The financial difficulties being experienced by the sample may have influenced the respondents to answer the items from the perspective of wanting greater security. As noted in our study with the median annual salary between \$10,000 - \$19,000, this could also be inferred.

Patients with a chronic illness such as hepatitis C are webbed in this wellness - illness circle. Primarily asymptomatic, these patients are not viewed as "healthy" individuals, nor are they viewed as "sick" people. Therefore, patient's own health perception appears to be an important factor related to their hardiness level and will in turn, assist in the ability to psychosocially adapt. This suggests that one's own health behavior may play an important and direct role in the hardiness - health perception relationship.

Sociodemographic Variables:

It was interesting to find that there were no relationships between hardiness and the demographic variables of age, gender, education, or marital status. Likewise, no correlations were found with hardiness and the length of time diagnosed with hepatitis C. This parallels Pollock's (1989) study in which she found no statistically significant effect on the hardiness scores from demographic data in 30 diabetic patients. Likewise, Bigbee and Goodwin (1988) compared males and females and also did not find significant differences between hardiness and age or gender.

However, income level was found to be marginally significant with total hardiness, and with the hardiness components of control and challenge. These findings suggest that those earning lower income have hardier personalities. This is not an expected finding and clearly not proceeding in the expected direction. In order to breakdown income levels to be adequately compared, a median split was conducted and as a result, those patients earning < \$5,000 and those earning \$10,000 - \$19,000 were grouped together, and compared to those earning > \$19,000 - > \$50,000. Due to the small numbers in each category, no other alternatives existed in the breakdown. Future studies will need to have larger sample size to breakdown each income level into more meaningful categories.

CONCLUSIONS

The significant relationship found between hardiness and perceived health was a major finding of this study. It analogizes the relationship between health related hardiness, and greater perceived health status found in Pollock's (1989) study of persons with chronic illnesses. Assessing patient's health perception as they relate to hardy and

non hardy patients provides a better understanding of differences in health and individual reaction to chronic hepatitis C.

Hardiness has been viewed as a constellation of personality characteristics that assist people stay healthy even when faced with stressful life events (Kobasa, 1979, Kobasa et al., 1982). Given this relationship, it was puzzling to find there were no relationship between hardiness and the sociodemographic variables of age, gender, education, marital status and length of time diagnosed with illness. Unlike prior research (Schmied and Lawler, 1986) which found possessing hardiness was associated with being older, more educated and married, and contrary to our findings, it was suggested that hardiness is a developing characteristic.

Furthermore, interesting data emerged from the analyses for health related hardiness as it related to psychosocial adaptation. Challenge posed as the hardiness component that had the most significant differences with certain aspects of the PSAIS score along with its respective domains of health care orientation, psychological distress, vocational and social environments. Furthermore, these findings indicate that there are specific psychosocial activities that may be facilitated by hardiness in adaptation in hispanic adults with chronic hepatitis C. Therefore, those patients possessing low challenge characteristics, are demonstrating difficulty adapting to health care orientation, psychological distress, vocational and social environments. On the other hand, those patients possessing high challenge characteristics demonstrated less difficulty with the other respective PSAIS domains.

As stated by Johnson and Lauver (1989), It may be possible to reverse disability,

but knowledge about coping strategies can moderate the psychological impact of the illness. The quality of life for hispanic adults diagnosed with chronic hepatitis C affects their illness phenomena, perceptions, functional capacity and personal resources. This unique manner in which the patient deals with the demands of a chronic illness, influences the degree and nature of lifelong adjustments the patient must cope with.

In summary, the significant relationship found between hardiness and perceived health was a major finding of this study. This study also provided some unexpected findings between health related hardiness and psychosocial adaptation with the hispanic patients with chronic hepatitis C, however replication would be worthy to strengthen the generalizability of the findings.

IMPLICATIONS

The Roy's Adaptation Model provided a comprehensive framework from which to approach the study findings. The goal is to bring about an adaptive state in the patient which frees him/her to respond to other stimuli. A positive response to these stimuli requires adaptation, and adaptation is a result of effective problem solving behaviors and feelings that is aimed at reducing stressors.

Data gathered from this study indicate that the absence or presence of hardiness may be a critical factor in perceived health status and in various aspects of psychosocial adjustments. The evaluation of hardiness and hardiness training may be beneficial in the management of hispanic patients diagnosed with chronic hepatitis C. Health related hardiness has not been studied in hispanics, let alone with chronic hepatitis C patients. The results of this study have provided insight into possible interactions between health

related hardiness, perceived health status, demographic variables and psychosocial variables. Based on the patient's disease progression, hardiness training courses could be offered using primary, secondary and tertiary prevention methods. The hardiness training program might help individuals to become more committed to themselves, to gain more control over their lives and to face unexpected events as a challenge.

Furthermore, the HRHS may be a beneficial tool for nursing assessment. If a patient is found to be low in hardiness, specific interventions may be implicated towards increasing the individual's hardiness. Specific interventions such alternative approaches in coping with stress and illness through educational programs and support groups. Helping the patient to manipulate his environment and assist him/her to have more control over it may increase personal hardiness as well. Pollock (1989) proposed a hardiness instruction program using small - group approach for such individuals. As the advanced practice nurse assists patients in gaining a sense of hardiness, we anticipate that these strategies will assist in psychosocial adaptation and promote health maintenance. Enabling patients toward successful health behaviors is an important part of nursing, and by demonstrating that hardiness was a viable construct, will assist in helping nurses meet this goal.

LIMITATIONS

The sample for this study was a non random sample of convenience. From the initial sample of 36 patients approached by the investigator, 32 agreed to participate. Two declined due to the lack of time to participate, and two refused because they were not interested in participating in the study. Sample size was a considerable limitation in this

study. Moreover, to facilitate greater understanding of adaptation to chronic illnesses, a larger sample size is needed.

A variety of instruments were used to measure hardiness, psychosocial adaptation, health perception and sociodemographic variables. These scales were translated by a professional translator, with the exception of the PSAIS scale that was already translated by the Clinical Psychometric Research company. The translation and the self report method of data collection may have affected the authenticity of answers due to the lack of clarification. Fatigue may have also affected the responses due to length of time for completion of the questionnaires.

In this study, sociodemographic variables, hardiness and all three components of hardiness were measured as dichotomous variables. A median split was performed to divide subjects into high hardy and low hardy groups, into low and high challenge, control and commitment groups as well. In sociodemographic variables, a breakdown into two categories were performed to facilitate analyses and provide meaningful categories. Yet, this method of operationalizing may be insensitive thus making it more difficult to find significant relations between hardiness and health.

To add, due to the defined time element inherent in the Master's program, the brief interval for data collection was a constraining factor. Finally, the correlational design of this study only permits speculation as to cause and effect relationships between hardiness, health perception and psychosocial adaptation.

RECOMMENDATIONS

Further research is needed to clarify the complex relationship among the variables

and to provide information that is essential for improving the health care of hispanic adults especially with chronic illnesses such as chronic hepatitis C. We propose a number of additional research endeavors. These include:

1. Replicating the present study except for two changes: (a) increase the sample size, and (b) include a one to two year follow-up.
2. Design an intervention study in which other variables such as social support and physiological factors that may be influenced hardiness and its direct effect on treatment responses and the indirect effect on their liver profile, and viremia levels.
3. Future research could study relationships between psychosocial variables and sociodemographic variables.
4. Testing specific nursing strategies in promoting adaptive responses with chronic hepatitis C patients and perform pre and post testing of these groups.

SUMMARY

In summary, this study represents the only known research to investigate the role of health related hardiness in health perception and psychosocial adaptation in adult Hispanics with chronic hepatitis C. Not to mention the first time, to our knowledge, the health related hardiness scale was ever translated from english to spanish. Our data highlights the complexity of the hardiness personality characteristic and has resulted in meaningful information contributing to the understanding of our research questions.

Continued work in the areas of hardiness, psychosocial adjustment, chronic illness and with the hispanic population is essential. Future research may clarify the direction of the relationships among these variables. Furthermore, there is still much to

be learned about the role of hardiness and other variables with hispanic subjects.

Although some of the results were not expected, and despite study limitations, the findings of this study are the ground work from which will stem future inquiries in the identification of hardiness with the hispanic population.

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APPENDIX

The Health Related Hardiness Scale English Version

HEALTH-RELATED HARDINESS SCALE

Instructions:

This is a questionnaire designed to determine the way in which different people view certain important issues related to their health. Each item is a belief statement with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item we would like you to circle the number that represents the extent to which you disagree or agree with the statement. Please make sure that you answer every item and that you circle only one number per item. Thank you for taking the time to complete this questionnaire.

DISAGREE AGREE

S	M	S	S	M	S
T	O	L	L	O	T
R	D	I	I	D	R
O	E	G	G	E	O
N	R	H	H	R	N
G	A	T	T	A	G
L	T	L	L	T	L
Y	E	Y	Y	E	Y
	L			L	
	Y			Y	

- | | | | | | | | |
|--------------------------------------------------------------------------------------------|---|---|---|---|---|---|-------|
| 1. Involvement in health promotion activities is stimulating. | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 2. I can avoid illness if I take care of myself. | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 3. I find it difficult to be enthusiastic about good health. | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 4. Luck plays a big part in determining how soon I will recover from an illness. | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 5. No matter how hard I try to maintain my health, my efforts will accomplish very little. | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 6. I am in control of my health. | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 7. I admire people who work hard to improve their health. | 1 | 2 | 3 | 4 | 5 | 6 | _____ |

	Number						
	DISAGREE			AGREE			
	S	M	S	S	M	S	
	T	O	L	L	O	T	
	R	D	I	I	D	R	
	O	E	G	G	E	O	
	N	R	H	H	R	N	
	G	A	T	T	A	G	
	L	T	L	L	T	L	
	Y	E	Y	Y	E	Y	
		L			L		
		Y			Y		
8. Good health is more important to me than financial security.	1	2	3	4	5	6	_____
9. My good health is largely a matter of good fortune.	1	2	3	4	5	6	_____
10. No matter what I do, I'm likely to get sick.	1	2	3	4	5	6	_____
11. I find it boring to eat and exercise properly to maintain my health.	1	2	3	4	5	6	_____
12. The main thing which affects my health is what I myself do.	1	2	3	4	5	6	_____
13. Changes taking place in health care are not exciting to me.	1	2	3	4	5	6	_____
14. I find people who are involved in health promotion interesting.	1	2	3	4	5	6	_____
15. Setting goals for health is unrealistic.	1	2	3	4	5	6	_____
16. Most things that affect my health happen to me by accident.	1	2	3	4	5	6	_____
17. Changes taking place in health care will have no effect on me.	1	2	3	4	5	6	_____
18. If I get sick, it is my own behavior that determines how soon I get well.	1	2	3	4	5	6	_____
19. I do not find it interesting to learn about health.	1	2	3	4	5	6	_____
20. I will stay healthy if it's meant to be.	1	2	3	4	5	6	_____
21. I am not interested in exploring new ways to improve my health.	1	2	3	4	5	6	_____

	Number						
	DISAGREE			AGREE			
	S	M	S	S	M	S	
	T	O	L	L	O	T	
	R	D	I	I	D	R	
	O	E	G	G	E	O	
	N	R	H	H	R	N	
	G	A	T	T	A	G	
	L	T	L	L	T	L	
	Y	E	Y	Y	E	Y	
		L			L		
		Y			Y		
22. No matter what I do, if I am going to get sick, I will get sick.	1	2	3	4	5	6	_____
23. I feel no need to try to maintain my health because it makes no difference anyway.	1	2	3	4	5	6	_____
24. The current focus on health promotion is a fad that will probably disappear.	1	2	3	4	5	6	_____
25. No matter how hard I work to promote health for society, it never seems to improve.	1	2	3	4	5	6	_____
26. Our society holds no worthwhile goals or values about health.	1	2	3	4	5	6	_____
27. If I take the right actions, I can stay healthy.	1	2	3	4	5	6	_____
28. I get excited about the possibility of improving my health.	1	2	3	4	5	6	_____
29. I am determined to be as healthy as I can be.	1	2	3	4	5	6	_____
30. When my health is threatened, I view it as a challenge that must be overcome.	1	2	3	4	5	6	_____
31. I read everything I can about health.	1	2	3	4	5	6	_____
32. I can be as healthy as I want to be.	1	2	3	4	5	6	_____
33. When something goes wrong with my health, I do every thing I can to get at the root of the problem.	1	2	3	4	5	6	_____
34. I have little influence over my health.							_____

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The Health Related Hardiness Scale

Spanish Version

ESCALA DE ROBUSTEZ RELACIONADA A LA SALUD

INSTRUCCIONES: Esto es un cuestionario designado para determinar la forma en que diferentes personas ven ciertos asuntos importantes relacionados con su salud. Cada pregunta es una opinión con la que usted puede estar de acuerdo o en desacuerdo y al lado de cada pregunta hay una escala que comprende de (1) "desacuerdo completamente" hasta (6) "de acuerdo completamente". Para cada pregunta le pedimos que circule el número que representa con su respuesta así sea si está de acuerdo o en desacuerdo. Por favor, conteste todas las preguntas y solamente circule uno de los números que corresponda a cada pregunta.

Muchas gracias por su cooperación en llenar este cuestionario.

DESACUERDO			DE ACUERDO		
C	M	L	L	M	C
O	O	I	I	O	O
M	D	G	G	D	M
P	E	E	E	E	P
L	R	R	R	R	L
E	A	A	A	A	E
T	D	M	M	D	T
A	A	E	E	A	A
M	M	N	N	M	M
E	E	T	T	E	E
N	N	E	E	N	N
T	T			T	T
E	E			E	E

- | | | | | | | |
|-----------------------------------------------------------------------------------------|---|---|---|---|---|---|
| 1. El involucrimiento en actividades que promueven la salud es estimulante. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. Puedo evitar enfermedades si tengo cuidado de mi mismo. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. Encuentro difícil ser entusiasta sobre una buena salud. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. La suerte juega un gran papel en determinar cuando me recobraré de una enfermedad. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. No importa que perseverante pueda ser con mi salud, mis esfuerzos lograrán muy poco. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. Estoy en control de mi salud. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. Admiro a la gente que pone de su parte para mejorar su salud. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. Para mí, una buena salud es más importante que la seguridad financiera. | 1 | 2 | 3 | 4 | 5 | 6 |

DESACUERDO

DE ACUERDO

C O M
O O I
M D G
P E E
L R R
E A A
T D M
A A E
M M N
E E T
N N E
T T
E E

L M C
I O O
G D M
E E P
R R L
A A E
M D T
E A A
N M M
T E E
E N N
T T
E E

9. Mi buena salud se lo debo mayormente a la buena suerte.

1 2 3 4 5 6

10. No importa lo que haga, probablemente me enfermearé.

1 2 3 4 5 6

11. Encuentro aburrido comer y hacer ejercicios debidamente para mantener mi salud.

1 2 3 4 5 6

12. La cosa principal que afecta mi salud es lo que yo mismo haga.

1 2 3 4 5 6

13. Los cambios que están teniendo lugar sobre el cuidado de la salud no me emocionan.

1 2 3 4 5 6

14. Encuentro que la gente envuelta en la promoción de la salud es interesante.

1 2 3 4 5 6

15. Establecer metas para la salud es inefectivo.

1 2 3 4 5 6

16. Muchas de las cosas que afectan mi salud me suceden por casualidad.

1 2 3 4 5 6

17. Los cambios que tienen lugar en el cuidado de la salud no tendrán efecto sobre mí.

1 2 3 4 5 6

18. Si me enfermo, mi propio comportamiento es el que determina cuando me recobraré.

1 2 3 4 5 6

19. No encuentro interesante aprender sobre la salud.

1 2 3 4 5 6

	DESACUERDO			DE ACUERDO		
	C	M	L	L	M	C
	O	O	I	I	O	O
	M	D	G	G	D	M
	P	E	E	E	E	P
	L	R	R	R	R	L
	E	A	A	A	A	E
	T	D	M	M	D	T
	A	A	E	E	A	A
	M	M	N	N	M	M
	E	E	T	T	E	E
	N	N	E	E	N	N
	T	T			T	T
	E	E			E	E
20. Estaré saludable si ese es mi destino.	1	2	3	4	5	6
21. No estoy interesado en explorar nuevos regímenes o programas de cuidado de la salud para mejorarme.	1	2	3	4	5	6
22. No importa lo que haga, si voy a enfermarme, me enfermaré.	1	2	3	4	5	6
23. No siento necesidad de tratar de mantener mi salud porque no hace ninguna diferencia.	1	2	3	4	5	6
24. El foco actual en la promoción de la salud es una moda que probablemente desaparecerá.	1	2	3	4	5	6
25. No importa cuanto trabajo para promover la salud en la sociedad, parece que nunca mejora.	1	2	3	4	5	6
26. Nuestra sociedad no tiene metas o valores que valgan la pena sobre la salud.	1	2	3	4	5	6
27. Si tomo las medidas correctas, puedo estar saludable.	1	2	3	4	5	6
28. Me excita la posibilidad de mejorar mi salud.	1	2	3	4	5	6
29. Estoy determinado a estar tan saludable como pueda estarlo.	1	2	3	4	5	6
30. Cuando mi salud esta amenazada, lo miro como un desafío que debe ser superado.	1	2	3	4	5	6

	DESACUERDO			DE ACUERDO		
	C	M	L	L	M	C
	O	O	I	I	O	O
	M	D	G	G	D	M
	P	E	E	E	E	P
	L	R	R	R	R	L
	E	A	A	A	A	E
	T	D	M	M	D	T
	A	A	E	E	A	A
	M	M	N	N	M	M
	E	E	T	T	E	E
	N	N	E	E	N	N
	T	T			T	T
	E	E			E	E
31. Leo toda lo que puedo acerca de la salud.	1	2	3	4	5	6
32. Puedo estar tan saludable así como yo desee.	1	2	3	4	5	6
33. Cuando hay algo malo con mi salud, hago todo lo que pueda para llegar a la raíz del problema.	1	2	3	4	5	6
34. Tengo poca influencia sobre mi salud.	1	2	3	4	5	6

The Psychosocial Adaptation to Illness Scale

English Version

(1) Which of the following statements best describes your usual attitude about taking care of your health?

- ☐ a) I am very concerned and pay close attention to my personal health.
- ☐ b) Most of the time I pay attention to my health care needs.
- ☐ c) Usually, I try to take care of health matters but sometimes I just don't get around to it.
- ☐ d) Health care is something that I just don't worry too much about.

(2) Your present illness probably requires some special attention and care on your part. Would you please select the statement below that best describes your reaction.

- ☐ a) I do things pretty much the way I always have done them and I don't worry or take any special considerations for my illness.
- ☐ b) I try to do all the things I am supposed to do to take care of myself, but lots of times I forget or I am too tired or busy.
- ☐ c) I do a pretty good job taking care of my present illness.
- ☐ d) I pay close attention to all the needs of my present illness and do everything I can to take care of myself.

(3) In general, how do you feel about the quality of medical care available today and the doctors who provide it?

- ☐ a) Medical care has never been better, and the doctors who give it are doing an excellent job.
- ☐ b) The quality of medical care available is very good, but there are some areas that could stand improvement.
- ☐ c) Medical care and doctors are just not of the same quality they once were.
- ☐ d) I don't have much faith in doctors and medical care today.

(4) During your present illness you have received treatment from both doctors and medical staff. How do you feel about them and the treatment you have received from them?

- ☐ a) I am very unhappy with the treatment I have received and don't think the staff has done all they could have for me.
- ☐ b) I have not been impressed with the treatment I have received, but I think it is probably the best they can do.
- ☐ c) The treatment has been pretty good on the whole, although there have been a few problems.
- ☐ d) The treatment and the treatment staff have been excellent.

(5) When they are ill, different people expect different things about their illness, and have different attitudes about being ill. Could you please check the statement below which comes closest to describing your feelings.

- ☐ a) I am sure that I am going to overcome the illness and its problems quickly and get back to being my old self.
- ☐ b) My illness has caused some problems for me, but I feel I will overcome them fairly soon, and get back to the way I was before.
- ☐ c) My illness has really put a great strain on me, both physically and mentally, but I am trying very hard to overcome it, and feel sure that I will be back to my old self one of these days.
- ☐ d) I feel worn out and very weak from my illness, and there are times when I don't know if I am really ever going to be able to overcome it.

(6) Being ill can be a confusing experience, and some patients feel that they do not receive enough information and detail from their doctors and the medical staff about their illness. Please select a statement below which best describes your feelings about this matter.

- ☐ a) My doctor and the medical staff have told me very little about my illness even though I have asked more than once.
- ☐ b) I do have some information about my illness but I feel I would like to know more.
- ☐ c) I have a pretty fair understanding about my illness and feel that if I want to know more I can always get the information.
- ☐ d) I have been given a very complete picture of my illness, and my doctor and the medical staff have given me all the details I wish to have.

(7) In an illness such as yours, people have different ideas about their treatment and what to expect from it. Please select one of the statements below which best describes what you expect about your treatment.

- ☐ a) I believe my doctors and medical staff are quite able to direct my treatment and feel it is the best treatment I could receive.
- ☐ b) I have trust in my doctor's direction of my treatment; however, sometimes I have doubts about it.
- ☐ c) I don't like certain parts of my treatment which are very unpleasant, but my doctors tell me I should go through it anyway.
- ☐ d) In many ways I think my treatment is worse than the illness, and I am not sure it is worth going through it.

(8) In an illness such as yours, patients are given different amounts of information about their treatment. Please select a statement from those below which best describes information you have been given about your treatment.

- ☐ a) I have been told almost nothing about my treatment and feel left out about it.
- ☐ b) I have some information about my treatment, but not as much as I would like to have.
- ☐ c) My information concerning treatment is pretty complete, but there are one or two things I still want to know.
- ☐ d) I feel my information concerning treatment is very complete and up-to-date.

SECTION II

(1) Has your illness interfered with your ability to do your job (schoolwork)?

- ☐ a) No problems with my job
- ☐ b) Some problems, but only minor ones
- ☐ c) Some serious problems
- ☐ d) Illness has totally prevented me from doing my job

(2) How well do you physically perform your job (studies) now?

- ☐ a) Poorly
- ☐ b) Not too well
- ☐ c) Adequately
- ☐ d) Very well

(3) During the past 30 days, have you lost any time at work (school) due to your illness?

- ☐ a) 3 days or less
- ☐ b) 1 week
- ☐ c) 2 weeks
- ☐ d) More than 2 weeks

(4) Is your job (school) as important to you now as it was before your illness?

- ☐ a) Little or no importance to me now
- ☐ b) A lot less important
- ☐ c) Slightly less important
- ☐ d) Equal or greater importance than before

(5) Have you had to change you goals concerning your job (education) as a result of your illness?

- ☐ a) My goals are unchanged
- ☐ b) There has been a slight change in my goals
- ☐ c) My goals have changed quite a bit
- ☐ d) I have changed my goals completely

6) Have you noticed any increase in problems with your co-workers (students, neighbors) since your illness?

- ☐ a) A great increase in problems
- ☐ b) A moderate increase in problems
- ☐ c) A slight increase in problems
- ☐ d) None

SECTION III

(1) How would you describe your relationship with your husband or wife (partner, if not married) since your illness?

- ☐ a) Good
- ☐ b) Fair
- ☐ c) Poor
- ☐ d) Very Poor

(2) How would you describe your general relationships with the other people you live with (e.g., children, parents, aunts, etc.)?

- ☐ a) Very Poor
- ☐ b) Poor
- ☐ c) Fair
- ☐ d) Good

(3) How much has your illness interfered with your work and duties around the house?

- ☐ a) Not at all
- ☐ b) Slight problems, easily overcome
- ☐ c) Moderate problems, not all of which can be overcome
- ☐ d) Severe difficulties with household duties

(4) In those areas where your illness has caused problems with your household work, how has the family shifted duties to help you out?

- ☐ a) The family has not been able to help out at all
- ☐ b) The family has tried to help but many things are left undone
- ☐ c) The family has done well except for a few minor things
- ☐ d) No problem

(5) Has your illness resulted in a decrease in communication between you and members of your family?

- ☐ a) No decrease in communication
- ☐ b) A slight decrease in communication
- ☐ c) Communication has decreased, and I feel somewhat withdrawn from them
- ☐ d) Communication has decreased a lot, and I feel very alone

(6) Some people with an illness like yours feel they need help from other people (friends, neighbors, family, etc.) to get things done from day-to-day. Do you feel you need such help and is there anyone to provide it?

- ☐ a) I really need help but seldom is anyone around to help
- ☐ b) I get some help, but I can't count on it all the time
- ☐ c) I don't get all the help I need all of the time, but most of the time help is there when I need it
- ☐ d) I don't feel I need such help, or the help I need is available from my family or friends

(7) Have you experienced any physical disability with your illness?

- ☐ a) No physical disability
- ☐ b) A slight physical disability
- ☐ c) A moderate physical disability
- ☐ d) A severe physical disability

(8) An illness such as yours can sometimes cause a drain on the family's finances; are you having any difficulties meeting the financial demands of your illness?

- ☐ a) Severe financial hardship
- ☐ b) Moderate financial problems
- ☐ c) A slight financial drain
- ☐ d) No money problems

SECTION IV

(1) Sometimes having an illness can cause problems in a relationship. Has your illness led to any problems with your husband or wife (partner, if not married)?

- ☐ a) There has been no change in our relationship
- ☐ b) We are a little less close since my illness
- ☐ c) We are definitely less close since my illness
- ☐ d) We have had serious problems or a break in our relationship since my illness

(2) Sometimes when people are ill they report a loss of interest in sexual activities. Have you experienced less sexual interest since your illness?

- ☐ a) Absolutely no sexual interest since illness
- ☐ b) A marked loss of sexual interest
- ☐ c) A slight loss of sexual interest
- ☐ d) No loss of sexual interest

(3) Illness sometimes causes a decrease in sexual activity. Have you experienced any decrease in the frequency of your sexual activities?

- ☐ a) No decrease in sexual activities
- ☐ b) Slight decrease in sexual activities
- ☐ c) Marked decrease in sexual activities
- ☐ d) Sexual activities have stopped

(4) Has there been any change in the pleasure or satisfaction you normally experience from sex?

- ☐ a) Sexual pleasure and satisfaction have stopped
- ☐ b) A marked loss of sexual pleasure or satisfaction
- ☐ c) A slight loss of sexual pleasure or satisfaction
- ☐ d) No change in sexual satisfaction

(5) Sometimes an illness will cause interference in a person's ability to perform sexual activities even though the person is still interested in sex. Has this happened to you, and if so, to what degree?

- ☐ a) No change in my ability to have sex
- ☐ b) Slight problems with my sexual performance
- ☐ c) Constant sexual performance problems
- ☐ d) Totally unable to perform sexually

(6) Sometimes an illness will interfere with a couple's normal sexual relationship and cause arguments or problems between them. Have you and your partner had any arguments like this, and if so, to what degree?

- ☐ a) Constant arguments
- ☐ b) Frequent arguments
- ☐ c) Some arguments
- ☐ d) No arguments

SECTION V

(1) Have you had as much contact as usual (either personally or by telephone) with members of your family outside your household since your illness?

- ☐ a) Contact is the same or greater since illness
- ☐ b) Contact is slightly less
- ☐ c) Contact is markedly less
- ☐ d) No contact since illness

(2) Have you remained as interested in getting together with these members of your family since your illness?

- ☐ a) Little or no interest in getting together with them
- ☐ b) Interest is a lot less than before
- ☐ c) Interest is slightly less
- ☐ d) Interest is the same or greater since illness

(3) Sometimes, when people are ill, they are forced to depend on members of the family outside their household for physical help. Do you need physical help from them, and do they supply the help you need?

- ☐ a) I need no help, or they give me all the help I need
- ☐ b) Their help is enough, except for some minor things
- ☐ c) They give me some help but not enough
- ☐ d) They give me little or no help even though I need a great deal

(4) Some people socialize a great deal with members of their family outside their immediate household. Do you do much socializing with these family members, and has your illness reduced such socializing?

- ☐ a) Socializing with them has been greatly much eliminated
- ☐ b) Socializing with them has been reduced significantly
- ☐ c) Socializing with them has been reduced somewhat
- ☐ d) Socializing with them has been pretty much unaffected, or (I have never done much socializing of this kind)

(5) In general, how have you been getting along with these members of your family recently?

- ☐ a) Good
- ☐ b) Fair
- ☐ c) Poor
- ☐ d) Very poor

SECTION VI

(1) Are you still as interested in your leisure time activities and hobbies as you were prior to your illness?

- ☐ a) Same level of interest as previously
- ☐ b) Slightly less interest than before
- ☐ c) Significantly less interest than before
- ☐ d) Little or no interest remaining

(2) How about actual participation? Are you still actively involved in doing those activities?

- ☐ a) Little or no participation at present
- ☐ b) Participation reduced significantly
- ☐ c) Participation reduced slightly
- ☐ d) Participation remains unchanged

(3) Are you as interested in leisure time activities with your family (i.e., playing cards & games, taking trips, going swimming, etc.) as you were prior to your illness?

- ☐ a) Same level of interest as previously
- ☐ b) Slightly less interest than before
- ☐ c) Significantly less interest than before
- ☐ d) Little or no interest remaining

(4) Do you still participate in those activities to the same degree you once did?

- ☐ a) Little or no participation at present
- ☐ b) Participation reduced significantly
- ☐ c) Participation reduced slightly
- ☐ d) Participation remains unchanged

(5) Have you maintained your interest in social activities since your illness (e.g., social clubs, church groups, going to the movies, etc.)?

- ☐ a) Same level of interest as previously
- ☐ b) Slightly less interest than before
- ☐ c) Significantly less interest than before
- ☐ d) Little or no interest remaining

(6) How about participation? Do you still go out with your family and do these things?

- ☐ a) Little or no participation at present
- ☐ b) Participation reduced significantly
- ☐ c) Participation reduced slightly
- ☐ d) Participation remains unchanged

(1) Recently, have you felt afraid, tense, nervous, or anxious?

- ☐ a) Not at all
- ☐ b) A little bit
- ☐ c) Quite a bit
- ☐ d) Extremely

(2) Recently, have you felt sad, depressed, lost interest in things, or felt hopeless?

- ☐ a) Extremely
- ☐ b) Quite a bit
- ☐ c) A little bit
- ☐ d) Not at all

(3) Recently, have you felt angry, irritable, or had difficulty controlling your temper?

- ☐ a) Not at all
- ☐ b) A little bit
- ☐ c) Quite a bit
- ☐ d) Extremely

(4) Recently, have you blamed yourself for things, felt guilty, or felt like you have let people down?

- ☐ a) Extremely
- ☐ b) Quite a bit
- ☐ c) A little bit
- ☐ d) Not at all

(5) Recently, have you worried much about your illness or other matters?

- ☐ a) Not at all
- ☐ b) A little bit
- ☐ c) Quite a bit
- ☐ d) Extremely

(6) Recently, have you been feeling down on yourself or less valuable as a person?

- ☐ a) Extremely
- ☐ b) Quite a bit
- ☐ c) A little bit
- ☐ d) Not at all

(7) Recently, have you been concerned that your illness has caused changes in the way you look that make you less attractive?

The Psychosocial Adaptation to Illness Scale

Spanish Version

- (1) ¿Cuál de las siguientes afirmaciones describe mejor su actitud habitual en el cuidado de la salud?
- () a) Estoy muy preocupado/a y presto especial atención a mi salud personal.
 - () b) La mayor parte del tiempo estoy pendiente de mis necesidades de salud.
 - () c) Normalmente intento cuidar los temas relacionados con la salud pero a veces no los tengo en cuenta.
 - () d) La salud es algo de lo que no me preocupo mucho.
- (2) Su enfermedad actual requiere probablemente una atención especial y cuidado por su parte. ¿Sería capaz de escoger cuál de las siguientes afirmaciones describiría mejor su actitud?
- () a) Hago mis cosas como siempre las he hecho y no me preocupo ni presto ninguna atención especial a mi enfermedad.
 - () b) Intento hacer todas las cosas que se supone son necesarias para cuidar mi salud, pero muchas veces no puedo por cansancio, ocupación u olvido.
 - () c) Dedico bastante esfuerzo a cuidar mi enfermedad actual.
 - () d) Presto gran atención a todas las necesidades de mi enfermedad actual y hago todo lo que puedo para cuidarme.
- (3) En general, ¿qué piensa de la calidad de los cuidados médicos a su alcance, y de los médicos que lo llevan a cabo?
- () a) Los cuidados médicos no pueden ser mejores y los médicos que lo desarrollan están haciendo un magnífico trabajo.
 - () b) La calidad de los cuidados médicos es muy buena pero hay algunas áreas que podrían mejorar.
 - () c) Los cuidados médicos y los médicos ya no tienen la misma calidad que antes.
 - () d) Actualmente no tengo mucha fe ni en los médicos ni en los cuidados médicos.

- (4) Durante su enfermedad actual usted ha sido tratado/a tanto por médicos como por personal sanitario. ¿Qué piensa del tratamiento recibido por ellos?
- () a) Estoy muy descontenta/o con el tratamiento que he recibido y no creo que el personal sanitario haya hecho por mi todo lo que hubiera podido.
 - () b) No estoy muy impresionado/a por el tratamiento que he recibido, pero pienso, que probablemente lo han hecho lo mejor posible.
 - () c) El tratamiento ha sido bastante bueno en conjunto aunque ha habido algunos problemas.
 - () d) Tanto el tratamiento médico como el trato del personal ha sido excelente.
- (5) Las personas, cuando están enfermas, tienen diferentes expectativas sobre su enfermedad y tienen diferentes actitudes ante el hecho de estar enfermo. ¿Podría escoger qué afirmación de las siguientes describe mejor sus sentimientos?
- () a) Estoy seguro/a de que superaré la enfermedad y sus consecuencias y que rápidamente volveré a ser el de siempre.
 - () b) Mi enfermedad me ha causado algunos problemas, pero creo que los superaré relativamente pronto y volveré a estar como antes.
 - () c) Mi enfermedad me ha puesto al límite, tanto física como mentalmente, pero estoy luchando para superarlo y creo que seguramente volveré a ser el de siempre.
 - () d) Me siento agotado y muy débil por mi enfermedad y hay veces que no sé si realmente seré capaz de superarlo.
- (6) Estar enfermo puede ser una experiencia desconcertante y algunos pacientes piensan que no han recibido la suficiente información por parte de sus médicos y del personal sanitario acerca de su enfermedad. Por favor, elija cuál de las afirmaciones siguientes describe mejor sus impresiones sobre el tema.
- () a) El médico y el personal sanitario me han dicho muy poco acerca de la enfermedad, a pesar de que les he preguntado más de una vez.
 - () b) Tengo alguna información acerca de la enfermedad pero me gustaría saber más.

- () c) Tengo una relativamente buena información sobre la enfermedad y creo que si quiero saber más, podría conseguir información en cualquier momento.
- () d) Me han dado una información muy completa de la enfermedad, y el médico y el personal sanitario me han dicho todos los detalles que yo quería saber.
- (7) Ante una enfermedad como la suya las personas tienen diferentes ideas sobre su tratamiento y lo que esperan de él. Por favor elija entre las siguientes afirmaciones la que mejor describa sus expectativas ante el tratamiento.
- () a) Creo que los médicos y el personal sanitario son muy capaces de dirigir el tratamiento y además pienso que es el mejor tratamiento que podría recibir.
- () b) He depositado mi confianza en las directrices del médico sobre el tratamiento pero a veces tengo dudas.
- () c) No me gustan ciertas partes del tratamiento que son muy desagradables pero los médicos consideran que debo sobreponerme a ellas.
- () d) En muchos aspectos creo que el tratamiento es peor que la enfermedad, y no estoy seguro/a que merezca la pena continuar con ello.
- (8) En una enfermedad como la suya los pacientes reciben diferentes niveles de información sobre los tratamientos. Por favor elija cuál de las siguientes afirmaciones describe mejor la información que usted ha recibido sobre el tratamiento.
- () a) No se me ha dicho prácticamente nada sobre el tratamiento y me siento dejado/a al margen en este aspecto.
- () b) Tengo alguna información sobre el tratamiento pero no tanto como me gustaría tener.
- () c) La información acerca del tratamiento es bastante completa pero todavía hay un par de cosas que me gustaría saber.
- () d) Pienso que la información en relación al tratamiento es muy completa y puesta al día.

SECCION II

- (1) ¿Le ha dificultado la enfermedad para realizar su ocupación habitual (trabajo, actividades domésticas, estudios, etc.)?
- () a) Ningún problema con mi trabajo.
 - () b) Algunos problemas pero de poca importancia.
 - () c) Algunos problemas serios.
 - () d) La enfermedad me ha impedido totalmente realizar mi trabajo.
- (2) ¿Cómo realiza su ocupación habitual (estudios, trabajo...) actualmente?
- () a) Pobrementemente.
 - () b) No demasiado bien.
 - () c) Adecuadamente.
 - () d) Muy bien.
- (3) ¿Durante los pasados 30 días, ha perdido tiempo de su trabajo (estudios...) a consecuencia de su enfermedad?
- () a) Tres o menos días.
 - () b) 1 semana.
 - () c) 2 semanas.
 - () d) Más de 2 semanas.
- (4) ¿Su trabajo (o estudios...) son tan importantes para usted ahora como lo eran antes de su enfermedad?
- () a) Poca o ninguna importancia.
 - () b) Bastante menos importante.
 - () c) Ligeramente menos importante.
 - () d) De igual o mayor importancia que antes.

- (5) ¿Ha habido algún cambio en los objetivos de su trabajo (estudios...) como resultado de su enfermedad?
- () a) Mis objetivos siguen inalterables.
 - () b) Ha habido un ligero cambio en mis objetivos.
 - () c) Mis objetivos han cambiado bastante.
 - () d) He cambiado totalmente mis objetivos.
- (6) ¿Ha notado que hayan aumentado los problemas con sus compañeros de trabajo (estudiantes, vecinos...) desde su enfermedad?
- () a) Gran aumento de problemas.
 - () b) Moderado aumento de problemas.
 - () c) Leve aumento de problemas.
 - () d) Ninguno.

SECCION III

- (1) ¿Cómo valoraría la relación con su mujer o marido (pareja si no es casado/a) desde que padece la enfermedad?
- () a) Buena.
 - () b) Regular.
 - () c) Mala.
 - () d) Muy mala.
- (2) ¿Cómo valoraría las relaciones, con el resto de las personas con las que vive (ej.: niños, padres, tíos...)?
- () a) Muy mala.
 - () b) Mala.
 - () c) Regular.
 - () d) Buena.
- (3) ¿Hasta qué punto le ha dificultado la enfermedad el trabajo y las tareas domésticas?
- () a) Absolutamente en nada.
 - () b) Leves problemas fácilmente solucionables.
 - () c) Problemas moderados no todos superables.
 - () d) Serias dificultades con las tareas domésticas.
- (4) En aquellos aspectos de sus tareas domésticas en los que su enfermedad le ha causado más problemas ¿cómo se las ha arreglado la familia para ayudarle?
- () a) La familia no ha sido capaz de ayudarme en absoluto.
 - () b) La familia ha intentado ayudarme pero muchas cosas se han quedado sin hacer.
 - () c) La familia lo ha hecho bien excepto en un pequeño número de cosas sin importancia.
 - () d) No ha habido problemas.

- (5) ¿Ha significado la enfermedad una disminución de la comunicación entre usted y los miembros de su familia?
- () a) Ninguna disminución de la comunicación.
 - () b) Una ligera disminución de la comunicación.
 - () c) La comunicación ha descendido y me siento algo distanciado/a de ellos.
 - () d) La comunicación ha disminuido mucho y me siento muy solo/a.
- (6) Algunas personas con una enfermedad como la suya necesitan ayuda de otras (amigos, vecinos, familia, etc.) para las tareas diarias. ¿Cree usted que necesita esa ayuda?, ¿hay alguien para dársela?
- () a) Necesito realmente ayuda pero no hay casi nadie cerca de mí para ayudarme.
 - () b) Necesito cierta ayuda pero no puedo contar con ella en todo momento.
 - () c) No tengo la ayuda que necesito en todo momento, pero la mayoría de las veces encuentro ayuda si la necesito.
 - () d) No creo que necesite tal ayuda, o la ayuda que necesito me la daría mi familia o mis amigos.
- (7) ¿Ha experimentado alguna minusvalía física con su enfermedad?
- () a) Ninguna minusvalía física.
 - () b) Leve minusvalía física.
 - () c) Moderada minusvalía física.
 - () d) Grave minusvalía física
- (8) Una enfermedad como la suya puede, a veces, causar un deterioro en la economía familiar. ¿Está teniendo usted, alguna dificultad con los gastos económicos que conlleva su enfermedad?
- () a) Serios apuros económicos.
 - () b) Problemas económicos moderados.
 - () c) Ligeros apuros económicos.
 - () d) Ningún problema económico.

- (1) A veces tener una enfermedad acarrea problemas en las relaciones. ¿Le ha traído su enfermedad algún problema con su marido o mujer (pareja si no está casado)?
- () a) No ha habido ningún cambio en nuestra relación.
 - () b) Estamos un poco menos unidos desde mi enfermedad.
 - () c) Estamos claramente menos unidos desde mi enfermedad.
 - () d) Hemos tenido serios problemas o ruptura desde mi enfermedad.
- (2) A veces, cuando las personas están enfermas cuentan que pierden interés por la actividad sexual. ¿Ha sentido menor interés sexual desde su enfermedad?
- () a) Ningún interés sexual desde la enfermedad.
 - () b) Una marcada pérdida de interés sexual.
 - () c) Una leve pérdida de interés sexual.
 - () d) Ninguna pérdida de interés sexual.
- (3) Las enfermedades a veces causan disminución de la actividad sexual. ¿Ha experimentado una disminución en la frecuencia de su actividad sexual?
- () a) Ninguna disminución de la actividad sexual.
 - () b) Leve disminución de la actividad sexual.
 - () c) Marcada disminución de la actividad sexual.
 - () d) La actividad sexual se ha interrumpido.
- (4) ¿Ha habido algún cambio en el placer o satisfacción que normalmente usted experimenta con el sexo?
- () a) El placer sexual y la satisfacción se han interrumpido.
 - () b) Una marcada pérdida de placer o satisfacción sexual.
 - () c) Una leve pérdida de placer o satisfacción sexual.
 - () d) Ningún cambio en la satisfacción sexual.

(5) A veces una enfermedad puede interferir en la capacidad de una persona para tener relaciones sexuales incluso a pesar de estar todavía interesados en el sexo. ¿Le ha ocurrido a usted esto? Si es así ¿hasta qué grado?

- () a) Ningún cambio en mi capacidad para el sexo.
- () b) Leves problemas en mi comportamiento sexual.
- () c) Constantes problemas en mi comportamiento sexual.
- () d) Totalmente incapaz de realizar el sexo.

(6) A veces una enfermedad puede interferir en la relación sexual normal de una pareja y provocar discusiones o problemas entre ellos. ¿Han tenido usted y su pareja alguna discusión como ésta? y si es así ¿hasta qué punto?

- () a) Discusiones constantes.
- () b) Discusiones frecuentes.
- () c) Alguna discusión.
- () d) Ninguna discusión.

SECCION V

- (1) Desde su enfermedad, ha tenido tanta relación como le era habitual (personal o telefónicamente) con miembros de su familia.
- () a) Las relaciones son las mismas desde la enfermedad.
 - () b) Las relaciones son ligeramente menores.
 - () c) Las relaciones son marcadamente menores.
 - () d) Ninguna relación desde la enfermedad.
- (2) ¿Desde su enfermedad ha tenido el mismo interés en mantenerse junto a esos miembros de la familia?
- () a) Poco o ningún interés en estar junto a ellos.
 - () b) Bastante menos interés que antes.
 - () c) Ligeramente menos interés.
 - () d) El mismo o más interés desde la enfermedad.
- (3) A veces cuando las personas están enfermas se ven obligadas a depender de miembros de la familia distintos a los que conviven habitualmente en casa. ¿Ha necesitado alguna ayuda de ellos, y le han dado la ayuda que necesitaba?
- () a) No necesito ninguna ayuda o me dan toda la ayuda que necesito.
 - () b) Su ayuda es suficiente excepto para pequeñas cosas.
 - () c) Me dan alguna ayuda pero no suficiente.
 - () d) Me han dado muy poca ayuda o incluso ninguna aunque haya necesitado un gran apoyo.
- (4) Algunas personas tienen buenas relaciones con miembros de la familia fuera del círculo de los que normalmente viven en casa. ¿Tenía usted mucha relación con estos familiares y su enfermedad ha reducido dicha relación?
- () a) La relación con ellos ha sido prácticamente eliminada.
 - () b) La relación con ellos se ha reducido significativamente.
 - () c) La relación con ellos ha disminuido algo.
 - () d) Poca o pequeña influencia de la enfermedad.

(5) En general ¿cómo se ha llevado con esos miembros de su familia recientemente?

- () a) Bien.
- () b) Regular.
- () c) Mal.
- () d) Muy mal.

SECCION VI

- (1) ¿Mantiene usted el mismo interés por el tiempo libre y las aficiones que antes de su enfermedad?
- () a) Igual nivel de interés.
 - () b) Un poco de menos interés que antes.
 - () c) Significativamente menos interés que antes.
 - () d) Poco o ningún interés.
- (2) ¿Qué nivel de participación tiene en estas actividades? ¿Está actualmente comprometido en hacer estas actividades?
- () a) Poca o ninguna participación en la actualidad.
 - () b) Participación reducida significativamente.
 - () c) Participación ligeramente disminuida.
 - () d) El nivel de participación permanece inalterado.
- (3) ¿Está usted tan interesado en el tiempo libre con su familia (ej.: jugar a las cartas, viajar, ir a nadar etc.) como antes de su enfermedad?
- () a) El mismo grado de interés que antes.
 - () b) Ligeramente menos interés que antes.
 - () c) Significativamente menos interés que antes.
 - () d) Queda poco o ningún interés.
- (4) ¿Participa usted en esas actividades igual que lo hacía anteriormente?
- () a) Poca o ninguna participación en la actualidad.
 - () b) Reducción significativa de la participación.
 - () c) Leve disminución de la participación.
 - () d) La participación se mantiene inalterada.

- (5) ¿Ha mantenido el interés en actividades sociales desde su enfermedad (ej.: clubs sociales, grupos de parroquia, ir al cine, fiestas...)?
- () a) Igual nivel de interés que antes.
 - () b) Un poco menos interés que antes.
 - () c) Significativamente menos interés que antes.
 - () d) Queda poco o ningún interés.
- (6) ¿Qué nivel de participación tiene? ¿Sale con sus amigos y realiza esas actividades todavía?
- () a) Poca o ninguna participación.
 - () b) Reducción significativa de la participación.
 - () c) Leve disminución de la participación.
 - () d) La participación se encuentra inalterada.

SECCION VII

(1) Ultimamente ¿se ha sentido temeroso, tenso, nervioso o ansioso?

- () a) No, en absoluto.
- () b) Un poco.
- () c) Bastante.
- () d) Extremadamente.

(2) Ultimamente ¿se ha sentido triste, deprimido, con falta de interés por las cosas, o se ha sentido desesperanzado?

- () a) Extremadamente.
- () b) Bastante.
- () c) Un poco.
- () d) No, en absoluto.

(3) Ultimamente ¿se ha sentido enfadado, irritable, o ha tenido dificultades para controlar su temperamento?

- () a) No en absoluto.
- () b) Un poco.
- () c) Bastante.
- () d) Extremadamente.

(4) Ultimamente ¿se ha culpado a sí mismo de las cosas, se ha sentido culpable o como si hubiera decepcionado a la gente?

- () a) Extremadamente.
- () b) Bastante.
- () c) Un poco.
- () d) No, en absoluto.

- (5) Últimamente, ¿se ha preocupado mucho por su enfermedad u otros asuntos?
- () a) No, en absoluto.
 - () b) Un poco.
 - () c) Bastante.
 - () d) Extremadamente.
- (6) Últimamente ¿se ha sentido hundido/a o menos valioso como persona?
- () a) Extremadamente.
 - () b) Bastante.
 - () c) Un poco.
 - () d) No, en absoluto.
- (7) Últimamente ¿se ha preocupado porque su enfermedad haya causado cambios en su apariencia que le hagan menos atractivo/a?
- () a) No, en absoluto.
 - () b) Un poco.
 - () c) Bastante.
 - () d) Extremadamente.

Sociodemographic Data Form

English Version

SOCIODEMOGRAPHIC DATA FORM

PLEASE COMPLETE THE FOLLOWING INFORMATION AND CIRCLE ANSWER AS APPLICABLE

1. Age _____ (Date of Birth: ____ / ____ / ____)
2. Gender: 1. Male _____ 2. Female _____
3. Race: 1. Hispanic - Anglo _____ 2. Hispanic - Black _____
4. Marital Status: 1. Married _____ 2. Never Married _____ 3. Divorced _____ 4. Widow/Widower _____
5. Education: (PLEASE CIRCLE THE NUMBER THAT IS APPLICABLE)
 1. Less than 7th grade
 2. Junior High School
 3. Partial High School (10th or 11th grade)
 4. High School
 5. Partial College (at least one year or specialized training)
 6. Standard College or University Degree
 7. Graduate School
6. Education of Spouse or Significant Other: (leave blank if checked #1, #2 in Marital Status)
 1. Less than 7th grade
 2. Junior High School
 3. Partial High School (10th or 11th grade)
 4. High School
 5. Partial College (at least one year or specialized training)
 6. Standard College or University Degree
 7. Graduate School
7. Occupation:
 1. Farm Laborers, Menial Services Workers, No regular occupation, Dependent on Welfare.
 2. Unskilled Workers
 3. Machine Operators, Semiskilled Workers, Craftsmen
 4. Clerical & Sales Workers
 5. Technicians, Semiprofessionals
 6. Small Business Owner, Small Farm Owner, Managers, Minor Professionals
 7. Administrators, Proprietors of medium-sized Businesses.
 8. Higher Executives, Major Professionals, Proprietors of large sized businesses
8. Occupation of Spouse or Significant Other: (leave blank if checked #1, #2 in Marital Status)
 1. Farm Laborers, Menial Services Workers, No regular occupation, Dependent on Welfare.
 2. Unskilled Workers
 3. Machine Operators, Semiskilled Workers. Craftsmen
 4. Clerical & Sales Workers
 5. Technicians, Semiprofessionals
 6. Small Business Owner, Small Farm Owner, Managers, Minor Professionals
 7. Administrators, Proprietors of medium-sized Businesses.
 8. Higher Executives, Major Professionals, Proprietors of large sized businesses

9. What is your annual income?
1. Under \$5,000
 2. \$10,000 - \$19,000
 3. \$20,000 - \$34,000
 4. \$35,000 - \$49,000
 5. Over \$50,000
10. How would you rate your health?
1. Very poor
 2. Poor
 3. Fair
 4. Good
 5. Excellent
11. How often do you engage in health promotion such as exercise or stress management?
1. Infrequently, less than once a week
 2. Occasionally, one or two times a week
 3. Frequently, three or four times a week
 4. Very Often, five or more times a week
12. What health promotion activities are you doing at the present time?
1. Exercise Program: (state type of exercise) _____
 2. Nutrition Counseling
 3. Stress Management Program
 4. Meditation, Imagery, or Yoga
 5. Accupuncture / Acupresure
 6. Psychotherapy / Counseling
 7. Other (please specify): _____
13. How do you think you got Hepatitis C?
1. Intravenous drug use
 2. through blood transfusion
 3. through sex
 4. not sure
 5. other: _____
14. How long have you had Hepatitis C?
1. Less than 1 year
 2. 1-2 years
 3. 3-5 years
 4. 6-10 years
 5. 11-15 years
 6. 16-20 years
 7. 21 or more

Sociodemographic Data Form

Spanish Version

INFORME DEL PACIENTE

POR FAVOR LLENE LA SIGUENTE INFORMACION Y HAGA UN CIRCULO DONDE CORRESPONDA

1. Edad: _____ Fecha nacimiento: (__ / __ / __)
2. Sexo: 1. Masculino 2. Femenino
3. Grupo etnico: 1. Hispano Blanco 2. Hispano Negro
4. Estado civil: 1. Casado 2. Soltero 3. Divorciado 4. Viudo/Viuda
5. Educación:
 1. Hasta 7o. grado
 2. Junior High School (9o. grado)
 3. Parte de High School (10o. o 11o. grado)
 4. Diploma de High School
 5. Parte de college (1 año o menos)
 6. Standard College o grado universitario
6. Educación del Conyugue u otro: (dejar en blanco si circuló el numero 2 ó 3 del estado civil)
 1. Hasta 7o. grado
 2. Junior High School (9o. grado)
 3. Parte de High School (10o. o 11o. grado)
 4. Diploma de High School
 5. Parte de college (1 año o menos)
 6. Standard College o grado universitario
7. Empleo:
 1. Trabajador del campo - Obrero sin calificación, Ningún trabajo regular, dependiente del welfare
 2. Obrero sin especialidad
 3. Operador de máquina, obrero semi-especializado
 4. Empleado de oficina o comercio
 5. Tecnicos, semi-profesionales
 6. Dueno de pequeño negocio o finca, Gerentes, Semi-profesionales
 7. Administradores, duenos de negocios
 8. Alto ejecutivos, Altos profesionales, duenos de grande empresas
8. Ocupacion del conyugue o otra: (dejar en blanco si corresponde a #2, o #3 del estado civil)
 1. Trabajador del campo - Obrero sin calificación, Ningún trabajo regular, dependiente del welfare
 2. Obrero sin especialidad
 3. Operador de máquina, obrero semi-especializado
 4. Empleado de oficina o comercio
 5. Tecnicos, semi-profesionales
 6. Dueno de pequeño negocio o finca, Gerentes, Semi-profesionales
 7. Administradores, duenos de negocios
 8. Alto ejecutivos, Altos profesionales, duenos de grande empresas

9. Su salario anual?
1. menos de \$5,000 por año
 2. \$10,000 - 19,000
 3. \$20,000 - \$34,000
 4. \$35,000 - \$49,000
 5. mas de \$ 50,000
10. ¿Cómo calificaría su salud en general ?
1. Muy mala
 2. Mala
 3. Regular
 4. Buena
 5. Excelente
11. Con qué frecuencia empieza un programa para mejoramiento de salud tal como ejercicios ó manejo de su stress?
1. rara vez, menos de 1 vez/semana
 2. de vez en cuando, una o dos veces/semana
 3. a menudo, 3 o 4 veces/semana
 4. muy a menudo, 5 o mas veces/ semana
12. ¿Qué actividades para mejorar su salud está teniendo en este momento?
1. ejercicios (favor describir: _____)
 2. consejos dietéticos
 3. manejo de su stress
 4. meditación
 5. acupuntura
 6. psicoterapia
 7. otros (especificar: _____)
13. Como Ud. cree que contrató el virus de hepatitis C?
1. Drogas Intravenosas
 2. Transfusiones de sangre
 3. por sexo
 4. otras: _____
14. Por cuánto tiempo ha tenido Ud. el virus de hepatitis C?
1. menos de un año
 2. 1 -2 años
 3. 3-5 años
 4. 6-10 años
 5. 10-15 años
 6. mas de 15 años
15. ¿Cómo calificaría el control del problema de salud que tiene en este momento?
1. muy malo
 2. malo
 3. regular
 4. bueno
 5. excelente

16. En que estado de debilidad se encuentra su salud en estos momentos?
1. muy debil
 2. moderadamente debil
 3. a penas debil
 4. no debil
17. Cómo interfiere su problema de salud con su actividad diara?
1. interfiere mucho
 2. interfiere moderadamente
 3. a penas interfiere
 4. no interfiere
18. Cuantas veces ha faltado a su trabajo/escuela por causa de su enfermedad?
1. Nunca
 2. 1-10 días
 3. 11-20 dias
 4. mas de 20 días
19. Con quien vive Ud?
1. Solo (a)
 2. Conyugue o otro
 3. niños (cuantos: _____)
 4. familiares
 5. amigos
 6. otros (especificar: _____)
20. Se siente Ud. solo?
1. Siempre
 2. Casi siempre
 3. raramente
 4. nunca
21. Cree Ud. en un ser supremo, por ejemplo: Dios?
1. Si creo
 2. Algunas veces creo
 3. raras veces creo
 4. No creo

Protocol Submitted to Human Subject Committee

7. RESEARCH OBJECTIVES

The goal of this study is to examine the level of health related hardiness in adult hispanics with chronic hepatitis C and determine if a relationship exists between health related hardiness, perceived health status and psychosocial adaptation.

SPECIFIC PROBLEMS:

1. To what extent does hardiness positively influence health perception in chronically ill individuals diagnosed with chronic hepatitis C?
2. To what extent does health related hardiness influence psychosocial adaptation in hispanic adults with chronic hepatitis C?

8. SUBJECT RECRUITMENT

The sample will consist of a minimum of 30 hispanic patients diagnosed with chronic hepatitis C selected by convenience from The Gastrointestinal Center in Hialeah, Dade County, Florida.

The subjects for this research are hispanic adults that have been referred to the center for evaluation, diagnosing, counseling, and treatment of chronic hepatitis C. The criteria for inclusion for this study will be as follows: subjects 18 years of age or older, male or female of hispanic origin who have been diagnosed with chronic hepatitis C and who are able to speak, read and understand Spanish. The criteria for exclusion in this study will be as follows: the presence of neurological

illness resulting in neurological or cognitive deficits, for this may affect the subjects' ability to interpret questionnaires and result in erroneous data.

The investigator will review the medical records to determine if the patient meets the criteria for the study. Those patients who do meet the criteria will be approached by the investigator who will introduce herself by name and position. The investigator will give an overview of the study and ask the patient if he or she is interested in participating. Each patient interested in participating will be escorted to a private room in The Gastrointestinal Center and given a letter describing the study. The investigator will allow time for the patient to read the letter and answer any questions. Patients who agree to participate will be given the informed consent form for their signature.

All participants will read and sign the informed consent form prior to the study. The consent form will list exactly what is expected of the participants. The informed consent along with the instruments in the study will be translated from english to spanish. Anonymity and confidentiality will be ensured; names of the subject will be known only to the investigator.

Verbal and written information and introduction will indicate: 1) all data will be handled by the principle investigator, the faculty supervisor and the statistician; 2) all subjects will be given a code number and subsequent data analysis will be performed by code only; 3) findings will be reported in terms of group data only.

The participants will be further assured that if they choose not to

participate in the study, that it would not affect, in any way, their care and treatment that they will receive at the Center. Moreover, participants will be informed of the right to withdraw from the study at any time and that their anonymity will be preserved. If in agreement with the study, the subjects will be given the opportunity of learning the results of the study once they are completed. This will be addressed by including a statement at the conclusion of the demographic data questionnaire which will state: "If you would like to be informed and receive a summary of the results, please provide your mailing address. When the research is completed, a summary of the results will be mailed to you".

9. BENEFITS

No particular benefits can be promised to any client for participating in this study. However, their participation in this study will be an important contribution to help health care providers identify the hardiness characteristic and learn about the means of adapting to chronic hepatitis C.

10. INFORMED CONSENT

Both a verbal and detailed written consent form, in Spanish, will be obtained from each subject including that the subject has adequate understanding of the nature of the study and the scope of his or her participation. Subjects will be encouraged to ask questions and seek clarification.

11. CONFIDENTIALITY OF DATA

Verbal and written information and instructions, in Spanish, will indicate:

1) all data collected will be handled only by the principal investigator, the faculty supervisor and the statistician; 2) all subjects will be given a code number and subsequent data analysis will be performed by code only; and 3) findings will be performed by code only.

12. METHOD AND PROCEDURE:

Approval of the research protocol and permission to conduct the study will be obtained from the F.I.U. Internal Review Board and The Gastrointestinal Center of Hialeah respectively. The investigator will meet with the staff of The Gastrointestinal Center and inform them about the study, the purpose, and protection of the subject's confidentiality. The Gastrointestinal Center's staff will not be involved in the study.

The principal investigator will invite potential subjects to participate in the study, give a verbal overview of the study, in Spanish, provide the patient with the opportunity to read the consent form and obtain consent according to protocol. A mutually agreed time will be established by the participant and investigator when the three questionnaires will be completed. After informing the prospective subjects, and after allotting time for questions and obtaining the informed consent, the subjects will then be provided with the instruments to complete. Verbal instructions on how to complete the questionnaires will be provided. Privacy along with writing materials will also be provided to the subjects. The approximate average time to complete the questionnaires will be from 30 - 45 minutes. The investigator will remain in the center and may be reached if participant needs help,

assisting the patient without prompting answers. The participant will also be told that they may stop taking the questionnaires at any time if they did not want to complete them. If it becomes evident that the subject is becoming irritated, frustrated or upset, a break in the session will be suggested. The approximate time to complete the questionnaires will be 30 - 45 minutes. The investigator will collect and secure the consent form, and completed questionnaires and place them in a locked cabinet at The Gastrointestinal Center.

13. STIMULUS MATERIALS

INSTRUMENTS:

The three instruments that will be used in this study will be the Health Related Hardiness Scale (HRHS), The Psychosocial Adjustment to Illness Survey (PSAIS), and a self - report health perception questionnaire?

The Health Related Hardiness Scale (HRHS):

The Health Related Hardiness Scale (HRHS) was developed to measure the hardiness characteristic in the chronically ill (Pollock, 1984a). The HRHS contains a 34 item scale on a 6 point Likert - type scale. The first factor (20 items) encompasses the dimensions of challenge and commitment, and the second factor (14 items) accounts for the control dimension. It has been stated that hardy individuals dealing with a chronic illness may not separate health into discrete categories but appraise the condition as a challenge because they are committed to maintaining their health (Pollock,1990). She believed the three elements of hardiness work in combination as a variable to facilitate general resistance to stress, hence improving adaptation to

chronic illness (Pollock, 1986, 1989c). Moreover, the total HRHS demonstrates high internal consistency with a standardized alpha coefficient of .91 and .87 for both the 20 - item commitment / challenge subscale and the 14 - item control scale (Pollock & Duffy, 1990). Test - retest reliability (N=150) for six months was .76 for the total HRHS, and .74 and .78 for the commitment / challenge and control scales respectively. As Wagnild and Young (1991) noted, there is evidence for predictive power in the HRHS challenge scale, unlike Kobasa's instruments.

Hardy individuals dealing with a chronic health problem may not separate health into discrete categories but appraise the condition as a challenge because they are committed to maintaining their health (Pollock, 1990).

The Psychosocial Adjustment to Illness Scale (PSAIS):

The Psychological Adjustment to Illness Survey (PAIS) is a self - report measure composed of seven relatively independent scales with responses related on a 4-point Likert scale. The PAIS - SR reflect psychosocial adjustment to illness via seven domains of adjustment equalling to a total of 46 items. The health care orientation (8 items) addresses the nature of the patient's health care posture and whether it will facilitate or impede adjustment to the illness and its sequelae. The vocational and domestic domains (14 items) are used to measure role function and illness-induced difficulties that arise in the home or family environment. The sexual relationship domain (6 items) measures any shifts in sexual behavior or relationship which are attributable to the present illness. The extended family and social environment domains (11 items) are used to measure social support and the amount to which the patient has suffered incursions due to

the illness into their social and leisure activities. The psychological distress domain (6 items) are used to measure the degree to which the patient experiences dysphoric thoughts and feelings as a result of illness (Derogates, 1983). Scores are summed for each domain and for an overall adjustment score. It was further revealed that the PSAIS subscales were relatively independent of one another, though contributing to the total score. This lends support to the construct validity of the PSAIS. Criterion validity was supported by significant correlations of the subscales with assessment of subjects' function in related areas (Pollock, 1986). Reliability coefficients for the PSAIS demonstrated high internal consistency in a sample of renal dialysis, lung cancer and cardiac patients. The uniform coefficients for all seven domains ranged from .62 to .87 (N= 419) (Derogates, 1985). Derogates (1985) states that as the instrument is utilized with more diversified illness groups, the PSAIS will prove further cogent predictable relationships. For the moment, the PSAIS has proven reliable and valid.

Health Perception / Sociodemographic Questionnaire:

In addition to the routine sociodemographic information, one question will be included: (1) How would you rate your health? A five point Likert scale provides choices ranging from poor to excellent. The variable of perceived health has been widely used primarily because it assesses the individual's total complex of health (Ferraro,et al., cited in Magnani, 1990). Furthermore, it is postulated self - report of health perception and patient satisfaction will add a potential predictive element to the data. This questionnaire will be completed at the same time as the HRHS and PSAIS scales. It is anticipated that this questionnaire will assist the investigator to examine the hardiness

characteristic in hispanics with chronic hepatitis C.

14. RISK TO SUBJECTS

There will be no physical contact, social repercussions, economic demands or legal risks incurred by the subject. Psychological risks are not greater than those faced in normal life. To minimize psychological risks, the subject will be informed that they not answer any questions that may be emotionally painful to them.

INFORMED CONSENT FORM

STUDY: The relation of Health Related Hardiness, Psychosocial Adaptation and Health Perception in adult Hispanics with chronic hepatitis C.

1. **PURPOSE:** You are being asked to participate in a study investigating personality style in patients diagnosed with chronic hepatitis C. This study is being carried out by a Masters Candidate at The Florida International University. The purpose of this study is investigate the role of hardiness in psychosocial adaptation and health perception in Hispanic patients who have chronic hepatitis C.
2. **PROCEDURE:** You will be asked to fill out three questionnaires. One asks questions concerning how different people deal with various health matters, such as how much influence you have over your health and how you can improve your health. The second questionnaire asks you how you are adjusting to your illness, basically asking questions on how the illness has had an impact on your life. The last questionnaire asks general questions about your background, education, living arrangements, marital status, etc. Included in this questionnaire is a question about your health perception. The amount of time necessary to complete these questionnaires is approximately 30 to 45 minutes. If you need any help at any point during the completion of any questionnaire, the investigator will provide you with assistance. If you become irritated, frustrated or upset, you may take a break.
3. **RISKS:** There will be no physical contact, social repercussions, economic demands or legal risks incurred by you. Psychological risks are no greater than those faced in normal life. You need not answer questions that may emotionally be painful to you.

4. **BENEFITS:** There is no direct benefit to you for participating in this study. The results of this study may help health care providers identify the hardiness personality and assist in how this personality characteristics impacts hispanic patients psychosocially adjustment and health perception of their chronic illness, Hepatitis C.
5. **CONFIDENTIALITY:** Names will not be used in the reporting of any information you tell the investigator. All information which refers to, or can be identified with you, will remain confidential to the extent permitted by law. The results of this study will be reported as group results. All data collected will be handled by the principle investigator, the major professor and the statistician. Each questionnaire will be numerically coded, and findings will be reported in terms of group data only.
6. **PARTICIPATION IS VOLUNTARY:** Your participation in this study is voluntary. You may withdraw from this study at any time for any reason. Please know that you may refuse to answer any item on the questionnaire. Your participation or non participation will in no way affect your care that you receive.
7. **WHOM TO CONTACT FOR ANSWERS:** If there are any questions at any time regarding this study or your participation in it, you are always free to call the investigator (Ms. Darlene Boytell, RN at (305) 825-0500).
8. I understand that I may withdraw my consent and discontinue participation in this research project at any time with no negative consequences. I understand that I may learn the results of the study when the study is completed.

I AGREE FREELY AND VOLUNTARILY TO BE A PARTICIPANT
IN THIS STUDY AND HAVE READ AND UNDERSTAND THE ABOVE
AND RECEIVED A COPY OF THIS INFORMED CONSENT FORM.

Signature of Participant

Date

I HAVE EXPLAINED AND DEFINED IN DETAIL THE RESEARCH
PROCEDURE IN WHICH THE PARTICIPANT HAS AGREED TO
PARTICIPATE.

Signature of Principle Investigator

Date

Signature of Witness

Date

IF YOU WOULD LIKE TO RECEIVE A COPY OF THE RESULTS OF THIS STUDY,
PLEASE PROVIDE ME WITH YOUR ADDRESS, AND I WILL MAIL THE
FINDINGS TO YOU, AGAIN THANK YOU FOR PARTICIPATING.

APPENDIX F

Tables and Figures

Figure 1. Psychosocial Adaptation Scores for Low and High Challenge Scores.

