A CLINICAL PROTOCOL FOR ADVANCED PRACTICE NURSES TO IDENTIFY CHRONIC SOMATIZATION AMONG FREQUENT ATTENDERS IN PRIMARY CARE

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By

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ABSTRACT

A CLINICAL PROTOCOL FOR ADVANCED PRACTICE NURSES
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The purpose of this project is to develop an assessment protocol to efficiently identify chronic somatization among patients who frequently attend primary care settings. Recognizing chronic somatization in the primary care setting is a clinical challenge. A multistage screening protocol is advised for advanced practice nurses (APN's) in primary care beginning with administration of the Patient Health Questionnaire (PHQ), a brief screening questionnaire for diagnosing somatization and other mental disorders commonly found in primary care. This is followed by the evaluation of selected measures to validate the diagnosis of somatization among those who screen positive on the PHQ. It is proposed that this strategy will be an efficient and effective way of identifying primary care patients with somatization in need of clinical attention. Once somatizers are identified and treated, their health care utilization and treatment costs may be reduced and patient-provider satisfaction improved. This systematic screening and identification of patients who frequently attend primary care will encourage APN's to be more mindful of the hidden presence of chronic somatizers in their nonpsychiatric settings. The High Risk Model of Threat Perception (HRMTP) was the conceptual model chosen to highlight the cognitive styles of chronic somatizers and further serves to validate the recognition and diagnosis of somatization. Additional implications for research, education, and practice are discussed.

DEDICATION

To Mom, whose lifetime love and generosity has been an enabler of all things good and great, who demonstrated to each of her twelve children, the importance of family and how to keep life's priorities in order.

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This project has been a collaborative effort and I have been fortunate to work with a remarkable group of professionals who represent my committee; Kate Lein, chairperson, Linda Spence, and Celia Wills. As author, I am immensely grateful for their contributions as I tried to produce a comprehensive, authoritative piece of work. They have been graciously patient with my efforts to give this paper a unified structure and consistent style. I also owe a special debt of gratitude to my husband, Jim, and four children, Dana, Carly, Natalie, and Brian, for their love, patience, and support during preparation of this project.

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INTRODUCTION

Somatization disorder is a chronic, multi-symptomatic psychiatric syndrome that results in significant disability and generally shows poor response to conventional approaches to care (Escobar, Burnham, Karno, Forsythe, & Golding, 1987; Fink, 1992; Kroenke, Arrington, & Manglesdorff, 1990). Medical causes of the symptoms are carefully ruled out before a diagnosis of somatization is considered. Often, organic disease is not found (Smith, Monson & Ray, 1986; Wilkie and Wesseley, 1994). When medical causes of symptoms are established, the physical complaints, the use of health care services, and social and occupational impairment are in excess of what would be expected from the medical findings (Katon, Reis, & Kleinman, 1984). Patients are at risk of having multiple diagnostic evaluations, invasive procedures, and surgical operations (Katon, Lin, & VanKorff, 1991; Kroenke, et al., 1990). Somatization disorder is most commonly seen in psychiatric settings (DSM-IV, 1994).

Most of these patients seen in primary care are characterized as having a subsyndromal form of somatization associated with higher rates of seeking health care, but at an intermediate level between the general population and psychiatrically diagnosed patients with somatization disorder. Swartz, et al., (1991) found that approximately 11.6% of the general population met the criteria for this subsyndromal form of somatization. Another community study (Kirmayer and Robbins, 1991) describes a larger subgroup of people who have multiple, unexplained somatic symptoms but fall short of meeting the criteria for a formal diagnosis of somatization disorder.

It follows then that, somatization disorder, as labeled and defined by the Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (DSM-IV), represents only 'a tip of the iceberg' of true somatizers. Somatic presentation of

psychosocial distress is common and in one sense could be viewed as normal. These somatizers attribute physical causes for their somatic symptoms (Benjamin and Bridges, 1994), they are less likely to be recognized as suffering from a psychological disorder by the primary care provider, and it is these chronic somatizers who are likely to be referred to secondary care (Weich, et al., 1995). Chronic somatizers are the focus of this project.

Statement of the Problem

Somatization is an important problem in primary care and a source of frustration and challenge for primary care providers and their patients (Barsky, Wyshak, Latham, & Klerman, 1991; Lin, Katon, & VanKorff, 1991; Lipowski, 1988). Physical symptoms are very prevalent, generating an estimated 400 million clinic visits each year in the United States, or 57% of all outpatient encounters (Schappert, 1992). At least one quarter to one third of these physical symptoms are somatoform (Kellner, 1985; Kroenke, et al., 1993; Kroenke, et al., 1990). Somatization is estimated to affect from 25% to 75% of the population, upwards of forty percent of primary care patients (Katon, et al., 1987; Schappert, 1992). Somatization causes substantial patient disability (Escobar, Rubio-Stipec, Canino, & Karno, 1989; Katon, et al., 1991; Kroenke, et al., 1993; Smith, Monson, & Ray, 1986), excess health care use, increased costs (Escobar, et al., 1989; Katon, et al., 1991; Smith, et al., 1986), physician frustration (Katon, et al., 1991; Hahn, Thompson, Wills, Stern, Budner, 1994), and poor response to therapy (Kroenke, Arrington, & Mangelsdorff, 1990). Somatization has been a difficult and confusing diagnosis to make because, in the past, the term has had several meanings, patients present with ill-defined complaints, and they often change doctors (Beaber and Rodney, 1984).

Frequently, the diagnosis of somatization is missed, ignored or not even considered. Although this is a disease that is psychologically based, somatizers usually present in the primary care setting, thus hampering recognition (Borus,

Howes, Devins, Rosenberg, Livingston, 1988; Katon, et al., 1995). Physical rather than emotional symptoms are the predominant complaints in patients with psychological disorders who seek care in the primary care setting (Ormel, et al., 1991).

Physical symptoms are pervasive in primary care and their potential relationship to somatization is analyzed here. The numerous labels created across disciplines to designate patients who are somatizers, the frustrations that these patients bring to the primary care provider, the dissatisfaction with care and treatment, and the fact that the majority of these patients use primary care services rather than psychiatric services have challenged the course of treatment and outcomes. Given the magnitude of this problem and concerns about cost in the era of managed care, early recognition is crucial.

Given the utilization patterns of somatizing patients, the controversies about their proper management, and the mounting costs in caring for them, it is imperative to screen for these patients in the primary care setting using established assessment criteria. The complex network connecting physical illness, psychiatric distress, somatization, and overall life-situation of those who frequently attend the primary care setting has been addressed in the literature. Efforts to recognize and describe these frequent attenders is the first premise on which this project is based.

Psychiatric problems are usually not treated in the mental health specialty care system. Primary care is considered the "middle ground" for psychiatric care (Bridges and Goldberg, 1985; Kroenke and Mangelsdorff, 1989). It is recognized as a "central avenue" for the delivery of care to patients with psychiatric disorders (Bridges and Goldberg, 1985). General practitioners often have long-lasting relationships with their patients, see them fairly regularly for different reasons, and see family members as well. Of all providers, the APN, as a family practitioner, is in good position to detect somatization. The APN is responsible for the diagnosis

and treatment of a great variety of physical and psychological disorders in the ambulatory patient. This is the second premise on which this project is based.

Lipowski (1988) calls somatization "the borderland between medicine and psychiatry." Somatization, the presence of many symptoms that suggest physical disease but which remain unexplained after medical and laboratory assessments, is one of the most puzzling and frustrating problems in primary care. Frustrations are related to the difficulty experienced in recognizing somatizers, their deceptive mode of presentation, use of multiple providers, lack of awareness in medical circles, family dysfunction, associated psychiatric illnesses, problems with communication during the medical encounter, poor response to therapy, and a lack of research on effective approaches to work with these patients in the primary care setting (Barsky, Wyshak, Latham, & Klerman, 1991; Lin, Katon, & VanKorff, 1991).

Purpose of the Project

The overall objective of this project is to develop a clinical assessment protocol for identifying somatizers in the clinical area before costly medical care is incurred. A multidimensional approach to assessment will be described. Patients who frequently attend primary care clinics will be identified, followed by a brief somatoform screener, and further assessment of contributing risk factors that independently predict somatization. Specifically, the psychosocial characteristics of somatizers will be uncovered. This assessment protocol will raise "red flags" if an undiagnosed somatizer presents to primary care.

The specific aim of this protocol is to profile chronic somatizers so that APN's can detect and treat these patients in the primary care setting. The outcome will be early recognition and effective management leading to decreased utilization rates, reduced health care costs, fewer iatrogenic illnesses, decreased functional impairment, and improved patient-provider satisfaction.

This paper further explores the definitions and clinical features of somatization and the cognitive styles of somatizers. Emphasis is placed on the importance of routine screening for chronic somatization among frequent attenders in primary care. Management principles will be briefly reviewed, but are not a major thrust of the paper.

Conceptual Definitions

Advance Practice Nurse (APN). APN's are registered nurses who have advanced education and clinical training in a health care specialty area. They work with people of all ages and their families, providing information people need to make informed decisions about their health care and lifestyle choices. APN's serve as regular health care providers for children and adults during health and illness. They practice under the rules and regulations of the Nurse Practice Act of the state in which they work and are nationally certified in their specialty area.

Primary Care. Broadly defined, primary health care is basic, initial health care for general complaints, frequently given in an ambulatory setting such as an office or clinic, and usually representing a person's first contact with the health care system.

Clinical Protocol. For this project, a multistage screening process that highlights the range of cognitive and social factors that may contribute to somatization in primary care.

Physical symptom. Any physical symptom reported by a patient, including both symptoms that have an adequate explanation as well as those that are unexplained (i.e., somatoform).

Frequent attenders. For this project, frequent attenders are defined as a patient who has made 8 or more visits to a provider during the previous twelve months or those whose utilization places them in the top 20% of the number of ambulatory health care visits for their age and sex groups.

Chronic somatization. Chronic somatization, for this project, is defined according to the PRIME-MD/PHQ multisomatoform disorder. It will be based on a positive response on the subscale of the PHQ that measures somatization. A positive response is 3 or more current unexplained symptoms with a history of at least several years of unexplained multiple physical symptoms. Chronic somatizing patients are distinguished from patients with entirely physical illness and patients with clear psychiatric illness as defined by the PHQ, patient interview, and chart review.

Use of medical services. For this project, use of medical services is based on patient's report of whether, within the previous twelve months, they have visited (a) an emergency room, (b) another doctor's office, (c) any outpatient department, (d) a specialist, (e) a mental health clinic, (f) chiropracter, and (g) alternative healer; or have received services such as (h) hospitalizations (i) surgeries (j) physical therapy (k) laboratory and diagnostic tests.

CONCEPTUAL FRAMEWORK

Theoretical Perspectives

The cause of chronic somatization is unknown, however, there are many theories about the etiology of somatic symptoms. The reasons why a person might employ somatization as a means of communication or as a coping strategy include a range of possibilities. Somatizers may use the health care system as a social support system if they are socially isolated (Falkner, Fatovich, & Winkler, 1987). The sick role may be used to provide rationalizations for failures in social role responsibilities (Quill, Lipkin, & Greenland, 1988). Illness may be a means to seek nurturance (Feldman and Ford, 1994) or may be used to manipulate interpersonal relations and create power in those who have little control over others (Sullivan and Katon, 1993). Somatic symptoms may provide a cry for help and other forms of communication when verbal skills, psychological sophistication, or education are limited and the expression of one's distress is impaired (Ford & Folks, 1985; Hollender, 1972). The somatic symptoms of psychological disorders may be misattributed to physical disease (Mathew, Weinman, & Minabi, 1981) and certain symptoms may have significant personal meanings, for example, a middle-aged man whose father recently died of a myocardial infarction is likely to respond to chest pain differently than a teenage girl. Often psychiatric illness is misperceived as reflecting a weak character, therefore, stigmatization can be avoided by reinterpreting psychological symptoms as due to physical causes. Overattention to bodily sensations may reflect learned behavior (Craig, et al., 1994; Whitehead, Crowell, Heller, Robinson, Schuster, & Horn, 1994). Similiarily, providers may reinforce abnormal illness behavior through numerous diagnostic evaluations of unexplained physical symptoms (Devries, Berg, & Lipkin, 1982). Bodily sensations may be amplified or regarded as more troubling, noxious, or frightening (Barsky and Wyshak, 1990).

There are also identifiable gains to many illnesses, such as, resolving anger, eliciting sympathy from others, and release from responsibilities (Dansak, 1973). Finally, the experience of trauma, particularly during childhood, appears to predispose one to somatization (Symes, 1995).

Personality and personality disorders are implicated as causes for somatizing. Craig, et al., (1994) found that somatizers, when compared to psychologizers, are less likely to develop coping efforts that neutalize their response to life events. Children who somatize their emotional distress may develop more enduring personality traits into adulthood. Battaglia, et al., (1995) demonstrated that around a quarter of those with personality disorder also had somatization disorder. Stern, et al., (1993) found 72% of patients with somatization disorder met criteria for personality disorders, compared to 36% of the psychiatric control group. This may not be surprising given the fact that somatization disorder, like personality disorders, is present from a relatively early age and is a chronic condition.

Of all these postulations, there is growing theoretical support for the cognitive-behavioral theory of somatization (Greenwald, 1992; Kihlstrom, 1991). A cognitive style of somatosensory amplification is described by Barsky, et al., (1990), and in another study by Barsky, et al., (1991), hypochondriacal patients believed good health to be relatively symptom free and considered symptoms to be equal to sickness. Thus, it has been proposed that among somatizers an inadequate concept of health could contribute to a perceptual and cognitive style of somatosensory amplification (Clark, et al., 1997). A formal model of threat perception that captures the cognitive styles of somatizing patients will be the conceptual framework for this project.

The High Risk Model of Threat Perception

The conceptual model chosen for this project is *The High Risk Model of Threat Perception* (HRMTP), proposed by Wickramasekera (1995). Wickramasekera

(1995) defines this as a "multidimensional model that identifies three predisposing factors (hypnotic ability, catastrophizing, and negative affectivity) that amplify the probability that two triggering variables (major life change and minor hassles) will generate psychological or somatic symptoms unless the impact of the triggers and predisposers are buffered (by social support and coping skills)" (Figure 1). These mechanisms can underlie the perception of threat that can lead to psychopathology and pathophysiology. The perception of threat causes fear, which in turn, increases the perception of pain. The HRMTP predicts that these risk factors a) amplify somatic symptoms or b) transduce threat perception into somatic symptoms (Wickramasekera, 1994).

Fig. 1. High risk model of threat perception (Wickramasekera, 1979, 1995)

	Factors that attenuate stress (threat perception)	
BUFFERS	1. High Social Support 2. High Satisfaction with Social Support 3. High Coping Skills	
	Density of:	
TRIGGERS	1) Major Life Changes and/or 2) Minor Hassles	Psychological and/or Somatic Symptoms
	Factors that potentiate stress (threat perception)	
AMPLIFIERS	1. High or Low Hypnotic Ability 2. High Catastrophizing 3. High Neuroticism or Negative Affectivity 4. High Lie Score	

Predisposers

Hypnotic Ability. Hypnosis is defined as a way to process information in which attention and critical analytic cognition is suspended and can involuntarily cause major changes in perception, memory, and mood (Wickramasekera, 1995). Those

high in hypnotic abilities are prone to less self control when information is processed verbally. A person with high hypnotic ability is at risk for threat-related diseases because when they enter the hypnotic mode, their perception of fear and pain is amplified and they see meaning in events that are otherwise insignificant to others (Dantzer, 1991). These "meanings" are viewed as threatening and come with physical consequences (Kihlstrom, 1987). Those with high hypnotic ability are also prone to "surplus empathy" or "permeable membranes." When they feel personally threatened they absorb the pain, fear, and negative affect of others (Crowson, et al., 1991).

People with low hypnotic ability have difficulty expressing feelings in words. This too is considered an amplifying variable that potentiates the perception of threat. They may repress or deny psychological causes of threat and prefer surgical or medicinal solutions to their problems. Perceived threats are responded to with excessive motor behavior rather than verbal responses (Frankel, et al., 1977).

Absorption is a trait related to hypnotic susceptibility (Tellegen, 1982) and may clarify the term 'hypnotic ability.' Absorption is not a concept within the HRMTP. Absorption has been defined as "a characteristic of the individual that involves an openness to experience emotional and cognitive alterations across a variety of situations" (Roche and McConkey, 1990). Like people who are both high and low in hypnotic ability, people who are both high and low in absorption ability will be at greater risk for threat-related disorders (Wickramasekera, 1994). Absorption is considered to be a good measure of hypnotic ability (Woody, et al., 1992). Absorption is highly correlated with "openness" (Glisky, et al., 1991). Individuals with low absorption (openness) are conventional and conservative (Costa and McCrae, 1986), reality oriented, pragmatic, and have little imagination (Wickramasekera, 1994). Sperry (1980) and Wickramasekera (1994) hypothesized that individuals with low absorption are predisposed to a strictly biomedical

approach toward their own bodies. Consistent with the predictions from the HRMTP, people low in absorption may use behavioral coping with threat perception through excessive eating and/or drinking.

The HRMTP predicts that hypersensitivity to the perception of threat places individuals with high hypnotic ability at risk for stress- or threat-related psychological and somatic symptoms (Wickramasekera, 1995). Correlations between high hypnotizability and acute and chronic pain, phobias, negative moods, PTSD, nightmares, insomnia, substance abuse, bulimia, and nausea have been reported by many authors (Belicki and Belicki, 1986; Crowson, et al., 1991; Wickramasekera, 1994).

Catastrophizing. The second personality variable that is hypothesized to amplify threat perception is a fairly conscious verbal behavior where the individual verbally catastrophizes (Wickramasekera, 1995). A catastrophizer becomes intensely absorbed in negative events by talking to oneself about the event. They use negative catastrophizing statements that amplify their misery. Catastrophizers are the opposite of "copers" who are defined as individuals who use pleasant or positive thoughts to distract their response to unpleasant events. Catastrophizers make "a mountain out of a mole hill." High castastrophizing is common among those who use analgesics and psychotropic medications (Wickramasekera, 1994).

Negative Affectivity or Neuroticism. The third personality variable is negative affectivity (NA) or neuroticism (Wickramasekera, 1994, 1995). These terms are used interchangeably. High neuroticism or NA (Costa and McCrae, 1986) is the high probability of experiencing a variety of negative emotions like anxiety across situations and time (Watson and Clark, 1984). Amplification is very similiar to the concept of negative affectivity (NA). NA is an amplifying risk factor when it becomes high overt NA and high covert (repressed) NA. NA is believed to be genetically based (Tellegan, et al., 1988) and is found in individuals who report

negative emotions and distress independent of objective stress (Clark and Watson, 1991; Costa and McCrae, 1986). This negative bias in perception, mood, and memory is related to a number of somatic complaints independent of age and pathophysiology (Costa and McCrae, 1985). NA is a highly stable trait. There is evidence that NA is stable across 20 years (Clark and Watson, 1991; Costa and McCrae, 1986).

It is believed that high overt and covert NA is a risk factor for threat-related disorders because this chronic negative bias in perception and memory may alter the hypothalamic-pituitary-adrenal axis and immune function (Wickramasekera, 1995). An interaction between hypnotic ability and NA is hypothesized to dysregulate the autonomic nervous system (ANS) driving clinical symptoms (Wickramasekera, 1994).

Eysenck (1983) claims that neuroticism or NA is closely related to changes in the ANS. The lability of the ANS is an important component of the HRMTP and is theorized to interact with hypnotic ability and catastrophizing to predipose a person to enhanced threat perception and to generate psychological and somatic symptoms. Individuals with high neuroticism show signs of ANS reactivity and a delay in returning to baseline after stressful stimulation. A strong relationship has been noted between coronary artery disease and neuroticism. Individuals who show maximum reactivity in the cardiovascular system may be at high risk for angina pectoris, myocardial infarction, or stroke, whereas those who show strongest response on an electromyogram measure may be at greatest risk of tension headache or low back pain.

According to the HRMTP, additional risk factors for somatization are hypersensitivity to threatening perceptions and memories as measured by high neuroticism or NA (Eysenck, 1983). People with high NA have enhanced memory for threatening or stressful events and experience high levels of anxiety

(Wickramasekera, 1995). Also at risk for somatization are people who are low on NA but who also score high on the Lie Score, perhaps because they overuse repression or denial mechanisms (Wickramasekera, 1995).

Triggers.

Life Change and Hassles. These two triggering variables may be a large number of major life changes over 1 year and/or a large number of minor chronic hassles. Major life changes (a new job, a divorce, the birth of a new child, etc.) can be potent sources of psychosocial stress and precursors of somatic illness. Major life changes are not nearly as predictive for somatic disease as hassles (Rabkin and Struening, 1976; Sternbach, 1986). Hassles are the irritating, frustrating, distressing demands that to some degree characterize everyday transactions with the environment. They include annoying practical problems such as losing things, traffic jams, inclement weather, arguments, disappointments, and financial and family concerns. Hassles are more frequent than major life changes and are related to other indicators of health status (Wickramasekera, 1995).

Buffers.

Social Support and Coping Skills. The two variables that buffer a person's perception of threat are number and degree of satisfaction with social support (House, et al., 1988) and coping skills (Lazarus and Folkman, 1984). It is well established that social support is associated with less morbidity (House, et al., 1988) and that coping skills affect health outcomes (Lazarus and Folkman, 1984). Social support is the comfort, help, and information that one gets through formal and informal enduring contact with individuals or groups. Support systems are essentially psychological resources (spouse, siblings, psychotherapist, church, friends) on which the patient can lean and with whom one can rely on to cushion the impact of stressors (Wickramasekera, 1994). Coping skills (religion, projection, intellectualization, humor, sublimation, escape through fantasy or reading, work,

jogging, recreation, relaxation, meditation, etc.) can also be used to distract the patient, change or reframe the aversive meaning of events, and lower the level of physiological arousal during both the acute and chronic phases of the stressors impact. Patients who lack coping skills are at much higher risk of clinical symptoms (Wickramasekera, 1994).

Clinical Applications for the HRMTP

The constructs of the HRMTP are high risk factors that underlie the perception of threat and interact to either amplify symptoms or transduce threat into symptoms. The predisposers are personality variables or cognitive styles (hypnotic ability, catastrophizing, or neuroticism) that amplify the probability that two triggering variables (major life changes or minor hassles) will generate symptoms unless the impact of the triggers and predisposers is buffered by the individual's social system and/or coping skills (Perceived threat------>Fear------>Increased perception of pain). Cognitive styles have an effect on the way an individual perceives threat. This project aims to identify these cognitive styles using the Cognitions about Body and Health Questionnaire (CABAH).

The HRMTP offers the APN a useful, short-term intervention for patients who present with symptoms of anxiety, depression, high stress, somatization, chronic pain, insomnia, and/or family dysfunction. This model is applicable to the goals of this project because it specifically addresses the assessment of psychosocial factors that contribute to somatic symptoms. The HRMTP hypothesizes that somatizers have psychosocial conflicts and perceptions of threat that become unconsciously converted into somatic symptoms. It collectively identifies eight risk factors that can independently drive somatic symptoms and may have profound implications for recognition, diagnosis, treatment, and the prevention of somatization in primary care settings.

Clinically, as predicted by the HRMTP, one would expect the bulk of the people with chronic physical symptoms without physical findings to have either low or high hypnotic ability. Those with high hypnotic ability will make both physical and psychological symptom presentations in either medical or psychiatric settings, but those with low hypnotic ability will make mainly physical presentations and almost exclusively in medical settings. Furthermore, individuals with high hypnotic ability

and high negative affectivity will respond most strongly and recover more slowly from stressful stimulation (Wickramasekera, 1994).

The impact of multiple major life changes or multiple minor hassles will depend not only on cognitive styles but also on the patient's access to and effective use of social support systems and personal coping skills. The patient at greatest risk for chronic somatization is the one who is positive for all prediposing features, is deficient in support systems and coping skills, and has experienced a massing of multiple major life changes and chronic hassles (Wickramasekera, 1994).

Somatization is diagnosed by exclusion, that is, making a diagnosis by the absence of disease. Inappropriate and expensive tests and procedures are often needed to exclude identifiable pathophysiology. This model emphasizes the need to avoid making a diagnosis by exclusion. Diagnosis by inclusion requires the exclusion of pathophysiology but also the recognition of psychosocial factors that may amplify (Barsky and Klerman, 1983) somatic symptoms. The HRMTP provides an approach to diagnosis by *inclusion* (Wickramasekera, 1994) because it identifies specific high risk psychosocial factors in threat perception that are believed to amplify or cause somatic symptoms. APN's are trained in this biopsychosocial model of health care making the HRMTP an easy model to apply.

Use of the HRMTP may provide information about specific cognitive styles that predisposes one to somatization allowing APN's to identify treatments related to individual cognitive styles. The model provides broad targets for therapy in general, for example, increase or decrease hypnotic ability, decrease catastrophizing, or increase coping skills and support systems. The model accounts for the observation that some people with clear physical findings who get specific medical help continue to have symptoms. The risk factors may someday be the focus of primary prevention efforts starting in childhood or adolescence.

The HRMTP offers several advantages over other models in directing the goal of this project. As a cognitive model, this model offers the latest foundation for somatic-like illnesses. The HRMTP has concepts that have been developed for over twenty years. The high risk factors in this model are measurable and are based on a systems approach to care. The HRMTP is an assessment intervention model which is the focus of this project. This model assesses psychosocial factors that contribute to somatization and serves as an easy model for APN's to apply because APN's are aware of the importance of psychological issues on the body. The HRMTP further serves as a prevention model, that is, APN's who know the risk factors identified in this model can help predict individuals who may be somatizers and intervene early. It is important to screen for these cognitive styles and other risk factors because somatizers show no overt psychopathology. Unlike other conceptual models, the HRMTP brings together seven risk factors for chronic somatization. Together, these risk factors are potent predictors for somatization and recognize the complexity of mind-body interactions in real clinical situations. The HRMTP is based on the premise that somatizers cannot be reduced to an either/or category of medical versus psychiatric illness. Knowledge of these risk factors may serve to prevent APN's from submitting the patient to multiple tests, surgeries, and iatrogenic illnesses, and may further help APN's to differentiate between a somatizer and a nonsomatizer since these cognitive traits are somatizing traits.

LITERATURE REVIEW

Definitions of Somatization

Somatization has been defined in a variety of ways. Somatizers straddle the fence between physical and psychological health problems and therefore are perceived differently by the provider oriented in the biomedical aspects of illness and the provider who may be more prepared to consider psychosocial aspects of illness (Katon, et al., 1984). Somatization has been viewed from a number of different perspectives (Katon, et al., 1991; Kirmayer and Robbins, 1991). There are definitions that emphasize the presence of multiple complaints in different areas of the body (Escobar, et al., 1987; Escobar, et al., 1989; Mai and Merkey, 1980). Another definition stresses fear of having a serious physical disorder in the absence of disease (Barsky and Klerman, 1983), yet another definition views physical complaints as a manifestation of hidden psychiatric morbidity (Bridges and Goldberg, 1985). With such diversity in the way the phenomenon of somatization is conceptualized, it is not surprising to find conflicting research findings. Some reports suggest that somatization is a defense against the awareness or expression of psychological distress (Katon, et al., 1982). Some suggest that these symptoms are common expressions of distress rather than defenses against the awareness of distress (Escobar, et al., 1987; Simon and Gureje, 1999). In addition, while some authors have claimed that less sophisticated subjects are more likely to be somatizers, Bridges and Goldberg (1985) noted a lack of distinguishing social and educational factors between somatizers and "psychologizers."

Historically, the behavior of somatizing was termed hysteria or Briquet's syndrome. Presently, somatization is conceptualized as a "chronic syndrome of recurring, multiple symptoms that are not explainable medically and are associated with psychosocial distress and medical help-seeking" (Barsky, et al., 1997).

Along the way, a variety of definitions of somatization have been developed in medical settings that emphasize etiology rather than the defining characteristics used in DSM-IV. Rosen, et al., (1982), for instance, defined somatization as "the articulation of emotional problems and psychosocial stress by way of physical symptomatology." They divided somatizers into several clinical subtypes: 1) "the acute"--the patient responding to an acute psychosocial stressor with somatic complaints; 2) "the subacute"--the person whose symptoms are present for 2 months or more and whose problems are due to a treatable psychiatric or social problem; and 3) "the chronic--the person who presents a long-term coping style or personality disorder that involves somatization (Rosen, et al., 1982). Others define somatization in more general terms that incorporate all of the subtypes noted above. Barsky and Klerman (1983) define somatization as "... the expression of emotional discomfort and psychosocial stressors in the physical language of bodily symptoms." Smith (1995) defines somatization as "an alternative way (somatic) to express psychiatric disease or psychological stress when a patient is unable to use the emotional route of expression." Somatization is defined by Katon, et al. (1984) as an expression of distress in which patients with psychosocial and emotional problems articulate their distress primarily through physical symptomatology.

There are definitions that seem to describe more of the chronic disorder, potentially including some patients who meet the DSM-IV criteria for somatization. Somatization is defined by Lipowski (1988) as "the tendency to experience and report somatic symptoms that have no pathological basis, to misattribute them to disease, and to seek medical attention for them." Another definition, "a longstanding pattern of seeking medical intervention for vague, multisystem symptoms often without a physical cause" was proposed by Quill (1985).

The common thread to all of these definitions is the patient's experience of symptoms when psychological or social problems are present and when there is no organic disease to explain the symptoms.

The four most prominent and formal terms found in the literature, most of which have been operationalized in research studies, include 1) somatization disorder 2) undifferentiated somatoform disorder 3) abridged somatization disorder (also known as Somatic Symptom Index (SSI) or somatization syndrome) and 4) multisomatoform disorder. A description of each of these constructs follows a brief review of the classification of all somatoform disorders.

Psychiatric disorders are classified in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV, 1994). Somatization disorder is one of the current somatoform diagnosis included in the DSM-IV. DSM-IV diagnostic criteria for somatization disorder include at least: (1) four different pain symptoms (e.g., headache; back, joint, extremity, or chest pain; painful urination, intercourse, or menstruation); (2) two gastrointestinal symptoms (e.g., nausea, bloating, diarrhea, and food intolerance); (3) one sexual symptom (e.g., menstrual symptoms, erectile or ejaculatory dysfunction, or sexual indifference); (4) one pseudoneurological symptom, other than pain (e.g., deafness, paralysis, lump in the throat, phonia, fainting, anesthesia, or blindness). The symptoms are severe enough to seek medical attention. There is evidence of significant role impairment. Finally, the symptoms are disproportionate to demonstrable medical disease (DSM-IV, 1994).

The diagnostic criteria for somatization disorder are quite restrictive. Most somatizers do not meet the stringent criteria for somatization disorder. Prior to DSM-IV, these patients were previously diagnosed as *somatoform disorder not otherwise specified.* DSM-IV now includes the entity *undifferentiated somatoform disorder.* This diagnosis requires one or more physical symptoms that persists for at least six months and are otherwise medically unexplained. Although this may prove

to be a more popular diagnosis, little is known empirically about patients placed in this category (Kirmayer and Robbins, 1996).

Several researchers have sought to define a more inclusive classification that requires fewer somatic complaints than are required for somatization disorder but that nonetheless identifies patients who have the clinical and behavioral features characteristic of the disorder. Research has shown that patients with four to six somatoform symptoms have significant levels of disability, psychological impairment, elevated rates of psychiatric comorbidity, and manifest maladaptive illness behaviors such as undue use of medical care (Escobar, et al., 1989; Kroenke, et al., 1997).

Based on this observation and the fact that full somatization disorder as defined by DSM-IV is rare in the primary care setting, Escobar and colleagues (1987) have proposed an abridged somatic construct, also known as the Somatic Symptom Index (SSI) and "somatization syndrome." This less restrictively defined form of somatization is the more common variant of somatization found in primary care settings. To meet the criteria for SSI, male subjects are required to have 4 medically unexplained somatic symptoms, while female subjects are required to have six.

Recently, a new somatoform disorder called *multisomatoform disorder*, developed by Kroenke and colleagues (1997), was derived from the Primary Care Evaluation of Mental Disorders (PRIME-MD). The PRIME-MD is a validated diagnostic interview that consists of a 26-item, self-administered patient questionnaire that assesses for the presence of mood, anxiety, somatoform, alcohol, and eating disorders. Chronic somatizers, for this project, will be defined according to the criteria of multisomatoform disorder. Multisomatoform disorder is defined as 3 or more current somatoform symptoms reported from a 15 symptom checklist along with at least a 2-year history of somatoform symptoms (Figure 2). This checklist includes 15 symptoms or symptom groups: stomach pain, back pain,

headache, chest pain, dizziness, fainting, palpitations, shortness of breath, bowel complaints (ie, constipation or diarrhea), dyspeptic complaints (ie, nasuea, gas, or indigestion), fatigue, trouble sleeping, pain in the joints or limbs, menstrual pain or problems, and pain or problems during sexual intercourse. The criteria for multisomatoform disorder were tested for validity in the PRIME-MD 1000 Study (Kroenke, et al., 1997).

Figure 2. Diagnostic Criteria for Multisomatoform Disorder

A. Three or more somatoform symptoms currently present (ie, within the past month).
B. A somatoform symptom meets either criterion 1 or 2:
   1. After appropriate investigation, the symptom cannot be fully explained by a known general medical condition or the direct effects of a substance (eg, a drug of abuse or a medication).
   2. When there is a related general medical condition, the physical complaint or resulting social or occupational impairment is in excess of what would be expected from the history, physical examination, or laboratory findings.
C. The symptoms caused clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. Although specific symptoms may come and go, the person has had one or more somatoform symptoms, for more days than not, for at least two years.
E. Criteria for somatization disorder are not met nor are the symptoms part of the diagnostic criteria for a mental disorder that is currently present (eg, fatigue or insomnia in a patient with depressive disorder or chest pain and dizziness that only occur during a panic attack in a patient with panic disorder).
F. The symptoms are not intentionally produced or feigned (as in factitious disorder or malingering).

Multisomatoform disorder differs from undifferentiated somatoform disorder in three ways. It has a higher symptom count (ie, 3 instead of 1), longer duration (ie, 2 years instead of 6 months), and fewer psychiatric diagnoses to exclude. Counting three symptoms was judged to be clinically important (Kroenke, et al., 1997). It was associated with impairment in quality of life, excess health care use, and excessive

disability days and clinic visits that exceeded that of any mood or anxiety disorder (Kroenke, et al., 1997). The requirement for a two-year hisory of unexplained symptoms recognizes the often chronic course of somatization. Kroenke, et al., (1997) do not support the hierarchical rule for undifferentiated somatoform disorder, whereby the latter is not diagnosed if unexplained physical symptoms are better accounted for by another mental disorder. The authors propose that excluding a diagnosis of somatization because the symptoms could be attributed to a psychiatric disorder involves considerable clinician judgement, uncertainty, and bias. Multisomatoform disorder does not count physical symptoms when they are part of a diagnostic criteria for a current mood or anxiety disorder. However, symptoms such as fatigue or insomnia are included in the symptom count of patients who do not have a concurrent mood or anxiety disorder. There is evidence that it is not the specific type of somatoform disorder but the number of symptoms that determines the severity of functional impairment and psychiatric comorbidity (Kroenke, et al., 1993).

Both somatization syndrome (SSI) and multisomatoform disorder have been shown to be associated with excess functional impairment and health care use (Escobar, et al., 1989; Katon, et al., 1991; Kirmayer and Robbins, 1991; Smith, et al., 1995; Swartz, et al., 1991).

Aside from these definitions, it is useful to view somatization as a continuum (Appendix A) on which increasing levels of somatic symptoms indicate increasing distress, disability, and maladaptive illness behavior (Katon, et al., 1991). Katon and colleague's (1991) data on distressed high users of primary care suggests that many clinical and behavioral features associated with somatization were evident before patients met the diagnostic threshold for somatization disorder. Moreover, physical symptoms, disability, and medical utilization increased linearly with the number of somatic symptoms. Patients who somatized were reported as having worse mental

health and amplifying physical symptoms, as well as being significantly more frustrating patients than patients with low level of somatization. This data suggests that rather than a discrete cutoff point for somatization, one or more categories of less severe types of somatization presently included in the DSM-IV should be utilized when a diagnosis is needed. Patients who did not meet the diagnostic criteria for somatization disorder, were found to be almost as severely disabled as those who did meet the diagnostic criteria for somatization. These less severe forms of somatization disorder are more applicable to the clinical realities of primary care practice, where somatization associated with social stress, anxiety, depression, and functional disability is much more common than somatization disorder (Katon, et al., 1991).

Based on the premise that somatization is viewed as having a spectrum of severity, somatizers, for this project, are not defined predominantly or exclusively by somatic clinical presentation of somatization disorder as defined by DSM-IV. While abridged somatization disorder has practical utility for clinical studies and has demonstrated a high prevalence in primary care studies, this construct was not chosen because the primary care provider must inquire about a patient's lifetime experience with a long list of 37 symptoms. This is impractical in a busy primary care setting. More importantly, errors in recall might affect the outcome of the project. Rather, this project will support *multisomatoform disorder* as a working definition for chronic somatization and as an alternative to the rather vague DSM-IV category of undifferentiated somatoform disorder. The diversity of these definitions is reflected on the prevalence and correlates of somatization in different populations.

Prevalence

Much of primary care resources are devoted to the care of somatizing patients who are symptomatic but not seriously ill. The high prevalence of somatization is well documented. Only 16% of the fourteen most common somatic symptoms found

in 1000 primary care settings were shown to have an organic cause (Kroenke and Mangelsdorff, 1989). In 25-50% of all primary care visits, no serious medical cause is found to explain the patients presenting symptoms, and psychological factors appear to play a role in prompting the visit (Bridges and Goldberg, 1985; Katon, Reis, & Kleinman, 1984; Kroenke, et al., 1990).

Research has shown that the most severe form of chronic somatization as defined by DSM-IIIR or DSM-IV, has a relatively low occurrence rate (Gureje, et al., 1997; Escobar, et al., 1987), but that subthreshold somatization is very common (Bridges and Goldberg, 1985; Kirmayer and Robbins, 1991). The Epidemiologic Catchment Area Study (ECA) measured prevalence rates of somatization. The formal disorder was very rare, occurring in only 0.05% to 0.38% of the adult population (Swartz, et al., 1991). In a primary care study by the World Health Organization (WHO), somatization disorder was relatively infrequent with a prevalence of 2.8% (Gureje, et al., 1997). Other sources have reported a slightly higher rate of occurrence among patients with the full disorder. A prevalence rate of 5-8% has been noted in outpatient settings (Barsky, et al., 1995; deGruy, et al., 1987; Escobar, et al., 1989 and a 9% prevalence among inpatient settings (deGruy, et al., 1987). It is the fourth most common diagnosis among medical outpatients (deGruy, et al., 1987; Katon and Russo, 1989), and the second most common diagnosis among medical inpatients (deGruy, et al., 1987).

However, chronic somatization, as defined in this project, is common. It has an estimated prevalence rate of 33% among outpatients (Smith, et al., 1986). The ECA survey reported a prevalence of between 9% to 20% using the abridged form of somatization disorder as defined by Escobar and colleagues (1989). Another study confirmed a prevalence of 20% using the same definition (Gureje, et al., 1997). Kirmayer and Robbins (1991) estimate that one quarter of primary care patients are somatizers.

Chronic somatizers, for this project, will be defined as having multisomatoform disorder which has been previously described. Multisomatoform disorder is considered as prevalent as and highly correlated with abridged somatization.

Patient Profile

Gender, Age, and Education. Cultural factors seem to influence the type of presentation. Patients who are nonwhite, less educated, and from nonurban communities are more likely to somatize repeatedly in response to stress (Swartz, et al., 1991; Escobar, et al., 1989). Although somatization has been reported in both sexes, it is commonly held that it occurs more often in females than males. However, there are data that does not support this common belief. Piccinelli and Simon (1997) found that somatic symptoms and emotional distress are strongly associated among frequent attenders in primary care with few differences between the sexes. According to Escobar, et al., (1989) the common somatizer shows no gender bias. DSM-IV (1994) reports a prevalence in women to be ten times that in men for somatization disorder. According to Swartz, et al., (1991) it is more common in females than males. Others also support the notion that the association between somatization and the female sex applies to the more severe forms of the disorder (Katon, et al., 1991; Gureje, et al., 1997). Gender differences remain unclear and inconclusive due to inconsistencies across studies (Wool and Barsky, 1994).

Since somatization represents a lifelong way of handling psychological difficulties, most patients begin to complain of multiple physical symptoms by the age of 30 years (DSM-IV, 1994). According to Gureje, et al., (1997) patients with somatization disorder were not much diffferent from chronic somatizers with respect to mean age (43.3 years and 42.6 years, respectively). The majority (55%) experienced their first somatic symptom before 15 years of age, and remission of symptoms was rare (Swartz, et al., 1991).

There is only modest support for the notion that somatization may represent the mode of expression of psychologically impaired or less sophisticated people. Gureje (1997) found that somatizers had fewer years of formal education than nonsomatizers, but does not postulate that lack of formal education was a strong correlate of somatization. Swartz, et al., (1991) found that somatization was more common among those who did not graduate from high school.

Functional impairment and disability. Patients with multiple unexplained symptoms have been found to have high rates of functional impairment (Gureje, et al., 1997). Chronic somatizers had greater functional disability on 3 measures of health status: physical functioning, general health perceptions, and mental health, when compared to the general population and to the chronically ill population. Somatizers spent an average of 7 days in bed every month compared to 0.5 day in the general population and 83% no longer work because of their illness (Smith, et al., 1986). Another study found that somatizers were three times more likely to report current disability compared to nonsomatizers (Escobar, et al., 1989, Escobar and Canino, 1989, Escobar, et al., 1987). The amount of impairment in functioning and quality of life is comparable to mood and anxiety disorders (Katon, Lin, & VanKorff, 1991).

The paradox is that this impairment is intensified as providers continue to evaluate and treat somatizers for physical diseases that do not exist. They are exposed to unnecessary diagnostic tests (Ford, 1985; Shaw and Creed, 1991; Zoccolillo and Cloninger, 1986; Wickramasekera, 1994), hospitalizations (Cherkin and Deyo, 1993; Smith, et al., 1986; Zoccolillo and Cloninger, 1986) and surgery (Deyo, et al., 1993; Fink, 1992; Hoffman, et al., 1993; Katon, et al., 1983; Zoccolillo and Cloninger, 1986), all of which lead to high iatrogenic complications (Barsky & Borus, 1995; Katon, et al., 1984; Smith, et al., 1986; Wickramaserkera, 1994). In addition, trial treatments with antibiotics and corticosteroids and the indiscriminate

use of addicting and other medications make patients worse (Deyo, et al., 1993; Katon, et al., 1984; Lightfoot, et al., 1993).

Finally, joblessness is a problem among somatizers. Somatizers reported being unemployed for six months or longer in the preceding five years. Half of these were patients with somatization disorder, one-third of these patients were common somatizers, and one-fifth of those were not classified as somatizers (Escobar, et al., 1989; Escobar and Canino, 1989).

Overall, chronic somatizers do not feel well and find it difficult to function daily and at work. Thus, they limit their activities, spend time in bed, and miss work. Somatization contributes greatly to lost productivity and disability (Robbins and Kirmayer, 1991).

Childhood abuse. Many studies have confirmed the association between somatoform disorders and childhood abuse (Farley and Keaney, 1997; Kinzl, et al., 1995; Walker, et al., 1995). In general, persons with somatoform disorders have been found to have experienced higher rates of childhood abuse. Specific aspects of this association are presented here.

Persons with somatization often have chaotic and stressful childhoods and adulthoods, with unstable families and considerable psychosocial stress. Morrison (1989) reported that 55% of 60 women with somatization disorder had a history of molestation compared to only 16% of 31 women with a primary affective disorder. Similarly, adult survivors of sexual abuse have high rates of somatization disorder. Somatization disorder has a lifetime prevalence rate of 16% in adult survivors of incest, compared to the general population prevalence of less than 1% (Portegijs, et al., 1996). Kinzl, et al., (1995), confirmed that severe or repeated childhood victimization and a familial deficiency syndrome in childhood may be important in the pathogenesis of somatization.

Farley and Keaney (1997); Atlas, et al., (1995); Probor, et al., (1993); and Walker, et al., (1995) investigated the relation between history of sexual abuse, somatization, and dissociation. Dissociation and somatization were positively correlated in subjects who had a history of sexual abuse, but this relation did not occur in subjects who reported no history of sexual abuse. Farley and Keaney (1997) further reported that the more perpetrators a subject reported, the greater the number of reported chronic physical symptoms. As the age of onset of abuse neared puberty, the more the subjects reported childbirth complications. Recent literature has implicated childhood sexual abuse as a specific risk factor for chronic pelvic pain (Fry, et al., 1997; Rosenthal, 1997).

Salmon and Calderbank (1996) compared history of sexual and physical abuse in childhood and health care utilization, somatization, and hypochondriasis as an adult. Both types of abuse were followed by a greater number of hospital admissions and surgical procedures in adulthood.

Associations of sexual assault history with multiple measures of physical health were examined by Golding (1994). Sexually assaulted women were more likely than nonassaulted women to report poor health perceptions, functional limitation, several chronic diseases, medically explained and unexplained somatic symptoms. Kimerling and Calhoun (1994) further clarified the relationship between the experience of sexual assault and physical health. They found that women who experienced sexual assault reported more somatic complaints, poorer perceptions of physical health, greater psychological distress, and increased use of medical services.

The contribution of childhood abuse to adult illness behavior and psychiatric problems has sparked the interest of researchers in the last 10-15 years. This survey of research findings clearly demonstrates that a history of sexual abuse in childhood is reported more often by somatizing patients.

Psychiatric co-morbidities. Chronic somatizers have high levels of psychiatric co-morbidity. Psychiatric disorders are found in 75% of these patients and the most common are affective disorders, anxiety, and alcohol abuse (Kaplan, et al., 1988). Epidemiological studies in primary care have determined that 25% to 35% of primary care patients have a mental illness as defined by the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (DSM-III-R) (Katon, 1991). Moreover, these studies have found that 50% to 70% of patients with a mental illness initially present with a somatic symptom such as headache, back pain, or fatigue (Goldberg and Bridges, 1988; Kirmayer and Robbins, 1991). Researchers have found a high rate of misdiagnosis in patients who have somatic symptoms as an expression of psychosocial distress (Bridges and Goldberg, 1985; Kirmayer and Robbins, 1991).

It is often reported that depression is a commonly somatized disorder (Escobar, et al, 1987; Simon and VanKorff, 1991; Gureje and Obikoya, 1992). Depression is one of the most common disorders underlying somatization in primary care (Katon, 1984) with lifetime rates reported at 80% to 90% (Katon, et al., 1991; Liskow, et al., 1986). It is the most common mental disorder in the general population after substance abuse and anxiety (Regier, et al., 1984). Smith (1992) estimated prevalence rates for major depression among somatizers to range from 48% to 94%. Depression with somatoform complaints is far more common than somatoform disorder (Barsky, et al., 1991). Depressed patients may selectively focus on the somatic manifestation of their disease and ignore, or not experience affective or mood disturbance (Katon, et al., 1995). Lacking the symptoms of depressed affect, these patients often present to primary care providers with the classic depressive somatic complaints, such as chest pain, gastrointestinal complaints, and localized pain. Major depression is often accompanied by other somatic symptoms, such as, insomnia, fatique, anorexia, and weight loss. Functional somatic complaints like

aches, pains and dizziness often mask the presence of depression. Unlike the somatoform disorder patient, depressed patients feel they are not worth treating and do not deserve to feel better. In addition, depressed patients are hopeless about improvement. Major depression in the presence of somatic symptoms must be treated first. Both affective and functional symptoms may improve with treatment, although, sometimes functional somatic symptoms continue to be a problem as the affective illness remits (Simon and Gureje, 1999).

Anxiety disorders are also frequently found in patients with chronic somatization. Liskow, et al., (1986) found that of patients with somatization disorder, 27% met criteria for obsessive-compulsive disorder, 45% met criteria for phobic disorder, and 45% met criteria for panic disorder. Smith (1990) reported that patients with somatization disorder had the following anxiety disorders: generalized anxiety disorder (34%), obsessive-compulsive disorder (18%), and panic disorder (26%).

Symptoms of anxiety effect functional somatic symptoms. Anxiety distorts one's attention toward dangerous and threatening perceptions, and the cognitive appraisal of somatic symptoms, causing unwarranted alarm. Anxious patients tend to exaggerate normal physiologic sensations and trivial ailments. Many of the symptoms of panic disorder are somatic: dyspnea, palpitations, chest pain, choking, dizziness, paresthesia, hot and cold flashes, sweating, faintness, and trembling (Kaplan, et al., 1988). Although anxiety is more obvious to clinicians than depression, panic disorder often goes unrecognized. Panic disorder is far more prevalent among somatizers than was once thought (Kaplan, et al., 1988).

Anxiety is also a common feature of major depression. Anxiety in the presence of pain can dramatically lower the pain threshold, causing the provider to misinterpret the significant discrepancy between the complaints of pain and the objective findings. This is common in the more malignant forms of somatizing (drug abuse and personality disorder). Diagnosis is delayed and the provider and patient become

frustrated because many of the patients cannot distinguish anxiety from pain (Kaplan, et al., 1988).

The risk for having a current depressive illness or an anxiety disorder for patients with chronic somatization is significant. Gureje (1997) found that 40% of chronic somatizers also met the criteria for either depression or generalized anxiety disorder. Similiar data is reported by Simon and Gureje (1999), who found that 50% of those with five or more somatic symptoms met the criteria for current psychiatric diagnosis.

Alcohol abuse appears to occur with increased frequency in patients with somatization disorder, affecting 15% to 30% of patients (Smith, 1990). Reif, et al., (1996) evaluated possible risk factors for somatic syndromes, and found that somatizing patients reported a higher rate of partners with regular alcohol consumption than other patients. Tier, et al., (1998) hypothesized that somatic symptoms might be associated with alcohol use and concluded that self-reported somatization symptoms may be indicators of current or future alcohol use. He also concluded that alcoholism was associated with somatization while Simon and Gureje (1999) confirmed that there is an association between full somatic disorder and alcoholism.

When one views somatizers, the somatoform disorders may be the obvious diagnostic category, but the psychiatric diagnoses identified above need to be considered. Once these psychiatric disorders remit, the somatic symptoms usually subside.

Frequent Attenders, High Utilization and Costs

Persistent somatizers are very high utilizers of both outpatient and inpatient health care services. They are hopitalized more often, see more physicians, have more clinic visits, are exposed to more diagnostic tests, and take more medication (deGruy, et al., 1987; Katon et al., 1991; Smith, Monson, & Ray, 1986). There are

numerous studies that demonstrate the impact somatization has on excessive utilization among chronic somatizers (Katon, et al., 1990; Lloyd and Pender, 1992; Smith, 1994; Zoccolillo and Cloninger, 1986).

Somatization has been shown to have a very high prevalence among patients who frequently attend primary care clinics (Katon, et al., 1990). In this study of high utilizers, he determined that 10% of these patients account for almost one-third of ambulatory visits and one half of inpatient hospital days. Approximately one half of these patients were psychologically distressed, and among these distressed high utilizers, one fifth had somatization disorder and three fourths met an abridged definition of somatization (Katon, et al., 1990). In these days of escalating medical costs, researchers have found that patients with mental illness use two to three times as many outpatient visits as nondistressed control subjects (Katon, 1991).

Patients with multiple unexplained physical complaints have sometimes been labeled the "worried well," implying an absence of disease and an inappropriate use of services. Not all patients who experience common symptoms actually report them to a health care provider. Factors that precipitate a clinic visit include persistent symptoms, perceived seriousness, functional impairment, expectations for medications, testing, and referrals, and psychological distress, such as anxiety, depression, and stress (Barsky, Goodson, Lane, & Cleary, 1988; Marple, Luay, Kroenke, et al., 1993). The uncertainty and suffering related to these factors cannot be dismissed.

Somatizing patients are disproportionately high users of medical services, laboratory tests, and surgical procedures (Kroenke, et al., 1990; Katon, Lin, & VanKorff, 1991). Chronic physical illness explains part of the problem; more importantly, factors include mental illness, substance abuse, and particularly somatization (Fink, 1992). Somatization imposes a serious burden on patients themselves as well as the health care system (Fink, 1992).

The ECA study established that severe somatizers used medical inpatient services four times more than nonsomatizers, and common somatizers used these services two times more than nonsomatizers. In terms of outpatient care, severe somatizers were two times as likely to use the services compared to nonsomatizers and common somatizers were 1.5 times more likely to use these services compared to nonsomatizers (Escobar, et al., 1989; Escobar and Canino, 1989).

The cost of health care for somatizing patients is very high. Studies report health care costs from six (Smith, et al., 1986) to thirteen (Labott, et al., 1995) times higher when comparing the use of services by somatizing patients with the expenditures incurred by the average patient. In the past, patients with somatization disorder consumed nine times the average health care expenditures (Smith, et al., 1986). More recent data on costs show only a threefold increase in costs among patients with somatization disorder. This is likely due to the impact that DRG's have had upon hospitalization rates (Rost, et al., 1994). Smith and colleagues also reported an average annual cost of $4700 in a group of patients with unexplained symptoms compared to $543 for the general population, and the American Academy of Family Physicians reported that from $20 to $30 billion is spent annually on unnecessary bills for somatizing patients (Ford and Folks, 1985). Chronic low back pain is one type of somatization that afflicts approximately 40 to 70 million Americans, with costs of care escalating to $57 billion from lost production, medications, and health care services (Brena and Chapman, 1983). Numerous other studies showing high cost in somatizing patients support the above findings (Katon, et al., 1991; Shaw and Creed, 1991; Simon, 1992; Smith, 1994).

Patient/Provider dissatisfaction

Despite heavy use of health care services, somatizers are often unhappy with their care and they are a source of frustration for providers (Escobar and Canino, 1989; Escobar, Golding, Hough, et al., 1987; Noyes, Kathol, Fisher, et al., 1993). Hall

(1998) concluded that patients in better health received more social conversation, which in turn, implies that the provider was more responsive to their psychosocial needs. Patients in poorer health received little social conversation, which in turn, meant the patient lost regard for the provider. Overall, poorer health meant less patient satisfaction either because dissatisfaction had a negative impact on health or health led to the degree of satisfaction. Chronic somatizers are unrewarding because they are so difficult and they are often blamed for their health. The negative feelings of the provider are often leaked to the patient through verbal and nonverbal cues (Hall, 1998).

Diagnosis and Treatment

Primary care providers seldom recognize somatization (Barsky, 1995; Bridges, et al., 1985; deGruy, 1987) and this complicates the high prevalence rate and overutilization of professional services. A wealth of literature on somatization suggests that most patients with psychological disorders seen in primary care present with physical rather than emotional complaints (Katon, Reis, & Kleinman, 1982; Keller, 1985; Kirmayer & Robbins, 1991). This somatic presentation decreases the likelihood that health care providers recognize the patient's psychiatric distress (Kirmayer and Robbins, 1996), further complicating the diagnostic process among those who frequently seek care for their symptoms. Chronic somatization may be difficult to detect because these patients may also have several physical illnesses. Furthermore, providers' attitudes toward psychosocial problems may be a central factor in determining whether somatization is recognized.

Utilizing the DSM-IV can be cumbersome for the busy clinician. Othmer and DeSouza (1985) developed an abbreviated list of seven symptoms that can be used to screen for the disorder. There is a high likelihood of somatization disorder if two or more of the symptoms in their clever mnemonic are present (Figure 3). The

presence of three symptoms accurately identified 91% of the patients with somatization disorder.

Figure 3. Seven-Symptom Screening Test for Somatization Disorder

Mnemonic	Symptom	System
Somatization	Shortness of Breath	Respiratory
Disorder	Dysmenorrhea	Female reproductive
Besets	Burning in Sex Organ	Psychosexual
Ladies	Lump in throat (difficulty swallowing)	Pseudoneurologic
and	Amnesia	Pseudoneurologic
Vexes	Vomiting	Gastrointestinal
Physicians	Painful Extremities	Skeletal Muscle

From Othmer E., DeSouza C.: American Journal of Psychiatry 142:1146-1149

Diagnosing and treating chronic somatizing patients is difficult. The key to diagnosis is recognition and this is the first obvious step. Once diagnosed, extensive work-ups at the initial phase of diagnosis are almost always needed to exclude organic diseases (Barsky, 1989; Smith, 1991; Smith, et al, 1990).

Although somatizing patients are difficult to manage, there is consensus about the approach health care providers should take (Bass and Benjamin, 1993). Patients with chronic somatization require a unique treatment plan. Treatment recommendations suggested by Smith, Monson, and Ray (1986) included regularly scheduled appointments (e.g., every four to six weeks); a focused physical exam performed at each visit to look for true disease; advise to avoid hospitalization, diagnostic procedures, surgery, and the use of laboratory assessments, unless clearly indicated; and to avoid telling patients "it's all in your head." This intervention was reported to reduce quarterly health care charges by 53%, largely as a result of decreases in hospitalization. Neither the health of the patient nor their satisfaction with care was compromised.

Smith (1999) in an unpublished and on-going study proposes a four-point treatment intervention that establishes contact with the health provider on a regular basis even if the patient is asymptomatic. The four points describe a cognitive-behavioral approach conducted in the context of a positive primary care provider-patient relationship that involves goal setting, achieving patient understanding, a commitment to treatment, and negotiating a specific treatment plan.

However, treatment will not be initiated unless these patients are identified. Thus, the purpose of this project was to develop a clinical protocol to identify chronic somatizers. A comprehensive assessment is suggested for use in the primary care setting to expedite recognition and treatment and to avoid expensive diagnostic testing in the care of these patients. If primary care providers have a protocol to identify chronic somatizers, they can begin appropriate interventions to reduce high utilization, costs, and frequent attendance, in addition to, improving patient-provider satisfaction.

Given the magnitude of this problem, efforts to recognize and diagnose the somatizer merits scrutiny. One approach to understanding the origin of somatic complaints has been to identify cognitive styles and other factors in these patients' histories that distinguish them from the general population or from patients who complain of similiar symptoms but with clear organic basis. An assessment protocol is needed to enhance recognition of somatizers. Therefore, a comprehensive, multistage and multidimensional assessment protocol (Appendix B) is proposed for identifying chronic somatizing patients in the primary care setting.

This assessment process is based on identifiable risk factors for somatization present in the literature. An efficient approach for identifying samples of severe somatizers will begin with identifying frequent attenders, followed by a screening procedure for mental disorders, and a final evaluation of selected identifying measures for the somatic population through self-administered questionnaires, a structured patient-provider interview, and a chart audit. Upon completion of this four-step assessment intervention, a definitive diagnosis of somatization could be made based on a positive PHQ screening result for somatization and the presence of any of the following measures: psychiatric diagnosis for anxiety or mood disorders, excessive number of clinic visits in the preceding 12 months, use of multiple providers and health care facilities, numerous diagnostic tests and procedures that yield no organic disease, exorbitant cost of care, difficult patient-provider relationship, functional disability or role dysfunction, and lack of social support. An evaluation of these measures will support and validate a positive screen for somatization disorder on the PHQ.

In addition to the conceptual definitions, the following are important terms related to identifying and distinguishing characteristics of chronic somatizers.

Somatoform symptom. A physical symptom that lacks an adequate physiological explanation.

Multisomatoform disorder. Current history of 3 somatoform symptoms, from the PHQ list of 13 physical symptoms, for 2 or more years.

Psychiatric health status. Psychiatric health status or comorbidity will be determined by the subscales of the PHQ that measures anxiety, depression, panic disorder, eating disorder and alcohol abuse. Patients will be categorized as (a) well, (b) subthreshold psychiatric disorder, and (c) potential psychiatric disorder.

Cognitive Styles of Somatizers. Cognitive styles of somatizers are derived from the HRMTP and defined as hypnotic ability, catastrophizing, and negative affectivity or neuroticism. These terms were operationalized using the revised version of the CABAH questionnaire.

Reason for the visit. Reason for the visit will be determined by the patient based on their belief of the origin of the presenting complaint or meaning of the symptom for that day. The response options include (a) emotional, (b) physical, or (c) stress-related.

Self-reported chronic diseases. Chronic diseases will be defined, for this project, as any of the following seven chronic medical conditions: hypertension, diabetes, arthritis, heart disease, bronchitis or emphysema, stomach disorder, and cancer. A single item question will address the presence of chronic diseases. In addition, a stem question will be asked to determine the presence of any other serious physical diseases.

Self-reported overall health status. Health status will be defined as an overall sense of wellbeing and the extent to which the symptoms they experience disrupt their ability to function or interfere in some significant fashion with their life activities (Mechanic, 1982). Self-reported overall health will be defined by a single

item question and responded to as (a) excellent, (b) very good, (c) good, (d) fair, or (e) poor.

Role Dysfunction. Role dysfunction will be assessed with a brief three part social disability assessment that will determine the risk of the somatizing patient to have occupational role dysfunction, days of functional impairment at home, and relationship problems. Impaired occupational role functioning will be answered as (a) none, (b) mild, (c) moderate, and (d) severe. Number of disability days will be dichotomized as none versus one or more. Difficulting maintaining satisfying relationships is responded to as (a) not difficult at all, (b) somewhat difficult, (c) very difficult, or (d) extremely difficult. Disability may also be measured using the final question on the PHQ which addresses problems related to ability to perform role functions.

Patient satisfaction. Patient satisfaction will be determined by a single-item question with response choices ranging from very satisfied to not satisfied.

Provider satisfaction. Provider satisfaction with the encounter for that day will be determined by the Difficult Doctor-Patient Relationship Questionnaire-Ten Item Version (DDPRQ-10) (Hahn, Kroenke, Spitzer, Brody, Williams, et al., 1996)

Provider-rated physical health status. Provider-rated physical health status will be defined by a single-item question and responded to as either as (a) completely healthy, (b) some symptoms but not ill (subclinical), (c) mildly ill, (d) moderately ill, and (e) severely ill.

PRIME-MD Patient Health Questionnaire (PHQ) (Spitzer, Williams, & Kroenke, 1994). The PRIME-MD (an acronym for the Primary Care Evaluation of Mental Disorders) is an instrument developed by Drs. R. Spitzer and J. Williams for the diagnosis and management of mental disorders in the primary care setting. It evaluates five groups of mental disorders most commonly encountered in the primary care settings and the general population. The PHQ (Appendix C) is the new

self-report version of the PRIME-MD (R.L. Spitzer, MD, personal communication, March 12, 1999) and is estimated to take approximately three minutes to complete. It is designed to facilitate prompt recognition and diagnosis of the most common mental disorders in primary care patients (mood, anxiety, somatoform, and alcohol) and eating disorders, which has been shown to be common in the general population. The portion of the PHQ that identifies somatoform disorder identifies eleven symptoms or symptom clusters most commonly experienced in the last 4 weeks. Responses for each item include: not bothered at all, bothered a little, bothered alot. Somatoform disorder is diagnosed if at least 3 of the symptoms or symptom clusters are answered as "bothered a lot" and lack a biological explanation (Spitzer, Williams, Kroenke, 1994).

The PHQ was chosen for its ability to screen for somatizers. The PHQ has the advantage over the original PRIME-MD in that it can be completed entirely by the patient. If the patient, for any reason, cannot read or complete the questionnaire, it can be administered as an interview by the APN or some other personnel. If the PHQ is completed by the patient, the health provider need only to scan the questionnaire and confirm positive responses with the patient. Thus, instead of taking 5-8 minutes of provider time for the average pateint as was the case with the original PRIME-MD the provider time with the PHQ is generally less than a minute, allowing for more time to be spent discussing management and treatment options. Like the original PRIME-MD, the PHQ contains skip-outs so that if the initial criteria for a disorder are not met, the patient is directed to skip to questions about the next disorder that is evaluated. The formal DSM-IV diagnostic evaluations of the PRIME-MD are simplified in the PHQ. The PHQ diagnoses are considered "subthreshold" because the criteria encompass fewer symptoms than are required for any specific DSM-IV diagnosis. These subthreshold diagnoses are important because psychiatric symptoms below diagnostic threshold in these areas are

associated with significant functional impairment and because patients with these disorders benefit from monitoring and treatment early in the disease process. The PHQ identifies chronic somatizers who are below the diagnostic threshold of somatization disorder as defined by DSM-IV. The PHQ also screens for common disorders associated with somatoform disorders, such as, depression, anxiety, alcohol abuse, and eating problems. The validity and scoring procedure for the PHQ is available for review in Appendix C.

Cognitions About Body and Health Questionnaire (CABAH) (Rief, Hiller, & Margraf, 1998) (Appendix D). A modified version of the original CABAH is being used for this project to determine cognitive styles of chronic somatizers. This particular questionnaire has been used at the Roseneck Center for Behavioral Medicine, a German inpatient treatment unit that specializes in a high-risk group for somatization syndromes. The original version consisted of 68 items that were answered on a 4-point scale as follows: 3 (completely right), 2 (mostly right), 1 (mostly wrong), and 0 (completely wrong). High internal consistency of all items (.90) was confirmed across many studies (Reif, Hiller, & Margraf, 1998). The selected items concern interpretation of body signals, perception of minor body events, attitudes about body and health, and health habits (Reif, Hiller, & Margraf, 1998). The principle aim of this tool selection was to find possible cognitive features for somatizing patients as defined by the conceptual model chosen for this project, the High Risk Model of Threat Perception (HRMTP). Item selection depended on whether there were parallels of cognitive styles (hypnotic ability, catastrophizing, and negative affectivity) as defined on the HRMTP. The naming of factors have been reinterpreted as corresponding to the HRMTP. Factor 1 (catastrophizing) describes the tendency to interpret body signals in a catastrophizing manner. Factor 2 (hypnotic ability) included minor bodily sensations of the autonomic nervous system that are typically not perceived but which are perceived

by those who focus their attention on them. Factor 3 (negative affectivity) included a negative self-concept of being weak, feeling exhausted, or not tolerating any stress. Factor 4 (negative affectivity) is rated high for those who do not tolerate bodily complaints, aches, and pains. Factor 5 (coping skills) describes typical habits of people who want to live healthy. It was determined that the dimensions of the CABAH reflect specific cognitive concerns of patients with somatization as defined by the HRMTP.

General Wellbeing Survey (Appendix E). This survey will be completed by the patient to assess functional abilities, patient's perception of the cause for the current symptoms, overall health status, satisfaction with care, social support, presence of medical conditions, and utilization of other health care services in the past year.

The Difficult Doctor-Patient Relationship Questionnaire-Ten Item Version (DDPRQ-10) (Hahn, Kroenke, Spitzer, Brody, Williams, et al., 1996) (Appendix F). This questionnaire will be utilized to assess the relationship between the provider and patient. It consists of 10 likert-type questions with a 6-point response scale with 0 meaning 'not at all' to 5 meaning 'always'. It requires less than one minute to complete. An additional question assesses the provider's evaluation of the patient's overall health and is not formally a part of the DDPRQ-10. Briefly, the DDPRQ-10 has an validity of .96 with the original instrument, and an internal consistency reliability of .88 in the current study of 627 participants (Hahn, Kroenke, Spitzer, Brody, Williams, et al., 1996). The original instrument (DDPRQ-30) had an internal consistency reliability of 9.6, factor analysis demonstrated five factors with high face-validity, and construct validity was demonstrated by strong associations with psychopathology, personality pathology, and somatization (Hahn, Kroenke, Spitzer, Brody, Williams, et al., 1996).

Recommendations for Implementing Clinical Protocol

Initially, the institutional review board should be introduced to the project. The implications that this project has for cost savings, patient care, and patient and provider satisfaction needs to be emphasized, as discussed in the literature. A brief inservice for all staff is conducted to enlist their support and cooperation for this project. Questions need to be addressed thoroughly before the project begins.

A health care assistant generates a list of frequent attenders based on patient records from a primary care clinic during the months of January, February, and March. Somatization has been found to be very prevalent among those who frequently attend primary care (Katon, et al., 1984). The target population (Figure 4) includes patients between the ages of 18 years and 55 years. Charts need to be flagged as a signal to initiate the assessment protocol for identifying somatization during the patient's next clinic visit.

Figure 4. Target Population for Somatization Screening: X=target population

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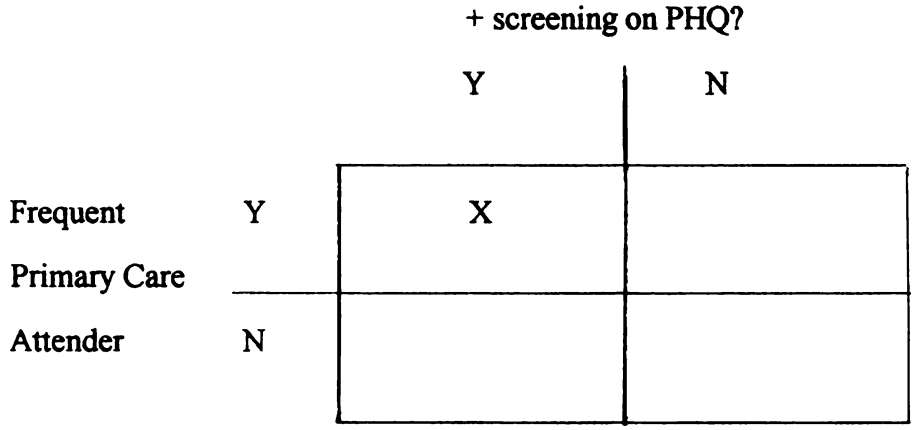


Next, patients are given three brief questionnaires by the exam room nurse. These can be completed in the privacy of the exam room prior to the patient's office visit. The first questionnaire to be completed is the PHQ. If the patient screens positive for somatization on the *PHQ*, an evaluation of their cognitive style will be

done with a second questionnaire. This questionnaire is called the *Cognitions about Body and Health Questionnaire* and can be completed in two to three minutes. The third questionnaire, the *General Wellbeing Survey* can then be completed by the patient and is estimated to take approximately one minute. Age, gender, education, and employment are also verified on this form.

Once these three questionnaires are completed by the patient, a structured patient-provider interview is conducted to validate findings on the *PHQ, CABAH, and General Wellbeing Survey.* After having met the patient during this interview process and identifying that a relationship with the patient had been initiated during previous encounters, the provider completes the *DDPRQ.* Following this step, a full review of the charts of patient's clinic visits can substantiate the above data as well as identify somatizers from nonsomatizers or those with organic disease. Also of interest is the cost impact of somatic patients. Therefore, this chart review can determine costs of care among somatizers for clinic visits, laboratory tests, consultations, emergency visits, and hospitalizations.

The information from this project could be analyzed using descriptive charts and tables. The following data on the frequent attenders could be compiled: prevalence of chronic somatizers in a primary care setting; association of somatization with age, gender, and education in a primary care setting; association of somatization with health ratings in a primary care setting; association of somatization with role dysfunction in a primary care setting; association of somatization with anxiety and depression in a primary care setting; percentage of catastrophizing scores in a chronic somatizing group; percentage of high neuroticism (NA) in a chronic somatizing group; and the association between mental disorders and the likelihood of being experienced as difficult.

Discussion

Medically unexplained symptoms are a common problem in primary care, and undoubtedly worthy of further research. When compared with scores on the self-report questionnaire (PHQ) for somatization, recognizing this type of problem in the primary care setting will probably be unlikely as evidenced by lack of documentation that indicates a probable or definitive diagnosis of somatization prior to administration of the PHQ. It is presumed that primary care providers may be more likely to recognize patients with anxiety and depression than somatization disorder and differentiating patients with anxiety and mood disorders from those with multiple physical symptoms may be difficult.

Further analysis may indicate that patients who met the criteria for somatization using the PHQ survey had an increased risk of one or more chronic physical diseases than those who did not. These patients may be significantly more likely to rate their own health as poor. Among these same patients, physical health status as determined by the provider may be rated as good.

It is presumed that difficult patients may be much more likely than non-difficult patients to have mental disorders, more functional impairment, higher health care utilization, and lower satisfaction with care, whereas demographic characteristics and chronic diseases will not be associated with difficulty. Among the mental disorders, particularly strong associations with difficulty would be multisomatoform disorder and alcohol abuse or dependence. Furthermore, the presence of mental disorders may account for a substantial proportion of the excess functional impairment and dissatisfaction in difficult patients. Finally, provider characteristics may have an effect on the likelihood of a patient being experienced as difficult. These include provider familiarity with the patient, gender, age, years of training, type of training, and interest in psychiatric diagnoses.

The Cognitions about Body and Health Questionnaire will identify various types of cognitions that appear to be broadly characteristic of somatizers. There are also cognitive features that distinguish hypochondriasis from somatization groups. This is particularily true for the cognitive variable, Intolerance of Bodily Complaints. This item has high relevance for hypochondriasis. A most striking and significant cognitive aspect of patients with somatization is a self-concept of being weak, of not being able to tolerate physical effort, and of not being able to imagine that physical exercise could be useful. Therefore, this cognitive style may help to explain a patient's inactivity or measure of disability.

The literature clearly relates that somatization burdens the health care system. There is less discussion in the literature concerning the serious burden this disorder may have on the patients themselves. The main purpose of the General Wellbeing Survey is to assess social role functions and the potential limitations the process of somatization may have on patients. Another outcome measure is the SF-36 Health Survey, a well validated instrument for assessing physical and mental components of health. SF-36 includes one multi-item scale measuring eight health concepts: 1) physical functioning; 2) role limitations because of physical health problems; 3) bodily pain; 4) social functioning; 5) general mental health (psychological distress and psychological well-being); 6) role limitations because of emotional problems; 7) vitality; and 8) general health perceptions (Ware and Sherbourne, 1992).

The High Risk Model of Threat Perception is an appropriate theoretical framework for the chronic somatizer because it clearly detects the cognitive styles of chronic somatizers in primary care. As predicted by this model, there should be high negative affectivity, high or low hypnotizability, and high catastrophizing scores occuring among chronic somatizers.

It is possible that respondents may feel burdened by three questionnaires, however, the time it takes to complete each questionnaire is under three minutes.

Patients may readily comply when informed of the benefits related to accurate diagnosis and appppropriate treatment.

Clearly, prompt recognition of somatization disorder and its subsyndromal divisions is needed. The primary project goal is to create an assessment protocol for APN's to screen for chronic somatizers in the primary care setting.

IMPLICATIONS FOR RESEARCH, EDUCATION, AND PRACTICE

Research

Research implications for this project are numerous. The following research questions could be asked: Is somatization associated with the cognitive style of catastrophizing? Can differences in somatization between patients with anxiety or depressed mood and controls (if any) be attributed to differences in catastrophizing? What cognitive styles (hypnotizability, catastrophizing, and neuroticism or negative affectivity) are present among chronic somatizers in primary care? Is somatization less prevalent among those with adequate social support and coping skills? Is somatization correlated with anxiety and depression among the subsets of the PHQ? What proportion of chronic somatizers are experienced by their physicians as "difficult" and is there an association between difficulty and physical and mental disorders, functional impairment, health care utilization, and patient satisfaction with care?

This project suggests that it should be feasible to utilize simple screening procedures for use in primary care, which could eventually be valuable for further research on treatment approaches and outcome studies. The diagnosis for somatization disorder could be categorized based on severity. A subdivision of these patients into those with and without physical disease, anxiety, and depression may help in exploring the hypothesis that somatization disorder varies between individuals, and that management can be enhanced by attention to mood disorders and health beliefs as well as physical disease and functional limitations.

Education

One main concern of this project is that health care providers are responsible for managing the spectrum of psychological and psychiatric problems without the necessary skills. Health care providers need more comprehensive, longitudinal training in psychosocial aspects of practice. In addition, educational programs in communication skills can make a difference in caring for difficult patients. Continuing educational programs have an important role in maintaining and improving standards. One of the most important reasons for the deficiencies in recognition of somatization is inadequate training. Higher education institutions should mandate psychosocial training and also require assessment programs that can assure minimal competence.

Practice

This assessment protocol to identify potential somatizers has important implications for APN's in practice. The literature gives evidence that primary care providers are ineffective in recognizing and facilitating treatment of psychosocial distress. Thus, providers often fail to recognize subsyndromal, yet clincially significant, somatoform disorders and distress. They may be reluctant to address psychosocial factors in their patient's presentation, and when they do, treatment is often not timely or appropriate. Furthermore, somatic presentations hamper the recognition of psychiatric disorders in primary care. The psychological and social aspects of every patients' illness needs to be evaluated and should influence the total medical management to promote the patient as a psychobiological person. A holistic approach is needed in the evaluation and care of somatizers and APN's are trained to use a biopsychosocial approach to the delivery of health care.

As a clinician caring for chronic somatizers, a standard thorough history and physical examination should include personal and family psychiatric history, psychosocial history, medical history, current medications, and results of recent

laboratory and diagnostic tests. Even when dealing with functional somatic complaints, APN's must always ask what organic disease could account for the symptoms because such symptoms can occur in the context of serious medical disease. A thorough chart review is important.

The provider-patient relationship cannot be overemphasized. As counselor, APN's must provide a trusting relationship to communicate emotional problems. This will allow for identification of psychiatric problems, and as collaborator, the need for psychiatric referrals may be more readily discussed. Therapeutic progress is dependent on a patient's basic trust in the provider and the belief that the provider is capable of helping them.

As patient educator, it is important to convey to patients that stresses can be a source of their physical symptoms. The stress caused by these conflicts is transformed or translated into physical symptoms that are easier to acknowledge than the psychological issues. Many people experience physical illnesses that are worsened by stress and emotional conflict, but somatizers have a less common problem. Their physical problems are almost always psychological in origin. Without challenging a patient's belief that they are having medical problems, patients can be encouraged to begin talking about their issues.

A clinical tool that identifies the psychosocial attributes of somatizers may assist APN's in prevention-oriented interventions. Knowledge and identification of risk factors will facilitate prompt recognition of potential somatizers and a greater understanding of the patients' clinical problems. The strength of this assessment process is that it focuses on the form of the complaint (eg., medically unexplained), and not just the content (eg., abdominal pain). Thus, it is expected that in the absence of recognition and hence treatment, complaints of somatization, anxiety, and depression will remain fairly stable overtime. Once treatment begins, significant decreases in distress will be maintained, with levels of somatization,

anxiety, depression, and physical symptoms remaining lower than before the assessment and intervention.

Sociocultural factors have an effect on how a patient communicates their symptoms to the provider. The manner in which a patient complains influences the diagnosis. The provider may block or reject the patients specific complaints. Patients tend to report only what they believe providers expect, i.e., primarily physical complaints. Psychosocial distress is rarely conveyed to providers. This skewed communication is one source of diagnostic error and mismanagement. As client advocates and counselors, APN's can show patients how to become active participants in managing their physical well-being by acknowledging mind-body interactions and by encouraging discussion of life stressors.

The link between somatization disorder and childhood abuse may be a parodoxical pattern of hiding feelings and distrusting caregivers, while also seeking acknowledgemnt for suffering. As assessors, APN's need to explore these patient experiences with sensitivity when assessing and treating patients with somatization disorder and a history of childhood abuse. Furthermore, APN's need to recognize that patients who suffer childhood abuse, particulary sexual abuse, may carry the emotional scars into adulthood and mask them with somatic symptoms. The somatic symptoms are a "ticket of admission" to the health care provider. This care-elicitng behavior of somatizers may be an unconscious or unintentional attempt to correct the deficiency in social support. Many patients really desire genuine interest and empathy from the provider, not relief of physical symptoms. This may lead to improved understanding and management by APN's. Of further significance, somatization can be a marker for unrecognized abuse. Many somatizers describe additional violence during adulthood. As APN's, it may be important to consider ongoing abuse.

A major shortcoming of this problem is that the only way we can currently measure childhood abuse in our adult patients is retrospectively. Patients may exhibit symptoms related to previous abuse and may be misdiagnosed due to lack of knowledge of the abuse history. As assessors, APN's can play an integral part in preventing the emotional scars of childhood abuse by routinely inquiring about childhood abuse and by identifying the familial factors that predisposes one to abuse, and subsequently, somatic symptoms. As educators, APN's can teach young patients and families about childhood abuse. Although most agree on the importance of assessment, most providers do not assess for a history of childhood abuse. As planner, knowing the abuse history of a patient, APN's can gain greater understanding of the patients clinical problems and facilitate appropriate planning of care. Providers that do not routinely assess psychosocial factors may not be meeting the patients' needs. The implications of actively asking if our patients have experienced significant childhood trauma is evident.

As coordinator, patients with somatization disorder do best under the care of a single provider. If specialists are involved, APN's should coordinate all aspects of the patient's care. The managed care environment that encourages primary care providers to act as gatekeepers for specialist care is a beneficial arrangement in this regard.

The information presented here suggests that APN's come into contact with a sizable population of patients with mental health problems in the primary care setting. It appears that the utility of DSM-IV somatization disorder in the primary care setting is limited. It represents the extreme end of the somatization spectrum and so is useful only in settings where the most severely impaired of somatizing patients can be found.

The PHQ is a cost-effective, simple-to-take, easy-to-score measure of psychological disorders that can assist APN's in the assessment, diagnosis, referrals,

and treatment for mental health problems in the primary care setting. There has been rapid proliferation of instruments to assess somatization disorder over the past decade. This project concentrates on utilizing existing instruments to identify patients somatizing in primary care. Systematic efforts to utilize existing tools will enhance the APN's understanding of somatization and allow APN's to compare the predictors of somatization across different studies and to compare the effectiveness of both assessment and treatment interventions. This project is a step to move APN's in the direction of combining their role as clinician and researcher. Furthermore, to the extent that measurement tools are not utilized, so too is our understanding of somatization disorder and our ability to improve the lives of people who experience it.

CONCLUSIONS

Somatizing patients are characterized by abnormal illness behavior (eg, failure to respond to treatment, excessive utilization of care) and psychological distress (eg, depressive symptoms, anxiety, psychosocial stressors). Recognition requires alertness to characteristic features and skillful assessment techniques. Successful management begins by legitimizing symptoms. Restraint should be used in performing workups and assigning diagnoses to somatizing patients. Treatment goals should be clarified and regular visits scheduled. Also, behaviors that threaten the provider-patient relationship should be dealt with. Depression and anxiety should be treated when present. Caring for rather than curing somatizing patients is the goal of therapy. Provider expectations focus on management of symptoms and improvement in function rather than resolving physical problems.

In drawing together assessment strategies for somatization disorder, this project provides a valuable and creative stimulus for primary care APN's to study, prevent, and predict the prevalence of somatization. By using standardized tools, such as the PHQ and CABAH, this project provides a unique and comprehensive protocol that will guide APN's in identifying chronic somatizers in primary care. It is critical that APN's identify and utilize a sensitive approach to measurement when assessing chronic somatizers in the primary care setting.

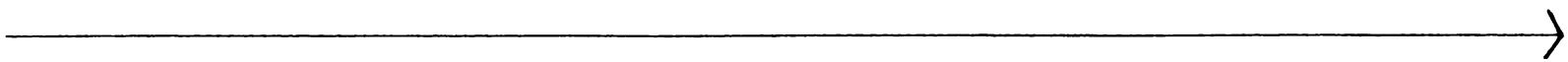
Appendices

Appendix A

SOMATIZATION: SPECTRUM OF SEVERITY

Clinical and behavioral features of somatization are common in patients before they meet the diagnostic threshold of DSM-IV.

Acute	Subacute		Chronic
Mild	Moderate		Severe
Incidental	Common		Rare
General Population	Primary Care		Psychiatric Clinics
Nonsomatizers	Abridged Somatization	Multisomatoform Disorder (PHQ)	Severe Somatizers DSM-IV



Psychosocial Stressors	Treatable Psychiatric or Social Problems -anxiety or depression	Long-Term Coping Style or Personality Disorder substance abuse
No psychiatric diagnosis -neurotic at most	Character defects	Histrionic -disruptive behavior
Apprehension	Anxiety	Panic Disorder

Along the continuum is increasing distress, disability, maladaptive illness behavior, health care utilization, costs, number of physical symptoms, patient-provider frustrations, significant family history, and coexisting disorders.

Appendix B

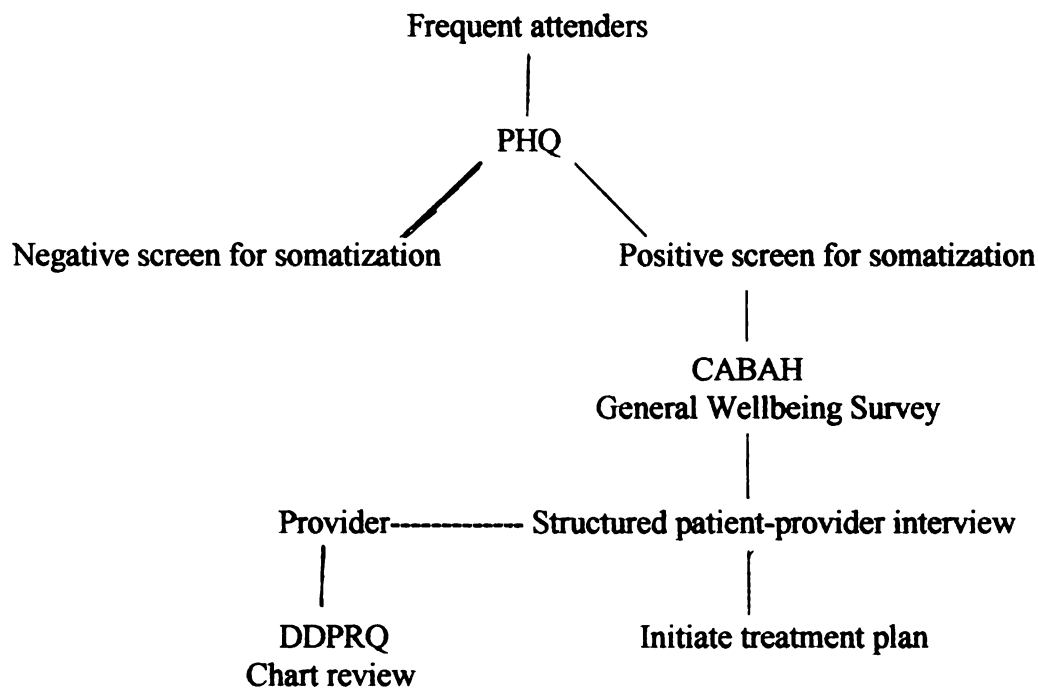
Multistage Assessment Protocol for Chronic Somatizers

Stage I. Computerized Audit to Identify Frequent Attenders

Stage II. Administration of Screening Tools
a) Patient Health Questionnaire (PHQ)
b) Cognitions About Body and Health Questionnaire (CABAH)
c) General Wellbeing Survey

Stage III. Structured Patient-Provider Interview
* Includes Completion of Difficult Doctor-Patient Relationship Questionnaire (DDPRQ-10) and Provider-Rated Physical Health Status Question

Stage IV. Chart Review for Use of Medical Services and Cost of Care Analysis



Appendix C

Patient Health Questionnaire

This questionnaire is an important part of providing you with the best health care possible. Your answers will help in understanding problems that you may have. Please answer every question to the best of your ability unless you are requested to skip over a question.

TODAY'S DATE_____ NAME_____AGE_____ SEX: ☐ Female ☐ Male

1. During the last 4 weeks, how much have you been bothered by any of the following problems?	Not bothered at all	Bothered a little	Bothered a lot
a. Stomach pain	☐	☐	☐
b. Back pain	☐	☐	☐
c. Pain in your arms, legs, or joints (knees, hips, etc.)	☐	☐	☐
d. Menstrual cramps or other problems with your periods	☐	☐	☐
e. Pain or problems during sexual intercourse	☐	☐	☐
f. Headaches	☐	☐	☐
g. Chest pain	☐	☐	☐
h. Dizziness	☐	☐	☐
i. Fainting spells	☐	☐	☐
j. Feeling your heart pound or race	☐	☐	☐
k. Shortness of breath	☐	☐	☐
l. Constipation, loose bowels, or diarrhea	☐	☐	☐
m. Nausea, gas, or indigestion	☐	☐	☐

2. Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
a. Little interest or pleasure in doing things	☐	☐	☐	☐
b. Feeling down, depressed, or hopeless	☐	☐	☐	☐
c. Trouble falling or staying asleep, or sleeping too much	☐	☐	☐	☐
d. Feeling tired or having little energy	☐	☐	☐	☐
e. Poor appetite or overeating	☐	☐	☐	☐
f. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	☐	☐	☐	☐
g. Trouble concentrating on things, such as reading the newspaper or watching television	☐	☐	☐	☐
h. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	☐	☐	☐	☐
i. Thoughts that you would be better off dead or of hurting yourself in some way	☐	☐	☐	☐

FOR OFFICE CODING: Som Dis if at least 3 of #1a-m are "a lot" and lack an adequate biol explanation.
Maj Dep Syn if #2a or b and 5 or more of #2a-i are at least "more than half the days" (count #2i if present at all).
Other Dep Syn if #2a or b and 2, 3, or 4 of #2a-i are at least "more than half the days" (count #2i if present at all)

3. Questions about anxiety.

	NO	YES
a. In the last 4 weeks, have you had an anxiety attack — suddenly feeling fear or panic?	☐	☐

If you checked "NO", go to question #5.

b. Has this ever happened before?	☐	☐
c. Do some of these attacks come suddenly out of the blue — that is, in situations where you don't expect to be nervous or uncomfortable?	☐	☐
d. Do these attacks bother you a lot or are you worried about having another attack?	☐	☐

4. Think about your last bad anxiety attack.

	NO	YES
a. Were you short of breath?	☐	☐
b. Did your heart race, pound, or skip?	☐	☐
c. Did you have chest pain or pressure?	☐	☐
d. Did you sweat?	☐	☐
e. Did you feel as if you were choking?	☐	☐
f. Did you have hot flashes or chills?	☐	☐
g. Did you have nausea or an upset stomach, or the feeling that you were going to have diarrhea?	☐	☐
h. Did you feel dizzy, unsteady, or faint?	☐	☐
i. Did you have tingling or numbness in parts of your body?	☐	☐
j. Did you tremble or shake?	☐	☐
k. Were you afraid you were dying?	☐	☐

5. Over the last 4 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days
a. Feeling nervous, anxious, on edge, or worrying a lot about different things	☐	☐	☐

If you checked "Not at all", go to question #6.

b. Feeling restless so that it is hard to sit still	☐	☐	☐
c. Getting tired very easily	☐	☐	☐
d. Muscle tension, aches, or soreness	☐	☐	☐
e. Trouble falling asleep or staying asleep	☐	☐	☐
f. Trouble concentrating on things, such as reading a book or watching TV	☐	☐	☐
g. Becoming easily annoyed or irritable	☐	☐	☐

FOR OFFICE CODING: Pan Syn if all of #3a-d are 'Y' and 4 or more of #4a-k are 'Y'.
Other Anx Syn if #5a and answers to 3 or more of #5b-g are "more than half the days".

6. Questions about eating.

	NO	YES
a. Do you often feel that you can't control what or how much you eat?	☐	☐
b. Do you often eat, within any 2-hour period, what most people would regard as an unusually large amount of food?	☐	☐

If you checked 'NO' to either #a or #b, go to question #9.

c. Has this been as often, on average, as twice a week for the last 3 months?	☐	☐

7. In the last 3 months have you often done any of the following in order to avoid gaining weight ?

	NO	YES
a. Made yourself vomit?	☐	☐
b. Took more than twice the recommended dose of laxatives?	☐	☐
c. Fasted — not eaten anything at all for at least 24 hours?	☐	☐
d. Exercised for more than an hour specifically to avoid gaining weight after binge eating?	☐	☐

	NO	YES
8. If you checked ' YES' to any of these ways of avoiding gaining weight, were any as often, on average, as twice a week?	☐	☐
9. Do you ever drink alcohol (including beer or wine)?	☐	☐

If you checked "NO" go to question #11.

10. Have any of the following happened to you more than once in the last 6 months?

	NO	YES
a. You drank alcohol even though a doctor suggested that you stop drinking because of a problem with your health	☐	☐
b. You drank alcohol, were high from alcohol, or hung over while you were working, going to school, or taking care of children or other responsibilities	☐	☐
c. You missed or were late for work, school, or other activities because you were drinking or hung over	☐	☐
d. You had a problem getting along with other people while you were drinking	☐	☐
e. You drove a car after having several drinks or after drinking too much	☐	☐

11. If you checked off any problems on this questionnaire, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
☐	☐	☐	☐

FOR OFFICE CODING: Bul Ner if #6a,b, and-c and #8 are all 'Y'; Bln Eat Dis the same but #8 either 'N' or left blank.
Alc Abu if any of #10a-e are 'Y'.

Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues with an unrestricted educational grant from Pfizer Inc. For information contact Dr. Spitzer at Unit 60, 1051 Riverside Drive, NY NY 10032

Quick Guide to PRIME-MD Patient Health Questionnaire

Purpose. The Patient Health Questionnaire (PHQ) is designed to facilitate the recognition and diagnosis of the most common mental disorders in primary care patients. For patients with a depressive disorder, a PHQ Depression Severity Index score can be calculated and repeated over time to monitor change.

Who Should Take the PHQ. Ideally, the PHQ should be used with all new patients, all patients who have not completed the questionnaire in the last year, and all patients suspected of having a mental disorder.

Making a Diagnosis. Since the questionnaire relies on patient self-report, definitive diagnoses must be verified by the clinician, taking into account how well the patient understood the questions in the questionnaire, as well as other relevant information from the patient, his or her family or other sources.

Interpreting the PHQ. To facilitate interpretation of patient responses, all clinically significant responses are found in the column farthest to the right. (The only exception is for suicidal ideation when diagnosing a depressive syndrome.) At the bottom of each page, beginning with "FOR OFFICE CODING", in small type, are criteria for diagnostic judgments for summarizing the responses on that page. The names of the categories are abbreviated, e.g., Major Depressive Syndrome is Maj Dep Syn..

For experience in applying the PHQ diagnostic criteria for mood, anxiety, eating, alcohol and somatoform disorders, see the *Patient Health Questionnaire (PHQ) Case Simulations*, ten hypothetical cases with PHQ responses.

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Somatoform Disorder if at least 3 of **#1a-m bother the patient "a lot"** and lack an adequate biological explanation.
Major Depressive Syndrome if #2a or b.and 5 or more of **#2a-i** are at least "more than half the days" (count #2i if present at all) .
Other Depressive Syndrome if #2a or b and 2, 3 or 4 of **#2a-i** are at least "more than half the days" (count #2i if present at all).

Note: the diagnoses of Major Depressive Disorder and Other Depressive Disorder requires ruling out normal **bereavement (mild symptoms, duration less than 2 months)**, a history of a **manic** episode (Bipolar Disorder) and a **physical disorder, medication or other drug** as the biological cause of the depressive symptoms.

Page 2

Panic Syndrome if #3a-d are all 'Yes' and 4 or more of **#4a-k** are 'Yes'.
Other Anxiety Syndrome if #5a and answers to 3 or more of **#5b-g** are "more than half the days".

Note: The diagnoses of Panic Disorder and Other Anxiety Disorder require ruling out a **physical disorder, medication or other drug** as the biological cause of the anxiety symptoms.

Page 3

Bulimia Nervosa if #6a,b, and c and **#8** are 'Yes'; Binge Eating Disorder the same but #8 is either 'NO' or left blank.

Alcohol abuse if any of #10a-e are "Yes".

Additional Clinical Considerations. After making a provisional diagnosis with the PHQ, there are additional clinical considerations that may affect decisions about management and treatment.

*Have current symptoms been triggered by psychosocial **stressor(s)**?*

*What is the **duration** of the current disturbance and has the patient received any **treatment** for it?*

*To what extent are the patient's symptoms **impairing** his or her usual work and activities?*

*Is there a **history** of similar episodes, and were they **treated**?*

*Is there a **family history** of similar conditions?*

Validation of the Patient Health Questionnaire (PHQ), A Self-report Version of PRIME-MD

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Purpose: PRIME-MD, a two-stage assessment procedure for diagnosing mental disorders in primary care, was introduced in 1994, and has been widely used in primary care research. However, the main obstacle to its use in clinical practice is the physician time required to administer the structured interview guide for patients screened positive on the patient screening questionnaire (X=8.5 minutes). The PHQ is a three page self-report questionnaire that gathers most of the information obtained by the "classic" PRIME-MD. The task of the physician is merely to confirm positive questionnaire responses and apply simple diagnostic algorithms. The purpose of this study was to determine if the self-report PHQ has the same validity as "classic" PRIME-MD.

Methods: 3000 patients from 4 family practice and 3 internal medicine sites completed the PHQ, which were then reviewed by their physician. On a subset of patients (N=585) a mental health professional did a blind telephone diagnostic assessment.

Results: The agreement between the mental health professional and the PHQ diagnosis is presented, as well as the comparable agreement with diagnoses using the classic clinician administered PRIME-MD (PRIME-MD 1000 study).

Operating Characteristics of the Self-administered (PHQ) Compared to the Clinician-administered (CA) PRIME-MD using Mental Health Professional's Diagnoses as the Criterion Standard*

PRIME-MD PHQ n=585; PRIME-MD CA n=431

	Sensitivity, %		Specificity, %		Overall Accuracy Rate, %		Kappa	
	PHQ	CA	PHQ	CA	PHQ	CA	PHQ	CA
Any PRIME-MD psychiatric diagnosis	75	83	90	88	85	86	0.65	0.71
Any mood disorder	61	67	94	92	88	84	0.58	0.61
Major depressive disorder	73	57	98	94	93	92	0.54	0.61
Any anxiety disorder	63	69	97	90 †	91	86	0.65	0.55
Panic disorder	81	57	99	99	98	96	0.84	0.60 †
Probable alcohol abuse/dependence	62	81	97	98	95	98	0.60	0.71
Any eating disorder	89	73	96	99 †	96	98	0.61	0.73

* PRIME-MD indicates Primary Care Evaluation of Mental Disorders; PHQ indicates Patient Health Questionnaire.
† The only differences are higher specificity CA>PHQ for any anxiety disorder ($p<.001$), specificity PHQ>CA for any eating disorder ($p<.02$) and kappa PHQ>CA for panic disorder ($p<.05$).

Conclusions: Over 90% of patients can complete the PHQ unassisted. The PHQ provides comparable information to that obtained by a clinician using the PRIME-MD interview. Because the PHQ is less demanding of physician time, there is a greater likelihood that it will be used by the busy primary care or ob/gyn physician.

Appendix D

Cognitions About Body and Health (CABAH) Questionnaire

Questions are answered on a 4-point scale as follows:

3=completly right
2=mostly right
1=mostly wrong
0=completely wrong

Factor 1. Catastrophizing Interpretation of Bodily Complaints (14 items)

1. A suddenly appearing joint pain can be a sign of a beginning paralysis. 3 2 1 0
2. I'm healthy when I don't have any bodily sensations. 3 2 1 0
3. My doctor and I must be capable of finding an explanation for all bodily complaints. 3 2 1 0
4. When suffering from constipation, one should consult an expert immediately to be certain that one doesn't have intestinal cancer. 3 2 1 0
5. The most serious diseases develop unnoticed and then break out at some time or another. 3 2 1 0
6. Bodily complaints are always a sign of disease. 3 2 1 0
7. Red blotches on the skin are always a sign of skin cancer. 3 2 1 0
8. When suffering from joint pain, one should always take good care of oneself. 3 2 1 0
9. When one sweats alot, it can be due to an overburdened heart. 3 2 1 0
10. The most common reason for discomfort is a serious illness. 3 2 1 0
11. If a doctor refers me for further examination, then he is convinced that there is a serious problem. 3 2 1 0
12. Only persons who do not exert themselves physically stay healthy in the long run. 3 2 1 0
13. A healthy body doesn't cause complaints. 3 2 1 0
14. A tingling senation in the legs can be a serious sign of a nerve disorder. 3 2 1 0

Factor 2. Autonomic Sensations (4 items)

15. I can sometimes hear my pulse or my heartbeat throbbing in my ear. 3 2 1 0

16. When I take a bath I often feel how my heart is beating. 3 2 1 0

17. I hate to be too hot or too cold. 3 2 1 0

18. I often feel my heart beating because my circulatory system is very sensitive. 3 2 1 0

Factor 3. Bodily Weakness (6 items)

19. I can't take much physical exertion as my ability to perform is slowly decreasing. 3 2 1 0

20. I'm not as healthy as most of my friends or acquaintances. 3 2 1 0

21. After physical exertion I often have a feeling of being weak. 3 2 1 0

22. I have to avoid physical exertion in order to save my strength. 3 2 1 0

23. I'm physically rather weak and sensitive. 3 2 1 0

24. My body can tolerate a lot of strain. 3 2 1 0

Factor 4. Intolerance of Bodily Complaints (4 items)

25. If something is wrong with my bodily sensations, it upsets me at once. 3 2 1 0

26. I consult a doctor as soon as possible when I have bodily complaints. 3 2 1 0

27. If I don't observe my body often, I could become seriously ill without noticing it. 3 2 1 0

28. If I have sudden bodily complaints, I first wait and see what happens. 3 2 1 0

Factor 5. Health Habits (3 items)

29. I'm always careful to live really healthily. 3 2 1 0

30. I make sure that I eat healthily. 3 2 1 0

31. If I feel physically weak, I get some fresh air to recuperate. 3 2 1 0

Appendix E

General Wellbeing Survey

Age ___ Gender ___ Employed: Yes ___ No ___ Occupation _____
Last completed level of formal education (1-12) ____ Years in college_____

Medical Conditions

Do you have any of the following medical conditions?

High Blood pressure ___ Diabetes ___ Arthritis ___ Heart Disease ___
Bronchitis or Emphysema ___ Stomach Disorder ___ Cancer ___

Use of Services

Did you receive medical or other health care services during the past year other than at this facility? Yes ___ No ___ If yes, describe the purpose and type of treatment.
Purpose of treatment _____ Type of treatment _____
Purpose of treatment _____ Type of treatment _____
Purpose of treatment _____ Type of treatment _____

Reason for Today's Visit

Is your visit today for evaluation of an emotional problem, physical problem, or stress-related problem?

Emotional ___ Physical ___ Stress-related ___

Self-Reported Overall Health Status

Overall, how would you say your health is?

Excellent ___ Very Good ___ Good ___ Fair ___ Poor___

Satisfaction with Care

Overall, how satisfied are you with your medical care over the last year?

Very satisfied ___ Satisfied ___ Fairly satisfied ___ Not satisfied ___

General Wellbeing Survey
(continued)

Social Support

How would you rate the support of family and friends?

Excellent ___ Very Good ___ Good ___ Fair ___ Poor ___

Three-Part Social Disability Assessment

A. Occupational Role Dysfunction

How much do your symptoms impair your ability to accomplish the usual tasks at work?

None ___ Mild ___ Moderate ___ Severe ___

B. Family Role Dysfunction

How many days per month do your symptoms impair your ability to accomplish the usual tasks at home?

None ___ One or more ___

C. Social Role Dysfunction

How difficult is it to maintain satisfying relationships with others?

None ___ Mild ___ Moderate ___ Severe ___

Appendix F

The Difficult Doctor-Patient Relationship Questionnaire Ten Item Version (DDPRQ-10)

Questions are answered on a 6-point likert scale as follows:

5=always
4=most of the time
3=sometimes
2=not too often
1=rarely
0=not at all

1. How much are you looking forward to this patient's next visit after seeing this patient today?	5 4 3 2 1
2. How "frustrating" do you find this patient?	5 4 3 2 1
3. How manipulative is this patient?	5 4 3 2 1
4. How difficult is it to communicate with this patient?	5 4 3 2 1
5. To what extent are you frustrated by this patient's vague complaints?	5 4 3 2 1
6. How self-destructive is this patient?	5 4 3 2 1
7. Do you find yourself secretly hoping that this patient will not return?	5 4 3 2 1
8. How at ease did you feel when you were with this patient today?	5 4 3 2 1
9. How time-consuming is caring for this patient?	5 4 3 2 1
10. How enthusiatic do you feel about caring for this patient?	5 4 3 2 1

Each item is scored on a five-point scale as noted above.
The DDPRQ-10 score equals the sum of the 10 items.
Items 1. 8, and 10 are scored in reverse direction.
Difficult was based on a DDPRQ score of at least 25.

Provider-Rated Physical Health Status

Overall, how would you rate this patient's health?

Completely healthy ___ Some symptoms but not ill ___
Mildly ill ___ Moderatly ill ___ Severely ill ___

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