

Development of a Culturally Relevant Health Assessment for Low-Income African-  
American Females

BY

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THESIS

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## **LIST OF ABBREVIATIONS**

TEHA	Taylor Ecological Health Assessment
HIV	Human Immunodeficiency Virus
WHO	World Health Organization
AHNA	American Holistic Nurse Association
AMA	American Medical Association
AANP	American Academy of Nurse Practitioners
CINAHL	Cumulative Index to Nursing and Allied Health Literature
HaPI	Health and Psychosocial Instruments
CTA	Chicago Transit Authority
SPSS	Statistical Package for the Social Sciences
EFA	Exploratory Factor Analysis
ACOG	American Congress of Obstetricians and Gynecologists

## **SUMMARY**

Low-income African-American women are disproportionately affected by a number of preventable diseases that could be identified through effective screening. This study was conducted to develop the Taylor Ecological Health Assessment (TEHA), a culturally-relevant holistic health screening tool that can be used by primary care providers to identify personal, social, environmental and cultural factors that may put low-income African-American women at risk for adverse health outcomes. This novel screening tool was developed using a mixed-methods three-phase research study design guided by Bronfenbrenner's Ecological Systems theory. In phase I, a health assessment item pool was developed through review of currently existing health assessment tools.

Phase II involved establishing evidence for the content validity, face validity and the feasibility of the TEHA tool in a clinical setting. Evidence for content validity was established by conducting interviews with an expert panel of 31 experts. The expert panel reached a consensus that the TEHA adequately sampled the health domains of interest. Evidence for face validity was established by interviewing 10 low-income African-American women between the ages of 18 and 49. The laypeople reached a consensus that the TEHA was relevant and easy to understand. The feasibility study consisted of administering the TEHA to a sample of 30 low-income African-American women between the ages of 18 and 49. Results from this study revealed that on average the TEHA took 7.4 minutes to complete and that the recruitment strategies and mode of delivery of the TEHA was appropriate for this population.

### **SUMMARY (continued)**

In phase III, the feasibility of the TEHA was pilot tested in a larger sample of 208 low-income African-American women between the ages of 18 and 49 to assess psychometric properties (construct validity, internal consistency, test-retest reliability) and social desirability. Factor analysis revealed a health-screening questionnaire that contained eight subscales and two 1-item indexes. The TEHA demonstrated high internal consistency (0.752). Test-retest reliability for the TEHA showed significant correlations between times 1 and times 2.

Findings from this research study indicated that the health of low-income African-American women between the ages of 18 and 49 is determined by multiple personal, social, environmental and cultural factors. Thus, primary care providers should take a more systematic approach when performing health screening in this population.

## I. INTRODUCTION

### A. Statement of Problem and Significance

African-American women, particularly those of low-income, are disproportionately affected with a number of diseases that can be detected and treated early through the use of effective health screening. For example, African-American women carry an alarmingly high burden of HIV, accounting for two out of every three new cases of this disease.<sup>[1]</sup> African-American women are twice as likely to die from cervical cancer, and 40% more likely to die from breast cancer than White women.<sup>[2]</sup>

Health disparities experienced by low-income African-American women result from interactions between personal, social, environmental and cultural factors, thus all of these factors should be taken into account when developing health maintenance plans for this population.<sup>[3-6]</sup> After a rigorous literature review, no culturally relevant holistic health screening questionnaire was found that could be used by the health care team (including primary care providers and African-American women) to identify personal, social, environmental and cultural factors that can lead to adverse health outcomes in low-income African-American women between the ages of 18 and 49 years.

Personal factors are defined as innate health-related characteristics and behaviors that directly influence one's health. Personal factors include educational, economical, mental, physical, sexual and spiritual components that influence health. Social factors are defined as the support systems individuals put in place to maintain social well-being. Environmental factors are defined as external agents (not genetically

determined) in one's immediate setting that can impact health. Cultural factors are defined as unique customs that influence one's health behaviors. Health interventions that address multiple factors are more effective in fostering positive health outcomes in low-income African-Americans women. <sup>[5-9]</sup>

Prior to development of effective disease prevention interventions, the health care team must be aware of the multiple factors that place low-income African-American women at risk for negative health outcomes. This can be achieved through health screening. The use of health screening in primary care settings is advantageous because it can lead to early detection and treatment in individuals who may not otherwise seek care until disease symptoms arise. <sup>[10]</sup> The use of health screening tools can also assist the healthcare team in determining target areas for health promotion and maintenance, uncovering modifiable and non-modifiable personal, social, environmental and cultural factors that place patients at risk for health problems, and prioritizing patient care. <sup>[11,12]</sup>

Current health screening questionnaires are inadequate for systematically assessing the health of low-income African-American women ages 18 to 49 years for many reasons. First, current health screening questionnaires are not culturally relevant. African-American women have a unique culture and set of health beliefs; thus, health screening tools developed for other racial groups may be inadequate for assessing cultural factors that influence the health of low-income African-American women. <sup>[13,14]</sup> Second, no currently used health screening tool was identified that can be used to assess personal, social, cultural or environmental factors simultaneously. Lastly, other health screening

questionnaires were not designed to be used by both primary care providers and low-income African-American women patients to assess their health.

The purpose of this research is to develop and test the psychometric properties of the Taylor Ecological Health Assessment (TEHA), a culturally relevant holistic health screening questionnaire that can be used by primary care providers to assess personal, social, environmental and cultural factors that place low-income African-American women between the ages of 18 and 49 at risk for health disparities. Development of this novel health screening questionnaire was accomplished using a mixed-method three-phase research study design guided by Bronfenbrenner's Ecological framework. Phase I involved the use of qualitative interviews with experts and laypeople to guide the development of the TEHA, and phase II involved the use of quantitative, non-experimental methods to assess the psychometric properties (internal consistency, construct validity, test-retest reliability) of this novel health screening questionnaire.

The long range goal of this research is to reduce health disparities experienced by low-income African-American women between the ages of 18 and 49 through the development of comprehensive health care plans that address personal, social, environmental and cultural risk factors. Use of the TEHA in primary care settings will assist members of the healthcare team in using an ecological approach to assess the health of low-income African-American women. Fostering positive health outcomes in this population could also lead to healthier outcomes in African-American males and children since African-American women often model health behaviors for their children and significant others. <sup>[15-23]</sup>

Development of the Taylor Ecological Health Assessment (TEHA) will serve numerous purposes for patients and healthcare providers, and will lay the foundation for the researcher's future program of research. For patients, completing this health assessment will increase their awareness about the multiple factors that influence their health. It will also aid patients in disclosing sensitive health information that they may be uncomfortable verbally communicating to their healthcare provider. For healthcare providers, this health assessment can be used to (1) gain a more comprehensive view of their patients, (2) identify personal, social, environmental and cultural risk factors that can influence health, and (3) develop and prioritize culturally specific short and long term health goals for their patients.

#### **B. Purpose of Study**

The purposes of this mixed-methods three-phased research study were to develop a culturally relevant holistic health screening questionnaire for low income African American women and to test the psychometric properties of the questionnaire (Taylor Ecological Health Assessment [TEHA]). The tool was designed to identify personal, social, environmental and cultural factor that place African-American women at risk for negative health outcomes. Achieving cultural relevance of the TEHA to low-income African-American women between the ages of 18 and 49 was accomplished by interviewing low-income African-American women between the ages of 18 and 49 during the development of the TEHA. They were asked to provide feedback about how the TEHA should be designed, and their feedback guided the development of this screening tool.



### C. **Research Questions**

Using a three-phased mixed-methods research design, the following research questions were addressed:

#### ***Phase I***

1.) What items are essential for developing and comprehensive, cultural relevant assessment tool for low-income African American women?

#### ***Phase II***

2.) What is the content validity of the Taylor Ecological Health Assessment (TEHA)?

3.) What is the face validity of the TEHA?

#### ***Phase III***

4.) What is the construct validity of the TEHA?

5.) What is the internal consistency of the TEHA?

6.) What is the test-retest reliability of the TEHA?

7.) What are the correlations between individual item and TEHA total scores and Marlowe-Crowne Social Desirability Scale (Form C)?

### D. **Operational Definitions**

1. African-American: Anyone born in the United-States who self identifies as being African-American.

2. Low-income: Persons who report making an annual income of 200% the poverty threshold or less according to the U.S. Department of Health and Human Services 2011 poverty guidelines.

3. Content Validity: Responses from a panel of 31 experts regarding the relevance of items on the TEHA to the health constructs (personal, social, cultural, environmental) they were intended to assess.
4. Face validity: Responses from a sample of 10 laypeople (low-income African-American women between the ages of 18 and 49) regarding the cultural relevance of TEHA, readability, and appropriateness of individual TEHA items.
5. Construct Validity: Findings obtained using SPSS to perform factor analysis to extract factors with eigenvalues greater than or equal to one.
6. Internal Consistency: Findings obtained using SPSS to calculate Cronbach's Alpha.
7. Test-Retest Reliability: The SPSS calculation of the Pearson's correlation between scores obtained on the TEHA at time one, and scores obtained on the TEHA two weeks later at time two.
8. Social Desirability Bias: Findings obtained using SPSS to calculate Pearson's correlation coefficient between TEHA individual item and total scores, and the Marlowe-Crowne Social Desirability (form C) scale scores.

## **II. RELATED LITERATURE**

### **A. Introduction**

Stark health disparities exist between African-Americans and the rest of the United States population. Poorer health status of African-Americans is reflected by their shorter life expectancy, greater burden of disease and disease-related deaths and lower utilization of preventive health care services.<sup>[24-27]</sup> Despite continued research on health disparities experienced by African-Americans, and development of health interventions for this population, health disparities continue to persist.

### **B. Health Disparities Experienced by African-Americans Women**

Although average life expectancy is steadily increasing in the United States, African-Americans' average life expectancy is almost five years less than the rest of the United States population (general population = 77.9 years; African-Americans = 73.6) and African-American males consistently continue to have the lowest average life expectancy (70 years).<sup>[24]</sup> African-Americans have a higher prevalence of diabetes, hypertension, AIDS, heart disease, stroke and certain types of cancer (colorectal, cervical, myeloma, prostate, HPV-associated), and are more likely to die from these diseases than Whites.<sup>[28-33]</sup> Many of these diseases are preventable, and they carry significant financial burdens. For example, annual costs of diabetes, cancer and heart disease are \$174 billion, \$263.8 billion and \$316.4 billion, respectively.<sup>[28,32,34]</sup>

Health disparities experienced by African-Americans not only include differences in disease morbidity and mortality, but also differences in healthcare delivery to this

population. The percentage of African-Americans who are uninsured (19.5%) is almost twice that of non-Hispanic whites (10.4%).<sup>[35]</sup> African-Americans also have decreased access to care. About 20% of African-Americans lack a usual source of health care, which reduces their opportunity to receive adequate routine health care.<sup>[36]</sup> These barriers to care often lead to delays in African-Americans initiating and maintaining follow-up health care visits.<sup>[36, 37]</sup>

Research shows that low-income African-Americans receive lower quality of care in nonteaching hospitals, and are more likely to receive care from less experienced physicians.<sup>[36, 37]</sup> African-Americans also experience health disparities stemming from differences in physicians' decision-making processes. Physicians are less likely to provide evidence-based procedures for heart failure, stroke or myocardial infarction; less likely to adhere to quality of care measures for the management of pneumonia (i.e. administering pneumonia vaccine or smoking cessation counseling); and less likely to provide adequate treatment of pain when working with African-American patients.<sup>[38- 40]</sup>

### **C. Rationale for Selecting Low-Income African-American Women Ages 18 to 49 Years for the Current Study**

There are two main reasons why low-income African-American women ages 18 to 49 years were chosen for the current research study. First, as stated earlier, African-Americans women are disproportionately affected by a number of preventable health disparities. African-American women are less frequently diagnosed with breast cancer, but are more likely to die from it.<sup>[41]</sup> HIV/AIDS is rampant amongst African-American women, and is the leading cause of death among African-American women ages 25 to 34.

<sup>[41]</sup> African-American women also experience higher levels of obesity and overweight, which puts them at risk for other negative health sequelae. <sup>[48]</sup>

Second, African-American women play a central role in the effective functioning of their families, and often assume responsibility for the health of their families. This age group of women was chosen because they are in their childbearing years and can greatly impact the health of their children and partners. <sup>[15-23]</sup> African-American children living with HIV-infected mothers are more likely to have poorer grades than children living with mother not infected with HIV. <sup>[15]</sup> The infant mortality rate for African-American infants (13.31 per 1000 live births) is more than twice the rate for White infants (5.63 per 1000 live births). <sup>[42]</sup> In African-Americans, maternal chronic diseases such as hypertension and diabetes are significantly associated with adverse birth outcomes such as preterm birth and low birth weight. <sup>[18]</sup> There is also research that indicates that African-Americans have some influence in their partners' decisions to participate in certain healthy (i.e. prostate cancer screening) or unhealthy behaviors (i.e. smoking marijuana). <sup>[20-23]</sup>

#### **D. Importance of Holistic Health Screening**

The World Health Organization (WHO) defines health as, “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” <sup>[43]</sup> Without expanding health assessment to acknowledge social, environmental or cultural factors, important factors that can greatly impact health will go unnoticed. The American Holistic Nurses' Association (AHNA) asserts that human beings are summations of body, mind, emotional, social, spiritual, cultural, relationship and environmental aspects. <sup>[44]</sup> All of these aspects are interconnected, and an imbalance

or threat to one aspect can affect the others.<sup>[45]</sup> Elimination of health disparities in African-Americans involves knowledge of how interactions between multiple factors influence them.<sup>[46]</sup> Using a structured, holistic health assessment allows healthcare providers to identify health-related issues that may otherwise go unnoticed, identify patients' perceptions of their health, and assess potentially modifiable health risk factors.<sup>[47,48]</sup> Assessing patients' personal views about their health is crucial to the development of health promotion plans, and patients' personal assessment of their health is predictive of health outcomes.<sup>[47]</sup> Few, if any, holistic questionnaires were identified for African-American women.

#### **E. Importance of Culturally Adapting Health Screening Instruments**

Cultural competence is increasingly more important for healthcare providers as society is becoming more racially diverse.<sup>[49]</sup> African-Americans have a unique set of socio-cultural values and beliefs about health. Undertones of racism and discrimination stemming from slavery, segregation, and the Tuskegee experiments greatly impact some African-Americans' views of the United States healthcare system and healthcare utilization.<sup>[50, 51]</sup> Negative effects from these historical events continue to shape African-Americans behaviors, values, beliefs and perspectives on health and health-related research.<sup>[51, 52]</sup>

Specific cultural barriers to health promoting behaviors in African-Americans stemming from these historical events include: distrust of healthcare providers, lack of culturally competent healthcare providers who take the views of African-American patients into account when developing healthcare plans, and the use of generic health education and treatment plans that are not culturally specific to African-Americans.<sup>[53, 54]</sup>

One solution to these barriers is the provision of culturally relevant care. Providing culturally relevant care involves assessing and honoring each individual's behaviors in order to gain an understanding of their cultural orientation.<sup>[55]</sup> Culturally relevant communication can motivate patients to be more actively involved in their care, increase adherence to treatment plans, improve quality of care and lead to improved health outcomes.<sup>[56]</sup> Few, if any, culturally competent questionnaires were identified for African-American women.

**F. Importance of including African-Americans Patients in the Health Decision-Making Process**

According to the National Quality Forum, actively involving patients and family in healthcare has “the greatest potential to eradicate disparities, reduce harm, and remove waste from the American healthcare system.”<sup>[57]</sup> The American Medical Association (AMA) and the American Academy of Nurse Practitioners (AANP) both assert that patients should actively be involved in the health decision-making process.<sup>[58-59]</sup> The relationship between healthcare providers and patients is central to healthcare delivery.<sup>[60]</sup> A positive relationship between a patient and healthcare provider is essential to achieving more favorable health outcomes.<sup>[60]</sup> Ideally, patient and healthcare providers should have a collaborative relationship in which the patient and the healthcare provider are actively involved in the decision-making process.<sup>[61,62]</sup> Actively engaging patients in making healthcare decisions has been associated with increased medication compliance, increased patient knowledge, higher compliance to self-management behaviors, higher physical and mental functioning, increased patient satisfaction, decreased decisional conflict between patients and providers, and improved health outcomes.<sup>[63,64]</sup> Although

some African-Americans adults prefer that their physicians make the final decisions regarding their care, it is critical that physicians ensure that their patients are well informed about decisions made regarding their health. <sup>[63,64]</sup>

#### **G. Personal Health Factors**

Physical health is generally the main focus when patients visit their primary care provider. However, other personal factors must be considered when assessing the health of African-Americans women between the ages of 18 and 49. An extensive literature search uncovered several personal factors that impact the overall health of African-American women including physical health, spiritual health, economic status, educational attainment, sexual health and mental health. Each of these factors has been identified as positive or negative contributors to the health of African-American women. In most health assessments or research studies, these factors are studied individually, but not in combination with each other or with social, environmental and cultural factors.

Examining spirituality is extremely important when assessing the health of African-Americans because it is deeply rooted in their culture, and intermingles with almost every aspect of their lives including their views about health. <sup>[65]</sup> Spirituality greatly impacts some African-Americans' beliefs about health and illness, treatment preferences and their participation in health-promoting behaviors. <sup>[66, 67]</sup> It has also been identified as a source of spiritual, social, financial and psychological support. <sup>[68]</sup> It is vital that spirituality be included in providing holistic care for African-American patients, because it is believed that spirituality sets the foundation for understanding disease and health restoration. <sup>[67]</sup> Knowledge of patients' spirituality can help healthcare providers design culturally specific interventions that are targeted toward their patient's spiritual



beliefs and develop stronger interpersonal relationships with patients. <sup>[69, 70]</sup>

Sexual health is also a very important factor that should be examined when assessing the overall health of African-Americans. The WHO defines sexual health as “a state of physical, mental and social well-being in relation to sexuality.” <sup>[71]</sup> Sexuality can contribute to an individual’s well-being and quality of life, and failing to assess patients’ sexual needs can be harmful to the physician-patient relationship. <sup>[72-74]</sup> Poor sexual health has detrimental effects not only for an individual, but also for the entire community. <sup>[72]</sup> This is evidenced by the fact that the African-American community carries a higher burden of HIV and other sexually transmitted infections than other racial groups. <sup>[75]</sup>

Socio-economic status has a profound impact on health. <sup>[76]</sup> African-Americans tend to experience higher levels of poverty, which is an important health determinant. <sup>[77, 78]</sup> Poverty is associated with greater risk of death and disability, lower educational attainment, inadequate living conditions, increased levels of substance abuse, and increased psychological distress. <sup>[79-82]</sup> Education is also a strong predictor of health in adults; lower educational attainment is associated with lower health literacy and poorer health. <sup>[83-85]</sup> Knowledge of the effects that these socio-economic status indicators have on health is crucial to developing health interventions for African-Americans. <sup>[76]</sup>

Mental illness is associated with poorer physical health and increased mortality. <sup>[86]</sup> Thus, assessing mental health is crucial to examining the overall health of African-American patients. African-American are less likely to seek mental health services from a mental health professional, and more likely to receive them from their primary care provider, clergy, or church congregation. <sup>[87-89]</sup> This may be due to African-Americans’

fear of being stigmatized about a mental illness by their families and communities. <sup>[90, 91]</sup>

This being the case, primary care providers must be sure to conduct a thorough mental health assessment of African-American patients because they may be the main (or only) healthcare professional involved in the patient's mental health care.

## **H. Social Health Factors**

The World Health Organization defines social determinants of health as, “the conditions in which people are born, grow, live, work and age, including the health system.” <sup>[92]</sup> An important social factor that influences the health of African-American women is their social support systems. African-Americans' support systems tend to consist of multiple generations of family members, kinships (non-blood relatives), the community and African-American churches. <sup>[93-95]</sup> Social support and religious participation are associated with better health outcomes in the African-American community. <sup>[95]</sup> African-American families and kin networks have been identified as “a source of myriad resources for enhancing clients' well-being.” <sup>[94]</sup> African-Americans' support systems provide them with the resources they need to overcome adverse outcomes such as racism, anxiety, depression, or lack of financial resources. <sup>[93-95]</sup> Social support also serves as an important coping tool for stress. <sup>[96]</sup> These positive outcomes associated with social support suggest that encouraging African-American women to build and/or strengthen their support systems can be an inexpensive intervention that may lead to better health outcomes.

## **I. Environmental Health Factors**

Currently, there is an increasing amount of literature about the built environment and its influence on various health behaviors. According to the National Institute of

Environmental Health Sciences, the built environment is defined as “the building spaces, all the products that are created by people—your homes, the places where you work, the playgrounds in your neighborhoods, transportation.”<sup>[97]</sup> Many environmental factors can influence health including exposure to contaminated air, water or soil; crime level, access to healthy foods, dangerously high traffic speeds, recreational resources and over-saturation with drugs and alcohol.<sup>[98]</sup> Low-income communities are more likely to be the sites of hazard and are less likely to promote healthy behaviors.<sup>[98]</sup> Although healthcare providers may not be able to change adverse environmental factors, the Prevention Institution asserts that, “healthcare practitioners can serve an essential role in collaborating with other professionals and working alongside with neighborhood residents to promote healthy communities.”<sup>[98]</sup> Few, if any, questionnaires have included assessment of the built environment in assessment of the health status and environment of low-income African-American women.

## **J. Conceptual/Theoretical Framework**

The Ecological Systems Theory was used as the theoretical framework for this study. After conducting a literature review for the current study and discovering that personal, social, environmental and cultural factors influence the health of African-Americans, the researcher discovered that this information was closely aligned with the Urie Brofenbrenner’s Ecological Systems Theory.

According to Brofenbrenner, human development is based upon a system of complex interactions between the environment, a person’s perceptions of their environment, and the way the person responds to, and functions within the environment.

<sup>[99]</sup> This assertion very closely mirrors the researcher’s assumption that health is

influenced by the complex interaction of multiple personal, social, environmental and cultural factors. Within the Ecological Systems Theory, the broader term “environment” is a compilation of multiple environmental systems that interact to directly or indirectly influence human development.<sup>[99]</sup> These environmental systems include the microsystem, mesosystem, exosystem and macrosystem.<sup>[99]</sup> Listed below are Brofenbrenner’s definitions of these environmental systems, as well as the definitions of other important concepts within the Ecological Systems Theory.

***Human development.*** According to Brofenbrenner, the first part of the human development process involves the acquisition of a broader, more valid conceptualization of the ecological environment.<sup>[99]</sup> As a result of this new perception, individuals develop a higher level of motivation and ability to participate in activities that reveal the characteristics of, maintain, or restructure their environments based on their new conceptualization of the environment.<sup>[99]</sup>

***Ecological Transitions.*** Ecological transitions are defined as a change in role, setting, or both that alters a person’s position in their ecological environment.<sup>[99]</sup> Ecological transitions result from, and stimulate, human development.<sup>[99]</sup>

***Microsystem.*** Microsystems are described as a person’s most immediate setting or environment. The microsystem is defined as, “a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics.”<sup>[99]</sup> Included within the microsystem are agents (i.e. family, friends, schools) that have the most direct interaction with the individual.<sup>[99]</sup> To some extent, individuals have control over interactions that occur within the microsystem. In the context of the current study, personal health factors

(educational, economic, financial, mental, physical, sexual, spiritual) and social health factors are included in the microsystem.

**Mesosystem.** The mesosystem refers to relations between microsystems. He defines mesosystems as, “the interrelations among two or more settings in which the developing person actively participates.”<sup>[99]</sup> Each time a person assumes a new role in life, or moves to a new setting, the mesosystem expands.<sup>[99]</sup> An example of a mesosystem would be the interrelations among family experiences or relationships, work experiences or relationships and school experiences or relationships. Individuals are actively involved in the development of mesosystems. Within the context of the current study, interactions between personal, social, environmental and cultural factors are included in the mesosystem.<sup>[99]</sup>

**Exosystem.** An exosystem is composed of one or more settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by, what happens in the setting containing the developing person.<sup>[99]</sup> An example would be the effects of a husband’s work experience on the remainder of the family. If a husband loses his job, this can lead to increased stress within in the family, which could in turn affect his child’s performance in school.

**Macrosystem.** Brofenbrenner defines the macrosystem as, “consistencies, in the form and content of lower-order systems (micro-, meso-, and exo-) that exist, or could exist, at the level of the subculture or culture as a whole, along with any belief systems or ideology underlying such consistencies.”<sup>[99]</sup> Macrosystems may be shaped by ethnicity, socioeconomic status, religious or cultural beliefs. In the current study the African-American culture is a macrosystem.<sup>[99]</sup>

This theory was chosen for this research study because, like the human development process, multiple levels of factors also influence health. In his theory, Brofenbrenner proposed that human development cannot simply be explained by direct observation of human behavior in their immediate setting, and that the study of human development requires a broader multisystem perspective in order to gain a more accurate understanding of human behavior.<sup>[99]</sup> The same is true about health assessment.

#### **K. Innovation**

In past studies, researchers have stressed the importance of: (1) focusing on multiple factors when assessing health, (2) developing culturally relevant health promotion and maintenance plans for African-American patients, and (3) actively involving patients in their healthcare.<sup>[57, 76, 86, 100-103]</sup> Although all of these strategies have the potential to improve health outcomes in African-Americans, they have not achieved full utility in clinical practice.<sup>[47, 56, 104]</sup> Development and validation of a culturally relevant holistic health assessment that can be used by healthcare providers and African-American patients represents an important first step in synthesizing this research and translating it into clinical practice.

The TEHA will be innovative for many reasons. First, the TEHA is a novel health assessment can be used as a comprehensive health assessment designed specifically for low-income African-American women ages 18 to 49 years. Current health assessments may focus on personal, social, cultural or environmental factors individually, but none were located that examined this unique combination of factors. A second unique feature of the TEHA is that it is culturally specific to low-income African-American women between the ages of 18 and 49 years. In fact, members of this population were consulted

in the TEHA development process, and asked to provide their input and suggestions.

Third, the TEHA is innovative because it can be used by healthcare providers and low-income African-American women ages 18 to 49 years.

### **III. Methodology**

#### **A. Introduction**

To develop the Taylor Ecological Health Assessment (TEHA), the researcher used a three-phased sequential mixed methods research design. Phase I involved the generation of a health assessment item pool. Qualitative methods were used to assess content and face validity in phase II, and quantitative methods were used in phase III to assess the psychometric properties (construct validity, internal consistency, test-retest reliability) of the TEHA. This was an appropriate design to achieve the aims of this research because one purpose of mixed methods research is development, and mixed methods research is commonly used for instrument development and validation.<sup>[105, 106, 107]</sup> Qualitative data can guide the development of an instrument, followed by the use of quantitative methods to test the psychometric properties of the instrument.<sup>[106, 107]</sup> Using qualitative and quantitative methods in combination allows researchers to, “confirm, cross-validate, or corroborate findings within a single study.”<sup>[107]</sup>

Although mixed methods research designs provide an expanded view of a phenomenon that cannot be achieved through the use of qualitative or quantitative methods alone, two main limitations to mixed methods research have been identified. These disadvantages are that researchers must be knowledgeable and skilled in qualitative and quantitative methods and that extensive data collections and resources are required.



## **B. Phase I**

### **1. Research Design**

*Generation of health assessment items.* Phase I of this research study involved the generation of a health assessment item pool containing items about personal, social, environmental and cultural health factors that influence the health of low-income African-American women ages 18 to 49 years that could potentially be included on the TEHA. The principal investigator identified potential health assessments by first conducting a rigorous literature review to identify the factors that influence the health of African-American. From the literature review, it was determined that the following factors may impact the health of African-Americans: personal (education, economic, mental, physical, sexual, and spiritual) social, environmental and cultural factors.

### **2. Research Sample**

After identifying these factors, the principal investigator then conducted a search for currently existing health assessments using the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Health and Psychosocial Instruments (HaPI), PubMed, Medline, PSYCinfo, the NIH website, Google, and Yahoo using the following keywords: “African-American”, “women”, “health assessment”, “personal health”, “social health”, “mental health”, “environmental health”, “built environment”, “nutrition assessment”, “economic health assessment”, “cultural health”, “sexual health”, and “spiritual health”. The principal investigator also obtained copies of patient intake forms from two clinics and one hospital in Chicago, IL to review. This yielded sample of approximately 75 health assessments which included a mixture of general health assessments and disease-specific health assessments.

Inclusion criteria for the health assessments used in the development of the TEHA were that they contained general health assessment items and that they had items related to one or more areas included on the TEHA: personal health factors, social health factors, environmental health factors or cultural health factors. Based on these criteria, 45 health assessments were eliminated. Items from the remaining 30 assessments were compiled into one word document to create the initial health assessment item pool of 984 items (TEHA Version 1). See Appendix A.<sup>[109-139]</sup> See table 1 for an item breakdown of all TEHA versions. Specific topics covered in the TEHA Version1 were alcohol use, healthy habits, oral health, family health, quality of life, home safety, hearing function, mental health (including depression, stress and anxiety), nutrition health, environmental health, occupational health, sexual health, vision health, social support, social role function, pain and cultural health.

***Reduction of health assessment item pool.*** The initial review of currently existing health assessments yielded a pool of 984 health assessment items (TEHA Version 1). Next, the principal investigator eliminated items that were redundant and items that were too disease-specific. She also submitted the assessment to an expert who has extensive experience conducting research with African-American women for feedback. This resulted in TEHA Version 2, which consisted of 118 items (Appendix B). See table 1.

TEHA Version 2 was then submitted for expert review to members from a health disparities seminar (composed of three UIC College of Nursing faculty members, three postdoctoral fellows and three pre-doctoral fellows) in January, 2011 and February, 2011. Members of the health disparities seminar provided feedback that allowed the researcher to reduce the TEHA to 91 items. At this point the researcher added three novel cultural

health items. These cultural health items were:

- Do you practice any cultural folk remedies or health practices? If so, what?
- Do you ever feel like you've been discriminated against?
- How do you cope with discrimination?

The members of the health disparities seminar also provided feedback about items that were not relevant and were too specific, as well as feedback on the response format revision, and how many items the final version of the TEHA should contain. The principal investigator used this feedback to revise the TEHA, resulting in TEHA Version 3 which consisted of 94 items (Appendix C).

## C. **Phase II**

### 1. **Research Design**

A qualitative descriptive design was used to elicit information from experts and laypeople (defined in the current study as low-income African-American women ages 18 to 49 years) to establish evidence for content validity and face validity of the TEHA, respectively. Qualitative descriptive methods can be used to gain a “rich, thick description” of an event or phenomenon in everyday terms.<sup>[108, 140]</sup> Information gathered from qualitative descriptive studies can also be used to aid health practitioners in understanding different phenomena within their patients' socio-cultural context.<sup>[140]</sup>

### 2. **Research Sample and Setting**

***Sample selection.*** Purposive sampling was used to recruit experts and laypeople. Inclusion criteria for experts comprised professionals who had expertise in one or more health domains included in the TEHA, who were fluent in reading and speaking English,

who had experience working with low-income African-American women ages 18 to 49 years, and who practiced within 50 miles of Chicago, Illinois. Exclusion criteria were professionals who did not have expertise in one or multiple health domains included in the TEHA, who did not have experience working with low-income African-American women ages 18 to 49 years, who were not fluent in reading and writing English, and who lived more than 50 miles away from Chicago, Illinois.

Inclusion criteria for laypeople were that they must: 1) self-identify as being African-American; 2) be a woman; 3) be between the ages 18 to 49 years; 4) be low-income; 5) be born in the United States; 6) be fluent in reading and speaking English, and 7) live within 25 miles of Chicago Metropolitan Statistical Area. Exclusion criteria for laypeople included: not being women, not self-identifying as being African-American, being less than 18 years old or older than 49, not being low-income according to the 2011 federal poverty guidelines, being born outside of the United States, not being fluent in reading and speaking English, and not living within 25 miles of Chicago. The researcher attempted to achieve maximum variation during laypeople recruitment with respect to age by selecting an equal number of participants for each age group. An annual income of 200% the 2011 federal poverty levels or less was used to define low-income<sup>[141]</sup> (Table 2).

Using purposive sampling has some strengths and weaknesses. One strength of this sample is that the researcher can select participants to ensure that they represent the target demographics (low-income African-Americans women between the ages of 18 and 49 years). Another strength of purposive samples is that they are low cost and convenient.

<sup>[142]</sup> A limitation of using this sample was that investigator bias may be present due to

non-random sampling techniques; the sample was chosen according to criteria set by the researcher, and the researcher decided who would be included in the final sample. Another limitation of this sample was that it is only representative of low-income African-Americans in Chicago, Illinois. African-Americans in Chicago may use different vernacular than African-Americans in other regions of the United States, which could influence how effectively the TEHA can be used with African-Americans in different regions of the U.S. Also, responses gathered from low-income inner-city African-American women may not have been representative of African-American males, African-American women who are not low income, African-American women who do not reside in the city, or African-American women who are older than 49 years of age.

***Sample recruitment – experts.*** To recruit primary care providers, mental health care providers, ministers and accountants (or personal bankers), and aldermen, the 2011 edition of the Chicago Yellow pages was used to develop a list of potential subjects. To recruit public health, anthropology, African-American studies and English professors with doctorate level degrees, the researcher searched the official websites of five public and private universities in Illinois to identify faculty and staff that could serve as potential subjects on the expert panel. These universities included University of Illinois at Chicago, University of Illinois in Urbana-Champaign, DePaul University, Chicago State University, and Roosevelt University. Any contact information for these faculty members (i.e. name, e-mail address and phone number) that was available on each university's website was added to the list of potential subjects. Using this method, the principal investigator composed a list of 78 potential experts. After this list was completed, the researcher contacted potential subjects by telephone, face-to-face contact, or e-mail.

**TABLE I****TEHA ITEM BREAKDOWN FOR VERSIONS 1 - 9**

<b>Version</b>	<b>Reviewers</b>	<b>Personal Education</b>	<b>Personal Economic</b>	<b>Personal Mental</b>	<b>Personal Physical</b>	<b>Personal Sexual</b>	<b>Personal Spiritual</b>	<b>Social</b>	<b>Environmental</b>	<b>Cultural</b>	<b>Total</b>
<b>1</b>	- Principal Investigator - Advisor/Expert	2	8	83	532	22	4	232	80	3	984
<b>2</b>	- Principal Investigator - Advisor/Expert - Health Disparities Seminar	3	7	8	51	4	2	21	38	4	118
<b>3</b>	- Expert Panel	3	6	7	32	5	2	23	14	2	94
<b>4</b>	- 4 Laypeople - 5 Experts (2 <sup>nd</sup> Review)	3	4	7	24	5	2	21	14	2	82
<b>5</b>	- 6 Laypeople - Health Disparities Seminar	1	1	7	18	6	1	6	14	4	61
<b>6</b>	- 30 Laypeople - Health Disparities Seminar	1	1	6	10	3	0	6	11	2	40
<b>7</b>		1	1	6	10	3	0	6	10	2	39
<b>8</b>		1	1	5	8	1	0	6	8	1	31
<b>9</b>		1	0	3	6	3	0	6	8	1	28

TABLE II

## 2011 FEDERAL POVERTY GUIDELINES

No. of Persons in Family	Poverty Guidelines of 48 Contiguous States *	Low-Income Guidelines for Current Study
1	\$10,890	\$21,780
2	\$14,710	\$29,420
3	\$18,530	\$37,060
4	\$22,350	\$44,700
5	\$26,170	\$53,420
6	\$29,990	\$59,980
7	\$33,810	\$67,620
8	\$37,630	\$75,260
For each add'l person, add	\$3,820	

\* Excludes Alaska and Hawaii

**Source:** Health and Human Service Department. (2011). Annual update of the HHS poverty guidelines. *Federal Register*, 76(13), 3637–3638.

Of the 78 potential experts who were contacted, 46 responded to the principal investigator's initial contact. Of the 46 who responded to the initial contact, 31 participated in the research study. Table 3 provides a breakdown of the number of each type of expert who was contacted, their initial method of contact, response rate, and the participation rate.

One anticipated difficulty in this phase of the study was recruiting and encouraging primary care providers to participate. Current research suggests that physician response rates in research studies are declining.<sup>[143, 144]</sup> Recent experience of survey researchers suggest that physicians are becoming less likely to cooperate with researchers to complete interviews, and physicians' office staff members act as "gatekeepers" who restrict researchers' access to the physician.<sup>[143]</sup> The researcher attempted to accommodate the primary care providers scheduling by minimizing their participation time to 1 hour or less.

**First contact.** If potential expert subjects were not available when contacted by phone or face-to-face, the researcher left a brief message (voicemail if contacted by phone, or a card containing her name and phone number if contacted face-to-face) containing the purpose of the call/visit and her contact information so that

**TABLE III**

**EXPERT PANEL CONTACT AND RESPONSE RATES**

Type of Expert	Total # Contacted	Method of Initial Contact	# Contacted	Response Rate	% who participated
Alderman	11	Telephone	11 (100%)	1/11 (9%)	1/11 (9%)
Pastor/Minister	5	Face-to-face	1 (20%)	5/5 (100%)	2/5 (40%)
		Telephone	1 (20%)		
		E-mail	3 (60%)		
Mental Health Provider (MD or NP)	17	Face-to-face	1 (6%)	7/17 (41%)	4/7 (57%)
		Telephone	11 (65%)		
		E-mail	5 (29%)		
Primary Care Provider (MD, DO, NP,PA)	20	Face-to-face	2 (10%)	20/20 (100%)	18/20 (90%)
		Telephone	1 (5%)		
		E-mail	17 (85%)		
African-American Studies Professors	21	E-mail	19 (90%)	9/21 (43%)	4/9 (56%)
		Telephone	2 (10%)		
Public Health Professor	1	E-mail	1 (100%)	1/1 (100%)	1/1 (100%)
Anthropologist	1	Email	1 (100%)	1/1 (100%)	1/1 (100%)
Accountant/Financial Counselor	1	Face-to-face	1 (100%)	1/1 (100%)	1/1 (100%)
English Professor/Literacy Coach	1	Face-to-face	1 (100%)	1/1 (100%)	1/1 (100%)
Totals	78	Telephone	26 (33%)	46/78	31/46 <sup>a</sup> (67%)
		Face-to-face	6 (8%)		
		E-mail	46 (59%)		

<sup>a</sup> = The calculated total for this column is actually 33. The reported total is 31 because one expert was an anthropologist and a public health professor, and another participant was a minister and a psychologist.

subjects could contact her by phone or e-mail if they desired more information about the research study. If potential subjects were available when contacted by the researcher, the



researcher used the expert recruitment script to explain the study in greater detail (Appendix D). This recruitment script also contained the contact information (name, phone number, e-mail address) for the researcher and the University of Illinois-Chicago's Institutional Review Board.

If participants were eligible and they agreed to participate during the initial face-to-face contact, they were given the option to complete the interview immediately or to arrange the interview at a mutually agreed time and location in Chicago. If initial contact was made by phone, the researcher read them the recruitment script over the phone. If they were interested in participating, the participant and researcher determined a mutually agreed upon time and location for a face-to-face interview.

***Sample recruitment – laypeople.*** To recruit the laypeople sample (ten low-income African-American women ages 18 to 49 years), flyers were distributed at the Mile Square Health Center (Appendix E). The flyers contained information about the research study's purpose, participation requirements, inclusion criteria, and the researcher's contact information. The principal investigator used snowball sampling to achieve the desired sample size for the laypeople sample. Snowball sampling involves using referrals from subjects already involved in the research study to recruit additional subjects <sup>[145]</sup>.

The researcher anticipated some difficulties that might occur while trying to recruit laypeople. One anticipated difficulty was recruiting African-American adults to participate. Commonly, barriers to recruitment of African-Americans in research include power differences that exist between participants and researchers at socio-cultural, educational, economic and healthcare levels, mistrust in the medical system and suspicions about ethical misconduct of medical research establishments. <sup>[46, 146]</sup> Other

barriers to recruitment of minorities in research studies include researchers' lack of confidence in their ability to explain research goals to minorities in culturally appropriate terms and failure to set appropriate recruitment goals for minority populations. <sup>[147, 148]</sup>

Strategies to improve recruitment of African-Americans include consultation with a community engagement advisory board, obtaining adequate funding, using face-to-face data collection methods, using culturally specific flyers and posters, and providing incentives. <sup>[46][147, 148]</sup> The researcher employed all of these strategies to recruit an adequate number of low-income African-Americans women between the ages of 18 and 49 years in phase II of this research study.

***First contact.*** Laypeople interested in participating contacted the researcher by phone or e-mail using the contact information provided on the flyer. If the potential subject's initial contact was by e-mail, the researcher obtained the participant's phone number and called them at a mutually agreed upon time to discuss the study in more detail using the recruitment script (Appendix F). If subjects expressed interest in participating, the researcher arranged face-to-face meetings with them at Mile Square Health Center at a mutually agreed upon time.

If initial contact was made by phone, the researcher read the recruitment script to the potential subject. If they agreed to participate, a face-to-face meeting was arranged at the Mile Square Health Center at a mutually agreed upon date and time.

***Setting.*** This research study was conducted in Chicago, Illinois. With respect to population, Chicago is the third largest city in the United States with a population of 2,887,897 people. <sup>[149]</sup> Women account for 50.9% of the population. African-Americans account for 34.02% of the population. There are approximately 532,734 African-

American women in Chicago, IL. <sup>[149]</sup> Of Chicago's African-American women population, 74.65% (397,704 women) are ages 18 and older. There are 338,639 African-American households in the city of Chicago, which account for 31.66% of the total households in Chicago. <sup>[149]</sup> The average African-American household income for Chicago is \$53,624. For African-American households, 36% have an annual household income of less than \$25,000. <sup>[149]</sup>

***Mile Square Health Center.*** For phase II of the research study, the site of data collection was Mile Square Health Center. Mile Square is located in Chicago's Near West Side neighborhood. This clinic serves large population of economically disadvantaged urban families. <sup>[149]</sup> The clinic is located in Chicago's 60612 zip code, thus the following statistics are for this area. The 60612 zip code, which is included in Chicago's Near West Side neighborhood, has a population of 27,318 African-American people, accounting for 63% of the total population in this area. <sup>[149]</sup> African-American women account for 47.8% of the African-American population in this area, and 66.8% of African-American women in this area are ages 18 and older. <sup>[149]</sup> There are 9,047 African-American households in this area, and the average annual household income is \$41,893. <sup>[149]</sup> For African-Americans, over 50% of households in this area have an annual household income of \$25,000 or less. <sup>[149]</sup>

### **3. Power Analysis**

The Delphi technique is a group process which involves interaction between a researcher and a group of identified experts on a topic of interest, usually through a series of questionnaires. <sup>[150]</sup> Currently, there is no universal agreement about the number of persons who should serve on a Delphi panel. <sup>[151]</sup> In the past, researchers have asserted

that the most reliable expert panels have less than twenty participants, however sample size of a Delphi panel is largely dependent upon the aims of the research, the research design and the time frame of the research study.<sup>[150, 152, 153]</sup> Based on the research goals of this study, the researcher formed an expert panel of 31 experts from a variety of different disciplines who had experience working with low-income African-American women ages 18 to 49 years, and who had expertise in at least one domain (personal, social, environmental and cultural) on the TEHA Version 3. Table 4 displays the composition of the expert panel used in this research study and their area of expertise.

**TABLE IV**

**DESIRED CHARACTERISTICS OF THE EXPERT PANEL**

<b>Experts</b>	<b>n</b>	<b>Area of Expertise</b>
Pastor/Minister	2	Personal (Spiritual Health), Social
Mental Health Provider (MD or NP)	4	Personal (Mental Health); Social
Primary Care Provider (MD, DO, NP,PA)	18	Personal, Social, Environmental
African-American Studies Professor (w/PhD)	4	Social, Cultural
Public Health Professor (w/PhD)	1	Environmental
Accountant/Financial Counselor	1	Personal (Financial health)
English Professor or Literacy Coach	1	Personal (Education); Readability of TEHA
Anthropologist	1	Social, Cultural
Alderman	1	Social, Cultural, Environmental
Total sample size	33	

In this study, the laypeople sample included 10 low-income African-American women between the ages of 18 and 49 years. According to Hertzog (2008), a sample size of 10 or fewer may be sufficient when assessing the clarity of items' instructions, items' appropriateness or formatting of items.<sup>[154]</sup> Table 5 displays the desired composition of

the laypeople sample the principal investigator planned to recruit at the beginning of the study.

**TABLE V**  
**DESIRED CHARACTERISTICS OF LAYPEOPLE SAMPLE**

<b>Laypeople</b>	<b>n</b>	<b>Area of Expertise</b>
Low-income AA* women ages 18 – 24	2	Cultural, Age-specific factors
Low-income AA* women ages 25 – 29	2	Cultural, Age-Specific factors
Low-income AA* women ages 30 – 35	2	Cultural, Age-Specific factors
Low-income AA* women ages 36 – 40	2	Cultural, Age-Specific factors
Low-income AA* women ages 41 – 49	2	Cultural, Age-Specific factors
Total sample size	10	

AA\* = African-American

#### **4. Instrumentation**

***Demographic Questionnaire for Experts.*** A five-item demographic questionnaire created by the researcher was used to collect information regarding the expert's racial background, highest level of education completed, occupation, area of specialization, and the number of years they have been practicing. (Appendix G).

***Demographic Questionnaire for Laypeople.*** An eight-item demographic questionnaire created by the researcher was used to collect the following information from low-income African-American women between the ages of 18 and 49 regarding their racial background, age, gender, highest level of education, relationship status, annual household income, number of people in the household and occupation. (Appendix H).

***Taylor Ecological Health Assessment (TEHA) Version 3.*** The third version of the

Health assessment item pool developed by the researcher through the compilation of items from currently existing health assessments that were relevant to the four domains (personal health factors, social health factors, environmental health factors, cultural health factors) that the researcher intended to include on the Taylor Ecological Health Assessment (TEHA). This version contained 94 items. (Appendix C). See table 1.

***Taylor Ecological Health Assessment (TEHA) Version 4.*** The fourth version of the health assessment item pool that was revised according to feedback provided by the expert panel, and then presented to four laypeople. This version contained 82 items. (Appendix I). See Table 1.

***Taylor Ecological Health Assessment (TEHA) Version 5.*** The fifth version of the health assessment item pool that was revised according to feedback provided during the first four laypeople interviews and suggestions received via e-mail from five members of the expert panel after they did second review of the TEHA. This version contained 58 items. (Appendix J). See Table 1.

***TEHA Evaluation Tool.*** This evaluation tool, developed by the researcher, sought experts' and African-American laypeople's critique of each items' relevance, wording, comprehensibility and response format. The evaluation tool also elicited general feedback about the TEHA. (Appendix K)

***Expert Interview Guide.*** The interview guide, developed by the researcher, consisted of four questions that were used to gather expert feedback about each item's relevance, comprehensibility, wording and response format. These four questions were repeated for all items on the TEHA Version 3. (Appendix L).

***Laypeople Interview Guide.*** The interview guide, developed by the researcher,

consisted of four questions that were used to gather laypeople's feedback about each item's relevance, comprehensibility, wording and response format. These four questions were repeated for all items on the TEHA Version 3. (Appendix M).

## **5. Data Collection and Procedures**

*Procedure for determining content validity.* Content validity is defined as the extent to which a measurement instrument adequately samples a domain of content.<sup>[105]</sup> In order for a measurement tool to be valid, it must adequately reflect the phenomenon being measured. It can be assessed by consulting an Delphi (expert) panel, by conducting a thorough rigorous literature review or a combination of both techniques.<sup>[155]</sup> In the current research study, both methods were used to establish content validity of the TEHA.

The Delphi technique is a group communication process in which expert opinions are combined to achieve consensus in an area<sup>[151, 155]</sup>. In instrument development, use of this technique involves presenting a questionnaire to a panel of informed individuals" who have expertise in each specific domain and asking them to share their opinions about the questionnaire.<sup>[150, 156]</sup> Feedback gathered from the expert panel is then used to revise the questionnaire, and the questionnaire is presented to the expert panel again. This process can continue until a consensus of expert opinion.<sup>[150, 156]</sup>

Use of expert panels has many strengths and limitations. One strength is that they allow the researcher to gain consensus relatively quickly from experts in an area for which there is little knowledge. Delphi panels usually have good response rates.<sup>[157]</sup> Delphi panels are simple to compose and can be used within a variety of different contexts.<sup>[157]</sup> The researcher has a great deal of control when developing Delphi panels

because he/she can determine the size of the panel, what types of experts are used, what level of consensus is sought, and what type of statistical analysis will be used to quantify the level of consensus.<sup>[157]</sup> Lastly, Delphi panels can be an extremely cost-effective approach to establishing content validity.

There has been some criticism about using expert panels. Some researchers assert that Delphi panels are not scientific. Another limitation to using the Delphi panel is that there are no specific criteria about who should be considered as an “expert” or what level of expertise the expert should have.<sup>[157]</sup> Selection of experts and Delphi panel protocol is highly subjective and is vulnerable to biases from the researcher. Another limitation of the Delphi technique is that, even if the expert panel reaches a consensus, there is no way to determine if they have generated the “correct answer” to the research problem.<sup>[157]</sup> Yet another limitation to using the Delphi panel technique is that participants may not understand the theory behind using Delphi panels and might focus more on challenging the methodology than providing feedback about the topic of interest.<sup>[157]</sup>

The researcher used the Delphi method by conducting individual interviews with 14 experts at a mutually agreed upon time and place. Interviews are purposeful social interactions that are usually organized around questions posed by the interviewer to the interviewee.<sup>[158]</sup> Instruments used were the demographic questionnaire, the interview guide for the experts, the TEHA Version 3, and the TEHA Evaluation Tool. The demographic questionnaire was completed by the experts prior to being interviewed. During the interview, the expert was asked to review items from two or three health domains (personal, social, environmental, cultural) of the TEHA Version 3 depending on



their field of expertise which were e-mailed to them two to three weeks prior to the meeting.

The remaining 17 experts included the director of family medicine and 26 family medicine residents who worked at an urban hospital in Chicago that serves a large population of low-income African-Americans. The residents ranged from being in their first year to their third year in residency. These 17 experts were interviewed as a group at one of the residents' Friday conferences at the request of the chief family medicine resident. The health assessments items that were to be reviewed at the meeting were e-mailed to the 17 family medicine physicians two weeks prior to the meeting.

At the meeting, the principal investigator used the abovementioned procedures. The only difference was that instead of collecting an individual response from each of the 17 experts for each item they reviewed, the majority response for each item was determined. The principal investigator recorded the responses for which > 50% (nine participants or more) agreed upon.

Experts reviewed each item assigned to them for relevance, wording, comprehensibility and response format. After reviewing all items, they were also given the opportunity to share additional comments about the health assessment. The researcher recorded participants' responses by pen and paper using the TEHA Evaluation tool. At the conclusion of the interview, the researcher thanked the experts for their time. Some limitations of meeting with the 17 experts in a group were peer group pressure and group bias.<sup>[156]</sup>

Expert feedback recorded on the TEHA Evaluation tool was used to revise TEHA Version 4. Items with less than 50% agreement in the **relevance** category were deleted.

This revised version (TEHA Version 5) was then presented to the laypeople sample: ten low-income African-American women ages 18 to 49 years.

***Procedure for determining face validity.*** Face validity is a form of content validity, and it refers to whether an instrument looks acceptable to the population for which it is intended. <sup>[155]</sup> Acceptability of a scale to the intended population is important to its usefulness. <sup>[155]</sup> Research participants' perceptions of the comprehensibility and relevance of an instrument can affect their motivation and cooperation. <sup>[155]</sup> Several limitations of face validity have been identified. One question that arises with face validity is whether it should be obvious enough for participants to know exactly what is being measured because this could potentially influence the patients' responses. <sup>[159]</sup> Another limitation of face validity is that the researcher's assumption that an instrument appears to measure what it purports to measure could be erroneous because one cannot be exactly sure about the participants' thought processes, and item interpretation could vary from person to person. <sup>[159]</sup> One last proposed limitation of face validity is that it is unclear whom the purpose of the tool should be obvious to: researchers, the healthcare provider or the population that will be completing the instrument. <sup>[159]</sup>

In order to establish face validity of the TEHA, individual interviews were conducted with ten low-income African-American women between the ages of 18 and 49 years. The laypeople recruitment script was read to each potential subject. They then were asked if they would be interested in participating in the study. If they gave verbal consent to participate in the study, they were given a copy of the recruitment script to save for their own records.

Prior to the interview, participants completed the demographic questionnaire for

laypeople. The researcher used the interview guide for laypeople to conduct individual interviews with each layperson at the Mile Square Health Center. During first four interviews, laypeople were presented with a copy of the TEHA Version 4 and asked to critique each item for relevance, appropriateness, comprehensibility and response format. Based upon feedback during the first four interviews and additional feedback from five members of the expert panel (two African-American studies professors, one psychiatrist, one mental health nurse practitioner, one physician) revisions were made to the TEHA Version 4. This resulted in TEHA Version 5 which contained 58 items. The survey was revised midway through the laypeople interviews because the first set of laypeople consistently agreed that certain items should be deleted from the TEHA Version 4.

TEHA Version 5 was then presented to six more laypeople. For all ten interviews, the researcher used pen and paper to record the participants' responses on the TEHA Evaluation tool. None of the participants' demographic information was recorded on the evaluation tool. At the conclusion of the interview, the laypeople received their choice of a \$20.00 Walgreens gift card, a \$20.00 Jewel grocery store gift card or a 7-day CTA bus pass (value = \$23.00) for their participation. The duration of these interviews was 40 minutes on average. Information gathered in these interviews was used to revise the TEHA Version 5, which lead to TEHA Version 6 (Appendix N).

Face-to-face interviews have several advantages. They give the researcher the opportunity to probe or clarify information provided by participants.<sup>[160]</sup> This was extremely important in the current study because the researcher was creating a novel health assessment for which extensive feedback from the target population was needed. Having face-to-face contact may foster the development of a more comfortable

relationship between the interviewer and respondent.<sup>[160]</sup> It also allows researchers to collect verbal and nonverbal data (i.e. facial expressions) that may be crucial in the data collecting process.<sup>[160]</sup>

Although face-to-face contact has many advantages, there are several disadvantages. An anticipated difficulty was developing rapport with the interviewees so they would be comfortable sharing information about sensitive issues during a face-to-face interview. Other disadvantages include susceptibility to social desirability bias and reluctance to divulge sensitive information for fear of embarrassment and being judged by the interviewer.<sup>[160-161]</sup>

***Feasibility study.*** In research, feasibility studies can serve several purposes. These studies can be used to pre-test newly developed research instruments.<sup>[154]</sup> In the current study, the researcher conducted a feasibility study to determine the average length of time it took to complete the TEHA Version 6, to assess the effectiveness of proposed recruitment strategies, and to assess the clarity of the instruction for filling out the TEHA Version 6.

The first step in this feasibility study was to administer the TEHA Version 6 the same way it would be administered in the main study. According to Hertzog, 25 to 40 participants is acceptable when pretesting an instrument.<sup>[154]</sup> The researcher visited the Mile Square Health Center and used the face-to-face recruitment script (Appendix O) to recruit 30 low-income African-American women between the ages of 18 and 49 years to complete the TEHA Version 6. Persons who expressed interest in participating and who gave verbal consent were asked to fill out the demographic questionnaire and the TEHA

Version 6. The researcher recorded the length of time it took for subjects to complete the questionnaire.

After participants completed the survey, the researcher asked the subjects to identify any questions or instructions that were difficult to understand. Any feedback provided by the participants was recorded on the TEHA Evaluation Tool using pen and paper. Participants were compensated with their choice of a \$10.00 gift card from Walgreens, Subway, Jewel, Red Lobster, Olive Garden, McDonald's or Burger King. Once the researcher received 30 completed surveys, the data collected from the pilot study was entered into excel and the average time it took each participant to complete the survey was calculated. The TEHA was then revised based on participants' feedback.

Although pilot studies can yield some valuable information in the development of larger scale studies, there are also some limitations to conducting a pilot study. Conducting a pilot study does not ensure that the researcher will identify all possible issues that could arise in a larger scale research study. Since the sample size in pilot studies is small, the ability to make predictions or assumptions based on data collected from a pilot study is limited. Contamination could also be an issue in pilot studies. Contamination can occur when data from the pilot study are included in the main study results, or when pilot study participants are included in the main research study. The researcher was careful not to include pilot study data in the main study data, or include pilot participants in the main study to avoid the risk of contamination.

## **6. Data Analysis**

Data gathered from the expert panel on the demographic questionnaire and the TEHA Evaluation Tool was entered into SPSS 20.0. Data from the demographic

questionnaire were analyzed with descriptive statistics. Frequency counts and percent agreement were calculated for all items of the TEHA Version 6 to determine which items would be included on the next version. Any items with percent agreement amongst the experts less than or equal to 50% in the **relevance** category were eliminated. Items that had >50% in the relevance category, but <50% in the wording, comprehensibility or response format categories were revised according to feedback provided by the experts about how the item could be improved. The researcher reviewed all additional comments made by experts and identified major themes. The frequency counts, percent agreement calculations, and themes identified by the researcher were used to revise the TEHA. The same data analysis procedure described above was used to analyze the laypeople's interview and demographic questionnaire.

Data collected during the pilot study was entered into SPSS after surveys were received from 30 low-income African-American women between the ages of 18 and 49 years. Descriptive statistics were used to analyze the data from the demographic questionnaire. Frequency counts were determined for how many people filled out the survey. The average time taken for the health assessment to be completed was calculated by adding the time it took for all 30 surveys to be completed and dividing it by the total number of surveys completed ( $n = 30$ ). On average, it took participants 7.4 minutes to complete the survey, with completion times ranging from four minutes to sixteen minutes.

The effectiveness of the recruiting strategies were assessed by comparing the frequency count of the number of potential subjects the principal investigator recruited to the number of African-American women that actually participated. One hundred percent

of the potential subjects the researcher approached using face-to-face recruitment strategies agreed to participate. This demonstrated that the principal investigator's recruitment message and delivery were effective. The principal investigator also noted that she was able to recruit more participants in the morning than in the afternoon.

The principal investigator assessed the clarity of the instructions by first asking participants if they thought the survey instructions were clear. If participants indicated that anything was not clear, the principal investigator made note of it so that it could be corrected before phase III. She also reviewed each of the 30 surveys carefully after they were completed to see if there were any questions participants consistently answered incorrectly. This occurred frequently with item number six. When the principal investigator gave participants the opportunity to correct the question if they had answered it incorrectly, all participants agreed to do so. She also asked participants about how she could make the instructions for this item clearer.

## **7. Methods used to Ensure Trustworthiness/Rigor of Data**

In qualitative research, trustworthiness, is similar to validity and reliability in quantitative research. Trustworthiness pertains to the adequacy of methods used to build trust in qualitative research. Lincoln and Guba developed a model of trustworthiness in qualitative research that contains five major components: credibility (truth-value), transferability (applicability), dependability (consistency), confirmability (neutrality) and authenticity.<sup>[162, 163]</sup> The components that are relevant to the current study, and the steps that the principal investigator used to achieve trustworthiness in the current study will be briefly discussed.

***Credibility.*** Credibility, also called truth-value, relates to the accuracy and

truthfulness of data presented from the perspective of the participants. Kefting asserts that, “A qualitative study is considered credible when it presents an adequate description or interpretation of human experience that people who also share the same experience would immediately recognize.” (p.216) <sup>[164]</sup> Strategies used in the current study to assess credibility included triangulation and peer examination. Two types of triangulation occurred in this research study: methods triangulation (qualitative and quantitative methods) and triangulation of sources (expert panel and laypeople). <sup>[162, 163, 165]</sup> Peer examination is defined as, “ the process of exposing oneself to a disinterested peer in a manner paralleling an analytical sessions and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind.” (p.308) <sup>[162]</sup> This was achieved by consulting with fellow PhD students and members in the researcher’s health disparities seminar (composed of pre-doctoral fellows, post-doctoral fellows, and College of Nursing faculty) and University of Illinois at Chicago's Community Engagement Advisory Board.

***Transferability.*** Transferability, also known as applicability is defined by Lincoln and Guba as, “how one determines the extent to which the findings of a particular inquiry have applicability in other contexts or with other subjects/participants.” <sup>[162]</sup>

Transferability can be achieved by providing a rich, thick description about the sample, setting, methods and other aspects of the study. <sup>[162]</sup> The researcher was able to do this by providing a dense description of all aspects of the study in the final report. The researcher took precautions to advise readers that the results yielded in the current study may not be applicable to African-Americans with different socio-economic statuses, or who live in



different geographical locations. Extreme caution was used when interpreting or making generalizations made about the data.

***Dependability.*** Dependability in qualitative research is very similar to reliability in quantitative research. Dependability is the notion that research study findings are consistent and can be replicated to some extent. <sup>[162][163]</sup> Lincoln and Guba suggest the development of an audit trail that is descriptive enough that it can be used by other researchers to repeat the study. The researcher established dependability for this study by providing a thick description of (a) the theoretical foundation and aims of this research study; (b) methods; (c) inclusion and exclusion criteria for the participants; (d) data analysis techniques; (e) the study findings; and (f) techniques used to establish trustworthiness.

***Confirmability.*** Confirmability, also known as neutrality, is closely related to objectivity in quantitative research. <sup>[162][163]</sup> This requires determining the extent to which the study findings are truly based on respondent feedback and not the researcher's personal interest and biases. "A researcher's background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions." <sup>[166]</sup> Some strategies that can be used to enhance the confirmability of the study include triangulation, developing an audit trail and reflexivity. The researcher developed a reflexive journal in which entries were made at every step in the research process regarding the researcher's feelings and study decisions and rationales behind them. When reporting qualitative data from this study in journal

articles, the researcher included a few sentences about her own thoughts, values or biases that could have influenced the study.

## **8. Protection of Human Subjects**

The researcher submitted a research proposal (Protocol Version #1) to the University of Illinois-Chicago's Institutional Review Board and received approval to begin phase II data collection December, 2011 (Appendix P). In this proposal, the researcher sought permission to conduct qualitative interviews in phase II of this research study to establish evidence for content and face validity of the TEHA.

Once phase II was complete, an amendment was submitted to University of Illinois' Institutional Review Board requesting approval to conduct a pilot study ( $n = 30$ ) of the TEHA in a small sample of low-income African-American women between the ages of 18 and 49 years in March 2012 (Appendix Q). Prior to submitting this amendment, the researcher gained approval from the institutional review board of Mile Square Health Center to recruit participants in this clinic (Appendix R). No identifying information was contained on any research study documents, and demographic questionnaires were stored separately from completed TEHA Evaluation tools and health assessments. Data collected on paper forms was locked in a file cabinet that only the researcher has the key to and will be stored for five years and then destroyed. Data that was entered in the computer was saved in a password-protected file that only the researcher had access to.

## **D. Phase III**

### **1. Research Design**

In phase III, a quantitative, non-experimental design was used to determine the psychometric properties (internal consistency, construct validity, test-retest reliability)

and social desirability bias of the TEHA Version 7 (Appendix S) in a sample of 208 low-income African-American women ages 18 to 49 years.

## **2. Research Setting and Sample**

**Sample selection.** The sample selection criteria for phase III is the same as that described in phase II. The researcher attempted to achieve maximum variation of the sample with respect to age (comparable numbers of participants in each age group).

**Sample recruitment.** Recruitment strategies used in phase III were the same as those discussed in the pilot study.

**First contact.** In phase III, the first contact with potential subjects occurred in the same manner as described in the pilot study.

**Setting.** The setting for phase III was the same as that described in phase II.

## **3. Power Analysis**

The TEHA contained 20 items, thus the target sample size for phase III was at least 200 low-income African-American women ages 18 – 49 based upon the recommendation that 10 subjects per item is appropriate. <sup>[167-169]</sup>

## **4. Instrumentation**

**TEHA Version 7.** TEHA Version 7 consisted of 39 items. Initially, it was the researcher's intentions that the 39 items on the version that would be distributed to the larger sample of African-American women (N= 208) would represent nine components of health: personal/economic, personal/mental, personal/physical, personal/sexual, personal/spiritual, social, environmental and cultural. Based upon feedback from African-American laypeople and members of the health disparities seminar, the item used to

assess the personal/spiritual component (Do you think your religious beliefs affect what medical advice you follow, what medications you take, or how you take care of your health?) was deleted. Thus, eight out of nine of the previously mentioned health components were included on the TEHA Version 7. Items were theoretically grouped into the remaining eight components based upon the principal investigator's literature review and feedback received during interviews with experts and African-American laypeople.

TEHA Version 7 contained five subscales: personal/mental, personal/physical, personal/sexual, social, environmental, and cultural. In addition there were three 1-item measures: personal/education and personal/economic. The personal/mental subscale included six items: 11A, 11B, 11C, 11D, 11E and 11F. For these six items, respondents were asked to indicate whether or not they had experienced certain mental health symptoms within the last month. Items were scored on a dichotomous scale: "Yes" (one point) and "No" (zero points). The total score for this subscale ranged from zero to six, with a score of zero indicating that the respondent had not experienced any of the symptoms mentioned within the last month, and a score of six indicating that the respondent had experienced all of the symptoms within the last month.

The personal/physical subscale included 11 items: 1, 2, 3, 4, 5, 6A, 6B, 6C, 6D, 6E and 20. For items 1, 2, and 20, respondents were asked to indicate whether they had difficulty eating or talking because of their teeth (item 1), whether they had ever been told they had a hearing problem (item 2), and if there were any aspects of their health they wanted to improve (item 20). These three items were scored on a dichotomous scale: "Yes" (one point) and "No" (zero points). Items 3, 4, 5, 6A, 6B, 6C, 6D, 6E were each

scored on a 3-point Likert scale. Item 3 asked participants to indicate how often they have difficulty taking care of their personal needs and response ranged from “Always” (two points), “Sometimes” (one point) and “Never” (zero points). Item 4 asked respondents how many days a week they exercise 30 minutes or more and response ranged from “I never exercise” (two points), “Less than three days per week” (one point), and “three or more days per week” (zero points).

Item 5 asked participants to indicated how often they wear seat belts while in the car and responses ranged from “Always” (zero points), “Sometimes” (one point), and “Never” (two points). Items 6A, 6B, 6C, 6D and 6E assessed the time frame in which respondents last had the following screening tests: pap smear, mammogram, HIV test, dental exam and eye exam. Scores for this item ranged from “Within the last two years” (zero points), “More than two years ago” (one point) and “Never” (two points). The total score for this subscale ranged from zero to 19, with a score of zero indicating that the respondent does not have problems with their teeth, has never been told that they might have a hearing problem, never has difficulty taking care of personal needs, exercise three or more days per week, always wears a seatbelt, has received all of the screening tests within the last two years, and does not want to improve any aspect of their health. A score of 19 indicates that the respondent does have problems with their teeth, has been told that they have a hearing problem, always has difficulty taking care of their personal needs, never exercises, never wears a seatbelt, has never received any of the screening tests, and does want to improve some aspect of their health.

The personal/sexual subscale contained three items: items 7, 8 and 9. Items 7 and 8 were each on a 3-point Likert scale. Item 7 assessed whether respondents whether they

have problems that make it hard for them to have or enjoy sex with responses ranging from “Always” (two points), “Sometimes” (one point), and “No (zero points). Item 8 assessed whether respondents had even been forced to have sex. Scores for item 8 ranged from “Yes” (two points), “I don’t want to talk about it: (one point) and “No” (zero points). Item 9 asked respondents to indicate whether they always wear condoms while having sex. This item was dichotomously scored: “Yes” (one point) and “No (zero points). The total score for this subscale ranged from zero to five, with a score of zero indicating that the respondents never had problems that made it difficult for them to enjoy sex, had never been forced to have sex, and always wore condoms while having sex. A score of five indicated that the respondent always has problems that make it difficult for them to enjoy sex, they have been forced to have sex, and they do not always wear a condom while having sex.

The social subscale contained four items: items 13A, 13B, 13C and 13D. Respondents were asked whether they had four types of social support available to them. These four items were graded on a dichotomous scale: “Yes” (zero points) and “No (one point). The total score for this subscale ranged from zero to four, with a score of zero indicating that the respondent has someone that could offer each type of support, and a score of four indicating that the respondent did not have anyone who can offer any of the four types of support.

The environmental subscale contained ten items: 14, 15A, 15B, 15C, 15D, 16 A, 16B, 16C, 16D and 16E. Item 14 assessed whether participants had somewhere to live, and was dichotomously scored: “Yes” (zero points) and “No” (one point). Items 15A, 15B, 15 C and 15D assessed whether respondents followed the following safety measures

in their home: kept floors clear and free of clutter, had a working smoke detector, had a working carbon monoxide detectors, and had an emergency escape plan in case of emergency. These 4 items were scored on a dichotomous scale: “Yes” (zero points) and “No (one point). For items 16A, 16B, 16C, 16D, 16E, participants were asked if there were safe places in their community where themselves or their families could go to participate in different activities. These five items were scored on a dichotomous scale: “Yes” (zero points) or “No (one point). Total scores for the environmental subscale ranged from zero to ten, with a score of zero indicating that the respondent had somewhere to live, followed all four safety measures in their home, and had safe places in their community for all five activities and a score of ten indicating that the respondent did not have somewhere to live, did not follow the safety measures in their home, and did not feel that there were safe places in their community.

Personal/economic health was assessed using a 1-item index (item 19) that asked respondents indicated how often they had difficulty paying for their medical care. This item was scored using a 3-point Likert scale ranging from “Always” (two points), “Sometimes” (one point) and “Never” (zero points). Personal/education was assessed using a 1-item index (item 18) that required respondents to select one of four choices to indicate how they learn best if their doctor wants to teach them something. The total possible score for this index is one point; all answer choices are equally weighted.

Cultural health influence was assessed using a 1-item index (item 17) that asked respondents to select all sources for health information they most trusted from a selection of five different sources. Scores for the index ranged from one to five, with a score of one indicating that respondents received and trusted health information from one of the

sources and a score of five indicating that they received and trusted health information from all of the sources.

***Laypeople Demographic Survey.*** See description in phase II.

***Marlowe-Crowne Social Desirability Scale.*** The Marlowe-Crowne Social Desirability Scale was developed by Douglas P. Crowne and David Marlowe to quantify the extent to which people exhibit social desirability bias. Social desirability refers to peoples' tendency to provide responses that they feel are socially acceptable.<sup>[170]</sup> This may involve exaggerating positive qualities and/or trivializing negative qualities to portray one's self in a more favorable light.<sup>[170]</sup> The original version of the Marlowe-Crowne Social Desirability Scale contains 33 culturally sanctioned behaviors that have a low likelihood of occurrence.<sup>[170]</sup> Evidence for the content validity of the original Marlowe-Crowne Social Desirability Scale was established by consultation with a panel of 10 experts from Ohio State's Department of Psychology.<sup>[170]</sup> Evidence of convergent validity of the original Marlowe-Crowne Social Desirability Scale was established by correlating scores from the Marlowe-Crowne with the 39-item Edwards Social Desirability Scale ( $r=0.35$ ;  $p = .01$ ). The internal consistency coefficient for the original 33-item Marlowe-Crowne Social Desirability Scale was 0.88.<sup>[170]</sup> Test-retest reliability was 0.89 after a one-month period.<sup>[170]</sup>

One major limitation of the Marlowe-Crowne is the length. Thus, several shorter forms of this assessment have been introduced. Reynolds administered the original scale to 608 students, performed a principal component analysis and identified three distinct factors: A, B and C. Factor A (Form A) contained 11 items, Factor B (Form B) contained 12 items, and Factor C (Form C) contained 13 items.<sup>[171]</sup> Internal consistency for forms



A, B and C were 0.74, 0.75 and 0.76, respectively. <sup>[171]</sup> The researcher used Form C (Appendix T) because it has consistently displayed higher internally consistency values (ranging from 0.68 – 0.89) than forms A and B. <sup>[172, 173]</sup> The range of possible scores on the Marlowe-Crowne Form C is from zero to 13. <sup>[171]</sup> Higher scores indicate a higher social desirability response tendency. <sup>[170]</sup> Respondents receive one point for each item where their response matches the culturally accepted response, and zero points on items where their response does not match the culturally accepted response. <sup>[170]</sup> Those TEHA items demonstrating high levels of social desirability were eliminated.

### **5. Data Collection and Procedures**

The researcher visited Mile Square Health Center multiple times a week at different times of the day. Potential subjects were approached in the waiting rooms of the clinic. The researcher explained the purpose of the research study using the same recruitment script from the pilot study. It was stressed to potential subjects that their decision to participate in the research study would have no influence on the medical care that would be provided to them. After this, participants were asked if they would like to participate in this study. If potential subjects provided verbal consent to participate and met eligibility criteria, they were given a large envelope containing the recruitment script (which also served as a consent document), demographic questionnaire, the TEHA Version 7 and the Marlowe-Crowne Social Desirability Scale. They were then directed to an area in the clinic where they could complete the forms independently. Participants were instructed not to write their names on any of the forms contained within the packet. Each research packet was assigned a unique four-digit code, and every form in the

research packet contained this code. The code could not be connected to participants in any way.

Participants took between five and ten minutes to complete the research packets. When participants completed the research packet, they returned it to the researcher. Once they returned their packets to the principal investigator, participants received a \$10.00 gift card of their choice from Walgreens, Subway, Burger King, Red Lobster, Jewel or Wal-Mart. The researcher briefly reviewed the questionnaire to identify any incomplete items. Participants were then given the option to complete any items that were incomplete, and were asked if they would be interested in filling out the forms again in two to three weeks. If they agreed, the researcher recorded their name, their four digit code, and mailing address on a list that was kept separate from the complete research packets. Participants were given a copy of the recruitment script to keep for their own records and were encouraged to tell their family and friends who fit within the study's target demographics to come to the clinic if they were interested in participating in the research study.

Participants who agreed to fill out the forms again after two weeks were given the option to meet the researcher at Mile Square Health Center to fill out the packet or to have the packet mailed to them. All participants in the sample chose the option of having the packet mailed to them two weeks later. A research packet containing the recruitment script, demographic questionnaire, the TEHA Version 7 and the Marlowe-Crowne Social Desirability Scale and an envelope addressed to the researcher with prepaid postage was mailed to them. This packet contained the same unique code as the participant's first packet. When the principal investigator received the research packet, another \$10.00 gift

card (from Walgreens, Subway, Burger King, Red Lobster, Jewel or Wal-Mart) was mailed to the participant.

The researcher anticipated some difficulties in this phase of the research study. Paper and pencil questionnaires are usually effective in collecting research data. Some disadvantages to the use of the pencil and paper questionnaire are that participants may not be able to comprehend the questions due to low literacy, may have illegible handwriting, or may skip answer responses (intentionally or unintentionally). According to the National Assessment of Adult Literacy, blacks were more likely to display below basic literacy when compared with white, Asian/Pacific Islander, or multiracial adults. <sup>[174, 175]</sup> This assessment also found that health literacy was positively associated with income level. <sup>[174]</sup> Since this study was conducted in a sample of low-income African-Americans, great attention was given when designing this health assessment.

To address illegible handwriting, a majority of the questions were presented in multiple-choice format, thus reducing the amount of writing the participants was required to do. All questions on the TEHA Version 7 and the Marlowe-Crowne Social Desirability scale were multiple choice. Three items on the laypeople demographic survey required participants to write out responses (age, number of people in household, and occupation). To minimize skipped questions, the researcher skimmed the questionnaires completed at face-to-face meetings for completeness before the participant left. If any items were omitted, participants were given the option of completing them.

To address anticipated difficulties with low literacy, Microsoft word was used to determine the reading level. Additionally, an elementary school reading specialist was consulted regarding the reading ease of the TEHA Version 7. Lastly, laypeople were

consulted during the development of the assessment. The reading level of the TEHA Version 7 was determined to be a fifth grade reading level. An elementary school English literacy specialist with 30 years of experience, determined the TEHA Version 7 to be at a fifth grade level.

Another difficulty considered was the use of postal surveys to collect data for test-retest reliability. Postal surveys have many benefits in nursing research. They are more time and cost-effective when administering a survey to large populations, may result in less interviewer or social desirability bias, and may illicit more honest answers from participants.<sup>[176]</sup> Limitations to postal surveys are that they are subject to several types of error (non-coverage error, measurement error, non-response error) and the researcher cannot be certain who is completing the survey.<sup>[176]</sup>

Data collected at baseline may differ from the test-retest data due to the difference in settings in which the survey is completed. If the participants complete the survey in health related setting with the researcher present, they may be more likely to provide answers that are more socially desirable and culturally acceptable. However, if they fill out the second survey in the privacy of their home they may be more likely to communicate sensitive information. This has the potential to skew the test-retest reliability measurement.

## **6. Data Analysis**

SPSS 20.0 was used for data analysis. Data was entered into SPSS after all 208 surveys were completed and returned to the principal investigator. Descriptive statistics were used to analyze the information collected on the demographic questionnaires for all members of the sample.

Exploratory factor analysis (EFA) was performed to examine the structure of this novel health assessment and provide evidence for the construct validity of the TEHA Version 7. Sample size recommendations for factor analysis vary widely with some suggesting that there be at least 300 subjects, ten subjects per item, and ten to fifteen subjects per item. <sup>[167-169]</sup> Exploratory factor analysis can be used to reduce the number of variables on an instrument, examine the structure of the instrument, and examine the relationship between variables. <sup>[105][177]</sup> Factors with an eigenvalue greater than one were extracted using the Kaiser Criteria. The Kaiser-Meyer-Olkin index was used to determine the adequacy of the sample (desired value  $\geq .80$ ), and Bartlett's test of sphericity was used to determine the appropriateness of conducting a factor analysis using the data collected in this research study. <sup>[169]</sup> The optimal number of factors to be included in the TEHA were determined using scree plots. Principal component analysis and Varimax rotation were used.

Internal consistency is a measure of how well scores on individual test items correlate with each other, as well as to the total test score. <sup>[105]</sup> In the current study, Cronbach's alpha was used to assess internal consistency for the TEHA Version 7 and each of its subscales. Possible scores for Cronbach's alpha range from zero to one, with higher scores indicating higher degrees of average inter-item correlation and average item-total correlation. <sup>[105]</sup> Responses from all surveys were entered into SPSS so that the inter-item and item total Cronbach alpha correlation coefficients could be calculated. For the current study, 0.70 was deemed as an acceptable reliability coefficient. <sup>[167]</sup> An ideal Cronbach's alpha value should fall between 0.80 and 0.90; reliability coefficients that are

greater than 0.90 were assessed for overlap with other items.<sup>[159]</sup> Items with low item-total correlations were deleted to improve reliability.

Test-retest reliability was used to determine the stability of the TEHA over a two-week time period. Scores from the TEHA were obtained at baseline and after a two-week time period. The two-week time period was chosen because this is the timeframe that is usually used for test-retest reliability.<sup>[105]</sup> The shorter the time frame, the more similar the potential sources of error will probably be.<sup>[178]</sup> The extent to which the two sets of scores correlated was assessed using the Pearson-product moment correlation coefficient, which is appropriate when the data is being measured on an interval level. Possible values for the Pearson-product moment correlation range between negative one and one.<sup>[105]</sup> A score of negative one is indicative of a perfect negative relationship between two sets of score and a score of one is indicative of a perfect positive relationship.<sup>[105]</sup> According to Burns and Grove, correlation coefficients between 0.10 and 0.29 are low, between 0.30 and 0.50 are moderate, and between 0.50 and 1.00 represent high levels of correlation. In the current study, correlations of 0.50 or higher were considered to be high.<sup>[179]</sup>

Health surveys are subject to high levels of social desirability bias. In order to address this, the researcher used SPSS to calculate Pearson-product moment correlation coefficients between the Marlowe-Crowne Social desirability scale-Form C and the total TEHA scale scores, and between the Marlowe-Crowne Social Desirability Scale-Form C and each item on the TEHA. If social desirable response tendency was present, scores on the Marlowe-Crowne Scale would be positively correlated with the scores on the TEHA.

In the current study, correlations of 0.50 or higher were considered to be high.<sup>[179]</sup> Items with a correlation of 0.50 or higher were deleted from the TEHA.

## **7. Protection of Human Subjects**

After phase II and the pilot study were completed, the researcher submitted an amendment to University of Illinois' Institutional Review Board requesting approval to start phase III (Appendix T). Once approval was granted from the institutional review boards, the researcher began phase III data collection in April, 2012. No identifying information was contained on any research study documents. When testing test-retest reliability, the researcher constructed a list of interested subjects' names and addresses so the TEHA Version 7 could be administered at a later point in time. This list was kept separate from completed health assessments and stored on the principal investigator's personal laptop in a password-protected file. Once phase III of the research study was completed, this list was destroyed. Data collected on paper forms was locked in a file cabinet that only the researcher has the key to and will be stored for five years and then destroyed. Data entered in the computer is saved in a password-protected file that only the researcher has access to.

## IV. Results

### A. Phase II

Phase II of this study involved establishing evidence for content and face validity of the Taylor Ecological Health Assessment (TEHA), and conducting a feasibility study with 30 low-income African-American women between the age and 18 – 49. Results from these preliminary studies will be reported in section A.

#### 1. Content Validity

*Expert panel demographic characteristics.* The expert panel consisted of one alderman, one anthropologist (who was also a public health professor), one personal banker, four mental health care providers (two psychiatrists, one psychologist who was also a minister, one nurse practitioner), two ministers, one English literacy coach, four African-American Studies professors, 17 family medicine physicians and one internal medicine physician. Forty-five percent of the sample was Asian and thirty-nine percent was African-American. Fifty-five percent of the experts were women and 91% of the expert panel had a doctorate or professional degree. Forty-two (42%) of the experts had between one and five years of experience. Table 6 contains demographic characteristics for the thirty-one experts.

*Results from expert interviews.* Eighty-two out of 94 items on the TEHA Version 3 yielded a percent agreement amongst experts of > 50% in the relevance category. See table 7. The remaining twelve items that did not meet this criteria were eliminated. Some general suggestions from members of the expert panel were that the TEHA Version 3 should be shortened so that it could be completed in ten minutes or less,



TABLE VI

## DEMOGRAPHIC CHARACTERISTICS OF THE EXPERT PANEL (N=31)

	N	%
<b>Race</b>		
American Indian/Alaskan Native	--	--
Asian	14	45%
Black/ African-American	12	39%
Native Hawaiian/Pacific Islander	--	--
Caucasian/White	3	10%
Hispanic/Latino	1	3%
Other	1	3%
<b>Gender</b>		
Women	17	55%
Male	14	45%
<b>Highest Level of Education</b>		
Bachelor's Degree	2	6%
Master's Degree	1	3%
Doctoral Degree (PhD)	7	23%
Professional Degree (MD, JD, etc.)	21	68%
<b>Years Practicing</b>		
< 1 year	5	16%
1 – 5 years	13	42%
6 – 10 years	2	6%
11 – 15 years	2	6%
16 – 20 years	2	6%
> 20 years	7	23%

that some of the items were too disease specific, and that the sexual health items seemed biased towards women who engaged in same sex relationships. This led to TEHA Version 4, which contained 82 items. Table 8 provides some of the experts' comments/suggestions about how the remaining 82 items should be reworded. However, a majority of the experts suggested that the researcher consult with laypeople before

rewording the items. Thus, items were not reworded until feedback was collected from laypeople to ensure that questions were presented in a manner that was comprehensible to the target population.

Members of the expert panel also offered suggestions about several new items that could be included on the TEHA. Some these items included,

“Do you make doctor’s appointments for other members of your family. If so, who?”

“Do you like sex?”

“When you feel better, do you stop taking you meds?”

“Are there times when you forget/don’t take your medicine as prescribed?”

“Do you have problems with rodents or roaches?”

“Do you feel that your life is valuable?”

“Can you positively contribute to anything or anyone?”

“Do you consistently expect the worse in any given situation in life?”

“Do you believe that your spiritual beliefs can resolve your medical issue?”

“Have you ever had an STI?”

“When it comes to your sexual health, do you consider yourself healthy?”

“How do you cope with racism?”

“If you were given a choice, what kind of doctor would you select?”

“Does racism affect where you seek health information?”

“How many children do you have?”

## **2. Face Validity**

***Laypeople demographic characteristics.*** Demographic data for all ten laypeople is presented in Table 9. One hundred percent of the laypeople were African-American women between the ages of 18 and 49 years. Forty percent of the laypeople sample was between the ages of 30 and 35 years. The age range for the sample was 18 –

TABLE VII

**PERCENT AGREEMENT AMONGST EXPERT PANEL (N=31) ABOUT TEHA  
VERSION 3 ITEMS**

<b>Questions</b>	<b>Relevance</b>	<b>Wording</b>	<b>Comprehensibility</b>	<b>Response Format</b>
Q1 – How often do you drink alcohol?	100%	67%	100%	33%
Q2 – Have you experienced physical, emotional, or social problems because of your drinking?	67%	33%	67%	67%
Q4- If you experience racism, how do you deal with it?	67%	33%	67%	0%
Q5 - Do you have dental insurance?	67%	67%	67%	67%
Q6 - Was your last dental visit within the last year?	67%	67%	67%	67%
Q7 - Do you have problems eating or talking because of your teeth?	100%	67%	100%	100%
Q8 – Do you have health insurance?	100%	100%	100%	100%
Q9 – Can you pay for prescriptions?	100%	0%	100%	100%
Q10 – Do you have somewhere to live?	100%	100%	100%	100%
Q12 – What was the highest level of education you completed?	67%	67%	67%	0%
Q13 – What is your preferred method of learning?	100%	67%	100%	33%
Q14 –Are you usually able to understand information given to you by your doctor?	100%	0%	100%	0%
Q15 – Do you keep floors and/or stairways clean and free of clutter?	57%	14%	57%	43%
Q16 – Do you have enough light in all rooms of your home?	57%	43%	57%	43%
Q17 –Do you feel safe in your neighborhood?	100%	43%	100%	86%
Q18 – If you do not feel safe in your neighborhood, why?	86%	100%	100%	57%
Q19 – Are there safe places in your community where you can get healthy food?	100%	57%	100%	71%
Q20 – Are there safe places in your community for:	100%	86%	100%	86%
Q21 – In case of a fire, does your family have an evacuation plan?	57%	26%	57%	57%
Q22 – Do you feel that your family members...?	100%	43%	100%	43%
Q23 – Who do you live with?	83%	67%	100%	67%
Q24- Is your house big enough for your family?	83%	100%	100%	100%
Q26 – Are you satisfied with your health?	100%	83%	100%	83%
Q27 – What aspects of your health would you like to improve?	100%	83%	100%	50%
Q28 – What keeps you from improving your health?	100%	83%	100%	67%
Q29 – Do you feel like you have a hearing problem?	67%	33%	67%	67%
Q30 – Are you pleased with your personal life?	67%	33%	67%	50%
Q31 – How much have you felt sad within the last few months?	100%	86%	100%	100%
Q32 – How much have you been bothered by nervousness, or your nerves?	67%	50%	67%	67%
Q33 –Do you ever feel like hurting yourself?	100%	100%	100%	100%
Q35 – Over the past few months, have you felt more bad tempered than usual?	67%	50%	67%	67%
Q36 – Have you experienced any of the following major life events within the last year?	67%	67%	67%	50%
Q37 – Are you satisfied with you ability to react to stress or pressure?	67%	67%	67%	67%
Q40 – Are you exposed to hazards in your workplace?	67%	33%	67%	67%
Q41 – What kind of hazards are you exposed to?	100%	67%	100%	100%
Q42 – Decisions about my physical health are most influenced by...?	100%	67%	100%	100%
Q43 – Does your physical health limit you from going places that you need to go?	67%	67%	67%	67%
Q44 – Does your physical health limit you in taking care of your personal needs?	67%	67%	67%	67%
Q45 – Are you being physically harmed by anyone you know?	100%	67%	100%	100%
Q46 – Do you do some form of exercise for at least 30 minutes a day three days a week or more	100%	75%	100%	100%

**TABLE VII (continued)**

**PERCENT AGREEMENT AMONGST EXPERT PANEL (N=31) ABOUT TEHA  
VERSION 3 ITEMS**

<b>Questions</b>	<b>Relevance</b>	<b>Wording</b>	<b>Comprehensibility</b>	<b>Response Format</b>
Q47 – What keeps you from exercising?	75%	50%	75%	50%
Q48 – Do you wear seatbelts in the car?	100%	100%	100%	100%
Q49 – Please write the year of your last...	100%	100%	100%	0%
Q50 – What is your current marital status?	100%	100%	100%	67%
Q51 – Do you have physical problems that prevent you from having sex?	100%	50%	100%	84%
Q52- Do you have emotional problems that prevent you from having sex?	84%	67%	84%	84%
Q53 – Are you ever forced to have sex when you don't want to?	100%	33%	100%	67%
Q54 – Do you use protection while having sex?	100%	50%	100%	67%
Q56 – Are you able to share your feelings with important people in your life?	86%	57%	86%	57%
Q57 – If you live alone, do you have daily contact with at least one friend, neighbor, or family member?	86%	71%	86%	86%
Q58 – Are your social activities limited because of your physical health?	71%	57%	71%	57%
Q59 – Are your social activities limited because of your emotional health?	71%	57%	71%	57%
Q60 – Do you ever feel socially isolated?	57%	29%	43%	57%
Q61 – Are you able to meet the needs of your family?	71%	29%	71%	43%
Q62 –Do you have trouble taking care of your regular and personal household responsibilities?	86%	43%	86%	57%
Q63 – Are you able to participate in community activities that are important to you?	86%	71%	86%	43%
Q64 – Do you have someone who can help you with household chores?	83%	33%	83%	50%
Q65 – Do you have someone you can talk to about yourself or your problems?	67%	50%	67%	50%
Q66 – If you were having money problems, do you have someone who could help you out?	83%	50%	83%	67%
Q67 – Do you have someone who could give you a ride if you needed it?	100%	67%	100%	83%
Q68 – Do you have someone to help you if you get sick?	100%	83%	100%	83%
Q69 – What is your religion?	100%	100%	100%	100%

48 years, with the mean age being 33.5 years (SD = 7.6). All participants were low-income according to the criteria used in this study. The average number of people in the household was 4.6 (SD = 1.3), with a range of two to six people.

TABLE VIII

## SELECTED EXPERT PANEL COMMENTS ABOUT TEHA VERSION 3

Questions	Expert Responses
<b>Q1 – How often do you drink alcohol?</b>	<ul style="list-style-type: none"> <li>- This question may not be necessary since it is usually included during a patient visit.</li> <li>- Instead of asking about daily alcohol intake, ask about weekly alcohol intake.</li> </ul>
<b>Q2 – Have you experienced physical, emotional, or social problems because of your drinking?</b>	<ul style="list-style-type: none"> <li>- Good question but seems to have 3 questions in 1. Consider dividing this question into 3 parts.</li> <li>- You may not need to divide this question into three parts because any one of these things could be a red flag.</li> </ul>
<b>Q3- Do you practice any of the following African-American folk remedies?</b>	<ul style="list-style-type: none"> <li>- This question sounds outdated. A lot of participants will not know what “folk remedies” are. This should be deleted.</li> </ul>
<b>Q5 - Do you have dental insurance?</b>	<ul style="list-style-type: none"> <li>- This may not be relevant. Consider asking when their last dental visit was instead.</li> </ul>
<b>Q6 - Was your last dental visit within the last year?</b>	<ul style="list-style-type: none"> <li>- Combine this with question 5.</li> </ul>
<b>Q7 - Do you have problems eating or talking because of your teeth?</b>	<ul style="list-style-type: none"> <li>- Good question, however this may be more geared towards geriatric patients.</li> </ul>
<b>Q8 – Do you have health insurance?</b>	<ul style="list-style-type: none"> <li>- Not necessary; this will always be asked when a patient comes to a clinic.</li> </ul>
<b>Q9 – Can you pay for prescriptions?</b>	<ul style="list-style-type: none"> <li>- Consider a scaled response with more than just yes or no choices. Consider “Always”, “Sometimes” or “Never” responses.</li> </ul>
<b>Q10 – Do you have somewhere to live?</b>	<ul style="list-style-type: none"> <li>- Good question.</li> </ul>
<b>Q12 – What was the highest level of education you completed?</b>	<ul style="list-style-type: none"> <li>- This may make the patients feel like their care will be affected depending on their education level.</li> <li>- Why does this matter?</li> </ul>
<b>Q13 – What is your preferred method of learning?</b>	<ul style="list-style-type: none"> <li>- This is already asked so it may not be necessary.</li> <li>- Rephrase this. Consider “How do you learn best?”</li> </ul>
<b>Q14 –Are you usually able to understand information given to you by your doctor?</b>	<ul style="list-style-type: none"> <li>- Should include “nurse” in this question too.</li> </ul>
<b>Q15 – Do you keep floors and/or stairways clean and free of clutter?</b>	<ul style="list-style-type: none"> <li>- People who live in apartment buildings in low-income areas may not be responsible for the cleanliness of the stairways.</li> <li>- This question is accusatory. Consider rephrasing.</li> </ul>
<b>Q16 – Do you have enough light in all rooms of your home?</b>	<ul style="list-style-type: none"> <li>- This is more appropriate for geriatric patients than it is for patient between the ages of 18 and 49?</li> <li>- What constitutes “enough” light? The amount of light is relative to the individual?</li> <li>- How useful is this question clinically? If there is not enough light, what would be the intervention?</li> </ul>
<b>Q17 –Do you feel safe in your neighborhood?</b>	<ul style="list-style-type: none"> <li>- If they don’t feel safe in their neighborhood, how could a healthcare provider fix this?</li> <li>- Safety is subjective. One person may feel that a neighborhood with a lot of violence is safe because they are used to it, whereas another person may not.</li> </ul>

TABLE VIII (continued)

## SELECTED EXPERT PANEL COMMENTS ABOUT TEHA VERSION 3

Questions	Expert Responses
<b>Q18 – If you do not feel safe in your neighborhood, why?</b>	- Good question. However, how can this information be used clinically?
<b>Q19 – Are there safe places in your community where you can get healthy food?</b>	- Good question. - Define healthy food as “fresh fruit and vegetables”. Participants may not know what healthy foods are.
<b>Q20 – Are there safe places in your community for:</b>	- Fix grammatical errors so that responses agree with question stem.
<b>Q21 – In case of a fire, does your family have an evacuation plan?</b>	- Evacuation is too big of a word; consider using escape plan instead. - Ask about smoke detectors and carbon monoxide detectors; these items may be more important to assess for?
<b>Q22 – Do you feel that your family members...?</b>	- Combine some of the responses because they are similar. - Consult the literature about this topic to make sure that these are good indicators of family function. - Who are you considering family members? Remember that different people have different definitions of family (i.e. kinship networks).
<b>Q23 – Who do you live with?</b>	- Good question.
<b>Q24- Is your house big enough for your family?</b>	- Good question; however, how can a provider help?
<b>Q26 – Are you satisfied with your health?</b>	- Consider putting this item on a scale and asking, “how satisfied are you with your health” instead. - What type of health are you asking about? Perhaps you should specify physical, social, emotional or mental health.
<b>Q27 – What aspects of your health would you like to improve?</b>	- Good question. - For response choices “emotional” and “mental”, participants may not be able to discriminate between the two. Perhaps you need to explain the difference between the two. - Ask laypeople what other things they think should be included in the responses.
<b>Q28 – What keeps you from improving your health?</b>	- This question seems accusatory; consider changing the language. - Ask laypeople to identify potential barriers.
<b>Q29 – Do you feel like you have a hearing problem?</b>	- This question may be more geared toward geriatric patients.
<b>Q30 – Are you pleased with your personal life?</b>	- This question is not clinically relevant. - This question is very broad. - Consider asking, “To what degree are you pleased with your personal life?”
<b>Q31 – How much have you felt sad within the last few months?</b>	- Good question. However, consider always, sometimes or never answer choices. - Instead of asking a negative question, consider asking, “What makes your heart sing?” - Consider shortening the time frame to one month.

TABLE VIII (continued)

## SELECTED EXPERT PANEL COMMENTS ABOUT TEHA VERSION 3

Questions	Expert Comments
<b>Q32 – How much have you been bothered by nervousness, or your nerves?</b>	- This question may be too specific or too diagnostic. - Consider combining this question and all of the other mental health questions into one question.
<b>Q33 –Do you ever feel like hurting yourself?</b>	- This question should stay.
<b>Q35 – Over the past few months, have you felt more bad tempered than usual?</b>	- Consider shortening the time frame to one month.
<b>Q36 – Have you experienced any of the following major life events within the last year?</b>	- Good question. - Ask laypeople about things that may be stressful to them.
<b>Q37 – Are you satisfied with you ability to react to stress or pressure?</b>	- Good question
<b>Q40 – Are you exposed to hazards in your workplace?</b>	- Consider changing the word hazards to dangers. - Consider eliminating this question because the provider won't be able to do anything about this.
<b>Q41 – What kind of hazards are you exposed to?</b>	See responses to question 40 above.
<b>Q42 – Decisions about my physical health are most influenced by...?</b>	- Good question, however how will this information help the provider?
<b>Q43 – Does your physical health limit you from going places that you need to go?</b>	- Define physical health because patient may not know what this means.
<b>Q44 – Does your physical health limit you in taking care of your personal needs?</b>	- "Personal needs" is a very broad term. What does this mean? Define it, or say, "limit you in doing what you need to do?"
<b>Q45 – Are you being physically harmed by anyone you know?</b>	- Physically harmed is a complicated term – consider changing this. - Look up the standard way of measuring physical harm and use that question. - Consider deleting "you know" and just asking if they have been harmed by anyone.
<b>Q46 – Do you do some form of exercise for at least 30 minutes a day three days a week or more</b>	- Include informal forms of exercise in parenthesis because some patients don't know that activities such as walking or dancing are exercise. - Consider changing this to 4 days a week or more since the recommendation is that they exercise most days of the week.
<b>Q47 – What keeps you from exercising?</b>	- This question is too specific. - The answer "hairstyle" may be offensive to some people.
<b>Q48 – Do you wear seatbelts in the car?</b>	- Good question; However, be prepared for people not to answer this truthfully.
<b>Q49 – Please write the year of your last...</b>	- Remove flu shot, DRE, colonoscopy, and FOBT because these are tests that are generally performed on older persons. - People probably will not remember the dates; consider having them select time frames.
<b>Q50 – What is your current marital status?</b>	- Good.

TABLE VIII (continued)

## SELECTED EXPERT PANEL COMMENTS ABOUT TEHA VERSION 3

Questions	Expert Comments
<b>Q51 – Do you have physical problems that prevent you from having sex?</b>	- Good question. However, you will need to give examples of physical problems so patients know what you are talking about.
<b>Q52- Do you have emotional problems that prevent you from having sex?</b>	- Consider combining this with question 51. - Define emotional problems because patients probably will not know what this is. This is a good question because it is not routinely asked.
<b>Q53 – Are you ever forced to have sex when you don't want to?</b>	- Consider changing this question to past tense, "Have you ever been....?"
<b>Q54 – Do you use protection while having sex?</b>	- There are two types of protection – Protection from pregnancy and protection from STDs. Some patient may think that their birth control pill protects them from everything. - Consider asking what type of protection they use instead.
<b>Q56 – Are you able to share your feelings with important people in your life?</b>	- Eliminate, "important people in your life" - This can be combine with item 57
<b>Q57 – If you live alone, do you have daily contact with at least one friend, neighbor, or family member?</b>	- Combine with item 57. - This question may be more geared towards the geriatric population.
<b>Q58 – Are your social activities limited because of your physical health?</b>	Combine this question with question with question 59
<b>Q59 – Are your social activities limited because of your emotional health?</b>	Combine this question with question 58.
<b>Q60 – Do you ever feel socially isolated?</b>	- "Socially isolated" should be replaced with "alone" - This question may be too specific for a health screening questionnaire.
<b>Q61 – Are you able to meet the needs of your family?</b>	- Needs is too broad of a term. Consider specifying what types of needs you are talking about.
<b>Q62 –Do you have trouble taking care of your regular and personal household responsibilities?</b>	- This can be combined with question 61. - Participants may not know what regular or personal household responsibilities are. Also, these can vary widely depending on the age of the patient.
<b>Q63 – Are you able to participate in community activities that are important to you?</b>	- Good
<b>Q64 – Do you have someone who can help you with household chores?</b>	- This question may not be clinically useful. Consider adding, "if you are sick" at the end of the question and combining it with question 68.
<b>Q65 – Do you have someone you can talk to about yourself or your problems?</b>	- Combine this item with Q56. - Consider combining all of the social health items (Q64, 65, 66, 67 and 68)
<b>Q66 – If you were having money problems, do you have someone who could help you out?</b>	- Good question.



TABLE VIII (continued)

## SELECTED EXPERT PANEL COMMENTS ABOUT TEHA VERSION 3

Questions	Expert Comments
<b>Q67 – Do you have someone who could give you a ride if you needed it?</b>	- Good question. However, consider adding, “to you doctor’s appointments” to make this question more relevant.
<b>Q68 – Do you have someone to help you if you get sick?</b>	- How sick? A common cold or cancer. Being sick has a wide range of possibilities. People may have someone who can help them for a day or two, but not if they are debilitated for a long period of time?
<b>Q69 – What is your religion?</b>	- Good question but this is usually already a part of the patient intake forms at hospitals and clinics.

*Results from laypeople interviews.* Version 4 of the TEHA was presented to the first four laypeople. Table 9 shows all items that yielded a percent agreement amongst this group of four laypeople greater than 50% in the relevance category. Eighteen items yielded a percent agreement of less than or equal to 50% in the relevance category so they were deleted from the TEHA. Some items that received low percent agreement scores were items that the participants felt were too personal (i.e. items about sexual preference and drug use). They felt that the questionnaire was too long, and many stated that an ideal length for it would be 20 questions or less. They also recommended eliminating questions that they felt doctors always ask such as questions about tobacco and alcohol use. The principal investigator asked participants for suggestions for rewording items that the experts felt may be unclear.

At this time, the principal investigator had received additional feedback from five members of the expert panel who had reviewed the TEHA Version 4 and emailed further suggestions about how the TEHA could be further modified. These suggestions included combining certain items, eliminating questions that were already routinely asked during doctor’s visits (i.e. questions about drug and alcohol use), and adding additional cultural

TABLE IX

## LAYPEOPLE DEMOGRAPHIC CHARACTERISTICS (N=10)

	N	%
<b>Age</b>		
18 – 24	1	10%
25 – 29	2	20%
30 – 35	4	40%
36 – 40	1	10%
41- 49	2	20%
<b>Highest Level of Education</b>		
Less than high school	--	--
High School or Equivalent	3	30%
Vocation/Technical Degree	1	10%
Associate's Degree	1	10%
Some College	4	40%
Bachelor's Degree	1	10%
Other	--	
<b>Current Relationship Status</b>		
Divorced	2	20%
Cohabiting	--	--
Married	1	10%
Single	--	--
Separated	6	60%
Widowed	1	10%
<b>Annual Income</b>		
<\$10,000	4	40%
\$10,000 - \$14,999	1	10%
\$15,000 - \$19,999	3	30%
\$20,000 - \$24,999	1	10%
\$25,000 - \$29,999	--	--
\$30,000 - \$39,999	1	10%
\$40,000 - \$49,999	--	--
\$50,000 - \$75,000	--	--
>\$75,000	--	--
<b>Number of People in Household</b>		
1	--	--
2	1	10%
3	--	--
4	4	40%
≥5	5	50%

health items. The principal investigator used this information, in addition to the feedback provided during the first four laypeople interviews to revise the TEHA Version 4, which led to TEHA Version 5.

The TEHA Version 5, which contained 58 items, was presented to 6 more laypeople. Table 11 shows health assessment items which yielded a percent agreement of greater than 50% in the relevance category. All items on TEHA Version 5 yielded a percent agreement of greater than 50% in the relevance category.

Data gathered from the laypeople, feedback obtained from the experts during the second round of their TEHA questionnaire review, and feedback from members of the health disparities seminar was used to further revise TEHA Version 5. This led to TEHA Version 6, which contained 40 items. Members of the health disparities seminar also identified one more item that may be problematic (Item 8= When you have sex, what type of protection do you always use?) because they felt that it made the assumption that the participant was sexually active, and that it was a “loaded question” – meaning that it was assessing more than one thing. Members of the health disparities seminar suggested that this item not be deleted until after the principal investigator assessed how participants responded to it in the feasibility study.

### **3. Feasibility Study**

*Participant characteristics.* There were 30 participants in the feasibility study. Demographic data for the feasibility study is shown in Table 12. All participants in the sample were African-American, and 100% of participants in the sample were women.

**TABLE X**  
**PERCENT AGREEMENT AMONGST LAYPEOPLE (N=4) FOR TEHA**  
**VERSION 4**

<b>Questions</b>	<b>Relevance</b>	<b>Wording</b>	<b>Comprehensibility</b>	<b>Response Format</b>
Q4 - Do you have dental insurance?	75%	75%	75%	75%
Q5 – Was your last dental visit within the last year?	100%	100%	100%	100%
Q6 - Do you have problems eating or talking because of your teeth?	75%	75%	75%	75%
Q7– Do you have health insurance?	100%	100%	100%	100%
Q8 – Can you pay for prescriptions?	100%	100%	100%	100%
Q9 – Do you have somewhere to live?	100%	100%	100%	100%
Q10 – What was the highest level of education you completed?	75%	75%	75%	75%
Q12 –Are you usually able to understand information given to you by your doctor?	75%	75%	75%	75%
Q13 – Do you keep floors and/or stairways clean and free of clutter?	100%	100%	100%	100%
Q18 – Are there safe places in your community for:	75%	75%	75%	75%
Q19 – In case of a fire, does your family have an evacuation plan?	100%	100%	100%	100%
Q20 – Do you feel that your family members...?	75%	75%	75%	75%
Q21 – Who do you live with?	75%	75%	75%	75%
Q22- Is your house big enough for your family?	75%	75%	75%	75%
Q24 – What aspects of your health would you like to improve?	75%	75%	75%	75%
Q25 – What keeps you from improving your health?	100%	100%	100%	100%
Q26 – Do you feel like you have a hearing problem?	100%	100%	100%	100%
Q27 – Are you pleased with your personal life?	100%	100%	100%	100%
Q28 – How much have you felt sad within the last few months?	100%	100%	100%	100%
Q29 – How much have you been bothered by nervousness, or your nerves?	75%	75%	75%	75%
Q30–Do you ever feel like hurting yourself?	75%	75%	75%	75%
Q31 – Over the past few months, have you felt more bad tempered than usual?	100%	100%	100%	100%
Q32 – Have you experienced any of the following major life events within the last year?	75%	75%	75%	75%
Q33 – Are you satisfied with you ability to react to stress or pressure?	100%	100%	100%	100%
Q34– Are you exposed to hazards in your workplace?	100%	100%	100%	100%
Q35 – What kind of hazards are you exposed to?	100%	100%	100%	100%
Q36 – Decisions about my physical health are most influenced by...?	75%	75%	75%	75%
Q37 – Does your physical health limit you from going places that you need to go?	100%	75%	100%	100%
Q38 – Does your physical health limit you in taking care of your personal needs?	100%	100%	100%	100%
Q39 – Are you being physically harmed by anyone you know?	75%	75%	75%	75%
Q40 – Do you do some form of exercise for at least 30 minutes a day three days a week or more?	100%	100%	100%	100%
Q41 – What keeps you from exercising?	100%	100%	100%	100%
Q42 – Do you wear seatbelts in the car?	75%	50%	75%	75%

**TABLE X (continued)****PERCENT AGREEMENT AMONGST LAYPEOPLE FOR TEHA VERSION 4**

<b>Questions</b>	<b>Relevance</b>	<b>Wording</b>	<b>Comprehensibility</b>	<b>Response Format</b>
Q43 – Please write the year of your last...	100%	100%	100%	100%
Q44 – What is your current marital status?	75%	75%	75%	75%
Q45 – Do you have physical problems that prevent you from having sex?	75%	75%	75%	75%
Q46- Do you have emotional problems that prevent you from having sex?	100%	100%	100%	100%
Q47 – Are you ever forced to have sex when you don't want to?	100%	100%	100%	100%
Q48 – Do you use protection while having sex?	75%	75%	75%	75%
Q51 – Are your social activities limited because of your physical health?	100%	100%	100%	100%
Q52 – Are your social activities limited because of your emotional health?	100%	100%	100%	100%
Q53 – Do you ever feel socially isolated?	100%	100%	100%	100%
Q54 – Are you able to meet the needs of your family?	100%	50%	100%	100%
Q59 – If you were having money problems, do you have someone who could help you out?	100%	100%	100%	100%
Q62 – What is your religion?	100%	100%	100%	100%

The age range for this sample was 19 to 48 years with the mean age being 32 years (SD= 9.8). In this sample, 46.7% of the participants had attended some college. Sixty-three percent of the women in the sample were single. All participants in this sample were low-income according to the criteria set in this study; 43% had an annual income of less than \$10,000. The average number of people in the household was 4 (SD = 1.8), with a range of one to nine people in the household.

**TABLE XI**  
**PERCENT AGREEMENT AMONGST LAYPEOPLE (N=6) FOR**  
**TEHA VERSION 5**

<b>Questions</b>	<b>Relevance</b>	<b>Wording</b>	<b>Comprehensibility</b>	<b>Response Format</b>
Q1 – How often do you drink?	83%	83%	83%	83%
Q2 – Have you ever, or do you use any of the following drugs?	83%	67%	83%	83%
Q3 – Has using drugs or alcohol ever caused you to have problems with your family and friends, your job, or the law?	100%	100%	100%	100%
Q4 – Do you smoke cigarettes?	100%	100%	100%	100%
Q5 – Do you have problems eating or talking because of your teeth?	83%	100%	100%	100%
Q6 – Do you have difficulty paying for doctor’s visits, medical tests, treatments or medications?	100%	100%	100%	100%
Q7 – What is your preferred method of learning?	100%	100%	100%	100%
Q8 – Are you usually able to understand information given to you by your doctor?	100%	83%	100%	100%
Q9 – Have you ever felt like, or has anyone ever told you that you may have a hearing problem?	83%	83%	83%	83%
Q10 – Are there any aspects of your health you would like to improve?	100%	83%	100%	100%
Q11 – What keeps you from improving your health?	100%	100%	100%	100%
Q12 – Over the past few months, how much have you...?	100%	100%	100%	100%
Q13 – Have you experienced any of the major life events in the past year?	100%	100%	100%	100%
Q14 – Do you always wear seat belts while in the car?	83%	67%	83%	83%
Q15 – Write the date of your last....	100%	100%	100%	17%
Q16 – Does your physical health limit you from taking care of your personal needs?	100%	100%	100%	100%
Q17 – Have you been hurt (mentally, physically, or verbally) by anyone?	100%	67%	100%	100%
Q18 – Do you exercise for at least 30 minute a day three times a week or more?	100%	33%	100%	100%
Q19 – If you are sexually active (including vaginal, anal and oral sex), are your partners....	83%	67%	100%	100%
Q20 – Do you have any problems that make it hard for you to have, or enjoy sex?	67%	67%	67%	50%
Q21 – Have you ever been forced to have sex when you don’t want to?	83%	83%	83%	83%
Q22 – Do you use protection while having oral, vaginal or anal sex?	100%	100%	100%	100%
Q23 – Are you currently trying to get pregnant?	100%	83%	100%	100%
Q24 – Do you think your religious beliefs affect what medical advice you follow, what medications you take, or how you take care of your health?	100%	100%	100%	100%
Q25 – If you experience racism, how do you deal with it?	83%	67%	83%	83%
Q26 – Do you think racism influences where, or who, you get health information from?	67%	33%	67%	67%
Q27 – I would prefer health information that is...	100%	100%	100%	100%

**TABLE XI (continued)**  
**PERCENT AGREEMENT AMONGST LAYPEOPLE (N=6) FOR**  
**TEHA VERSION 5**

Questions	Relevance	Wording	Comprehensibility	Response Format
Q28 – The health information I trust must comes from ...	100%	100%	100%	100%
Q29 – Do you have somewhere to live?	83%	83%	83%	83%
Q30 – Is your house/apartment big enough for the people that live in it?	100%	100%	100%	100%
Q31 – Where you live, do you...	83%	100%	100%	100%
Q32 – How often do you feel safe in your neighborhood?	100%	100%	100%	100%
Q33 – If you do not feel safe in your neighborhood, why?	100%	100%	100%	100%
Q34 – In your neighborhood, are there places you can go to/for....	100%	100%	100%	100%
Q35 – Are you exposed to any of the following things at your job?	100%	100%	100%	100%
Q36 – Are you able to get along with most people?	100%	100%	100%	100%
Q37 – Do you feel that you and your family members communicate well with each other?	100%	100%	100%	100%
Q38 – I am responsible for making health decisions and/or doctor's appointments for....	100%	100%	100%	100%
Q39 – Do you have someone who...	100%	100%	100%	100%
Q40 – Do you have trouble taking care of your regular or household responsibilities?	100%	100%	100%	100%

***Results from feasibility study.*** While reviewing the packets for completeness, the principal investigator noted that 12 out of 30 (40%) participants initially answered item 6 incorrectly (see TEHA version 6). Participants consistently made one of the following errors:

- 1.) They only circled a time frame for one of the choices a – e, when they were supposed to circle a timeframe for ***each*** choice.
- 2.) They circled one of the letters a – e, but did not indicate a time frame.

When the principal investigator reviewed the packets, and gave participants the option to complete item six correctly, 100% of the participants agreed to do so. The principal investigator then asked participants for suggestions about how she could make

TABLE XII

## FEASIBILITY STUDY DEMOGRAPHIC DATA (N=30)

	N	%
<b>Age</b>		
18 – 24	10	33.3%
25 – 29	4	13.3%
30 – 35	6	20%
36 – 40	1	3.3%
41- 49	9	30%
<b>Highest Level of Education</b>		
Less than high school	3	10%
High School or Equivalent	9	30%
Vocation/Technical Degree	--	--
Some College	14	46.7%
Bachelor's Degree	--	--
Master's Degree	1	3.3%
Other	3	10%
<b>Current Relationship Status</b>		
Divorced	3	10%
Cohabiting	4	13.3%
Married	2	6.7%
Separated	2	6.7%
Single	19	63.3%
Widowed	--	--
<b>Number of People in Household</b>		
1	1	3.3%
2	6	20%
3	9	30%
4	5	16.7%
≥5	9	30%
<b>Annual Income</b>		
<\$10,000	13	43.3%
\$10,000 - \$14,999	4	13.3%
\$15,000 - \$19,999	1	3.3%
\$20,000 - \$24,999	3	10%
\$25,000 - \$29,999	3	10%
\$30,000 - \$39,999	4	13.3%
\$40,000 - \$49,999	1	3.3%
\$50,000 - \$75,000	1	3.3%
>\$75,000	--	



the instructions for this item clearer. They told her to make sure that the instructions stated that they should circle yes or no for *each* individual part. Based on this observation, the principal investigator rephrased the instructions for this item.

The principal investigator also noted a recurring error with question 19. Question 19 states: If your doctor wants to teach you something, how do you learn best? (Circle one answer). Five out of 30 (16.7%) participants chose two or more answers although the questions told them to circle only one answer. When asked if they would like to correct this, all five of the participants agreed and chose the best answer. However, they stated that they needed to be taught things multiple different ways.

After completing their packets, 93% of the participants in the feasibility study felt that the TEHA Version 6 was easily understand. Ninety-seven percent of the participants felt that the TEHA Version 6 was an acceptable length with regards to the amount of time it took to complete the TEHA, however six participants commented that there were too many pages to fill out. Without being prompted, 43% of the participants commented that the TEHA really made them think about different factors that they never knew influenced their health. This was positive feedback because the principal investigator intended for patients to be able to use the TEHA to assess their health, and these comments illustrated that the TEHA did stimulate health-related thoughts in the target population.

One last finding from the feasibility study was that it seemed as if respondents based their perceptions of participant burden more heavily on the number of pages the survey was than the number or items or the amount of time it took them to complete the survey. Four participants commented that the TEHA, which was four pages long, had too many pages to fill out. In response to this feedback, the principal investigator adjusted the

font size and margins of the TEHA so the survey was only two and a half pages long prior to administering it to the larger sample. Based on the feasibility study data and additional feedback from the members of health disparities seminar, TEHA Version 6 was revised resulting in TEHA Version 7.

### **B. Phase III**

Phase III of this dissertation study involved pilot testing the TEHA Version 7 in a larger sample of low-income African-American women (N=208). Data gathered during the pilot study was used to further modify the TEHA, examine the psychometric properties, and assess for built-in social desirability bias. Results from the pilot test will be reported in this section.

*Participant characteristics.* The sample consisted of 208 low-income African-American women (see table 13). The average age of the participants was 31.3 years (SD = 8.8). The largest percentage of participants fell into the 18 -24 year old age range (28.4%) and the 30 to 35 year old range (37.4%). Forty-one percent of the sample had completed high school. Sixty-eight percent of the participants in the sample were single. Number of people in the household ranged from one to 13 people, with the average number of people in the household being 4.3 persons (SD = 2.5), and 78.8% of the sample reported that their annual household income was between \$20,000 and \$24,999. The highest annual household incomes were reported by participants who had the highest number of people in the household.

TABLE XIII

## DEMOGRAPHIC CHARACTERISTICS OF PHASE III (N=208)

Characteristics	N	%
<b>Age</b>		
18 – 24	59	28.4%
25 – 29	35	16.8%
30 – 35	57	27.4%
36 – 40	19	9.1%
41 – 49	38	18.3%
<b>Marriage</b>		
Divorced	4	1.9%
Cohabiting	28	13.5%
Married	23	11.1%
Separated	5	2.4%
Single	142	68.3%
Widowed	6	2.9%
<b>Highest Level of Education</b>		
Less than high school	29	13.9%
High School or Equivalent	86	41.3%
Vocational/Technical/Associate's Degree (2 years)	11	5.4%
Some College (<Associate's Degree)	67	32.2%
Bachelors Degree	12	5.8%
Masters Degree	--	
Doctoral Degree (i.e. PhD)	--	
Professional Degree (MD, JD, etc.)	2	1.0%
Other	1	0.5%
<b>Annual Family Income</b>		
< \$10,000	119	57.2%
\$10,000 - \$14,999	21	10.1%
\$15,000 - \$19,999	10	4.8%
\$20,000 - \$24,999	14	6.7%
\$25,000 - \$29,999	17	8.2%
\$30,000 - \$39,999	13	6.3%
\$40,000 - \$49,999	8	3.8%
\$50,000 - \$75,000	4	1.9%
> \$75,000	2	1.0%

## **1. Preliminary Statistical Analysis**

*Exploratory factor analysis.* Since the TEHA is a novel health assessment, exploratory factor analysis was used to examine the structure of the TEHA Version 7. In the initial factor analysis, 37 out of 39 items on the TEHA Version 7 were included in the factor analysis. Items 17 and 18 were excluded because they were nominal items. Based upon this analysis and consultation with four members from the principal investigator's dissertation committee, eight items were deleted from the TEHA Version 7. This led to TEHA Version 8, which contained 31 items. See table 14 for an explanation of why these items were deleted.

Twenty-nine out of 31 items on Version 8 of the TEHA were then included in another factor analysis. These items were 1, 2, 3, 6A, 6C, 6D, 6E, 7, 10, 11B, 11C, 11D, 11E, 11F, 12, 13A, 13B, 13C, 13D, 15B, 15C, 15D, 16A, 16B, 16C, 16D, 16E, 19, and 20. Once again, items 17 and 18 were not included in the factor analysis because they were nominal items.

This factor analysis yielded nine components with eigenvalues that were greater than one. These nine components accounted for 63.7% of the variance. Table 15 shows factor loadings for the nine components. Twenty-eight of the 29 items loaded onto one of the nine components. No items loaded on more than component. The item that did not load onto any of the nine components with a factor loading of absolute .50 or higher was:

Item 20: Is there anything about your health you would like to improve?

The first component contained five items (items 11B, 11C, 11D, 11E, 11F) and accounted for 10.76% of the variance (eigenvalue = 4.702). All five items were personal/mental health items. Factor loadings ranged from .739 to .760. The second

component contained five environmental/community items (16A, 16B, 16C, 16D, 16E) and accounted for 9.55% of the variance (eigenvalue = 3.408). Factor loadings ranged from .597 to .830. The third component contained four social health items (13A, 13B, 13C, 13D) and accounted for 8.95% of the variance (eigenvalue = 2.396). Factor loadings

TABLE XIV

## TEHA VERSION 7 ITEM DELETIONS

Item	Question	Reason for deletion
4	How many days a week do you exercise 30 minutes or more?	- Loaded onto 11 <sup>th</sup> component with item 9; these items were totally unrelated so component was deleted. - Unsure about different respondent's interpretations of exercise.
5	Do you wear seat belts while in the car?	- Low response variance (.160) - Loaded onto 10 <sup>th</sup> component with no other items.
6B	When was your last mammogram?	- Mammogram screening not recommended for most women in the sample. According to the USPSTF, mammography is recommended for women ages 40 and older every one to two years. <sup>[180]</sup> - Did not load onto any components
8	Have you ever been forced to have sex?	- Not able to distinguish whether participants are talking about being forced to have sex with someone they don't know or someone they do know. - Did not load onto any components
9	When you have sex, do you always use condoms (male or women)?	- Loaded onto 11 <sup>th</sup> component with item 4; these items were totally unrelated so component was deleted. - Low response variance (.241)
11A	Over the past month, have you felt like hurting yourself?	- Too extreme compared to other mental health items. - Low response variance (.071) - Not necessary if other mental health items are also screening for depression. - Did not load onto any components.
14	Do you have somewhere to live now?	- Low response variance (.083)
15A	Where you live are floors clean and clear of clutter?	- Did not load onto any components - Low response variance (.083)



TABLE XV (continued)

## FACTOR LOADINGS FOR 9 PRINCIPAL COMPONENTS

Items	Factor Loadings								
	1	2	3	4	5	6	7	8	9
Question 7: Do you have any problems that make it hard for you to have or enjoy sex?								.723	
Question 12: Within the last year, has anyone hit, kicked, slapped or otherwise physically hurt you?								.670	
Question 1: Do you have problems eating or talking because of your teeth?									.757
Question 19: Do you have difficulty paying for your doctor's visits, medical tests, treatments or medications?									.745

for this component ranged from .729 to .804. The fourth factor contained three environmental items (15B, 15C, 15D) and accounted for 7.43% of the total variance (eigenvalue = 1.741). Factor loadings for this component ranged from .684 to .839.

The fifth factor contained two personal health/routine screening items (items 6D and 6E) and accounted for 5.83% of the variance (eigenvalue = 1.472). Factor loadings ranged from .655 to .729. The sixth factor contained two personal/sexual items (items 6A and 6C), and accounted for 5.61% of the variance (eigenvalue = 1.438). Factor loadings ranged from .669 to .797. The seventh factor contained three items (items 2, 3 and 10) and accounted for 5.59% of the total variance (eigenvalue = 1.195). Factor loadings for this component ranged from .544 to .797.

The eighth factor contained two items (items 7 and 12), which accounted for 4.99% of the variance (eigenvalue = 1.092). Factor loadings were .670 to .723. The ninth component contained two items (items 1 and 19), which accounted for 4.97% of the variance (eigenvalue = 1.029). Factor loadings were .745 and .757.

***Social desirability bias.*** Pearson's correlations were used to determine if there was any social desirability built into the TEHA Version 8. First, total scores on the

TEHA Version 8 were correlated with total scores on the on the Marlowe-Crowne social desirability scale. The total scores on the TEHA Version 8 were found to have a significant negative correlation with scores on the Marlowe-Crowne Social Desirability Scale ( $r = -.259^{**}$ ;  $p = .000$ ).

Next, scores on individual TEHA Version 8 items were correlated with total scores on the Marlowe-Crowne Social Desirability scale. The correlations ranged from  $-.214$  to  $.105$ . Three items were found to have significant negative correlations with Marlowe-Crowne Social Desirability Scale Scores (items 11C, 11D, 19). See table 16. Items 11C, 11D and 19 were deleted from the TEHA Version 8 leading to TEHA Version 9, which contained 28 items. Next, the principal investigator examined the psychometric properties of the TEHA Version 9.

## **2. Psychometric Properties of TEHA Version 9**

***Construct validity.*** After removing the items that were significantly correlated with Marlowe-Crowne Social Desirability Scale scores, the principal investigator repeated the factor analysis with 26 out of 28 items. Items 17 and 18 were excluded from the factor analysis because they were nominal items. This factor analysis yielded eight principal components with eigenvalues greater than one. No items loaded on more than one component. Two items did not load onto any of the 8 components with a factor loading of  $.50$  or higher: Item 10 (Has using drugs or alcohol ever caused you to have problems with your family and friends, your job, or the law?) and item 20 (Is there anything about your health you would like to improve?). See Table 17.



TABLE XVI

## TEHA VERSION 8 AND MARLOWE-CROWNE ITEM CORRELATIONS (N = 208)

Item	r
Q1 Do you have problems eating or talking because of your teeth?	-.090
Q2 Has anyone ever told you that you might have a hearing problem?	.087
Q3 Do you ever have difficulty taking care of your personal needs?	-.017
Q6 When was your last?	
A. Pap Smear	.078
C. HIV test	.084
D. Eye Exam	.038
E. Dental Exam	.033
Q7 Do you have problems that make it hard for you to have or enjoy sex?	-.044
Q10 Has using drugs or alcohol ever caused you problems with your family and friends, your job, or the law?	-.011
Q11 Over the past month, have you...?	
B. Felt sad or depressed	-.016
C. Felt nervous or been bothered by your nerves	-.142*
D. Felt angry or lost your temper	-.214**
E. Felt like you couldn't concentrate	-.025
F. Felt stressed	.064
Q12 Within the last year has anyone hit, kicked slapped or otherwise physically hurt I you?	-.021
Q13 Do you have someone who...?	
A. You can share your feelings or problems with?	-.016
B. Can give you a ride if you need it?	.026
C. Can lend you money if you need it?	-.081
D. Can help you around the house if you are sick?	.062
Q15 Where you live...?	
B. Are there working smoke detectors?	.020
C. Are there working carbon monoxide detectors?	.000
D. Is there an escape plan in case of an emergency (i.e. fire, flood)	-.036
Q16 In your neighborhood are there safe places you and your family can go for...?	
A. Fun activities (festivals, parades, parks)	.205
B. Religious activities (church)?	.006
C. Buying fruits and vegetables?	-.033
D. Exercise?	.048
E. School and childcare?	.008
Q17 The health information I trust most comes from...	-.006
Q18 If your doctor wants to teach you something, how do you learn best?	-.082
Q19 Do you have difficulty paying for doctor's visits, medical tests, treatments and medications?	-.141*
Q20 Is there anything about your health you would like to improve?	-.039

\* - Correlation significant at 0.05 level (2-tailed)

\*\* - Correlation significant at 0.01 level (2-tailed)

The environmental/community health component contained five items (items 16A, 16B, 16C, 16D and 16E) and accounted for 17.411% of the variance (eigenvalue = 4.527). All five items were environmental health items. Factor loadings ranged from .597 to .819. The social health component contained four items (items 13A, 13B, 13C and 13D) and accounted for 10.146% of the variance (eigenvalue = 2.638). Factor loadings for this component ranged from .731 to .775. The third component contained three personal/mental items (11B, 11E, and 11F) and accounted for 8.998% of the variance (eigenvalue = 2.339). Factor loadings for this item ranged from .757 to .797. The fourth component contained three environmental/home health items (item 15B, 15C, and 15D) and accounted for 6.633% of the variance (eigenvalue = 1.725). Factor loadings ranged from .646 to .850.

The fifth component contained three personal/physical items (items 1, 2 and 3) and accounted for 5.616% of the variance (eigenvalue = 1.460). Factor loadings ranged from .590 to .755. The sixth component contained two personal/physical items related to sexual issues (items 6A and 6C) and accounted for 5.238% of the variance (eigenvalue = 1.362). Factor loadings for this item were .689 and .797. The seventh component also contained two personal/physical items related to routine screening (items 6D and 6E) and accounted for 4.155% of the variance (eigenvalue = 1.080). Factor loadings were .671 and .791. The eighth component contained two items (items 7 and 12) and accounted for 3.969% of the variance (eigenvalue = 1.032). Factor loadings for this component were .652 and .696.



**Internal consistency.** Cronbach's alpha for the TEHA Version 9, which was performed using 26 out of the total 28 items, was .752. Items 17 and 18 were excluded from the internal consistency calculation because they are nominal and not scalable. The internal consistency for each of the 8 components ranged from .375 to .792. See table 18.

**TABLE XVIII**

**INTERNAL CONSISTENCY TEHA VERSION 9**

Scale	# of Items	Items	Cronbach's Alpha
TEHA Version 9	26*		.752
<b>Subscales</b>			
1. Environmental/Community	5	16A, 16B, 16C, 16D, 16E	.780
2. Social	3	13A, 13B, 13C, 13D	.792
3. Personal/Mental	3	11B, 11E, 11F	.773
4. Environmental/Home	3	15B, 15C, 15D	.743
5. Personal/Physical	3	1, 2, 3	.494
6. Personal/Sexual	2	6A, 6C	.539
7. Personal/Routine Screening	2	6D, 6E	.634
8. Component 8	2	7, 12	.375

\* TEHA Version 9 contains 28 items but items 17 and 18 were excluded because they were nominal and not scalable.

**Test-retest reliability.** Of the 208 women who completed the TEHA Version 7 at time one, 114 (54.8%) agreed to complete the survey again after two weeks. Sixty-six out of 114 (57.9%) women completed their packet and sent it back after the two-week period. Test-Retest reliability correlations were performed on the total and subscale scores for TEHA Version 9. The correlation between TEHA total scores at times one and two was statistically significant ( $r = .398$ ;  $p = .001$ ). Pearson correlations between scores on the eight TEHA subscales at times one and two ranged from  $-.033$  to  $.391$ . Statistically significant correlations were found between times one and two on three of the nine subscales. See Table 19.

TABLE XIX

**TEST-RETEST RELIABILITY CORRELATIONS OF TEHA VERSION 9**

<b>Scale</b>	<b>Items</b>	<b>r</b>	<b>P</b>
TEHA Version 9		.398**	.001
<b>Subscales</b>			
1. Environmental/Community	16A, 16B, 16C, 16D, 16E	.206	.097
2. Social	13A, 13B, 13C, 13D	.235	.058
3. Personal/Mental	11B, 11E, 11F	.218	.079
4. Environemntal/Home	15B, 15C, 15D	.261*	.034
5. Personal/Physical	1, 2, 3	.391**	.001
6. Personal/Sexual	6A, 6C	.325**	.008
7. Personal/ Routine Screening	6D, 6E	.224	.071
8. Component 8	7, 12	-.033	.795

\* = significance at 0.05 level. \*\* = significance at 0.01 level

## **V. Discussion**

### **A. Introduction**

The purposes of this study were to develop the Taylor Ecological Health Assessment (TEHA), a health-screening questionnaire targeted towards low-income African-American women between the ages of 18 and 49, and to determine the psychometric properties (internal consistency, construct validity, test-retest reliability) of the instrument. In this section, the development of the TEHA, the psychometric findings, strengths and limitations, future research recommendations, and conclusions will be discussed.

### **B. Summary of Findings**

#### **1. Phase I – Generation of Health Assessment Item Pool**

The first aim of this study was to compile a health assessment item pool of possible items that could be included on the TEHA. Items from a wide variety of health assessments were included in the initial health assessment item pool based upon the principal investigator's literature review. Based upon feedback from experts and laypeople, it appeared that the health assessment item pool adequately sampled the domains of interest (personal, social, environmental, and cultural) the researcher intended to capture.

#### **2. Phase II – Content and Face Validity**

The second aim of this study was to provide support for validity (content and face validity) of the TEHA.

***Content validity.*** The TEHA was based upon an extensive literature structured on the Brofenbrenner ecological framework. It is also widely documented that consulting with experts who have expertise in a domain of interest is adequate for providing evidence for content validity of a novel instrument.<sup>[181]</sup> After reviewing the TEHA, a multidisciplinary panel of 31 experts reached a consensus that items included on this health-screening questionnaire were relevant and appropriate for the intended purpose of the TEHA. Thus, evidence for content validity of the TEHA was supported in this dissertation study.

***Face validity.*** The laypeople in this study reached a consensus that the TEHA was comprehensive, easy-to understand, and that it encouraged them to really think about how each question was relevant to their health. They also provided criteria for the researcher to abide by while developing the TEHA. The laypeople informed the researcher that the final version of the TEHA should be 20 questions or less, and take less than 10 minutes to complete.

Some people argue that face validity is not a true form of validity.<sup>[181]</sup> However, establishing evidence for face validity of the TEHA was crucial because it helped the researcher identify potential issues before conducting a larger scale study such as participant's misinterpretation of items, or terms that were unclear. Thus, information gathered from the laypeople guided the mode of delivery of the TEHA in the feasibility and pilot studies.

### **3. Feasibility Study**

The third aim of this research study was to perform a feasibility study with 30 low-income African-American women between the ages of 18 and 49. The feasibility

study was important to the instrument development process for four main reasons. First, conducting this study helped identify and revise items that may have been problematic in the larger study. Second, it allowed the principal investigator to determine the length of time it took participants to complete the health-screening questionnaire. This was important because in phase II, the laypeople indicated that the screening questionnaire should take no more than 10 minutes to complete.

Results from the feasibility study revealed it took participants an average of 7.4 minutes to complete the TEHA, thus satisfying the abovementioned criteria. Third, it helped the principal investigator determine if the survey instructions and mode of delivery were appropriate for the target population. Lastly, comments from the participants helped the research change the aesthetic appearance of the survey so that it did not appear to be too long by changing the margin and font size.

#### **4. Phase III: Pilot Study**

The last aim of this dissertation was to pilot test the TEHA in a larger sample of low-income African-American women between the ages of 18 and 49 in order to determine the psychometric properties and assess for any built-in social desirability bias. Based upon preliminary statistical analysis of data gathered during the pilot study, eight additional items were removed from the TEHA Version 7 due to low score variance, factor loadings below the cutoff value (.50), or inability to determine participants' interpretation of certain items. For example, item eight asked participants to indicate whether they had ever been forced to have sex. It is unclear whether participants who provided positive responses to this question were referring to an intimate partner or



someone that they did not know. Deletion of these items led to TEHA Version 8, which contained 31 items.

Next, scores from the remaining 31 items were correlated with scores from the Marlowe-Crowne Social Desirability Scale. Three items (11C, 11D and 19) that were significantly correlated with total Marlowe-Crowne Social Desirability Scale scores were removed, leading to TEHA Version 9. Psychometric testing was then performed on the remaining 28 items included on TEHA. The final version of the TEHA (Version 9), is included in Appendix V. Items have been renumbered to reflect modifications made to the TEHA after statistical analysis. In the following section, items are referred to according to their initial numbers prior to this renumbering.

***Construct validity.*** In order to establish evidence for construct validity of the TEHA, factor analysis was performed. Results from this analysis allowed the researcher to examine the structure of the TEHA and compare the theoretical grouping of items, which was guided by the literature review and consultation with experts and laypeople, with results from the statistical analysis. The factor analysis revealed that the TEHA contained eight subscales (personal/mental, personal/physical, personal/sexual, personal/routine screening, social, environmental/home, environmental/community and component 8), two one-item indexes (personal/education and cultural), and two items that did not load onto any components (items 10 and 20).

Five of nine of these subscales matched the researchers' theoretical grouping of the items. Despite the transformation the TEHA underwent from version one through version nine, it still appears to assess personal, social, environmental and cultural factors

that affect the health of low-income African-American women between the ages of 18 and 49.

In TEHA Version 9, there were five subscales and one 1-item index that fell under the personal factors category. These were the personal/mental, personal/physical, personal/sexual, personal/routine screening, and component 8. Throughout the development process, the personal/mental subscale, which initially contained six items, was reduced to three items. Item 11A, which asked participants whether they had ever felt like hurting themselves, was removed because it was too extreme when compared with the other items in this subscale. Items 11C and 11D showed social desirability response tendency so they were also deleted. When the principal investigator consulted with a mental health nurse practitioner, the mental health nurse practitioner confirmed that since all personal/mental items on the TEHA assessed symptoms of depression, it was not necessary to include all six items. The remaining personal/mental items (11B, 11E, 11F) showed high internal consistency (include number here), providing evidence for reliability of this subscale when used with low-income African-American women between the ages of 18 and 49.

The personal/physical subscale, which initially had 10 items (items 1, 2, 3, 6A, 6B, 6C, 6D, 6E, 10 and 20), was reduced to three items (items 1, 2, and 3) in the TEHA Version 9. Item 6 ended up splitting up into two distinct components, and items 10 and 20 did not load onto any components during factor analysis. The 10 items that were theoretically grouped under the personal/physical component may not have loaded on the same component during factor analysis because they all represented very different aspects of physical health. Items 1, 2 and 3 assessed one's physical abilities to carry out

various activities of daily living, item 6 assessed the last time respondents<sup>2</sup> had received various health screening tests, item 10 assessed possible drug or alcohol abuse, and item 20 assessed health perceptions. This indicated that personal/physical aspect of health may be too broad to be represented by one component.

The TEHA Version 9 contained a personal/sexual subscale, however none of the items contained in this subscale on the latest version of the TEHA were consistent with the items that were theoretically grouped under this subscale. On the TEHA Version 9, the personal/sexual subscale comprised of items 6A and 6C. These items assess when respondents last received a pap smear and an HIV test, both of which can be used as indicators of one's sexual health. Initially, items 7, 8, and 9 were intended to assess personal/sexual health factors. None of these items loaded together on the same component. Then, item 8 was deleted because the principal investigator was not sure of how participants were interpreting this question, and thus could not be sure that she was measuring the intended phenomena. Item 9, which assessed condom use frequency, was deleted due to low variance in scores.

The TEHA Version 9 contained two novel subscales that were not consistent with the theoretical grouping of the items: the personal/routine screening subscale and component 8. The personal/routine-screening item comprised of item 6D and 6E. This item was named the personal/routine screening subscale since these items both assess when respondents last received a dental or eye exam, both of which are considered routine screening tests.

The principal investigator was unable to name component 8, which contained items 7 and 12. Further research must be done to determine what these items are actually

assessing. Item 7 asks participants to indicate whether they have problems that make it difficult to have sex and item 12 asks them to indicate whether they have been physically abused within the last year. With item 12, the researcher was intending to assess whether participants were victims of domestic violence; however, this was not specified in the stem of this item. Thus, it is unclear whether participants who indicated that they had been physically abused in the last year were referencing abuse from an intimate partner. If participants were referring to domestic violence, then the relationship between these two items becomes more apparent. According to the American College of Obstetrics and Gynecologists (ACOG), intimate partner violence can lead to sexual problems such as, “gynecologic disorders, pregnancy complications, unintended pregnancy, and sexually transmitted infections, including human immunodeficiency virus (HIV)”.<sup>[182]</sup> The yes-no response format of item 7 make it is impossible to determine what sexual problems participants are referring to. Further investigation must be done to determine the relationship between these items.

The social health subscale in TEHA Version 9 was consistent with the researcher’s initial hypothesis. On the TEHA Version 9, the social health subscale contained items 13A, 13B, 13, and 13D. As expected, the social health subscale was a major contributor to overall TEHA scores, with this subscale accounting for the second highest amount of variance [put number here]. Research consistently shows that social support has been linked with better mental health status, increased physical activity, and other positive health outcomes in African-American women.<sup>[183, 184]</sup> Internal consistency for this subscale was .792, indicating that this subscale may be a reliable indicator of social support in low-income African-American women between the ages of 18 and 49.

Initially, the researcher thought there would be one environmental health subscale. Following statistical analysis, the environmental health items fell into two groups: environmental/home and environmental community. Surprisingly, the environmental/community component accounted for the most variance in TEHA total scores. Although the researcher expected that environmental health would be a large contributor to overall TEHA scores, an interesting finding was that items about the participants' community accounted for more variance in TEHA total scores than the environmental home items that assessed factors in their more immediate environment. This finding may have been explained by the fact that the environmental/community items were actually assessing two things: community safety and presence of various venues in the participants' community where they can partake in various social activities. As stated earlier, having social support and larger social networks are associated with more positive health outcomes in African-American women.

These findings also indicate that low-income African-American women in this sample may have viewed their home and community environments as two separate entities, and that environmental health risks can arise at multiple different levels. Healthcare providers need to take this into account when working with low-income African-American women between ages 18 and 49.

The two 1-item indexes included on the TEHA Version 9 were the personal/education item and the cultural item. Initially, the principal investigator felt that cultural relevance of the TEHA to low-income African-American women between the ages of 18 and 49 would be achieved by adding cultural health items. According to Bernal, Jimenez-Chafey, and Domenech-Rodriguez (2009), cultural adaptation refers to,

“the systematic modification of an evidence-based treatment (EBT) or intervention protocol to consider language, culture, and context in such a way that is compatible with the client’s cultural patterns, meaning, and values” (p. 362).<sup>[185]</sup> In the current study, establishing cultural relevance for the TEHA was achieved by actively involving laypeople in the development process and systematically modifying the instrument based upon their feedback. Laypeople provided feedback about the number and types of items that should be included on the TEHA, the wording of these items, the response format and the length of time it should take to complete the survey. Thus, cultural relevance of the TEHA to low-income African-American women between the ages of 18 and 49 was achieved in the current study.

Two important components that did not appear of the final version of the TEHA (TEHA Version 9) were the personal/spiritual and the personal/economic components. Although there were items that were intended to assess these components in earlier version of the TEHA, they were eliminated due to expert recommendations or social desirability response tendency. The researcher feels that elimination of these items does not indicate that they are not important factors to consider when assessing the health of this population. A recent Gallup poll indicated that 55% of blacks reported that they attend church in 2010, and that this number is increasing.<sup>[186]</sup> There is an increasing body of research that indicates that African-Americans who attend religious services and receive religious support tend to have larger social networks, less stress related to financial strain, lower amount of drug and alcohol use<sup>[187-189]</sup>. Thus, the principal investigator feels that the personal/spiritual component should be reintegrated into future versions of the TEHA. Further consultation with religious experts and laypeople is

needed to determine how to capture this information on the TEHA.

**Internal consistency.** Cronbach's alpha for TEHA Version 9 total scores was .752, which exceeded the desired value of .70 that has been proposed for new instruments.<sup>[187]</sup> This was a remarkable finding given that the TEHA assessed such a wide variety of health components. Four subscales (environmental/community, social, personal/mental and environmental/home) had internal consistencies of greater than .70. Refer to table 19. Thus, indicating that these subscales may be valid measures of the components that they are intended to assess when working with low-income African-American women between the ages of 18 and 49. The remaining four subscales displayed low to moderate internal consistency (personal/physical, personal/sexual, personal/routine screening, component 8). The subscales with Cronbach's alpha values  $\geq .70$  contained more items than the subscales with Cronbach's alpha values  $< .70$ . Thus, the limited number of items may have accounted for the low internal consistency of these subscales. Additional items may need to be added to these subscales to improve the reliability and validity.

**Test-retest reliability.** TEHA total scores at time one were significantly correlated with TEHA total scores at time two, which was two weeks later ( $r = .398$ ,  $p = .001$ ). The researcher expected time one and time two scores to be significantly correlated, with personal/mental subscale being a possible exception. Three of eight of the TEHA subscales (environmental/home, personal/physical, personal/sexual) showed significant correlations between scores at times one and two. Although these statistically significant correlations were relatively weak, they showed that each of these components were stable over the two week time period. Refer back to table 20.

There are several reasons why the other subscales may not have shown significant correlations between time one and time two. If the test-retest period was too short, participants may have remembered items from the first administration of the questionnaire while they are completing it the second time, which could be a source for bias.<sup>[190]</sup> Another explanation for the lack of correlation between time one and time two scores is that the mode of delivery of the questionnaire was slightly different at times one and two. At time one, participants were recruited face-to-face and filled out the questionnaire in the clinic. At time two, the survey was mailed to them and they were able to complete it in the privacy of their own homes. The TEHA contained many sensitive health-related topics, and it is documented that respondents are less likely to answer questions truthfully in a face-to-face setting.<sup>[191, 192]</sup>

***Social desirability.*** To develop a health-screening questionnaire that was free of social desirability bias, the principal investigator correlated each item on the TEHA with the total Marlowe-Crowne Social Desirability Scale scores and deleted items that displayed significant correlations. Two personal/mental items (11C and 11D) and the personal/economic (19) items were deleted. Social desirability response tendency associated with items 11C and 11D may have been associated with the frequently documented negative attitudes and high amount of stigma African-American women have about mental illness. One study found that African-American women felt that they were not at risk for depression.

Item 19, which was intended to assess the personal/economic, was also eliminated from the TEHA Version 9 due to significant correlations with the Marlowe-Crowne Social Desirability. There is a large body of research that cites lack of financial resources



as a barrier that prevents African-Americans from seeking healthcare. The researcher feels that personal/economic item was deleted from the final version of the TEHA Version 9 not because this was not an important influencer of the health of low-income African-American women between the ages of 18 and 49, but because item 19 may not have been appropriately stated. Future development efforts will be focused on developing an item to assess the personal/economic status that is free of social desirability bias.

### **C. Strength and Limitations**

The greatest strength of this study is that it represented the first known attempt to develop a holistic health assessment tool that can simultaneously be used to assess personal, social, environmental and cultural factors that influence the health of low-income African-American women between the ages of 18 and 49. Utilizing a mixed-methods research design was also a strength as it allowed the principal investigator to use qualitative and quantitative data in the process of instrument development.

Another strength of this study was that the researcher drew upon many aspects of community based participatory research in the development of the TEHA. Community based participatory research is defined as, “a collaborative approach to research where community residents are actively involved in the research process, thus allowing community members and researchers to, “partner to combine knowledge and action for social change to improve community health and often reduce health disparities.” [190]

Both low-income African-American women and healthcare providers were actively involved in various aspects of the TEHA process. According to the National Institutes of Health, some advantages of community based participatory research are, “increased quality and validity of research, enhanced relevance and use of data, and increased trust

and bridging of cultural gaps between partners.”<sup>[193]</sup> Increasing trust between African-American women and healthcare providers is crucial due to African-Americans long documented mistrust in the healthcare system<sup>[194, 195]</sup>. One last strength is that, during every factor analysis that was performed during the current study, no items landed on more than one factor. Items landed on only one distinct component with factor loading of .50 or greater.

Although this study had several strengths, there were limitations. One limitation was that all items on the TEHA only had two or three possible response choices. This was a limitation for several reasons. Dichotomizing responses forces respondents to select one response or another thus eliminating whatever responses may exist between two options. Questions with only yes or no response options provide very limited information to the healthcare provider. Although these items may be used to identify a potential health risk, they cannot give information about particular circumstances. For example, item seven asked participants to indicate whether they had ANY problems that made it difficult for them to have or enjoy sex. The item, however, does not elicit what type of problem (i.e. physical problems, emotional problems, etc.) the respondent is encountering. Another related issue involved in limiting response options is limiting variability, making it difficult to determine relationships between/among items.

Another limitation was that there are subscales on the final version of the TEHA with few items. For example, three subscales on the TEHA Version 9 only had two items: personal/routine screening, personal/sexual and component 8. One last limitation of this study was that convenience sampling was employed. Participants were recruited from one clinic in Chicago, thus making it difficult to generalize the study findings to low-income

African-American women in other areas. This could have introduced volunteer bias in the study because there can be major differences between persons who volunteer to participate and those who did not participate. Also, participants may be less willing to complete the questionnaire in a clinical setting if they do not receive compensation.

#### **D. Future Research and Implications for Practice**

Although great gains were made in the development of the TEHA, further research is warranted. In future research, current limitations of the TEHA Version 9 will be addressed to expand the usefulness of the TEHA in clinical practice. Expert consultation about if, and how, the personal/spiritual and personal/economic components should be incorporated into the TEHA will be sought. To address limitations associated with dichotomizing response options, the principal investigator plans to test how adding more response choices and treating TEHA items as continuous variables will impact the psychometric properties of the instrument.

In a future study, the principal investigator plans to further assess the construct validity of the TEHA by using hypothesis testing and convergent and divergent validity. To perform hypothesis testing, the research plans to conduct an extensive literature review about relationships between specific components included on the TEHA Version 9 and examine whether the relationships between these components are consistent with past research study findings. To assess convergent and discriminate validity, the principal investigator intends to examine whether the TEHA components converge with similar constructs, and diverge with unlike constructs.

During the development process, laypeople indicated that an appropriate length for the TEHA was 20 items or less. The TEHA Version 9 contains 28 items. To reduce

the number of items on the TEHA, but still ensure that each health domain (personal, social, environmental, cultural) is adequately being sampled, the principal investigator plans to explore the use of other scaling procedures such as Guttman scaling. When Guttman scaling is employed, a researcher can use a participant's response to one item to predict how they will answer several other items. <sup>[159]</sup>

Following the work, the principal investigator plans to pilot test the TEHA in a larger sample of low-income African-American women. In future studies, the principal investigator also intends to develop a scoring manual for primary care providers who will be using the TEHA that will outline how to score the items, and provide suggestions about how to follow-up when certain red flags are identified. The principal investigator also plans to adapt and explore the usefulness of the TEHA to other populations, such as African-American women of different socioeconomic backgrounds, African-American males, or other ethnicities. Interestingly, based upon the language used and the components covered in the TEHA Version 9, it does not appear if a significant amount of modification will be needed to adapt this tool to other cultures.

Development of the TEHA has several implications for future practice. In the current study, the environmental/community, personal/mental, social and environmental/home accounted for the majority of variance of TEHA total scores, respectively. Thus, healthcare providers should pay increased attention to all of these components when working with low-income African-American women between the ages of 18 and 49. Once providers identify red flags in any of these areas, they should develop multifaceted health promotion and health maintenance plans that address risks from as many of these areas as possible.

**E. Conclusion**

In conclusion, this study represents efforts to develop a holistic health-screening questionnaire targeted towards low-income African-American women between the ages of 18 and 49. Findings from this study were consistent with Bronfenbrenner's Ecological systems theory, which is based upon the assumption that health is determined by interactions between factors on many different levels. Also, consistent with findings from past research, results from the present study showed that various personal, social, environmental and cultural factors largely impacted the overall health status in low-income African-American women between the ages of 18 and 49. Through taking a more systematic approach to health screening in low-income African-American women between the ages of 18 and 49, healthcare providers may assist healthcare providers in developing more comprehensive health promotion plans that will foster more positive outcomes in this population.

## **APPENDICES**

## Appendix A

### Taylor Ecological Health Assessment Version 1

#### Alcohol Use Assessment

- 1.) Have you ever felt that you should cut down on your drinking? (Yes, No) (CAGE Assessment)
- 2.) Have people annoyed you by criticizing your drinking? (Yes, No) (CAGE Assessment)
- 3.) Have you ever felt bad or guilty about your drinking? (Yes, No) (CAGE Assessment)
- 4.) Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (eye opener)? (Yes, No) (CAGE Assessment)
- 5.) How many alcoholic drinks do you have a day?
- 6.) When I'm under stress or depressed, I do not drink more. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 7.) I do things when I'm drinking that I later regret. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 8.) I have experienced problems because of my drinking. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 9.) You drank alcohol even though a doctor suggested that you stop drinking because of a problem with your health.
- 10.) 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.
- 11.) You missed or were late for work, school, or other activities because you were drinking or hung over
- 12.) You had a problem getting along with other people while you were drinking
- 13.) You drove a car after having several drinks or after drinking too much.

#### Control Assessment

- 14.) Grades in school are largely a matter of luck or teacher's whims. (Realistic Control Measure, Zuckerman et al.)
- 15.) Success in life depends mostly on how hard you study and work (Realistic Control Measure, Zuckerman et al.)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1**

- 16.) To be successful, it is essential to be in the right place at the right time. (Realistic Control Measure, Zuckerman et al.)
- 17.) Hard work and following through are the best means of realizing one's goals. (Realistic Control Measure, Zuckerman et al.)
- 18.) If I try very hard, most of my plans will work out. (Realistic Control Measure, Zuckerman et al.)
- 19.) The greatest rewards in life are due to luck. (Realistic Control Measure, Zuckerman et al.)
- 20.) To achieve your goals, you need to know the right people. (Realistic Control Measure, Zuckerman et al.)
- 21.) I have the ability to handle life challenges. (Realistic Control Measure, Zuckerman et al.)
- 22.) One's great accomplishments result from good fortune. (Realistic Control Measure, Zuckerman et al.)
- 23.) There is very little I can do to influence how much other people like me. (Realistic Control Measure, Zuckerman et al.)
- 24.) I can initiate and maintain friendships. (Realistic Control Measure, Zuckerman et al.)
- 25.) I often find that others misunderstand me when I try to explain myself. (Realistic Control Measure, Zuckerman et al.)
- 26.) Doing very well in an interview depends mostly on the interviewer. (Realistic Control Measure, Zuckerman et al.)
- 27.) Some daily hassles cannot be prevented. (Unrealistic Control Measure, Zuckerman et al.)
- 28.) There is no such thing as misfortune, everything that happens to us is the result of our own doing. (Unrealistic Control Measure, Zuckerman et al.)
- 29.) When unexpected events happen, it means that the people involved failed to think ahead. (Unrealistic Control Measure, Zuckerman et al.)
- 30.) People aren't born with personality traits; they are what they wish to be. (Unrealistic Control Measure, Zuckerman et al.)
- 31.) What people see as inability is invariably a lack of will. (Unrealistic Control Measure, Zuckerman et al.)
- 32.) In each and every task, not finishing successfully reflects a lack of motivation. (Unrealistic Control Measure, Zuckerman et al.)



## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

33.) Any person who works hard enough can become a world-class scholar. (Unrealistic Control Measure, Zuckerman et al.)

34.) Even if I do everything I am capable of, some people may not like me. (Unrealistic Control Measure, Zuckerman et al.)

35.) The success of my relations with others is solely up to me. (Unrealistic Control Measure, Zuckerman et al.)

36.) I can keep anyone from getting angry at me. (Unrealistic Control Measure, Zuckerman et al.)

37.) I can keep any friend from engaging in irresponsible behavior. (Unrealistic Control Measure, Zuckerman et al.)

38.) I am responsible for the well-being and happiness of all my friends. (Unrealistic Control Measure, Zuckerman et al.)

39.) My impressions of others are not always accurate. (Unrealistic Control Measure, Zuckerman et al.)

40.) I don't always know when others deceive me. (Unrealistic Control Measure, Zuckerman et al.)

41.) How satisfied are you with the amount of control you have over your life? (Ferrans and Powers Quality of Life Index)

### Dental Health Assessment

42.) Are you able to brush your teeth? (PROMIS Physical Function – Part 1)

43.) Do you have dental insurance?

44.) When was your last dental visit?

45.) Have you had trouble pronouncing any words because of problems with your teeth, mouth or dentures? (OHIP-14)

46.) Have you felt that your sense of taste has worsened because of problems with your teeth, mouth or dentures? (OHIP-14)

47.) Have you had painful aching in your mouth? (OHIP-14)

48.) Have you found it uncomfortable to eat any foods because of problems with your teeth, mouth or dentures? (OHIP-14)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 49.) Have you felt self-conscious because of problems with your teeth, mouth or dentures? (OHIP-14)
- 50.) Have you felt tense because of problems with your teeth, mouth or dentures? (OHIP-14)
- 51.) Has your diet been unsatisfactory because of problems with your teeth, mouth or dentures? (OHIP-14)
- 52.) Have you had to interrupt meals because of problems with your teeth, mouth or dentures? (OHIP-14)
- 53.) Have you found it difficult to relax because of problems with your teeth, mouth or dentures? (OHIP-14)
- 54.) Have you been a bit embarrassed because of problems with your teeth, mouth or dentures? (OHIP-14)
- 55.) Have you been a bit irritable with other people because of problems with your teeth, mouth or dentures? (OHIP-14)
- 56.) Have you had difficulty doing your usual jobs because of problems with your teeth, mouth or dentures? (OHIP-14)
- 57.) Have you felt that life in general was less satisfying because of problems with your teeth, mouth or dentures? (OHIP-14)
- 58.) Have you been totally unable to function because of problems with your teeth, mouth or dentures? (OHIP-14)
- 59.) Dental practices of members. (Family Health Assessment, L. Reutter, 1984)

### Economic Health Assessment

- 60.) How satisfied are you with how well you can take care of your financial needs? (Ferrans and Powers Quality of Life Index)
- 61.) In the last 4 weeks, how much have you been bothered by any of the following problems? (Patient Health Questionnaire)
- Financial problems and worries.
- 62.) Family income (*source, adequacy, effectiveness of management*). (Family Health Assessment and Intervention Guide)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

#### Educational Health Assessment

63.) How satisfied are you with your education? (Ferrans and Powers Quality of Life Index)

64.) Educational level of family members. (Family Health Assessment and Intervention Guide)

#### Emotional Health Assessment

65.) How satisfied are you with your happiness in general? (Ferrans and Powers Quality of Life Index)

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)? (MOS Core Survey Instrument)

66.) Cut down the amount of time you spent on work or other activities?

67.) Accomplished less than you would like?

68.) Didn't do work or other activities as carefully as usual?

69.) How happy, satisfied, or pleased have you been with your personal life during the past month? (MOS Core Survey Instrument)

70.) During the past month, how often has feeling depressed interfered with what you usually do? (MOS Core Survey Instrument)

71.) During the past month, how much of the time have you generally enjoyed the things you do? (MOS Core Survey Instrument)

72.) How much of the time, during the past month, has your daily life been full of things that were interesting to you? (MOS Core Survey Instrument)

73.) During the past month, how much of the time have you felt loved and wanted? (MOS Core Survey Instrument)

74.) How satisfied are you with the amount of worries in your life? (Ferrans and Powers Quality of Life Index)

75.) During the past month, how much of the time have you felt tense or "high-strung"? (MOS Core Survey Instrument)

76.) During the past month, how much of the time have you been in firm control of your behavior, thoughts, emotions, and feelings? (MOS Core Survey Instrument)

77.) How much of the time, during the past month, have you felt calm and peaceful? (MOS Core Survey Instrument)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

78.) How much of the time, during the past month, have you felt emotionally stable? (MOS Core Survey Instrument)

79.) How much of the time, during the past month, have you felt downhearted and blue? (MOS Core Survey Instrument)

80.) How often have you felt like crying during the past month? (MOS Core Survey Instrument)

81.) How much have you been bothered by nervousness, or your "nerves," during the past month? (MOS Core Survey Instrument)

82.) During the past month, how much of the time has living been a wonderful adventure for you? (MOS Core Survey Instrument)

83.) How much of the time, during the past month, have you felt so down in the dumps that nothing could cheer you up? (MOS Core Survey Instrument)

84.) During the past month, how much of the time have you been moody or brooded about things? (MOS Core Survey Instrument)

85.) During the past month, how often did you get rattled, upset, or flustered? (MOS Core Survey Instrument)

86.) During the past month, how much of the time have you been anxious or worried? (MOS Core Survey Instrument)

87.) During the past month, how much of the time have you been a happy person? (MOS Core Survey Instrument)

88.) During the past month, how much of the time have you been in low or very low spirits? (MOS Core Survey Instrument)

89.) How often during the past month did you find yourself having difficulty trying to calm down? (MOS Core Survey Instrument)

90.) How much of the time, during the past month, have you felt cheerful, lighthearted? (MOS Core Survey Instrument)

91.) I am a happy person. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

### Environmental Health Assessment – Home

92.) Do you clean up spills as soon as they occur? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 93.) Do you keep floors and stairways clean and free of clutter? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 94.) Do you put away books, magazines, sewing supplies and other objects as soon as you're through with them and never leave them on floors or stairways? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 95.) Do you store frequently used items on shelves that are within easily reach? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 96.) Do you keep everyone from walking on freshly washed floors before they're dry? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 97.) If you wax floors, do you apply 2 thin coats and buff each thoroughly or else use self-polishing, nonskid wax? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 98.) Do all small rugs have nonskid backings? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 99.) Have you eliminated small rugs at the tops and bottoms of stairways? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 100.) Are all carpet edges tacked down? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 101.) Are rugs and carpets free of curled edges, worn spots and rips? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 102.) Have you chosen rugs and carpets with short, dense pile? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 103.) Are rugs and carpets installed over good-quality, medium-thick pads? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 104.) Do you use a rubber mat or nonslip decals in the tub or shower? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 105.) Do you have a grab bar securely anchored over the tub or on the shower wall? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)
- 106.) Do you have a nonskid rug on bathroom floor? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

107.) Do you keep soap in an easy-to-reach receptacle? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

108.) Can you walk across every room in your home, and from one room to another, without detouring around furniture? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

109.) Is the traffic lane from your bedroom to the bathroom free of obstacles? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

110.) Are telephone and appliance cords kept away from areas where people walk? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

111.) Do you have light switches near every doorway? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

112.) Do you have enough good lighting to eliminate shadowy areas? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

113.) Do you have a lamp or light switch within easy reach from your bed? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

114.) Do you have night-lights in your bathroom and in the hallway leading from your bedroom to the bathroom? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

115.) Are all stairways well lighted? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

116.) Do you have light switches at both the tops and bottoms of stairways? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

117.) Do securely fastened handrails extend the full length of the stairs on each side of stairways? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

118.) Do rails stand out from the walls so you can get a good grip? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

119.) Are rails distinctly shaped so you're alerted when you reach the end of a stairway? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

120.) Are all stairways in good condition, with no broken, sagging or sloping steps? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

121.) Are all stairway carpeting and metal edges securely fastened and in good condition? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

122.) Have you replaced any single-level steps with gradually rising ramps or made sure such steps are well lighted? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

123.) Do you have a sturdy step stool that you use to reach high cupboard and closet shelves? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

124.) Are all ladders and step stools in good condition? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

125.) Do you always use a step stool or ladder that's tall enough for the job? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

126.) Before you climb a ladder or step stool, do you always make sure it's fully open and that the stepladder spreaders are locked? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

127.) When you use a ladder or step stool, do you face the steps and keep your body between the side rails? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

128.) Do you avoid standing on top of a step stool or climbing beyond the second step from the top on a stepladder? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

129.) Are walks and driveways in your yard and other areas free of breaks? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

130.) Are lawns and gardens free of holes? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

131.) Do you put away garden tools and hoses when they're not in use? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

132.) Are outdoor areas kept free of rocks, loose boards and other tripping hazards? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

133.) Do you keep outdoor walkways, steps and porches free of wet leaves and snow? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

134.) Do you sprinkle icy outdoor areas with deicers as soon as possible after a snowfall or freeze? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

135.) Do you have mats at doorways for people to wipe their feet on? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

136.) Do you know the safest way of walking when you can't avoid walking on a slippery surface? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

137.) Are you always alert for unexpected hazards such as out-of-place furniture? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

138.) If young grandchildren visit, are you alert for children playing on the floor and toys left in your path? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

139.) If you have pets, are you alert for sudden movements across your path and pets getting underfoot? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

140.) How satisfied are you with the rooms you live in? (Ferrans and Powers Quality of Life Index)

141.) How satisfied are you with the community setting you live in? (Ferrans and Powers Quality of Life Index)

Characteristics of Home (Family Health Assessment, L. Reutter, 1984)

142.) Type of dwelling

143.) General condition

144.) Ventilation, heating lighting and furnishings

145.) Facilities for toileting, laundry, garbage disposal

Characteristics of neighborhood (Family Health Assessment, L. Reutter, 1984)

146.) Condition of dwelling and streets

147.) Incidence of crime and safety problems

148.) Presence and types of industry

149.) Demographic characteristics of community

150.) Availability and accessibility of health and other basic services and facilities

Family's geographic mobility (Family Health Assessment, L. Reutter, 1984)

151.) How long has the family lived in the area?

152.) What is their history of geographic mobility?

Other organic, inorganic wastes (Family Health Assessment, L. Reutter, 1984)

153.) Methods of garbage disposal

154.) General cleanliness of household

155.) Hygienic care of pets

### Environmental Health Assessment

156.) Does your community have places where you can meet your friends (peers)? (New community-environmental index)



## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

157.) Does your community contain a community living support center that is accessible by foot or bicycle. (New community-environmental index)

158.) Does your community offer free or low-cost food services for handicapped persons? (New community-environmental index)

159.) Does your community contain low-priced delicatessens that have many choices? (New community-environmental index)

160.) Does your community contain clinics within walking or biking distance? (New community-environmental index)

161.) Does your community contain opportunities and places for families to learn (i.e. libraries)? (New community-environmental index)

Air, food, water, elimination, rest and activity (Family Health Assessment, L. Reutter, 1984)

Air

162.) Factors in home and community influencing quality of air intake

163.) Do any individuals have difficulties in meeting requirement for air?

164.) Effect on family how is this managed?

### Family Function Assessment

165.) As a family, we work well together. (FAMTOOL- Family Health Assessment Tool).

166.) As a family, we communicate effectively. (FAMTOOL- Family Health Assessment Tool)

167.) As a family, we share beliefs. (FAMTOOL- Family Health Assessment Tool)

168.) As a family, we play together. (FAMTOOL- Family Health Assessment Tool)

169.) As a family, we put energy into the family. (FAMTOOL- Family Health Assessment Tool)

170.) As a family, we value connectedness. (FAMTOOL- Family Health Assessment Tool)

171.) As a family, we work toward physical health. (FAMTOOL- Family Health Assessment Tool)

172.) As a family, we work toward emotional health. (FAMTOOL- Family Health Assessment Tool)

173.) As a family, we work toward social health. (FAMTOOL- Family Health Assessment Tool)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

174.) As a family, we work toward spiritual health. (FAMTOOL- Family Health Assessment Tool)

175.) As a family, we value one another. (FAMTOOL- Family Health Assessment Tool)

176.) As a family, we have hope for the future. (FAMTOOL- Family Health Assessment Tool)

Family affect (Family Health Assessment, L. Reutter, 1984)

177.) Family's sensitivity and response to concerns, interests and needs of family members.

178.) Mutual respect among family members

179.) Opportunities provided to foster autonomy

180.) Is individuation appropriate for age and needs of members?

181.) Opportunities provided to foster 'belongingness'

182.) To what extent do family members provide support and nurturance to each other?

183.) How well do members 'get along'?

184.) Member's perceptions of how family meets emotional needs of its members

Behavior Control (Family Health Assessment, L. Reutter, 1984)

185.) Standards of behavior: clarity. Appropriateness for age and development of members, flexibility, enforcement

186.) Methods of responding to unacceptable and acceptable behavior

187.) Are there specific behavior concerns in family?

188.) how is this managed?

Provisions for cognitive development (Family Health Assessment, L. Reutter, 1984)

189.) Family's knowledge of intellectual needs of members

190.) Methods of promoting cognitive development

191.) Appropriateness of intellectual activities for age and development of members.

Availability, utilization, and acceptability of resources:

192.) School

193.) Opportunity for self-study

194.) Appropriate 'play' material

195.) Are family members developing normally in this area?

Solitude and social interaction (Family Health Assessment, L. Reutter, 1984)

a.) Solitude

196.) Adequacy of solitude and privacy as perceived by members.

197.) Resources available to meet requirements

b.) Social Interaction

198.) Activities engaged in within the family group

199.) Interaction among family members

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- Individual and family involvement with others outside the home:

200.) Friends?

201.) Extended family?

202.) Participation in community activities, clubs, organizations

Availability, accessibility, and acceptability of resources to meet needs:

203.) Recreational?

204.) Cultural?

205.) Transportation?

206.) Child care, babysitting?

207.) Do any members have difficulty in achieving a balance of solitude and social interaction?

208.) effect on other members?

209.) how is it managed?

210.) Family's satisfaction with balance of solitude and social interaction.

Development needs of individual family members (Family Health Assessment, L. Reutter, 1984)

211.) Identify the developmental stage of the of the family life cycle

212.) To what extent are the developmental tasks of individual family members being achieved?

213.) Family's knowledge of growth and developmental needs of individual members

214.) Major events (situational and maturational) which have occurred during the past year. (Family Health Assessment, L. Reutter, 1984)

215.) methods of adjusting to change

216.) Family's perception of present sources of stress or worry (Family Health Assessment, L. Reutter, 1984)

217.) methods of dealing with stress

Internal and external resources available to cope with stress and change: (Family Health Assessment, L. Reutter, 1984)

218.) Problem-solving skills of family

219.) How do family members aid each other in time of need?

220.) Social support systems and purpose for which they are utilized.

221.) Is family able to seek and accept help when required? (Family Health Assessment, L. Reutter, 1984)

222.) Does the family anticipate change, and plan for the same? (Family Health Assessment, L. Reutter, 1984)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 223.) Are individual family members' developmental tasks met? (Family Health Assessment and Intervention Guide)
- 224.) Extent of support for development of individual family members: (Family Health Assessment and Intervention Guide)
- 225.) Effects of individual development on family health. (Family Health Assessment and Intervention Guide)
- 226.) What is the stage of family development? How well has the family achieved relevant developmental tasks? (Family Health Assessment and Intervention Guide)
- 227.) Family strengths and weaknesses. (Family Health Assessment and Intervention Guide)
- 228.) Family communication (*typical patterns, effectiveness, purposes, tone, rules*). (Family Health Assessment and Intervention Guide)
- 229.) Extent of emotional support for family members. (Family Health Assessment and Intervention Guide)
- 230.) Coping strategies used (*type, effectiveness, and response to crisis*). (Family Health Assessment and Intervention Guide)
- 231.) Level of family cohesion. (Family Health Assessment and Intervention Guide)
- 232.) Family decision mechanisms. (Family Health Assessment and Intervention Guide)
- 233.) Quality of family member interactions. (Family Health Assessment and Intervention Guide)
- 234.) Discipline (*type, source, consistency, appropriateness*). (Family Health Assessment and Intervention Guide)
- 235.) History of mental illness in family members. (Family Health Assessment and Intervention Guide)
- 236.) Family goals (*congruence with individual and societal goals*). (Family Health Assessment and Intervention Guide)
- 237.) Sources of stress for family members. (Family Health Assessment and Intervention Guide)
- 238.) Evidence of violence in the family. (Family Health Assessment and Intervention Guide)
- 239.) External resources available to family (Family Health Assessment and Intervention Guide)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

#### Family Health Assessment

240.) What is the family's definition of health? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

241.) What is the family's present health status? Has there been absence from work/school? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

242.) Does a continuing health problem that requires treatment exist within the family? Please explain. (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

243.) Does your family lack equipment, finances or other resources for health maintenance? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

244.) Where does your family go for health care? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

245.) Does your family perform special activities to keep healthy? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

246.) What does the family do to support health-promoting behaviors in members? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

247.) How does the family address health problems and illness in the home? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

248.) Are the family immunizations up-to-date? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

249.) Have there been any recent accidents in the home? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

250.) What are family behaviors with respect to smoking, alcohol, or drugs? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

251.) What is the family's use of over-the-counter medication? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

252.) How are health care responsibilities distributed in the home? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

253.) What are the family health goals? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

254.) Does your family have financial reimbursement for health care? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

255.) Does family have enough money to meet other needs (i.e., clothing, shelter)? (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)

256.) How satisfied are you with your family's health? (Ferrans and Powers Quality of Life Index)

Elimination of family wastes (Family Health Assessment, L. Reutter, 1984)

257.) Body wastes

258.) Hygiene of family members

259.) Availability and adequacy of facilities for personal hygiene

260.) Do any members have difficulty with elimination?

261.) Effect on family?

262.) How is this managed?

Sexuality (Family Health Assessment, L. Reutter, 1984)

263.) What education is being provided in this area?

264.) Family planning practices

265.) Are there any specific concerns any family member has? How is it managed?

Protection from hazards (Family Health Assessment, L. Reutter, 1984)

Family self-care practices in relation to:

266.) accident prevention in the home

267.) hazards identified

268.) motor vehicle accident prevention and protection

269.) hazards identified

270.) protection from acts of violence – crime, child safety

271.) hazards identified

272.) prevention of substance abuse

273.) use of medications – prescription and nonprescription

274.) use of alcohol

275.) use of tobacco

276.) protection from communicable disease – immunization status of family members

277.) Family's use of preventive health measures (appropriate for age group) – e.g. Pap smear, breast self-examination, dental/medical exams. (Family Health Assessment, L. Reutter, 1984)

278.) Family's utilization of health care resources (Family Health Assessment, L. Reutter, 1984)

- services utilized

- purpose

279.) Perception of the family's strengths to engage in self-care. (Family Health Assessment, L. Reutter, 1984)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1**

- 280.) Area of health for further development. (Family Health Assessment, L. Reutter, 1984)
- 281.) Family members' current health problems and treatment regimen (*type, effects, source*). (Family Health Assessment and Intervention Guide)
- 282.) Significant past health problems of family members. (Family Health Assessment and Intervention Guide)
- 283.) Significant family history of hereditary conditions. (Family Health Assessment and Intervention Guide)
- 284.) Immunization status of family members. (Family Health Assessment and Intervention Guide)
- 285.) Family home (*location, adequacy for family size*). (Family Health Assessment and Intervention Guide)
- 286.) Safety hazards present in home. (Family Health Assessment and Intervention Guide)
- 287.) Neighborhood (*safety, services and facilities available, pollutants*). (Family Health Assessment and Intervention Guide)
- 288.) Access to goods and services in the community. (Family Health Assessment and Intervention Guide)
- 289.) Family emergency plan. (Family Health Assessment and Intervention Guide)
- 290.) Religious affiliations of family members and their influence on health. (Family Health Assessment and Intervention Guide)
- 291.) Family cultural affiliations and influences on health. (Family Health Assessment and Intervention Guide)
- 292.) Family dietary patterns (*amount, food preferences, preparation, adequacy, special needs*). (Family Health Assessment and Intervention Guide)
- 293.) Use of other substances (*tobacco, alcohol, other drugs*). (Family Health Assessment and Intervention Guide)
- 294.) Use of prescription and nonprescription medications. (Family Health Assessment and Intervention Guide)
- 295.) Rest and exercise patterns. (Family Health Assessment and Intervention Guide)
- 296.) Typical leisure activities of family members. (Family Health Assessment and Intervention Guide)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 297.) Health hazards posed by family leisure pursuits. (Family Health Assessment and Intervention Guide)
- 298.) Use of recreational activities to enhance family cohesion. (Family Health Assessment and Intervention Guide)
- 299.) Use of safety devices and practices. (Family Health Assessment and Intervention Guide)
- 300.) Safety education for family members. (Family Health Assessment and Intervention Guide)
- 301.) Family planning (*need for, type, effectiveness*). (Family Health Assessment and Intervention Guide)
- 302.) Sexual activity (*by whom, attitudes toward sexual activity*). (Family Health Assessment and Intervention Guide)
- 303.) Family definitions of and attitudes toward health. (Family Health Assessment and Intervention Guide)
- 304.) Family response to illness. (Family Health Assessment and Intervention Guide)
- 305.) Health-related decision-making. (Family Health Assessment and Intervention Guide)
- 306.) Use of folk remedies and self-care practices. (Family Health Assessment and Intervention Guide)
- 307.) Usual source of health care. (Family Health Assessment and Intervention Guide)
- 308.) Means of financing health care. (Family Health Assessment and Intervention Guide)
- 309.) Use of primary, secondary, and tertiary health care services. (Family Health Assessment and Intervention Guide)
- 310.) Barriers to obtaining health care. (Family Health Assessment and Intervention Guide)

### Family Structure Assessment

#### *Communication Patterns*

- 311.) Communication *networks* in the family (Family Health Assessment, L. Reutter, 1984)
- 312.) Direct, intermediaries, coalitions .
- 313.) Communication lines between and subsystems.

#### *Content of communication* (Family Health Assessment, L. Reutter, 1984)

- 314.) *Instrumental* messages—how do members communicate about instrumental activities?

#### *Affective* messages

- 315.) What types of emotions are communicated?



## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 316.) How are feelings expressed?
- 317.) How is expression of feelings received?
- 318.) Are there any areas not open to discussion/ difficult to discuss?

Method of communication (Family Health Assessment, L. Reutter, 1984)

- 319.) clear vs. masked
- 320.) open vs. closed
- 321.) specific vs. general

322.) Is communication appropriate for age and development of members? (Family Health Assessment, L. Reutter, 1984)

323.) Family's perception of and satisfaction with its communication patterns. (Family Health Assessment, L. Reutter, 1984)

**Role Relationships** (Family Health Assessment, L. Reutter, 1984)

- 324.) Positions and roles assumed by members
- 325.) Are roles and associated tasks acceptable to those involved?
- 326.) Presence of role conflict/strain
- 327.) Is there role flexibility and flexible task assignment as situation demands?
- 328.) Family's perception of and satisfaction with role relationships and role behavior

**Decision-making Behavior** (Family Health Assessment, L. Reutter, 1984)

- 329.) Who makes what decisions in the family? Consider areas of health care practices, household matters, and childrearing.
- 330.) Method of decision-making
- 331.) Method of conflict resolution
- 332.) Family's perception of and satisfaction with the decision-making process

**Patterned values** (Family Health Assessment, L. Reutter, 1984)

- 333.) Goals/aspirations of the family
- Presence of value conflicts:
  - 335.) within family system
  - 336.) With those outside of family system
- Importance of specific values to family:
  - 338.) Education ,work ethic, family, health, religion
- 339.) Family's view of health/illness — what does it mean to be 'healthy'?
- 340.) How is illness viewed?

341.) Presence of role conflict or role overload. (Family Health Assessment and Intervention Guide)

342.) Adequacy of role performance. (Family Health Assessment and Intervention Guide)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

343.) Anticipated changes in family roles. (Family Health Assessment and Intervention Guide)

344.) Role congruence with dominant culture. (Family Health Assessment and Intervention Guide)

#### **Health Perception Assessment**

345.) How often during the past 4 weeks did you feel worn out? (MOS Core survey instrument)

346.) How often during the past 4 weeks were you discouraged about your health problems? (MOS Core survey instrument)

347.) How often during the past 4 weeks did you have a lot of energy? (MOS Core survey instrument)

348.) How often during the past 4 weeks did you feel weighted down by your health problems? (MOS Core survey instrument)

349.) How often during the past 4 weeks did you feel full of pep? (MOS Core survey instrument)

350.) How often during the past 4 weeks were you afraid because of your health? (MOS Core survey instrument)

351.) How often during the past 4 weeks did you have enough energy to do the things you wanted to do? (MOS Core survey instrument)

352.) How often during the past 4 weeks was your health a worry in your life? (MOS Core survey instrument)

353.) How often during the past 4 weeks did you feel tired? (MOS Core survey instrument)

354.) How often during the past 4 weeks were you frustrated about your health? (MOS Core survey instrument)

355.) How often during the past 4 weeks did you feel despair over your health problems? (MOS Core survey instrument)

In the last 4 weeks, how much have you been bothered by any of the following problems?

356.) Worrying about your health

357.) Your weight or how you look

358.) In general, would you say your health is? (Excellent, Very good, Good, Fair, Poor)  
(MOS Core Survey Instrument)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

359.) How TRUE or FALSE is each of the following statements for you? (MOS Core Survey Instrument)

- a. I am somewhat ill
- b. I feel about as good now as I ever have
- c. I have been feeling bad lately.
- d. I am in poor health
- e. I am as healthy as anybody I know
- f. My health is excellent
- g. I seem to get sick a little easier than other people
- h. I expect my health to get worse

#### **Health Anxiety**

360.) I feel anxious when I think about my health. (Multidimensional Health Questionnaire)

361.) I'm worried about how healthy my body is. (Multidimensional Health Questionnaire)

362.) Thinking about my physical health leaves me with an uneasy feeling. (Multidimensional Health Questionnaire)

363.) I usually worry about whether I am in good health. (Multidimensional Health Questionnaire)

364.) I feel nervous when I think about the status of my physical health. (Multidimensional Health Questionnaire)

#### **Health-Efficacy**

365.) I have the ability to take care of any health problems that I may encounter. (Multidimensional Health Questionnaire)

366.) I am competent enough to make sure that my physical health is in good shape. (Multidimensional Health Questionnaire)

367.) I have the skills and ability to ensure good physical health for myself. (Multidimensional Health Questionnaire)

368.) I am able to cope with and to handle my physical health needs. (Multidimensional Health Questionnaire)

369.) I have the capability to take care of my own physical health. (Multidimensional Health Questionnaire)

#### **Health Consciousness**

370.) I am very aware of how healthy my body feels. (Multidimensional Health Questionnaire)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

371.) I notice immediately when my body doesn't feel healthy. (Multidimensional Health Questionnaire)

372.) I'm sensitive to internal bodily cues about my physical health. (Multidimensional Health Questionnaire)

373.) I know immediately when I'm not feeling physically well. (Multidimensional Health Questionnaire)

374.) I'm very aware of changes in my physical health. (Multidimensional Health Questionnaire)

#### **Motivation to Avoid Unhealthiness**

375.) I do things that keep me from becoming physically unhealthy. (Multidimensional Health Questionnaire)

376.) I am motivated to keep myself from becoming physically unhealthy. (Multidimensional Health Questionnaire)

377.) I try to avoid engaging in behaviors that undermine my physical health. (Multidimensional Health Questionnaire)

378.) I really want to prevent myself from getting out of shape. (Multidimensional Health Questionnaire)

379.) I am really motivated to avoid being in terrible physical shape. (Multidimensional Health Questionnaire)

#### **Chance-Luck Health Control**

380.) The status of my physical health is determined mostly by chance happenings. (Multidimensional Health Questionnaire)

381.) The status of my physical health is controlled by accidental happenings. (Multidimensional Health Questionnaire)

382.) Whether (or not) I am in good physical health is just a matter of luck. (Multidimensional Health Questionnaire)

383.) My physical health and shape have little or nothing to do with luck. (Multidimensional Health Questionnaire)

384.) I don't believe that chance or luck play any role in the status of my physical health. (Multidimensional Health Questionnaire)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1****Health Preoccupation**

385.) I think about my physical health all the time. (Multidimensional Health Questionnaire)

386.) I think about my physical health more than anything else. (Multidimensional Health Questionnaire)

387.) I tend to be preoccupied with my own physical health. (Multidimensional Health Questionnaire)

388.) I'm constantly thinking about my physical fitness. (Multidimensional Health Questionnaire)

389.) I think about my physical health the majority of the time. (Multidimensional Health Questionnaire)

**Health Assertiveness**

390.) I'm very assertive when it comes to looking out for my own physical health. (Multidimensional Health Questionnaire)

391.) I'm very direct with people when it comes to my own physical health needs. (Multidimensional Health Questionnaire)

392.) I am somewhat passive about getting my health needs met. (Multidimensional Health Questionnaire)

393.) I do not hesitate to ask for what I need for my physical health. (Multidimensional Health Questionnaire)

394.) When it comes to my own physical health requirements, I ask for what I need. (Multidimensional Health Questionnaire)

**Health Expectations-Optimism**

395.) I expect that my health will be excellent in the future. (Multidimensional Health Questionnaire)

396.) I believe that the future status of my physical health will be positive. (Multidimensional Health Questionnaire)

397.) I do not expect to suffer health problems in the future. (Multidimensional Health Questionnaire)

398.) I will probably experience a number of health problems in the future. (Multidimensional Health Questionnaire)

399.) I anticipate that my physical health will deteriorate in the future. (Multidimensional Health Questionnaire)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1****Health Illness Self-Blame**

400.) I am to blame for those times when I become sick or don't feel well. (Multidimensional Health Questionnaire)

401.) When I become sick or ill, I am the person to blame. (Multidimensional Health Questionnaire)

402.) If I were to become ill, then I'm to blame for not taking good care of myself. (Multidimensional Health Questionnaire)

403.) If I were to start feeling sick, then it would be my own fault for letting it happen. (Multidimensional Health Questionnaire)

404.) When something goes wrong with my own physical health, it's my own fault. (Multidimensional Health Questionnaire)

**Health Monitoring**

405.) I sometimes wonder what others think of my physical health. (Multidimensional Health Questionnaire)

406.) I'm very concerned with how others evaluate my physical health. (Multidimensional Health Questionnaire)

407.) I'm very aware of what others think of my physical health. (Multidimensional Health Questionnaire)

408.) I'm concerned about how my physical health appears to others. (Multidimensional Health Questionnaire)

409.) I'm concerned about what other people think of my physical health. (Multidimensional Health Questionnaire)

**Motivation for Healthiness**

410.) I'm very motivated to be physically healthy.

411.) I'm strongly motivated to devote time and effort to my physical health. (Multidimensional Health Questionnaire)

412.) I have a strong desire to keep myself physically healthy. (Multidimensional Health Questionnaire)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

413.) It's really important to me that I keep myself in proper physical health. (Multidimensional Health Questionnaire)

414.) I strive to keep myself in tip-top physical shape. (Multidimensional Health Questionnaire)

#### **Health Illness Management**

415.) When I am ill, I myself am in control of whether my health improves. (Multidimensional Health Questionnaire)

416.) During times when I am sick, my own behavior determines whether I get well. (Multidimensional Health Questionnaire)

417.) If I were to become ill, I myself would be responsible for making myself better. (Multidimensional Health Questionnaire)

418.) Whether I recover from an illness depends in large part on what I myself do. (Multidimensional Health Questionnaire)

419.) If I were ill, my recovery would depend on how I myself deal with the problem. (Multidimensional Health Questionnaire)

#### **Health Esteem**

420.) I derive a sense of self-pride from the way I handle my own physical health. (Multidimensional Health Questionnaire)

421.) I am proud of the way I deal with and handle my health. (Multidimensional Health Questionnaire)

422.) I am pleased with how well I handle my own physical health. (Multidimensional Health Questionnaire)

423.) I have positive feelings about the way I approach my own physical health. (Multidimensional Health Questionnaire)

424.) I feel good about the way I cope with my own physical health needs. (Multidimensional Health Questionnaire)

#### **Health Satisfaction**

425.) I am very satisfied with my own physical health. (Multidimensional Health Questionnaire)

426.) I am very satisfied with the status of my physical health. (Multidimensional Health Questionnaire)

427.) My present degree of physical health is personally satisfying to me. (Multidimensional Health Questionnaire)

428.) My current level of physical fitness is very pleasing to me. (Multidimensional Health Questionnaire)

429.) When I think about my present physical health, I am very satisfied. (Multidimensional Health Questionnaire)

### **Powerful-Other Health Control**

430.) The status of my physical health is determined largely by other more powerful people. (Multidimensional Health Questionnaire)

431.) My physical health is largely controlled by people other than myself (e.g., friends, family). (Multidimensional Health Questionnaire)

432.) My health is largely determined by the actions of powerful others (e.g., health professionals). (Multidimensional Health Questionnaire)

433.) In order to have good health, I have to act in a pleasing way to other more powerful individuals. (Multidimensional Health Questionnaire)

434.) My physical health is largely determined by people who have influence and control over me. (Multidimensional Health Questionnaire)

### **Health Self-Schemata**

435.) Not only am I in good physical health, but it's quite important to me that I be in good health. (Multidimensional Health Questionnaire)

436.) Not only do I take care of my physical health, but it's very important to me that I do SO. (Multidimensional Health Questionnaire)

437.) Not only am I in good physical health, but it's important to me that I stay physically healthy. (Multidimensional Health Questionnaire)

438.) I keep myself physically healthy, and it's very important to me that I stay fit and healthy. (Multidimensional Health Questionnaire)

439.) I try to stay in good physical condition, and it's extremely important to me that I do SO. (Multidimensional Health Questionnaire)

### **Health Status**

440.) I am in good physical health. (Multidimensional Health Questionnaire)



## **APPENDIX A (continued)**

### **Taylor Ecological Health Assessment Version 1**

441.) My body is in good physical shape. (Multidimensional Health Questionnaire)

442.) I am a well-exercised person. (Multidimensional Health Questionnaire)

443.) My body needs a lot of work in be in excellent physical shape. (Multidimensional Health Questionnaire)

444.) My physical health is in need of attention. (Multidimensional Health Questionnaire)

#### ***Health Illness Prevention***

445.) If I am careful to avoid becoming ill, then I will be in good physical health-shape. (Multidimensional Health Questionnaire)

446.) I can pretty much prevent myself from becoming ill by taking good care of myself. (Multidimensional Health Questionnaire)

447.) If I look out for my health, then I will stay in good physical healthy and avoid illness. (Multidimensional Health Questionnaire)

448.) I will be able to avoid any illnesses, if I just take care of myself. (Multidimensional Health Questionnaire)

449.) If I just pay attention to my health, I will be able to prevent myself from becoming sick. (Multidimensional Health Questionnaire)

#### ***Health Depression***

450.) I am depressed about my current physical health. (Multidimensional Health Questionnaire)

451.) I am disappointed about the quality of my physical health. (Multidimensional Health Questionnaire)

452.) When I think about my current physical health, I feel really down in the dumps. (Multidimensional Health Questionnaire)

453.) I feel unhappy about my physical health. (Multidimensional Health Questionnaire)

454.) I feel sad when I think about my present physical health. (Multidimensional Health Questionnaire)

#### ***Internal Health Control***

455.) I feel like my physical health is something that I myself am in charge of. (Multidimensional Health Questionnaire)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

456.) My health is something that I alone am responsible for. (Multidimensional Health Questionnaire)

457.) The status of my physical health is determined largely by what I do (and don't do).  
(Multidimensional Health Questionnaire)

458.) What happens to my physical health is my own doing. (Multidimensional Health Questionnaire)

459.) Being in good physical health is a matter of my own ability and effort. (Multidimensional Health Questionnaire)

### Hearing Health Assessment

460.) Does a hearing problem cause you to feel embarrassed when meeting new people?  
(Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

461.) Does a hearing problem cause you to feel frustrated when talking to members of your family?  
(Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

462.) Do you have difficulty hearing when someone whispers? (Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

463.) Do you feel handicapped by a hearing problem? (Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

464.) Does a hearing problem cause you difficulty when visiting friends, relatives or neighbors?  
(Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

465.) Does a hearing problem causing you to attend religious services less often than you would like?  
(Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

466.) Does a hearing problem cause you to have arguments with family members? (Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

467.) Does a hearing problem cause you difficulty when listening to TV or radio? (Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

468.) Do you feel that your hearing limits or hampers your personal or social life? (Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

469.) Does a hearing problem cause you difficulty when in a restaurant with relatives or friends? (Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHIE-S) Ventry IM, Weinstein BE. Identification of elderly people with hearing problems. ASHA. July 1983; 25:37.)

470.) I have difficulty in understanding conversation in a quiet environment. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

471.) I have difficulty with the TV and radio. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

472.) I have difficulty hearing a lot of noise. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

473.) I have difficulty hearing on the phone. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

474.) Hearing difficulties affect my social life. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

### Life Satisfaction Assessment

475.) If I had my life to live over, I wouldn't make very many changes. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

476.) I've accomplished most of the things that I've set out to do in life. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

477.) I can't think of an area in my life that really disappoints me. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

478.) As compared to the people with whom I grew up, I feel I've done as well or better than most of them with my life. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

### Mental Health Assessment

479.) I get palpitations or a sensation of “butterflies” in my stomach or chest. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

480.) I still enjoy the things I used to. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

481.) I feel like life is not worth living. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

482.) I feel tense or wound up. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

483.) I am restless and can't keep still. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

484.) I am more irritable than usual. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

485.) I feel more tired than usual. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

486.) I have difficulty concentrating. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

487.) I feel rather lively and excitable. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

488.) I have feelings of well-being. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

489.) My memory is poor. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

490.) How satisfied are you with your peace of mind? (Ferrans and Powers Quality of Life Index)

491.) How much of the time, during the past month, have you been a very nervous person? (MOS Core Survey Instrument)

492.) During the past month, how much of the time did you have difficulty doing activities involving concentration and thinking? (MOS Core Survey Instrument)

493.) During the past month, how much of the time did you feel depressed? (MOS Core Survey Instrument)

494.) During the past month, how much of the time did you become confused and start several actions at a time? (MOS Core Survey Instrument)

495.) During the past month, how much of the time did you feel that you had nothing to look forward to? (MOS Core Survey Instrument)

496.) During the past month, how often did you feel that others would be better off if you were dead? (MOS Core Survey Instrument)

497.) During the past month, how much of the time did you forget, for example, things that happened recently, where you put things, appointments? (MOS Core Survey Instrument)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

498.) During the past month, did you ever think about taking your own life? (MOS Core Survey Instrument)

499.) During the past month, how much of the time have you felt restless, fidgety, or impatient? (MOS Core Survey Instrument)

500.) How much of the time, during the past month, did you have trouble keeping your attention on any activity for long? (MOS Core Survey Instrument)

501.) During the past month, how depressed (at its worst) have you felt? (MOS Core Survey Instrument)

502.) How much of the time, during the past month, did you react slowly to things that were said or done? (MOS Core Survey Instrument)

503.) I find it easy to relax. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

504.) I am able to cope with stressful events as well as or better than most people. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

505.) I rarely feel tense or anxious. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

506.) I have no trouble completing tasks I have started. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

Over the last 2 weeks, how often have you been bothered by any of the following problems? (Patient Health Questionnaire (PHQ))

507.) Little interest or pleasure in doing things

508.) Feeling down, depressed, or hopeless

509.) Trouble falling or staying asleep, or sleeping too much

510.) Feeling tired or having little energy

511.) Poor appetite or overeating

512.) Feeling bad about yourself, or that you are a failure, or have let yourself or your family down

513.) Trouble concentrating on things, such as reading the newspaper or watching television

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

514.) Moving or speaking so slowly that other people could have noticed? Or the opposite of being so fidgety or restless that you have been moving around a lot more than usual

515.) Thoughts that you would be better off dead or of hurting yourself in some way

516.) In the last 4 weeks, have you had an anxiety attack suddenly feeling fear or panic?  
(Patient Health Questionnaire (PHQ))

Over the last 4 weeks, how often have you been bothered by any of the following problems? (Patient Health Questionnaire (PHQ))

517.) Feeling nervous, anxious, on edge, or worrying a lot about different things

518.) Feeling restless so that it is hard to sit still

519.) Getting tired very easily

520.) Muscle tension, aches, or soreness

521.) Trouble falling asleep or staying asleep

522.) Trouble concentrating on things, such as reading a book or watching TV

523.) Becoming easily annoyed or irritable

In the last 4 weeks, how much have you been bothered by any of the following problems?  
(Patient Health Questionnaire (PHQ))

524.) Something bad that happened recently?

525.) Thinking or dreaming about something terrible that happened to you in the past - like your house being destroyed, a severe accident, being hit or assaulted, or being forced to commit a sexual act?

526.) Having no one to turn to when you have a problem?

### Nutritional Health Assessment

527.) Do you have an illness or condition that makes you change the kind and/or amount of food you eat? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)

528.) Do you eat fewer than 2 meals per day? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 529.) Do you eat few fruits, vegetables or milk products? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)
- 530.) Do you have 3 or more drinks of beer, liquor or wine almost every day? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)
- 531.) Do you have tooth or mouth problems that make it hard for you to eat? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)
- 532.) Do you sometimes have trouble affording the food you need? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)
- 533.) Do you eat alone most of the time? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)
- 534.) Do you take 3 or more prescribed or over-the-counter drugs a day? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)
- 535.) Have you lost or gained 10 pounds in the last 6 months without trying? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)
- 536.) Are you physically not able to shop, cook or feed yourself? (Nutrition Checklist for Older Adults; <http://geridoc.net/nutrition.html>)
- 537.) Are there food and/or beverage vending machines on your campus? If so, where are they located? (University Nutrition Environment Assessment Tool (U-NEAT))
- 538.) Are healthy vended foods [defined as containing  $\leq 35\%$  calories from fat (excluding nuts, nut butters, legumes, seeds and cheese);  $\leq 10\%$  of calories from saturated fat (excluding cheese);  $\leq 35\%$  sugar by weight; and 250 calories/serving] available on campus?
- 539.) Are healthy vended beverages [defined as fruit and vegetable based drinks with  $\geq 50\%$  fruit juice without added sweeteners; water without added sweeteners; 2%, 1% or non-fat milk, soy, rice, or other non-dairy milk; electrolyte replacement drinks with  $\leq 42$  g added sweetener/20 oz] available on campus? (University Nutrition Environment Assessment Tool (U-NEAT))
- 540.) Are there places on campus where students can refill their water bottles? (University Nutrition Environment Assessment Tool (U-NEAT))
- 541.) Do chefs/food service personnel practice any of the following low-fat food preparation and purchasing guidelines? (University Nutrition Environment Assessment Tool (U-NEAT))

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

542.) Do cafeteria meals include at least one low-fat option (<3 g fat/serving) at each meal? (University Nutrition Environment Assessment Tool (U-NEAT))

543.) Is there any effort made by food service personnel to control portion size of food and/or beverages available at any of the settings previously listed? (University Nutrition Environment Assessment Tool (U-NEAT))

544.) Does your school have any policies that dictate nutrition standards for specific foods available on your campus? (University Nutrition Environment Assessment Tool (U-NEAT))

545.) Does your school have nutrition standards/policies regarding vending machines? (University Nutrition Environment Assessment Tool (U-NEAT))

546.) Is there an active sustainability movement or policies relating to organic and/or locally produced foods on your campus? (University Nutrition Environment Assessment Tool (U-NEAT))

547.) Is any nutrition information available for foods and/or beverages sold on your campus [neighborhood]? (University Nutrition Environment Assessment Tool (U-NEAT))

548.) Where is nutrition information available for foods//beverages available on your campus and how is information presented? (University Nutrition Environment Assessment Tool (U-NEAT))

549.) Are healthy options promoted in any of the following ways? (Choices include: special symbol or highlight on menus; promotional posters/advertisements; identifying markers near foods; placement in prominent areas; competitive pricing; taste-testing; emails, online bulletins). (University Nutrition Environment Assessment Tool (U-NEAT))

550.) Does your school have a website or online resources that provides information relating to availability and or/nutritional quality of foods? (University Nutrition Environment Assessment Tool (U-NEAT))

551.) I make a conscious effort to avoid salt in my diet (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

552.) I have not needed to go on a eight reduction diet in the past year. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

Food and water (Family Health Assessment, L. Reutter, 1984)

553.) Usual diet for individuals of family

554.) Family's knowledge of balanced diet

555.) Patterns of eating



## **APPENDIX A (continued)**

### **Taylor Ecological Health Assessment Version 1**

- 556.) Resources for obtaining, storing and preparing of food
- 557.) Sources of food supply – availability, accessibility, acceptability
- 558.) Source of water supply – adequacy, safety, chemical content, fluoridation
- 559.) Allocation of division of labor re: meeting nutritional needs of family
- 560.) Social, cultural, or religious factors influencing nutrition
- 561.) Do any members have difficulty meeting nutritional requirements?
- 562.) Do you often feel that you can't control what or how much you eat? (Patient Health Questionnaire (PHQ))
- 563.) Do you often eat, within any 2-hour period, what most people would regard as an unusually large amount of food? (Patient Health Questionnaire (PHQ))
- In the last 3 months have you often done any of the following in order to avoid gaining weight ? (Patient Health Questionnaire (PHQ))
- 564.) Made yourself vomit?
- 565.) Took more than twice the recommended dose of laxatives?
- 566.) Fasted not eaten anything at all for at least 24 hours?
- 567.) Exercised for more than an hour specifically to avoid gaining weight after binge eating?

### **Occupational Health Assessment**

- 568.) I can't honestly say what I really think or get things off my chest at work. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)
- 569.) My job has a lot of responsibility, but I don't have very much authority. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)
- 570.) I could usually do a much better job if I were given more time. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)
- 571.) I seldom receive adequate acknowledgement or appreciation when my work is really good. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)

Questionnaire)

## **APPENDIX A (continued)**

### **Taylor Ecological Health Assessment Version 1**

572.) In general, I am not particularly proud or satisfied with my job. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)

573.) I have the impression that I am repeatedly picked on or discriminated against at work. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)

574.) My workplace environment is not very pleasant or particularly safe. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)

575.) My job often interferes with my family and social obligations or personal needs. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)

576.) I tend to have frequent arguments with superiors, coworkers or customers. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)

577.) Most of the time I feel that I have very little control over my life at work. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)

578.) Most of the time I feel that I have very little control over my life at work. (Likert scale 1 – 10 ranging Strongly Disagree to Strongly Agree) (Job Stress Questionnaire)

579.) 21.) I could work very hard and still lose my job. (Unrealistic Control Measure, Zuckerman et al.)

580.) How satisfied are you with not having a job (if unemployed, retired or disabled)? (Ferrans and Powers Quality of Life Index)

581.) Presence of hazards in the workplace and environment (Family Health Assessment, L. Reutter, 1984)

- provision made to prevent ill effects.

582.) Occupational health hazards for family members.

### **Pain Assessment**

583.) How much bodily pain have you generally had during the past 4 weeks? (None, Very mild, Mild, Moderate, Severe, Very severe) (MOS Core survey instrument)

584.) How satisfied are you with the amount of pain you have? (Ferrans and Powers Quality of Life Index)

585.) Did you experience bodily pain in the past 4 weeks? (MOS Core survey instrument)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

586.) During the past 4 weeks, how often have you had pain or discomfort? (MOS Core survey instrument)

587.) When you had pain during the past 4 weeks, how long did it usually last? (MOS Core survey instrument)

During the past four weeks, how much did your pain interfere with the following things:  
(MOS Core Survey Instrument)

588.) Your mood?

589.) Your ability to walk or move about?

590.) Your sleep?

591.) Your normal work (including both work outside the home and housework)?

592.) Your recreational activities?

593.) Your enjoyment of life?

### Physical Health/ Physical Functioning Assessment

594.) Does your health now limit you in doing moderate work around the house like vacuuming, sweeping floors or carrying in groceries? (PROMIS Physical Function – Part 2)

595.) Does your health now limit you in driving a car or using public transportation?  
(PROMIS Physical Function – Part 2)

596.) Does your health now limit you in putting a trash bag outside? (PROMIS Physical Function – Part 2)

597.) Does your health now limit you in dancing for half an hour? (PROMIS Physical Function – Part 2)

598.) Does your health now limit you in hiking a couple of miles on uneven surfaces, including hills? (PROMIS Physical Function – Part 2)

599.) Does your health now limit you in eating a meal within a normal time? (PROMIS Physical Function – Part 2)

600.) Does your health now limit you in doing strenuous activities such as backpacking, skiing, playing tennis, bicycling or jogging? (PROMIS Physical Function – Part 2)

601.) Are you able to carry two bags filled with groceries 100 yards? (PROMIS Physical Function –

Part 2)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1**

- 602.) Are you able to jump up and down? (PROMIS Physical Function – Part 2)
- 603.) Are you able to climb up five steps? (PROMIS Physical Function – Part 2)
- 604.) Are you able to wash dishes, pots, and utensils by hand while standing at a sink?  
(PROMIS Physical Function – Part 2)
- 605.) Are you able to make a bed, including spreading and tucking in bed sheets? (PROMIS Physical Function – Part 2)
- 606.) Are you able to carry a shopping bag or briefcase? (PROMIS Physical Function – Part 2)
- 607.) Are you able to take a tub bath? (PROMIS Physical Function – Part 2)
- 608.) Are you able to change the bulb in a table lamp? (PROMIS Physical Function – Part 2)
- 609.) Are you able to press with your index finger (for example ringing a doorbell)?  
(PROMIS Physical Function – Part 2)
- 610.) Are you able to put on and take off your socks? (PROMIS Physical Function – Part 2)
- 611.) Are you able to shave your face or apply makeup? (PROMIS Physical Function – Part 2)
- 612.) Are you able to squeeze a new tube of toothpaste? (PROMIS Physical Function – Part 2)
- 613.) Are you able to cut a piece of paper with scissors? (PROMIS Physical Function – Part 2)
- 614.) Are you able to pick up coins from a table top? (PROMIS Physical Function – Part 2)
- 615.) Are you able to hold a plate full of food? (PROMIS Physical Function – Part 2)
- 616.) Are you able to pour liquid from a bottle into a glass? (PROMIS Physical Function – Part 2)
- 617.) Are you able to run a short distance, such as to catch a bus? (PROMIS Physical Function – Part 2)
- 618.) Are you able to push open a door after turning the knob? (PROMIS Physical Function – Part 2)
- 619.) Are you able to shampoo your hair? (PROMIS Physical Function – Part 2)
- 620.) Are you able to tie a knot or a bow? (PROMIS Physical Function – Part 2)
- 621.) Are you able to lift 10 pounds above your shoulder? (PROMIS Physical Function – Part 2)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1**

- 622.) Are you able to lift a full cup or glass to your mouth? (PROMIS Physical Function – Part 2)
- 623.) Are you able to open a new milk carton? (PROMIS Physical Function – Part 2)
- 624.) Are you able to open car doors? (PROMIS Physical Function – Part 2)
- 625.) Are you able to stand unsupported for 10 minutes? (PROMIS Physical Function – Part 2)
- 626.) Are you able to remove something from your back pocket? (PROMIS Physical Function – Part 2)
- 627.) Are you able to change a light bulb overhead? (PROMIS Physical Function – Part 2)
- 628.) Are you able to open and close your mouth? (PROMIS Physical Function – Part 2)
- 629.) Are you able to put on a pullover sweater? (PROMIS Physical Function – Part 2)
- 630.) Are you able to turn faucets on and off? (PROMIS Physical Function – Part 2)
- 631.) Are you able to wash your face with a washcloth? (PROMIS Physical Function – Part 2)
- 632.) Are you able to reach and get a 5 pound object from above your head? (PROMIS Physical Function – Part 2)
- 633.) Are you able to stand up on tiptoes? (PROMIS Physical Function – Part 2)
- 634.) Are you able to trim your fingernails? (PROMIS Physical Function – Part 2)
- 635.) Are you able to stand unsupported for 30 minutes? (PROMIS Physical Function – Part 2)
- 636.) Does your health now limit you in taking care of your personal needs (dress, comb hair, toilet, eat, bathe)? (PROMIS Physical Function – Part 2)
- 637.) Does your health now limit you in doing moderate activities such as moving a table, pushing a vacuum cleaner, bowling or playing golf? (PROMIS Physical Function – Part 2)
- 638.) Does your health now limit you in taking part in any sports (swimming, bowling and so forth)? (PROMIS Physical Function – Part 2)
- 639.) Does your health now limit you in doing recreational activities which require little exertion (e.g. card playing, knitting, etc.)? (PROMIS Physical Function – Part 2)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

640.) Does your health now limit you in doing housework or jobs around the house?  
(PROMIS Physical Function – Part 2)

641.) Does your health now limit you in taking a shower? (PROMIS Physical Function – Part 2)

642.) Does your health now limit you in going for a short walk (less than 15 minutes)?  
(PROMIS Physical Function – Part 2)

643.) How much difficulty do you have doing your daily physical activities, because of your health? (PROMIS Physical Function – Part 2)

644.) Does your health now limit you in participating in active sports such as swimming, tennis or basketball? (PROMIS Physical Function – Part 2)

645.) Does your health now limit you in pursuing your hobbies and other leisure activities? (PROMIS Physical Function – Part 2)

646.) Does your health now limit you in making coffee or tea? (PROMIS Physical Function – Part 2)

647.) Does your health now limit you in going OUTSIDE the home, for example to shop or visit a doctor's office? (PROMIS Physical Function – Part 2)

648.) Does your health now limit you in traveling out of town for an overnight stay?  
(PROMIS Physical Function – Part 2)

648.) Are you able to lift one pound (a full pint container) to shoulder level without bending your elbow? (PROMIS Physical Function – Part 2)

649.) Does your health now limit you in doing vigorous activities, such as running, lifting heavy objects, participating in strenuous sports? (PROMIS Physical Function – Part 1)

650.) Does your health now limit you in exercising regularly? (PROMIS Physical Function – Part 1)

651.) Does your health now limit you in bending, kneeling, or stooping? (PROMIS Physical Function – Part 1)

652.) Does your health now limit you in doing heavy work around the house like scrubbing floors, or lifting or moving heavy furniture? (PROMIS Physical Function – Part 1)

653.) Does your health now limit you in lifting and carrying groceries? (PROMIS Physical Function – Part 1)

654.) Does your health now limit you in bathing or dressing yourself? (PROMIS Physical Function – Part 1)

– Part 1)

## **APPENDIX A (continued)**

### **Taylor Ecological Health Assessment Version 1**

655.) How much do physical health problems now limit your physical activities (such as walking or climbing stairs)? (PROMIS Physical Function – Part 1)

656.) Are you able to move a chair from one room to another? (PROMIS Physical Function – Part 1)

657.) Are you able to bend down and pick up clothing from the floor? (PROMIS Physical Function – Part 1)

658.) Are you able to stand for one hour? (PROMIS Physical Function – Part 1)

659.) Are you able to do chores such as vacuuming or yard work? (PROMIS Physical Function – Part 1)

660.) Are you able to push open a heavy door? (PROMIS Physical Function – Part 1)

661.) Are you able to exercise for an hour? (PROMIS Physical Function – Part 1)

662.) Are you able to carry a heavy object (over 10 lbs)? (PROMIS Physical Function – Part 1)

663.) Are you able to stand up from an armless straight chair? (PROMIS Physical Function – Part 1)

664.) Are you able to dress yourself, including tying shoelaces and doing buttons? (PROMIS Physical Function – Part 1)

665.) Are you able to reach into a high cupboard? (PROMIS Physical Function – Part 1)

666.) Are you able to use a hammer to pound a nail? (PROMIS Physical Function – Part 1)

667.) Are you able to run or jog for two miles? (PROMIS Physical Function – Part 1)

668.) Are you able to cut your food using eating utensils? (PROMIS Physical Function – Part 1)

669.) Are you able to go up and down stairs at a normal pace? (PROMIS Physical Function – Part 1)

670.) Are you able to open previously opened jars? (PROMIS Physical Function – Part 1)

671.) Are you able to go for a walk of at least 15 minutes? (PROMIS Physical Function – Part 1)

672.) Are you able to climb several flights of stairs? (PROMIS Physical Function – Part 1)

673.) Are you able to do yard work like raking leaves, weeding, or pushing a lawn mower? (PROMIS Physical Function – Part 1)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1**

- 674.) Are you able to do two hours of physical labor? (PROMIS Physical Function – Part 1)
- 675.) Are you able to able to run on uneven ground? (PROMIS Physical Function – Part 1)
- 676.) Are you able to open a can with a hand can opener? (PROMIS Physical Function – Part 1)
- 677.) Are you able to pull heavy objects (10 pounds) towards yourself? (PROMIS Physical Function – Part 1)
- 678.) Are you able to step up and down curbs? (PROMIS Physical Function – Part 1)
- 679.) Are you able to get up off the floor from lying on your back without help? (PROMIS Physical Function – Part 1)
- 680.) Are you able to stand with your knees straight? (PROMIS Physical Function – Part 1)
- 681.) Are you able to exercise hard for half an hour? (PROMIS Physical Function – Part 1)
- 682.) Are you able to wash your back? (PROMIS Physical Function – Part 1)
- 683.) Are you able to open and close a zipper? (PROMIS Physical Function – Part 1)
- 684.) Are you able to put on and take off a coat or jacket? (PROMIS Physical Function – Part 1)
- 685.) Are you able to stand for short periods of time? (PROMIS Physical Function – Part 1)
- 686.) Are you able to dry your back with a towel? (PROMIS Physical Function – Part 1)
- 687.) Are you able to run at a fast pace for two miles? (PROMIS Physical Function – Part 1)
- 688.) Are you able to turn a key in a lock? (PROMIS Physical Function – Part 1)
- 689.) Are you able to squat and get up? (PROMIS Physical Function – Part 1)
- 690.) Are you able to carry a laundry basket up a flight of stairs? (PROMIS Physical Function – Part 1)
- 691.) Are you able to write with a pen or pencil? (PROMIS Physical Function – Part 1)
- 692.) Are you able to put on a shirt or blouse? (PROMIS Physical Function – Part 1)
- 693.) Are you able to get out of bed into a chair? (PROMIS Physical Function – Part 1)



## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 694.) Are you able to cut your toe nails? (PROMIS Physical Function – Part 1)
- 695.) Are you able to pull on trousers? (PROMIS Physical Function – Part 1)
- 696.) Are you able to peel fruit? (PROMIS Physical Function – Part 1)
- 697.) Are you able to bend or twist your back? (PROMIS Physical Function – Part 1)
- 698.) Are you able to sit on the edge of a bed? (PROMIS Physical Function – Part 1)
- 699.) Are you able to tie your shoelaces? (PROMIS Physical Function – Part 1)
- 700.) Are you able to run errands and shop? (PROMIS Physical Function – Part 1)
- 701.) Are you able to button your shirt? (PROMIS Physical Function – Part 1)
- 703.) Are you able to wash and dry your body? (PROMIS Physical Function – Part 1)
- 703.) Are you able to get in and out of a car? (PROMIS Physical Function – Part 1)
- 704.) How difficult is it for you to open a previously opened jar? (PROMIS Physical Function – Part 3)
- 705.) How difficult is it for you to go for a walk of at least 15 minutes? (PROMIS Physical Function – Part 3)
- 706.) How difficult is it for you to climb several flights of stairs? (PROMIS Physical Function – Part 3)
- 707.) How difficult is it for you to do yard work like raking leaves, weeding, or pushing a lawn mower? (PROMIS Physical Function – Part 3)
- 708.) How difficult is it for you to do two hours of physical labor? (PROMIS Physical Function – Part 3)
- 709.) Are you able to walk a block on flat ground? (PROMIS Physical Function – Part 3)
- 710.) Are you able to run five miles? (PROMIS Physical Function – Part 3)
- 711.) Does your health now limit you in opening a previously opened jar? (PROMIS Physical Function – Part 3)
- 712.) Does your health now limit you in going for a walk of at least 15 minutes? (PROMIS Physical Function – Part 3)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1**

713.) Does your health now limit you in climbing several flights of stairs? (PROMIS Physical Function – Part 3)

714.) Does your health now limit you in doing yard work like raking leaves, weeding, or pushing a lawn mower? (PROMIS Physical Function – Part 3)

715.) Does your health now limit you in doing two hours of physical labor? (PROMIS Physical Function – Part 3)

716.) Are you able to run 100 yards? (PROMIS Physical Function – Part 3)

717.) Are you able to lift a heavy object of 20 pounds and carry it for at least 10 yards? (PROMIS Physical Function – Part 3)

718.) To stand up from a sitting position, do you usually need a special chair, a raised toilet seat, or help from another person? (PROMIS Physical Function – Part 3)

719.) To get dressed, do you usually need a buttonhook, zipper pull or other gadget, or require help from another person? (PROMIS Physical Function – Part 3)

720.) To reach something, do you usually use long-handled appliances or help from another appliance? (PROMIS Physical Function – Part 3)

721.) Over the past 7 days, did you use a hammer to pounds a nail? (PROMIS Physical Function – Part 3)

722.) Over the past 7 days, did you run or jog for 2 miles? (PROMIS Physical Function – Part 3)

723.) Does your health now limit you in walking one hundred yards? (PROMIS Physical Function – Part 3)

724.) Are you able to run on even ground? (PROMIS Physical Function – Part 3)

725.) Over the past 7 days, did you open a previously opened jar? (PROMIS Physical Function – Part 3)

726.) Over the past 7 days, did you go for a walk for at least 15 minutes? (PROMIS Physical Function – Part 3)

727.) Over the past 7 days, did you do yard work like raking leaves, weeding or pushing a lawn mower? (PROMIS Physical Function – Part 3)

728.) Over the past 7 days, did you do two hours of physical labor at one time? (PROMIS Physical Function – Part 3)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1**

- 729.) To open previously opened jars, do you usually use a jar opener or help from another person? (PROMIS Physical Function – Part 3)
- 730.) To get around, do you usually need a cane, crutches, walker, wheelchair, or help from another person? (PROMIS Physical Function – Part 3)
- 731.) Are you able to walk up and down two steps? (PROMIS Physical Function – Part 3)
- 732.) Are you able to carry a suitcase up a flight of stairs? (PROMIS Physical Function – Part 3)
- 733.) Are you able to reach into a low cupboard? (PROMIS Physical Function – Part 3)
- 734.) Are you able to climb up 5 flights of stairs? (PROMIS Physical Function – Part 3)
- 735.) Are you able to run 10 miles? (PROMIS Physical Function – Part 3)
- 736.) Does your health now limit you in walking several hundred yards? (PROMIS Physical Function – Part 3)
- 737.) Does your health now limit you in doing eight hours of physical labor? (PROMIS Physical Function – Part 3)
- 738.) Does your health now limit you in walking more than a mile? (PROMIS Physical Function – Part 3)
- 739.) Does your health now limit you in climbing one flight of stairs? (PROMIS Physical Function – Part 3)
- 740.) Are you able to walk at a normal speed? (PROMIS Physical Function – Part 3)
- 741.) Are you able to stand without losing your balance for several minutes? (PROMIS Physical Function – Part 3)
- 742.) Are you able to kneel on the floor? (PROMIS Physical Function – Part 3)
- 743.) Are you able to sit down in and stand up from a low, soft couch? (PROMIS Physical Function – Part 3)
- 744.) Are you able to open a tight or new jar? (PROMIS Physical Function – Part 3)
- 745.) Are you able to use your hands, such as for turning faucets, using kitchen gadgets, or sewing? (PROMIS Physical Function – Part 3)
- 746.) Are you able to turn your head from side to side? (PROMIS Physical Function – Part 3)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 747.) Are you able to get on and off the toilet? (PROMIS Physical Function – Part 3)
- 748.) Are you able to transfer from a bed to a chair and back? (PROMIS Physical Function – Part 3)
- 749.) Are you able to be out of bed most of the day? (PROMIS Physical Function – Part 3)
- 750.) Are you able to carry household items, such as heavy boxes or furniture, up a flight of stairs? (PROMIS Physical Function – Part 3)
- 751.) Are you able to water a house plant? (PROMIS Physical Function – Part 3)
- 752.) Are you able to turn your head and look over your shoulder? (PROMIS Physical Function – Part 3)
- 753.) Are you able to wipe yourself after using the toilet? (PROMIS Physical Function – Part 3)
- 754.) Are you able to turn from side to side in bed? (PROMIS Physical Function – Part 3)
- 755.) Are you able to get in and out of bed? (PROMIS Physical Function – Part 3)
- 756.) Does your health now limit you in getting in and out of the bathtub? (PROMIS Physical Function – Part 3)
- 757.) Does your health now limit you in traveling by bus or train? (PROMIS Physical Function – Part 3)
- 758.) Does your health now limit you in walking about the house? (PROMIS Physical Function – Part 3)
- 759.) How satisfied are you with your personal appearance? (Ferrans and Powers Quality of Life Index)
- 760.) How satisfied are you with your physical ability to do what you want to do? (Ferrans and Powers Quality of Life Index)
- 761.) When you travel around your community, does someone have to assist you because of your health? (MOS Core survey instrument)
- 762.) Are you in bed or in a chair most or all of the day because of your health? (MOS Core survey instrument)
- During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health? (MOS Core Survey Instrument)
- 763.) Took frequent rests when doing work or other activities?

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 764.) Cut down the amount of time you spent on work or other activities?
- 765.) Accomplished less than you would like?
- 766.) Didn't do work or other activities as carefully as usual?
- 767.) Were limited in the kind of work or other activities?
- 768.) Had difficulty performing the work or other activities (for example, it took extra effort)?
- 769.) Required special assistance (the assistance of others or special devices) to perform these activities?
- 770.) Does your health keep you from working around the house? (MOS Core Survey Instrument)
- 771.) Does your health keep you from working at a paying job? (MOS Core Survey Instrument)
- 772.) According to height and weight charts, my weight is average for my height. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 773.) There is no place on my body that I can pinch an inch of fat. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 774.) I am satisfied with the way my body looks. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 775.) None of my family or friends or health care professionals have ever urged me to lose weight. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

### Physical Activity Assessment

- 776.) I do some form of vigorous exercise for at least 30 minutes a day three times a week or more. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 777.) My resting pulse is 70 beats a minute or less. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 778.) I don't get fatigued easily while doing physical work. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))
- 779.) I engage in some recreational sport such as tennis or swimming on a weekly basis. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

780.) I would say that my level of physical fitness is higher than most of the people in my age group. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

Activity (Family Health Assessment, L. Reutter, 1984)

781.) Activities engaged in by individual members (occupational pursuits, home tasks, school and other intellectual pursuits, leisure time activities and relaxation)

782.) Do members regularly participate in physical activity?

783.) Is provision made for periods of rest and relaxation?

784.) Do any members have difficulty in achieving relaxation?

785.) Availability accessibility, acceptability of facilities and resources to pursue activities

786.) Members' perception of balance of activity and rest for themselves; for the rest of family

### Primary Prevention Assessment

787.) Do your shoes have soles and heels that provide good traction? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

788.) Do you wear house slippers that fit well and don't fall off? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

789.) Do you avoid walking in stocking feet? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

790.) Do you wear low-heeled oxfords, loafers or good-quality sneakers when you work in your house or yard? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

791.) Do you replace boots or galoshes when their soles or heels are worn too smooth to keep you from slipping on wet or icy surfaces? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

792.) When you carry bulky packages, do you make sure they don't obstruct your vision? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

793.) Do you divide large loads into smaller loads whenever possible? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

794.) When you reach or bend, do you hold onto a firm support and avoid throwing your head back or turning it too far? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

795.) Do you always use a ladder or step stool to reach high places and never stand on a chair? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

796.) Do you always move deliberately and avoid rushing to answer the phone or doorbell? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

797.) Do you take time to get your balance when you change position from lying down to sitting and from sitting to standing? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

798.) Do you hold onto grab bars when you change position in the tub or shower? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

799.) Do you keep yourself in good condition with moderate exercise, good diet, adequate rest and regular medical checkups? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

800.) Do you know how to reduce injury in a fall? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

801.) If you live alone, do you have daily contact with a friend or neighbor? (Yes, No) (Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

802.) I always use seat belts when I drive. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

803.) I always use seat belts when I am a passenger. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

804.) I never ride with a driver who has had more than two drinks. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

### **Sexual Health Assessment**

805.) My breasts feel tender or uncomfortable. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

806.) I have lost interest in sexual activity. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

807.) I feel physically attractive. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

808.) I am satisfied with my current sexual relationship. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

809.) As a result of vaginal dryness, sexual intercourse has become uncomfortable. (Yes, definitely, Yes, sometimes, No, not much, No, not at all) (Women's Health Questionnaire)

810.) How satisfied are you with your sex life? (Ferrans and Powers Quality of Life Index)

811.) How satisfied with your spouse, lover, or partner? (Ferrans and Powers Quality of Life Index)

In the last 4 weeks, how much have you been bothered by any of the following problems? (Patient Health Questionnaire (PHQ))

812.) Little or no sexual desire or pleasure during sex?

813.) Difficulties with husband/wife, partner/lover or boyfriend/girlfriend?

814.) Which best describes your menstrual periods? (Patient Health Questionnaire (PHQ))

- a. Periods are unchanged
- b. No periods because pregnant or recently gave birth

815.) Periods have become irregular or changed in frequency, duration or amount

- d. No periods for at least a year
- e. Having periods because taking hormone replacement (estrogen) therapy or oral contraceptive

816.) During the week before your period starts, do you have a serious problem with your mood – like depression, anxiety, irritability, anger or mood swing. If YES: (Patient Health Questionnaire (PHQ))

817.) Do these problems go away by the end of your period?

818.) Have you given birth within the last 6 months?

819.) Have you had a miscarriage within the last 6 months?

820.) Are you having difficulty getting pregnant?

### Sleep Health Assessment

821.) How often during the past 4 weeks did you feel that your sleep was not quiet (moving restlessly, feeling tense, speaking, etc., while sleeping)? (MOS Core Survey Instrument)

822.) How often during the past 4 weeks did you get enough sleep to feel rested upon waking in the morning? (MOS Core Survey Instrument)



## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

823.) How often during the past 4 weeks did you awaken short of breath or with a headache? (MOS Core Survey Instrument)

824.) How often during the past 4 weeks did you feel drowsy or sleepy during the day? (MOS Core Survey Instrument)

825.) How often during the past 4 weeks did you have trouble falling asleep? (MOS Core Survey Instrument)

826.) How often during the past 4 weeks did you awaken during your sleep time and have trouble falling asleep again? (MOS Core Survey Instrument)

827.) How often during the past 4 weeks did you have trouble staying awake during the day? (MOS Core Survey Instrument)

828.) How often during the past 4 weeks did you take naps (5 minutes or longer) during the day? (MOS Core Survey Instrument)

829.) How often during the past 4 weeks did you get the amount of sleep you needed? (MOS Core Survey Instrument)

830.) I do not have trouble failing asleep or waking up. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

831.) I almost always get between 7 and 9 hours of sleep a night. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

832.) It rarely takes longer than 20 minutes for me to fall asleep. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

833.) I wake up few, if any, times during the night. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

834.) I feel rested and ready to go when I get up in the morning. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

Maintaining a balance of activity and rest (Family Health Assessment, L. Reutter, 1984)

a.) Rest

835.) Sleep and rest patterns of family members

836.) Environmental factors affecting rest and sleep patterns

837.) Do any members have difficulty meeting requirements for rest and sleep?

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

838.) effect on family

839.) how is it managed?

840.) adequacy of amount of sleep and rest as perceived by members

### **Social Health Assessment**

841.) It is my impression that in most group situations people ignore me. (Realistic Control Measure, Zuckerman et al.)

842.) I can get along with most other people. (Realistic Control Measure, Zuckerman et al.)

843.) I can say no even under social pressure. (Realistic Control Measure, Zuckerman et al.)

844.) I often feel awkward when interacting with others. (Realistic Control Measure, Zuckerman et al.)

845.) How satisfied are you with your friends? (Ferrans and Powers Quality of Life Index)

846.) How satisfied are you with your ability to do things for family and friends? (Ferrans and Powers Quality of Life Index)

847.) How satisfied are you with the things you do for fun? (Ferrans and Powers Quality of Life Index)

848.) During the past month, how often did you feel there were people you were close to? (MOS Core Survey Instrument)

849.) How much of the time, during the past month, did you feel left out? (MOS Core Survey Instrument)

850.) During the past month, how often did you feel isolated from others? (MOS Core Survey Instrument)

851.) During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)? (MOS Core Survey Instrument)

852.) Compared to your usual level of social activity, has your social activity during the past 6 months decreased, stayed the same, or increased because of a change in your physical or emotional condition? (MOS Core Survey Instrument)

853.) Compared to others your age, are your social activities more or less limited because of your physical health or emotional problems? (MOS Core Survey Instrument)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

#### Interpersonal Relationships

854.) I have recently been able to say important things to people close to me. (2=agree strongly, 1 = agree, 0 = neutral, -1 = disagree, -2 = disagree strongly) (Missoula-Vitas Quality of Life Index)

855.) I feel closer to others in my life than I did before my illness. (Missoula-Vitas Quality of Life Index)

856.) In general, these days I am satisfied with relationships with family and friends. (Missoula-Vitas Quality of Life Index)

857.) At present, I spend as much time as I want to with family and friends. (Missoula-Vitas Quality of Life Index)

858.) It is important to me to have close personal relationships. (Missoula-Vitas Quality of Life Index)

859.) During the past month, how much of the time did you feel that your love relationships, loving and being loved, were full and complete? (MOS Core Survey Instrument)

860.) I am satisfied with my social relationships. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

861.) I have a lot of close friends. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

862.) I am able to share my feelings with my spouse or other family members (or both). (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

863.) When I have a problem, I have other people with whom I can talk it over. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

864.) Given a choice between doing things by myself or with others, I usually choose to do things with others. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

#### Social Role Performance

865.) In the past 7 days, I have trouble meeting the needs of my family. (PROMIS – Social Role – Performance – Survey)

866.) In the past 7 days, I am limited in doing my work (include work at home). (PROMIS – Social Role – Performance – Survey)

867.) In the past 7 days, I have to limit my social activities outside my home. (PROMIS – Social Role – Performance – Survey)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

868.) In the past 7 days, I am able to participate in recreational activities. (PROMIS – Social Role – Performance – Survey)

869.) In the past 7 days, I can do everything for my family that I feel I should do. (PROMIS – Social Role – Performance – Survey)

870.) In the past 7 days, I am accomplishing as much as usual at work (include work at home). (PROMIS – Social Role – Performance – Survey)

871.) In the past 7 days, I am able to do all the family activities that I expect I should do. (PROMIS – Social Role – Performance – Survey)

872.) In the past 7 days, I am able to do all of the family activities that are really important to me. (PROMIS – Social Role – Performance – Survey)

873.) In the past 7 days, I can do everything for work that I want to do (include work at home). (PROMIS – Social Role – Performance – Survey)

874.) In the past 7 days, I am able to do all of my regular family activities. (PROMIS – Social Role – Performance – Survey)

875.) In the past 7 days, I am able to do all of my regular leisure activities. (PROMIS – Social Role – Performance – Survey)

876.) In the past 7 days, I am able to do all of the leisure activities that are really important to me. (PROMIS – Social Role – Performance – Survey)

877.) In the past 7 days, I am doing fewer social activities with groups of people. (PROMIS – Social Role – Performance – Survey)

878.) In the past 7 days, I have to limit my regular family activities. (PROMIS – Social Role – Performance – Survey)

879.) In the past 7 days, I have to limit things I do for fun outside my home. (PROMIS – Social Role – Performance – Survey)

880.) In the past 7 days, I have to do my work for shorter periods of time than usual (include work at home). (PROMIS – Social Role – Performance – Survey)

881.) In the past 7 days, I feel limited in the amount of time I have for my family. (PROMIS – Social Role – Performance – Survey)

882.) In the past 7 days, I am able to do all of the family activities that I want to do. (PROMIS – Social Role – Performance – Survey)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 883.) In the past 7 days, my ability to work is as good as it can be (include work at home). (PROMIS – Social Role – Performance – Survey)
- 884.) In the past 7 days, I am able to do all of the activities with friends that are really important to me. (PROMIS – Social Role – Performance – Survey)
- 885.) In the past 7 days, I can do all the leisure activities that I want to do. (PROMIS – Social Role – Performance – Survey)
- 886.) In the past 7 days, I can keep up with my family responsibilities. (PROMIS – Social Role – Performance – Survey)
- 887.) In the past 7 days, I am able to do all of my usual work (include work at home). (PROMIS – Social Role – Performance – Survey)
- 888.) In the past 7 days, I am able to do all of the family activities that people expect me to do. (PROMIS – Social Role – Performance – Survey)
- 889.) In the past 7 days, I am able to do all the leisure activities that I expect I should do. (PROMIS – Social Role – Performance – Survey)
- 890.) In the past 7 days, I am able to do all of the work that is really important to me (include work at home). (PROMIS – Social Role – Performance – Survey)
- 891.) In the past 7 days, I have to limit the things I do for fun at home (like reading, listening to music, etc.) (PROMIS – Social Role – Performance – Survey)
- 892.) In the past 7 days, I have to limit my regular activities with friends. (PROMIS – Social Role – Performance – Survey)
- 893.) In the past 7 days, I have to do my hobbies or leisure activities for shorter periods of times than usual. (PROMIS – Social Role – Performance – Survey)
- 894.) In the past 7 days, I feel limited in my ability to visit relatives. (PROMIS – Social Role – Performance – Survey)
- 895.) In the past 7 days, I have trouble taking care of my regular and personal and household responsibilities. (PROMIS – Social Role – Performance – Survey)
- 896.) In the past 7 days, I am able to do all of my regular activities with friends. (PROMIS – Social Role – Performance – Survey)
- 897.) In the past 7 days, I am able to do all of the leisure activities that people expect me to do. (PROMIS – Social Role – Performance – Survey)

**APPENDIX A (continued)****Taylor Ecological Health Assessment Version 1**

898.) In the past 7 days, I am able to do all of the leisure activities that people expect me to do. (PROMIS – Social Role – Performance – Survey)

899.) In the past 7 days, I can do everything for my friends that I want to do. (PROMIS – Social Role – Performance – Survey)

900.) In the past 7 days, I am able to do all of the activities with friends that I expect I should do. (PROMIS – Social Role – Performance – Survey)

901.) In the past 7 days, I am able to do all of the work that I expect of myself (include work at home). (PROMIS – Social Role – Performance – Survey)

902.) In the past 7 days, my ability to socialize with my friends is good as it can be. (PROMIS – Social Role – Performance – Survey)

903.) In the past 7 days, I am able to do all of the community activities people expect me to do. (PROMIS – Social Role – Performance – Survey)

904.) In the past 7 days, my ability to do hobbies or leisure activities is as good as it can be. (PROMIS – Social Role – Performance – Survey)

905.) In the past 7 days, I have to limit my hobbies or leisure activities. (PROMIS – Social Role – Performance – Survey)

906.) In the past 7 days, I feel limited in my ability to visit friends. (PROMIS – Social Role – Performance – Survey)

907.) In the past 7 days, I have trouble keeping in touch with others. (PROMIS – Social Role – Performance – Survey)

908.) In the past 7 days, I have trouble doing my regular daily chores/tasks. (PROMIS – Social Role – Performance – Survey)

909.) In the past 7 days, I can keep up with my social responsibilities. (PROMIS – Social Role – Performance – Survey)

910.) In the past 7 days, I am able to do all of the activities with friends that I want to do. (PROMIS – Social Role – Performance – Survey)

911.) In the past 7 days, I can keep up with my work responsibilities (include work at home). (PROMIS – Social Role – Performance – Survey)

912.) In the past 7 days, I am able to go out for entertainment as much as I want. (PROMIS – Social Role – Performance – Survey)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

913.) In the past 7 days, I am able to maintain my friendships as much as I would like.  
(PROMIS – Social Role – Performance – Survey)

914.) In the past 7 days, I am able to do all of the community activities that are really important to me. (PROMIS – Social Role – Performance – Survey)

915.) In the past 7 days, I am able to perform my daily routines. (PROMIS – Social Role – Performance – Survey)

916.) In the past 7 days, I am able to do all of the activities with friends that people expect me to do. (PROMIS – Social Role – Performance – Survey)

917.) In the past 7 days, I am able to do all of the work that people expect me to do (include work at home). (PROMIS – Social Role – Performance – Survey)

918.) In the past 7 days, I can do everything for my friends that I feel I should do. (PROMIS – Social Role – Performance – Survey)

919.) In the past 7 days, I feel limited in the amount of time I have to visit friends. (PROMIS – Social Role – Performance – Survey)

920.) In the past 7 days, I feel limited in the amount of time I have to visit relatives. (PROMIS – Social Role – Performance – Survey)

### **Social Support Assessment**

921.) Do you have someone who is available to help you with household chores?

922.) How satisfied are you with the emotional support you get from your family? (Ferrans and Powers Quality of Life Index)

923.) How satisfied are you with the emotional support you get from people other than your family? (Ferrans and Powers Quality of Life Index)

924.) If you live alone, do you have daily contact with a friend or neighbor? (Yes, No)  
(Patient Assessment Tool- Home Safety Checklist – <http://geridoc.net/homesafe.html>)

925.) Someone you can count on to listen to you when you need to talk. (MOS Social Support Survey)

926.) Someone to give you information to help you understand a situation. (MOS Social Support Survey)

927.) Someone to give you good advice about a crisis. (MOS Social Support Survey)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

- 928.) Someone to confide in or talk to about yourself or your problems. (MOS Social Support Survey)
- 929.) Someone whose advice you really want. (MOS Social Support Survey)
- 930.) Someone to share your most private worries and fears with. (MOS Social Support Survey)
- 931.) Someone to turn to for suggestions about how to deal with a personal problem. (MOS Social Support Survey)
- 932.) Someone who understands your problems. (MOS Social Support Survey)
- 933.) Someone to help you if you were confined to bed. (MOS Social Support Survey)
- 934.) Someone to take you to the doctor if you needed it. (MOS Social Support Survey)
- 935.) Someone to prepare your meals if you were unable to do it yourself. (MOS Social Support Survey)
- 936.) Someone to help with daily chores if you were sick. (MOS Social Support Survey)
- 937.) Someone who shows you love and affection. (MOS Social Support Survey)
- 938.) Someone to love and make you feel wanted. (MOS Social Support Survey)
- 939.) Someone who hugs you. (MOS Social Support Survey)
- 940.) Someone to have a good time with. (MOS Social Support Survey)
- 941.) Someone to get together with for relaxation. (MOS Social Support Survey)
- 942.) Someone to do something enjoyable with. (MOS Social Support Survey)
- 943.) Someone to do things with to help you get your mind off things. (MOS Social Support Survey)

### **Spiritual Health Assessment**

- 944.) How satisfied are you with your faith in God? (Ferrans and Powers Quality of Life Index)

Provision for spiritual and moral development (Family Health Assessment, L. Reutter, 1984)

- 945.) Family's belief regarding moral and spiritual education

- 946.) Utilization of outside resources



## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

#### Tobacco Use Assessment

947.) I have never smoked cigarettes. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

948.) I haven't smoked cigarettes in the past year. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

949.) I do not use any other form of tobacco (pipes, cigars, chewing tobacco). (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

950.) I smoke only low-tar and low-nicotine cigarettes. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

951.) I smoke less than one pack of cigarettes a day. (Yes, No) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

#### Vision Health Assessment

952.) I have difficulty reading newspaper articles, magazines and books. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

953.) I have difficulty reading letters and greeting cards. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

954.) I have difficulty reading road signs, street names, bus numbers, or destinations. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

955.) I have difficulty reading instructions on food packages or medicine labels. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

956.) I have difficulty reading the numbers on telephone dials. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

957.) I have difficulty reading settings on household appliances. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

958.) I have difficulty reading forms such as Medicare claim forms or bank statements. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

959.) I have difficulty writing letters, checks, or bank withdrawal forms because I can't see properly. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

960.) I have difficulty reading for leisure. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

961.) I have difficulty keeping in touch with friends or relatives using the phone because I can't see the numbers on the dial. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

962.) I feel isolated because of difficulty in accessing written information. (Yes, Sometime, No) (Hearing and Vision Questionnaire)

963.) Do you wear glasses for your reading? (Yes, No) (Visual Function Self Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

964.) Do you enjoy reading? (Yes, No) (Visual Function Self Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

965.) Do you think you should be able to read faster? (Yes, No) (Visual Function Self Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

966.) Do you understand what you read as well as you'd like? (Yes, No) (Visual Function Self Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

967.) Is it an effort to maintain your concentration while reading (Short attention span)? (Yes, No) (Visual Function Self Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

968.) After reading, do you look up and notice distant objects momentarily blurred? (Yes, No) (Visual Function Self Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

969.) Do you tend to skip words or lines of print while reading? (Yes, No) (Visual Function Self Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

970.) Does print tend to appear blurry after reading for a while? (Yes, No) (Visual Function Self Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

971.) Do your eyes itch, burn, water, pull or ache? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

972.) Do words appear to float or move while reading? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

973.) Do you tend to lose your place while reading or copying? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

974.) Do you tend to use your finger or a marker to keep your place while reading or copying? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

975.) Do you have to re-read words or lines while reading? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

## APPENDIX A (continued)

### Taylor Ecological Health Assessment Version 1

976.) Do your eyes feel tired at the end of the day? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

977.) Do you sometimes have to squint, close or cover one eye when reading? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

978.) Do you ever experience headaches during or after reading? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

979.) Are you especially sensitive to sunlight or glare? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

980.) Are you aware of any tendency to move your head closer to, or away from what you are reading? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

981.) If you use a computer, does the video (VDT) screen bother your eyes? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

982.) How long can you read before you are aware of your eyes getting tired? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

983.) How many hours daily do you spend at a desk, or reading, or at other arm's length vision distances? (Yes, No) (Visual Function Self-Test, <http://pavevision.org/2009/12/22/do-you-have-a-vision-problem/>)

984.) If you wear glasses, is your prescription up to date? (Yes, No) (Patient Assessment Tool-Home Safety Checklist – <http://geridoc.net/homesafe.html>)

## **APPENDIX B**

### **Taylor Ecological Health Assessment Version 2**

#### **Alcohol Use Assessment**

- 1.) Do you drink alcohol?
- 2.) How often do you drink?
- 3.) Have you experienced physical, emotional or social problems because of your drinking?

#### **Cultural Health Assessment**

- 4.) Do you practice any cultural folk remedies or health practices?  
- If so, what?
- 5.) Do you ever feel like you've been discriminated against?
- 6.) How do you cope with discrimination?

#### **Dental Health Assessment**

- 7.) Do you have dental insurance?
- 8.) When was your last dental visit?

Have you had issues with either of the following things because of your teeth?

- 9.) Diet:           Yes   No
- 10.) Talking:    Yes   No

#### **Economic Health Assessment**

- 11.) Do you have health insurance?
- 12.) Can you pay for prescriptions?
- 13.) Do you have money saved up in case of an emergency?
- 14.) Do you have a secure living place?

#### **Educational Health Assessment**

- 15.) What was the highest level of education you completed?

## **APPENDIX B (continued)**

### **Taylor Ecological Health Assessment Version 2**

- 16.) What is your preferred method of learning: visual(pictures) listening
- 17.) Are you usually able to understand brochures given to you by your doctor?

### **Environmental Health Assessment**

18.) Do you keep floors and stairways clean and free of clutter? (Patient Assessment Tool – Home Safety checklist, <http://geridoc.net/homesafe.html>)

19.) Do you have adequate lighting in all rooms of your home? (Patient Assessment Tool – Home Safety checklist, <http://geridoc.net/homesafe.html>)

20.) Are all stairways in good condition with no breaks, sagging or sloping steps? (Patient Assessment Tool – Home Safety checklist, <http://geridoc.net/homesafe.html>)

21.) Do you feel safe in your neighborhood. If not, why?

22.) Does your community contain healthy food places at affordable prices?

Availability, accessibility and acceptability of resources in community to meet needs  
(Family Health Assessment - L. Reutter, 1984):

23.) recreational?

24.) cultural?

25.) transportation?

26.) child care/babysitting?

27.) healthy food choices?

28.) In case of a fire, does your family have an evacuation plan?

### **Family Function Assessment**

29.) As a family we work well together. (FAMTOOL- Family Health Assessment)

30.) Do you feel that your family members communicate well with each other?

31.) Are there specific behavioral concerns in your family (Family Health Assessment – L. Reutter, 1984)?

- How is this managed?

## APPENDIX B (continued)

### Taylor Ecological Health Assessment Version 2

#### Family Health Assessment

32.) Does your family lack equipment, finances, or other resources for health maintenance (Family health assessment tool, Home Healthcare Nurse, Volume 11, Nurse 2)?

33.) Is your family home adequate for the size of your family (Family Health Assessment and Intervention Guide)?

34.) Who makes health decisions for your family?

35.) Please fill in the following table:

Family Member	Current Age	Current Health Status/Diseases
Maternal Grandfather		
Maternal Grandmother		
Paternal Grandfather		
Paternal Grandmother		
Mother		
Father		
Sibling [Brother] or [Sister]		
Sibling [Brother] or [Sister]		
Sibling [Brother] or [Sister]		
Children [Son] or [Daughter]		
Children [Son] or [Daughter]		
Children [Son] or [Daughter]		

#### Health Perceptions

36.) Are you satisfied with your health?  
- If not, why?

37.) What aspects of your health would you like to improve?

38.) What barriers prevent you from improving your health?

#### Hearing Health Assessment

39.) Do you feel handicapped by a hearing problem (Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHE-S) Ventry IM, Weinstein, BE. Identification of elderly people with hearing problems. ASHA July, 1983; 25-37)?

## APPENDIX B (continued)

### Taylor Ecological Health Assessment Version 2

40.) Do you feel that your hearing limits or hampers your personal or social life (Modified from the Hearing Handicap Inventory for the Elderly – Screening Version (HHE-S) Ventry IM, Weinstein, BE. Identification of elderly people with hearing problems. ASHA July, 1983; 25-37)?

41.) Are you following up with a healthcare provider for your hearing problem?

#### **Mental Health Assessment**

42.) How happy, satisfied or pleased are you with your personal life (MOS Core Survey Instrument)?

43.) How much of the time have you felt downhearted and blue within the last few months (MOS Core Survey Instrument)?

44.) During the past month, how much of the time have you felt tense or high-strung (MOS Core Survey Instrument)?

45.) How much have you been bothered by nervousness, or your “nerves”, during the past month (MOS Core Survey Instrument)?

46.) Do you ever feel like hurting yourself?

47.) How often during the past month did you find yourself having difficulty trying to calm down (MOS Core Survey Instrument)?

48.) Over the past few months, have you had more difficulty concentrating (Women’s Health Questionnaire)?

49.) Over the past few months, have you felt more irritable than usual (Women’s Health Questionnaire)?

50.) Have you experienced a major life event or stressor within the last year?  
- If so what is it?

51.) How well do you feel that you are able to react to stress or pressure?

#### **Nutritional Health Assessment**

52.) Do you have an illness or condition that makes you change the kind and/or amount of food you eat (Nutrition Checklist for Older Adults: <http://geridoc.net/nutrition.html>)?

53.) Do you sometimes have trouble affording the food you need (Nutrition Checklist for Older Adults: <http://geridoc.net/nutrition.html>)?

## **APPENDIX B (continued)**

### **Taylor Ecological Health Assessment Version 2**

54.) Are there places in your neighborhood where you can obtain healthy food?

55.) How many meals do you eat per day (Modified from Nutrition Checklist for Older Adults: <http://geridoc.net/nutrition.html>)?

### **Occupational Health Assessment**

56.) Are you employed?

57.) If so, what is your occupation?

58.) Are you exposed to hazards in your workplace (i.e. loud noises, chemical, heavy lifting)? If so, what? (Modified from Family Health Assessment - L. Reutter)

59.) How do you protect yourself from hazards in the workplace? (Modified from Family Health Assessment - L. Reutter)

### **Pain Assessment**

60.) Do you chronically experience physical pain (definition of chronic pain)?

How often does your level of pain affect your:

61.) Mood?

62.) Physical activity?

63.) Sleep?

64.) Employment?

65.) Recreational activities?

66.) How do you manage your pain ?

67.) Is it effective?

### **Physical Function/ Physical Health Assessment**

68.) Does your physical health limit you from driving a car or using public transportation (Modified from PROMIS Physical Function – Part 2)?



## APPENDIX B (continued)

### Taylor Ecological Health Assessment Version 2

69.) Does your physical health limit you in taking care of your personal needs (dressing yourself, combing your hair, toileting, eating, bathing) (Modified from PROMIS Physical Function – Part 2)?

70.) Does your physical health limit you in doing housework or jobs around the house (PROMIS Physical Function – Part 2)?

71.) Does your physical health limit you from exercising regularly (PROMIS Physical Function – Part 2)?

72.) Does your physical health keep you from working at a paying job (MOS Core Survey Instrument)?

73.) If you are currently in school, does your physical health keep you from attending classes or completing coursework in a timely fashion?

74.) Are you being physically harmed by anyone you know?

### Physical Activity

75.) Do you do some form of exercise for at least 30 minutes a day three days a week or more (i.e. walking, running, household chores) (Modified from Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))?

76.) Are there any barriers that prevent you from being able to get at least 30 minutes of exercise at least 3 days a week?

77.) If so, what are they?

### Primary Prevention Assessment

78.) Do you always wear your seatbelts while riding in the car (Modified from Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))?

Please provide the month and year of your last:

79.) Pap Smear (if women)

80.) Mammogram (if women)

81.) Tetanus shot

## **APPENDIX B (continued)**

### **Taylor Ecological Health Assessment Version 2**

82.) Colonoscopy

83.) Fecal Occult Blood Testing

84.) STD Screening

85.) Physical Exam

86.) Flu Shot

87.) Pneumonia Vaccine

88.) PSA

#### **Sexual Health Assessment**

89.) Do you have physical problems that prevent you from having sex?

90.) Do you have emotional problems that prevent you from having sex?

91.) Are you ever forced to have sex when you don't want to?

92.) Do you use protection while having sex?

#### **Social Health Assessment**

93.) I can get along with most other people (Realistic Control Measures, Zuckerman et al.).

94.) I am able to share my feelings with my spouse or other family members (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html)).

95.) When I have a problem, I have other people with whom I can talk it over (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html)).

96.) If you live alone, do you have daily contact with at least one friend, neighbor or family member (Patient Assessment Tool – Home Safety Checklist – <http://geridoc.net/homsesafe.html>)?

97.) Are your social activities limited because of your physical health or emotional problems (Modified from MOS Core Survey Instrument)?

98.) Do you ever feel socially isolated?

## **APPENDIX B (continued)**

### **Taylor Ecological Health Assessment Version 2**

#### **Social Role Performance**

99.) Are you able to meet the needs of your family (Modified from PROMIS-Social Role Performance Survey)?

100.) Are you able to do all of the work that is really important to you (including housework) (Modified from PROMIS-Social Role Performance Survey)?

101.) Do you have difficulty taking care of your regular and personal household responsibilities (Modified from PROMIS-Social Role Performance Survey)?

102.) I am able to do all of the community activities that are really important to me (PROMIS-Social Role Performance Survey).

#### **Social Support Assessment**

103.) Do you have someone who is available to help you with household chores?

104.) Do you have someone you can count on to listen to you when you need to talk (Modified from MOS Social Support Survey)?

105.) Do you have someone to confide in or talk about yourself or your problems (Modified from MOS Social Support Survey)?

106.) Do you have someone to take you to the doctor if you needed it (Modified from MOS Social Support Survey)?

107.) If you were having financial difficulties, do you have someone who could help you out financially?

108.) Do you have someone who could give you a ride somewhere if you needed it (i.e. to the grocery store, hospital, church)?

#### **Spiritual Health Assessment**

109.) What is your religion?

110.) Do you have any spiritual health practices that you practice (i.e. prayer)?

111.) If so, what?

**APPENDIX B (continued)****Taylor Ecological Health Assessment Version 2****Tobacco Use Assessment**

112.) Do you smoke cigarettes (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))?

113.) How many packs per day (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))?

114.) Have you ever smoked? If so, when did you quit?

**Vision Health Assessment**

115.) I have difficulty reading newspaper articles, magazines, books or other important documents (Hearing and Vision Questionnaire).

116.) When was your last optometrist (eye doctor) appointment?

117.) If you wear glasses, is your prescription up to date (Patient Assessment Tool – Home Safety Checklist – <http://geridoc.net/homesafe.html>)?

118.) Do you have vision insurance?

## **APPENDIX C**

### **Taylor Ecological Health Assessment (TEHA) Version 3**

#### **Alcohol Use Assessment**

1.) How often do you drink alcohol? (Please circle one answer)

- a. I don't drink alcohol
- b. Once a day
- c. Twice a day
- d. Three or more times a day

2.) Have you experienced physical, emotional or social problems because of your drinking? (Please circle one answer)

- a. Yes
- b. No

#### **Cultural Health Assessment**

3.) If you experience racism, how do you deal with it?

- a. I've never experienced racism
- b. Read books or watch positive movies about African-Americans
- c. Surrounding yourself by positive people
- d. Ignore it
- e. Seek help from a religious leader or counselor
- f. Use violence
- g. Other: \_\_\_\_\_
- g. I've never experienced discrimination

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3****Dental Health Assessment**

4.) Do you have dental insurance? (Please circle one answer)

a. Yes

b. No

5.) Was your last dental visit within the last year? (Please circle one answer)

a. Yes

b. No

6.) Do you have problems eating or talking because of your teeth? (Please circle one answer)

a. Yes

b. No

**Economic Health Assessment**

7.) Do you have health insurance? (Please circle one answer)

a. Yes

b. No

8.) Can you pay for prescriptions? (Please circle one answer)

a. Yes

b. No

9.) Do you have somewhere to live? (Please circle one answer)

a. Yes

b. No

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

10.) Do you ever have trouble buying the food you need? (Please circle one answer)

- a. Yes
- b. No

**Educational Health Assessment**

11.) What was the highest level of education you completed? (Please circle one answer)

- a. Less than high school
- b. High school or equivalent
- c. Vocational/technical school (2 years)
- d. Some college
- e. Bachelor's degree
- f. Master's degree
- g. Doctoral degree
- h. Professional degree (MD, JD, etc.)
- i. Other \_\_\_\_\_

12.) What is your preferred method of learning? (Please circle one answer)

- a. Visual(pictures)
- b. Listening
- c. Reading
- d. Hands-on demonstration
- e. Watching videos

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

13.) Are you usually able to understand information given to you by your doctor (Please circle one answer)?

a. Yes

b. No

**Environmental Health Assessment**

14.) Do you keep floors and/or stairways clean and free of clutter? (Please circle one answer) (Patient Assessment Tool – Home Safety checklist, <http://geridoc.net/homesafe.html>)

a. Yes

b. No

15.) Do you have enough light in all rooms of your home? (Please circle one answer) (Patient Assessment Tool – Home Safety checklist, <http://geridoc.net/homesafe.html>)

a. Yes

b. No

16.) Do you feel safe in your neighborhood (Please circle one answer)?

a. Yes

b. No

17.) If you do not feel safe in your neighborhood, why? (Choose all that apply)

a. Violence and Crime

b. Pollution

d. Drugs

e. Abandoned buildings

f. Racial discrimination



## APPENDIX C (continued)

### Taylor Ecological Health Assessment (TEHA) Version 3

g. Other: \_\_\_\_\_

18.) Are there places in your community where you can get healthy food? (Please circle one answer)

a. Yes

b. No

Are there safe places in your community for: (Please circle yes or not for each item)

19.) Fun activities with family and friends:	Yes	No
----------------------------------------------	-----	----

20.) Cultural activities:	Yes	No
---------------------------	-----	----

21.) Education:	Yes	No
-----------------	-----	----

22.) Childcare:	Yes	No
-----------------	-----	----

23.) Worship with other people who share your religion:	Yes	No
---------------------------------------------------------	-----	----

24.) Receive healthcare	Yes	No
-------------------------	-----	----

25.) In case of a fire, does your family have an evacuation plan? (Please circle one answer)

a. Yes

b. No

### Family Function Assessment

Do you feel that your family members:

26.) Work well together:	Yes	No
--------------------------	-----	----

27.) Communicate well with each other:	Yes	No
----------------------------------------	-----	----

28.) Understand each other:	Yes	No
-----------------------------	-----	----

29.) Respect each other:	Yes	No
--------------------------	-----	----



**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

b. No

35.) What aspects of your health would you like to improve?

- a. Physical health
- b. Mental
- c. Social health
- d. Sexual health
- e. Diet
- f. Physical activity

36.) What keeps you from improving your health?

- a. Financial problems
- b. Physical problems
- c. Emotional problems
- d. Busy schedule
- e. I don't know how to improve my health
- f. I don't need to improve my health

**Hearing Health Assessment**

37.) Do you feel like you have a hearing problem? (Please circle one answer)

- a. Yes
- b. No

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3****Mental Health Assessment**

38.) Are you pleased with your personal life? (Please circle one answer) (MOS Core Survey Instrument)

- a. Yes
- b. No

39.) How much of the time have you felt sad within the last few months? (Please circle one answer) (MOS Core Survey Instrument)

- a. Almost never
- b. Sometimes
- c. All of the time

40.) How much have you been bothered by nervousness, or your “nerves”, during the past month (MOS Core Survey Instrument)? (Please circle one answer)

- a. Almost never
- b. Sometimes
- c. All of the time

41.) Do you ever feel like hurting yourself? (Please circle one answer)

- a. Yes
- b. No

42.) Over the past few months, has it been harder for you to concentrate? (Please circle one answer) (Women’s Health Questionnaire)

- a. Yes
- b. No

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

43.) Over the past few months, have you felt more bad-tempered than usual? (Please circle one answer)(Women's Health Questionnaire)

a. Yes

b. No

44.) Have you experienced any of the following major life events within the last year (Circle all that apply)?

a. Moved

b. Death of a loved one

c. Marriage

d. Divorce

e. Started a new job

f. Lost a job

f. Birth of a child

g. Other: \_\_\_\_\_

45.) Are you satisfied with your ability to react to stress or pressure? (Please circle one answer)

a. Yes

b. No

## APPENDIX C (continued)

### Taylor Ecological Health Assessment (TEHA) Version 3

#### Nutritional Health Assessment

46.) Please indicate how many times a day you have the following foods or drinks?

Foods/Drinks	0	1 - 2	3 -5	>5
Snacks (example: potato chips, cookies, cake)				
Dairy (Milk/Yogurt/Cheese)				
Meat				
Vegetables				
Fruits				
Bread				
Poultry				
Fish				
Coffee/Tea				
Soda Pop				
Water				
Dry Beans				
Eggs				
Nuts				
Cereal				
Rice				
Pasta				

47.) Do you ever skip meals to avoid gaining weight? (Please circle one answer)

- a. Yes
- b. No

#### Occupational Health Assessment

48.) Are you exposed to hazards in your workplace? (Please circle one answer) (Modified from Family Health Assessment - L. Reutter)

- a. Yes
- b. No

49.) What kind of hazards are you exposed to? (Circle all that apply)

- a. Loud noise
- b. Chemicals

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

- c. Heavy lifting
- d. Radiation
- e. Slippery surfaces
- f. Heavy machinery
- g. Bullying
- h. Sexual harassment
- i. Racism
- j. Discrimination
- g. Other: \_\_\_\_\_

**Physical Function/ Physical Health Assessment**

50.) Decisions about my physical health are most influenced by: (Please circle one answer)

- a. Myself
- b. My family
- c. My friends
- d. My religion or members of my church
- e. My healthcare provider

51.) Does your physical health limit you from going places that you need to go? (Please circle one answer)

- a. Yes
- b. No

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

52.) Does your physical health limit you in taking care of your personal needs (dressing yourself, combing your hair, toileting, eating, bathing)? (Please circle one answer)

- a. Yes
- b. No

53.) Are you being physically harmed by anyone you know? (Please circle one answer)

- a. Yes
- b. No

**Physical Activity**

54.) Do you do some form of exercise for at least 30 minutes a day three days a week or more (i.e. walking, running, household chores)? (Please circle one answer)

- a. Yes
- b. No

55.) What keeps you from exercising? (Circle all that apply)

- a. Hairstyle
- b. Neighborhood safety
- c. Don't have enough time
- d. I don't like to sweat
- e. No place to work out
- f. I don't need to exercise
- g. I am worried about getting hurt
- h. I have a disease or illness that prevents me from exercising
- i. Other: \_\_\_\_\_



## APPENDIX C (continued)

### Taylor Ecological Health Assessment (TEHA) Version 3

#### Primary Prevention Assessment

56.) Do you wear your seatbelts while in the car? (Please circle all that apply.)

a. Yes

b. No

**Please write the year of your last:**

<b>57.) Pap Smear</b>	
<b>58.) Mammogram</b>	
<b>59.) Tetanus shot</b>	
<b>60.) Colonoscopy</b>	
<b>61.) Fecal Occult Blood testing</b>	
<b>62.) STD Screening</b>	
<b>63.) Physical Exam</b>	
<b>64.) Flu shot</b>	
<b>65.) Pneumonia vaccine</b>	
<b>66.) PSA</b>	
<b>67.) Digital rectal exam</b>	
<b>68.) HIV test</b>	

#### Sexual Health Assessment

69.) What is your current marital status?

a. Married

b. Widowed

c. Divorced

d. Separated

e. Single

f. Dating

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

70.) Do you have physical problems that prevent you from having sex? (Please circle one answer)

- a. Yes
- b. No

71.) Do you have emotional problems that prevent you from having sex? (Please circle one answer)

- a. Yes
- b. No

72.) Are you ever forced to have sex when you don't want to? (Please circle one answer)

- a. Yes
- b. No

73.) Do you use protection while having sex?

- a. Yes
- b. No

**Social Health Assessment**

74.) Are you able to get along with most people? (Please circle one answer)

- a. Yes
- b. No

75.) Are you able to share your feelings with important people in your life? (Please circle one answer) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

- a. Yes
- b. No

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

76.) If you live alone, do you have daily contact with at least one friend, neighbor or family member (Please circle one answer) (Patient Assessment Tool – Home Safety Checklist – <http://geridoc.net/homsesafe.html>)?

a. Yes

b. No

77.) Are your social activities limited because of your physical health? (Please circle one answer)

a. Yes

b. No

78.) Are your social activities limited because of your emotional health? (Please circle one answer) (Modified from MOS Core Survey Instrument)

a. Yes

b. No

79.) Do you ever feel socially isolated? (Please circle one answer)

a. Yes

b. No

**Social Role Performance**

80.) Are you able to meet the needs of your family? (Please circle one answer) (Modified from PROMIS-Social Role Performance Survey)?

a. Yes

b. No

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

81.) Do you have trouble taking care of your regular and personal household responsibilities? (Please circle one answer) (Modified from PROMIS-Social Role Performance Survey)

a. Yes

b. No

82.) Are you able participate in community activities that are important to you? (Please circle one answer) (PROMIS-Social Role Performance Survey)

a. Yes

b. No

**Social Support Assessment**

83.) Do you have someone who can help you with household chores? (Please circle one answer)

a. Yes

b. No

84.) Do you have someone to talk to about yourself or your problems (Modified from MOS Social Support Survey)? (Please circle one answer)

a. Yes

b. No

85.) If you were having money problems, do you have someone who could help you out? (Please circle one answer)

a. Yes

b. No

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

86.) Do you have someone who could give you a ride somewhere if you needed it?  
(Please circle one answer)

- a. Yes
- b. No

87.) Do you have someone to help you if you get sick? (Please circle one answer)

- a. Yes
- b. No

**Spiritual Health Assessment**

88.) What is your religion?

- a. Christianity
- b. Catholic
- c. Islam
- d. Hinduism
- e. Jehovah's Witness
- f. Buddhism
- g. African Traditional and Diasporic
- h. Sikhism
- i. Scientology
- j. Atheist/Agnostic

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

89.) Are you worried that your religious beliefs will interfere with your medical care?  
(HOPE questionnaire) (Please circle one answer)

- a. Yes
- b. No

**Tobacco Use Assessment**

90.) How much do you smoke? (Please circle one answer)

- a. I don't smoke
- b. Less than 1 pack per day
- c. 1 pack per day
- d. Less than 2 packs per day
- e. Greater than 2 packs per day

**Vision Health Assessment**

91.) Do you have difficulty reading newspaper articles, magazines, books or other important documents (Hearing and Vision Questionnaire)? (Please circle one answer)

- a. Yes
- b. No

92.) Was your last eye doctor appointment within the last year? (Please circle one answer)

- a. Yes
- b. No

**APPENDIX C (continued)****Taylor Ecological Health Assessment (TEHA) Version 3**

93.) If you wear glasses, is your prescription up to date? An up to date prescription means that you have had your eyes examined by an eye doctor within the last year. (Please circle one answer) (Patient Assessment Tool – Home Safety Checklist – <http://geridoc.net/homesafe.html>)

- a. Yes
- b. No
- c. I do not wear glasses

94.) Do you have vision insurance? (Please choose one answer)

- a. Yes
- b. No

## APPENDIX D

### Recruitment Script – Experts

Hello. My name is Nakia Taylor and I am a PhD student at the University of Illinois at Chicago. I am contacting you because I would like to request your assistance in a research study that I am conducting. The purpose of this research study is to develop a culturally specific multidimensional health assessment tool that will assess personal, social, environmental and cultural factors that influence the health of African-Americans. You are being contacted to serve as an expert in the development of this tool because you have been identified as someone who has expertise in one or more of the areas of this health assessment tool.

Your participation in this research study is completely voluntary. The risks of participating in this research study are no greater than those encountered in daily life. The benefit of participating in this study is that you will be contributing to the development of a culturally relevant holistic health assessment tool for low-income African-American women ages 18 to 49. You will receive a copy of this recruitment script for your own personal records at the conclusion of this meeting. The researchers contact information and the contact information for the University of Illinois-Chicago's Institutional Review Board are listed at the end of this recruitment script.

Participation in this study will require about 45 minutes to 1 hour of your time. At the end of this time/meeting you and I will arrange a face-to-face meeting if you are interested in assisting me in the development of this health assessment tool. During the face-to-face meeting, you will be presented with a list of questions gathered from currently existing health assessment tools that are related to your field of expertise. You will then be asked to critique each item for its content, relevance and appropriateness; I will record any feedback that you provide me with using pen and paper. At the conclusion of the critique, I will then allow you to share any additional feedback or suggestions that you may have. Any feedback that you provide will be anonymous and confidential. Do you have any questions? [Address any questions and proceed with script].

Does this study sound like something you are interested in participating in? [If response is yes, reply, "The next step is for us to arrange a time and place to meet. Can you provide me with a time and location to meet? (Record time and location). It was a pleasure talking to you Mr./Mrs. \_\_\_\_\_. Feel free to contact me by phone or e-mail if you have any questions or concerns. Thank you and have a great day.]

[If response is no, reply, "Thank you for your time Mr./Mrs. \_\_\_\_\_. It was a pleasure talking to you. Feel free to contact me in the future if you have any further questions regarding the study. Have a good day.]



**APPENDIX D (continued)****Recruitment Script – Experts****Research Contact Information****Researcher Name: Nakia Taylor****Affiliation:** PhD Student, University of Illinois-Chicago**Phone Number:** 773-827-4922**E-mail:** ntaylo1@uic.edu**University of Illinois-Chicago Institutional Review Board****Phone Number:** 1-866-789-6215 (toll free)**E-mail:** uicirb@uic.edu

[Provide all potential subjects with a copy of this recruitment script because this document also serves as an information sheet and an informed consent document.]

## APPENDIX E

### Phase 2 Laypeople Recruitment Flyer

**Are you an African-American women between the ages of 18 and 49?**



**If so, you may eligible to participate in a study being conducted by a PhD student in the University of Illinois- Chicago's College of Nursing.**

**Purpose:** To develop a health assessment tool for low-income African-American women ages 18 to 49 to examine the personal, social, environmental and cultural factors that influence their health.

**Participation Requirements:** This research study will take approximately 1 to 1 ½ hours of your time. During an interview, you will be asked to read each item on a health assessment that the researcher is developing, and provide feedback about the items to the researcher.

**Compensation:** You will receive your choice of a **\$20.00 Jewel gift card**, a **\$20.00 Walgreens gift card** or a **7-day CTA bus pass** for your participation.

If you are interested in participating, please contact the researcher **Nakia** by phone (**773-827-4922**) or e-mail (**ntaylo1@uic.edu**) if you would like further information about this study.

## APPENDIX F

### Phase 2 Laypeople Recruitment Script

Hello, my name is Nakia Taylor and I am a PhD student from the University of Illinois at Chicago. I am contacting you because you expressed interest in obtaining more information about a research study that I am currently conducting. The purpose of this research study is to develop a culturally relevant health assessment tool that can be used by healthcare providers to assess personal, social, environmental and cultural factors that influence the health of African-American women ages 18 to 49. I am approaching you to participate in this research study because I would like feedback from low-income African-Americans between the ages of 18 and 49 in the development of this tool to ensure that it is culturally relevant.

Your participation in this research study would be completely voluntary. The risks of participating in this research study are no greater than those encountered in daily life. The benefit of participating in this study is that you will be contributing to the development of a culturally relevant holistic health assessment tool for low-income African-American women ages 18 to 49. You will receive a copy of this recruitment script for your own personal records at the conclusion of this meeting. The researchers contact information and the contact information for the University of Illinois-Chicago's Institutional Review Board are listed at the end of this recruitment script. All information you provide will be kept confidential.

Would you be interested in participating in this research study? [If yes, proceed with recruitment script. If no, say, "Thank you and have a great day."]

Before I continue, I would like to ask you a few questions. To be eligible for participation in this study, there are certain criteria that you must meet. There are two questions that I need to ask you before I proceed.

What is your race? [Pause, wait for response. If response is "African-American", proceed to next question. If response is anything but African-American, end conversation by responding: "Mrs. \_\_\_\_\_, thank you for expressing interest in this study, however the population of interest in this research study is low-income African-American women ages 18 to 49. Thank you for your time and have a good day."]

What is your age and birth date? [Pause, wait for response. If response is age 18 or older, proceed with script. If younger than age 18 or older than 49, end conversation by responding, "Mrs. \_\_\_\_\_, thank you for expressing interest in this study. However, due to the purpose of this research study, our population of interest is low-income African-American women ages 18 and 49. Thank you for your time and have a good day."]

The last two questions I would like to ask you are what is your yearly household income, and how many people live in your house. [Pause and wait for response. After response is

## APPENDIX F (continued)

### Phase 2 Laypeople Recruitment Script

given, compare their information to the 2011 Federal Poverty Guidelines. If they do not classify as being low-income, end conversation by responding, “Mrs. \_\_\_\_\_, thank you for speaking with me today. However, due to the purpose of the research study, our population of interest is low-income African-American women ages 18 to 49. Thank you and have a good day.]

Mrs. \_\_\_\_\_, based on the preliminary screening questions it appears as if you are eligible to participate in this research study.

Participation in this study will require about 1 to 1.5 hours of your time. At the end of this telephone call/ meeting, you and I will arrange a face-to-face meeting if you are interested in participating in this study. At this face-to-face meeting, you will be presented with a draft of a health assessment tool that contains questions about personal, social, environmental and cultural factors that influence health of African-Americans. You will then be asked to review and critique each item one-by-one for its content, appropriateness and wording. I then will record your feedback about each item using pen and paper. At the conclusion of each section of items, I will ask you to share any additional feedback or suggestions that you have. All feedback that you provide will be confidential and anonymous. At the conclusion of interview, you will receive your choice of a \$20 Jewel gift card or a 7-day CTA bus pass for your participation. Do you have any questions? [Address any questions then proceed with script].

Does this study sound like something you would be interested in participating in? [If response is yes, reply, “Okay Mrs. \_\_\_\_\_. Do you have any questions? (Pause. If subject has question(s), take this time to answer them. Once you have answered all of their questions, continue on with research script).

[After questions are answered, ask the participant to repeat the following statement]

“My name is \_\_\_\_\_, and I am consenting to participate in this research study. I know that I can withdraw my participation at any time.”

The next step is for us to arrange a time and place to meet. Can you provide me with a time and location to meet? (Record time and location). It was a pleasure talking to you Mr. /Mrs. \_\_\_\_\_. Feel free to contact me by phone or e-mail if you have any questions or concerns. Thank you and have a great day.]

[If response is no, reply, “Thank you for your time Mrs. \_\_\_\_\_. It was a pleasure talking to you. Feel free to contact me in the future if you have any further questions regarding the study. Have a good day.]

**APPENDIX F (continued)****Phase 2 Laypeople Recruitment Script****Research Contact Information****Researcher Name: Nakia Taylor****Affiliation:** PhD Student, University of Illinois-Chicago**Phone Number:** 773-827-4922**E-mail:** ntaylo1@uic.edu**University of Illinois-Chicago Institutional Review Board****Phone Number:** 1-866-789-6215 (toll free)**E-mail:** uicirb@uic.edu

[Provide all potential subjects with a copy of this recruitment script because this document also serves as an information sheet and an informed consent document.]

**APPENDIX G****Demographic Questionnaire – Experts****1.) What is your racial background?**

- a. American Indian/Alaska Native
- b. Asian
- c. Black/African-American
- d. Native Hawaiian/Pacific Islander
- e. Caucasian/White
- f. Hispanic/Latino
- g. Other (please specify): \_\_\_\_\_

**2.) What is the highest level of education you completed?**

- a. Less than high school
- b. High school or equivalent
- c. Vocational/technical school (2 years)
- d. Some college
- e. Bachelor's degree
- f. Master's degree
- g. Doctoral degree
- h. Professional degree (MD, JD, etc.)
- i. Other: \_\_\_\_\_

**3.) What is your occupation?**

---

**APPENDIX G (continued)****Demographic Questionnaire – Experts**

**4.) What is your area of specialization?**

---

**5.) How long have you been practicing in your area of specialization?**

- a. < 1 year
- b. 1 – 5 years
- c. 6 – 10 years
- d. 11 – 15 years
- e. 16 – 20 years
- f. > 20 years

**APPENDIX H****Demographic Questionnaire – Laypeople****1.) What is your racial background? (Please circle one)**

- a. American Indian/Alaska Native
- b. Asian
- c. Black/African-American
- d. Native Hawaiian/Pacific Islander
- e. Caucasian/White
- f. Hispanic/Latino

**2.) What is your age? (Please write your age on the line below)**

---

**3.) What is your gender? (Circle one)**

- a. Male
- b. Women

**4.) What is the highest level of education you completed? (Please circle one)**

- a. Less than high school
- b. High school or equivalent
- c. Vocational/technical school (2 years)
- d. Some college
- e. Bachelor's degree
- f. Master's degree
- g. Doctoral degree



**APPENDIX H (continued)****Demographic Questionnaire – Laypeople**

h. Professional degree (MD, JD, etc.)

i. Other

**5.) What is your current relationship status? (Please circle one)**

a. Divorced

b. Cohabiting (living with your significant other)

c. Married

d. Separated

e. Single

f. Widowed

**6.) What is your current annual household income? (Please circle one)**

a. <\$10,000

b. \$10,000 - \$14,999

c. \$15,000 - \$19,999

d. \$20,000 - \$24,999

e. \$25,000 - \$29,999

f. \$30,000 - \$39,999

g. \$40,000 - \$49,999

h. \$50,000 - \$75,000

i. >\$75,000

**7.) How many people live in your house?**

\_\_\_\_\_

**APPENDIX H (continued)****Demographic Questionnaire – Laypeople**

**8.) What is your occupation?**

---

**APPENDIX I****Taylor Ecological Health Assessment (TEHA) Version 4****Alcohol Use Assessment**

1.) How often do you drink alcohol? (Please circle one answer)

- a. I don't drink alcohol
- b. Once a day
- c. Twice a day
- d. Three or more times a day

2.) Have you experienced physical, emotional or social problems because of your drinking? (Please circle one answer)

- a. Yes
- b. No

**Cultural Health Assessment**

3.) If you experience racism, how do you deal with it?

- a. I've never experienced racism
- b. Read books or watch positive movies about African-Americans
- c. Surrounding yourself by positive people
- d. Ignore it
- e. Seek help from a religious leader or counselor
- f. Use violence
- g. Other: \_\_\_\_\_
- g. I've never experienced discrimination

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4****Dental Health Assessment**

4.) Do you have dental insurance? (Please circle one answer)

a. Yes

b. No

5.) Was your last dental visit within the last year? (Please circle one answer)

a. Yes

b. No

6.) Do you have problems eating or talking because of your teeth? (Please circle one answer)

a. Yes

b. No

**Economic Health Assessment**

7.) Do you have health insurance? (Please circle one answer)

a. Yes

b. No

8.) Can you pay for prescriptions? (Please circle one answer)

a. Yes

b. No

9.) Do you have somewhere to live? (Please circle one answer)

a. Yes

b. No

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4****Educational Health Assessment**

10.) What was the highest level of education you completed? (Please circle one answer)

- a. Less than high school
- b. High school or equivalent
- c. Vocational/technical school (2 years)
- d. Some college
- e. Bachelor's degree
- f. Master's degree
- g. Doctoral degree
- h. Professional degree (MD, JD, etc.)
- i. Other \_\_\_\_\_

11.) What is your preferred method of learning? (Please circle one answer)

- a. Visual (pictures)
- b. Listening
- c. Reading
- d. Hands-on demonstration
- e. Watching videos

12.) Are you usually able to understand information given to you by your doctor (Please circle one answer)?

- a. Yes
- b. No

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4****Environmental Health Assessment**

13.) Do you keep floors and/or stairways clean and free of clutter? (Please circle one answer) (Patient Assessment Tool – Home Safety checklist, <http://geridoc.net/homesafe.html>)

a. Yes

b. No

14.) Do you have enough light in all rooms of your home? (Please circle one answer) (Patient Assessment Tool – Home Safety checklist, <http://geridoc.net/homesafe.html>)

a. Yes

b. No

15.) Do you feel safe in your neighborhood (Please circle one answer)?

a. Yes

b. No

16.) If you do not feel safe in your neighborhood, why? (Choose all that apply)

a. Violence and Crime

b. Pollution

d. Drugs

e. Abandoned buildings

f. Racial discrimination

g. Other: \_\_\_\_\_

## APPENDIX I (continued)

### Taylor Ecological Health Assessment (TEHA) Version 4

17.) Are there places in your community where you can get healthy food? (Please circle one answer)

a. Yes

b. No

Are there safe places in your community for: (Please circle yes or not for each item)

18.) Fun activities with family and friends:	Yes	No
----------------------------------------------	-----	----

19.) Cultural activities:	Yes	No
---------------------------	-----	----

20.) Education:	Yes	No
-----------------	-----	----

21.) Childcare:	Yes	No
-----------------	-----	----

22.) Worship with other people who share your religion:	Yes	No
---------------------------------------------------------	-----	----

23.) Receive healthcare	Yes	No
-------------------------	-----	----

24.) In case of a fire, does your family have an evacuation plan? (Please circle one answer)

a. Yes

b. No

### Family Function Assessment

Do you feel that your family members:

25.) Work well together:	Yes	No
--------------------------	-----	----

26.) Communicate well with each other:	Yes	No
----------------------------------------	-----	----

27.) Understand each other:	Yes	No
-----------------------------	-----	----

28.) Respect each other:	Yes	No
--------------------------	-----	----

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

29.) Support each other: Yes No

**Family Health Assessment**

30.) Who do you live with? (Please circle one answer)

- a. No one, I live alone
- b. Family members
- c. Spouse or significant other
- d. Friend(s)
- e. Other: \_\_\_\_\_

31.) Is your house big enough for your family? (Please circle one answer) (Family Health Assessment and Intervention Guide)?

- a. Yes
- b. No

**Health Perceptions**

32.) Are you satisfied with your health? (Please circle one answer)

- a. Yes
- b. No

33.) What aspects of your health would you like to improve?

- a. Physical health
- b. Mental
- c. Social health
- d. Sexual health



**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

e. Diet

f. Physical activity

34.) What keeps you from improving your health?

a. Financial problems

b. Physical problems

c. Emotional problems

d. Busy schedule

e. I don't know how to improve my health

f. I don't need to improve my health

**Hearing Health Assessment**

35.) Do you feel like you have a hearing problem? (Please circle one answer)

a. Yes

b. No

**Mental Health Assessment**

36.) Are you pleased with your personal life? (Please circle one answer) (MOS Core Survey Instrument)

a. Yes

b. No

37.) How much of the time have you felt sad within the last few months? (Please circle one answer) (MOS Core Survey Instrument)

a. Almost never

b. Sometimes

c. All of the time

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

38.) How much have you been bothered by nervousness, or your “nerves”, during the past month (MOS Core Survey Instrument)? (Please circle one answer)

- a. Almost never
- b. Sometimes
- c. All of the time

39.) Do you ever feel like hurting yourself? (Please circle one answer)

- a. Yes
- b. No

40.) Over the past few months, have you felt more bad-tempered than usual? (Please circle one answer)(Women’s Health Questionnaire)

- a. Yes
- b. No

41.) Have you experienced any of the following major life events within the last year (Circle all that apply)?

- a. Moved
- b. Death of a loved one
- c. Marriage
- d. Divorce
- e. Started a new job
- f. Lost a job
- f. Birth of a child
- g. Other: \_\_\_\_\_

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

42.) Are you satisfied with your ability to react to stress or pressure? (Please circle one answer)

- a. Yes
- b. No

**Occupational Health Assessment**

43.) Are you exposed to hazards in your workplace? (Please circle one answer) (Modified from Family Health Assessment - L. Reutter)

- a. Yes
- b. No

44.) What kind of hazards are you exposed to? (Circle all that apply)

- a. Loud noise
- b. Chemicals
- c. Heavy lifting
- d. Radiation
- e. Slippery surfaces
- f. Heavy machinery
- g. Bullying
- h. Sexual harassment
- i. Racism
- j. Discrimination
- g. Other: \_\_\_\_\_

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4****Physical Function/ Physical Health Assessment**

45.) Decisions about my physical health are most influenced by: (Please circle one answer)

- a. Myself
- b. My family
- c. My friends
- d. My religion or members of my church
- e. My healthcare provider

46.) Does your physical health limit you from going places that you need to go? (Please circle one answer)

- a. Yes
- b. No

47.) Does your physical health limit you in taking care of your personal needs (dressing yourself, combing your hair, toileting, eating, bathing)? (Please circle one answer)

- a. Yes
- b. No

48.) Are you being physically harmed by anyone you know? (Please circle one answer)

- a. Yes
- b. No

## APPENDIX I (continued)

### Taylor Ecological Health Assessment (TEHA) Version 4

#### Physical Activity

49.) Do you do some form of exercise for at least 30 minutes a day three days a week or more (i.e. walking, running, household chores)? (Please circle one answer)

a. Yes

b. No

50.) What keeps you from exercising? (Circle all that apply)

a. Hairstyle

b. Neighborhood safety

c. Don't have enough time

d. I don't like to sweat

e. No place to work out

f. I don't need to exercise

g. I am worried about getting hurt

h. I have a disease or illness that prevents me from exercising

i. Other: \_\_\_\_\_

#### Primary Prevention Assessment

51.) Do you wear your seatbelts while in the car? (Please circle all that apply.)

a. Yes

b. No

**Please write the year of your last:**

<b>52.) Pap Smear</b>	
<b>53.) Mammogram</b>	
<b>54.) STD Screening</b>	

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

**Please write the year of your last:**

<b>55.) Flu shot</b>	
<b>56.) Pneumonia vaccine</b>	
<b>57.) HIV test</b>	

**Sexual Health Assessment**

58.) What is your current marital status?

- a. Married
- b. Widowed
- c. Divorced
- d. Separated
- e. Single
- f. Dating

59.) Do you have physical problems that prevent you from having sex? (Please circle one answer)

- a. Yes
- b. No

60.) Do you have emotional problems that prevent you from having sex? (Please circle one answer)

- a. Yes
- b. No

61.) Are you ever forced to have sex when you don't want to? (Please circle one answer)

- a. Yes
- b. No

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

62.) Do you use protection while having sex?

a. Yes

b. No

**Social Health Assessment**

63.) Are you able to share your feelings with important people in your life? (Please circle one answer) (Healthy Habit Test, [http://geridoc.net/healthy\\_habit\\_test.html](http://geridoc.net/healthy_habit_test.html))

a. Yes

b. No

64.) If you live alone, do you have daily contact with at least one friend, neighbor or family member (Please circle one answer) (Patient Assessment Tool – Home Safety Checklist – <http://geridoc.net/homsesafe.html>)?

a. Yes

b. No

65.) Are your social activities limited because of your physical health? (Please circle one answer)

a. Yes

b. No

66.) Are your social activities limited because of your emotional health? (Please circle one answer) (Modified from MOS Core Survey Instrument)

a. Yes

b. No

67.) Do you ever feel socially isolated? (Please circle one answer)

a. Yes

b. No

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4****Social Role Performance**

68.) Are you able to meet the needs of your family? (Please circle one answer) (Modified from PROMIS-Social Role Performance Survey)?

a. Yes

b. No

69.) Do you have trouble taking care of your regular and personal household responsibilities? (Please circle one answer) (Modified from PROMIS-Social Role Performance Survey)

a. Yes

b. No

70.) Are you able participate in community activities that are important to you? (Please circle one answer) (PROMIS-Social Role Performance Survey)

a. Yes

b. No

**Social Support Assessment**

71.) Do you have someone who can help you with household chores? (Please circle one answer)

a. Yes

b. No

72.) Do you have someone to talk to about yourself or your problems (Modified from MOS Social Support Survey)? (Please circle one answer)

a. Yes

b. No



**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

73.) If you were having money problems, do you have someone who could help you out?  
(Please circle one answer)

- a. Yes
- b. No

74.) Do you have someone who could give you a ride somewhere if you needed it?  
(Please circle one answer)

- a. Yes
- b. No

75.) Do you have someone to help you if you get sick? (Please circle one answer)

- a. Yes
- b. No

**Spiritual Health Assessment**

76.) What is your religion?

- a. Christianity
- b. Catholic
- c. Islam
- d. Hinduism
- e. Jehovah's Witness
- f. Buddhism
- g. African Traditional and Diasporic

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

- h. Sikhism
- i. Scientology
- j. Atheist/Agnostic

77.) Are you worried that your religious beliefs will interfere with your medical care?  
(HOPE questionnaire) (Please circle one answer)

- a. Yes
- b. No

**Tobacco Use Assessment**

78.) How much do you smoke? (Please circle one answer)

- a. I don't smoke
- b. Less than 1 pack per day
- c. 1 pack per day
- d. Less than 2 packs per day
- e. Greater than 2 packs per day

**Vision Health Assessment**

79.) Do you have difficulty reading newspaper articles, magazines, books or other important documents (Hearing and Vision Questionnaire)? (Please circle one answer)

- a. Yes
- b. No

**APPENDIX I (continued)****Taylor Ecological Health Assessment (TEHA) Version 4**

80.) Was your last eye doctor appointment within the last year? (Please circle one answer)

- a. Yes
- b. No

81.) If you wear glasses, is your prescription up to date? An up to date prescription means that you have had your eyes examined by an eye doctor within the last year. (Please circle one answer) (Patient Assessment Tool – Home Safety Checklist – <http://geridoc.net/homesafe.html>)

- a. Yes
- b. No
- c. I do not wear glasses

82.) Do you have vision insurance? (Please choose one answer)

- a. Yes
- b. No

## APPENDIX J

### Taylor Ecological Health Assessment Version 5

#### **Drug/Alcohol use**

**1.) Have you ever used any of the following? (Circle yes or No for A-C)**

a. Tobacco (i.e. smoking cigarettes; chewing tobacco)	Yes	No
b. Alcohol (wine, beer, shots)	Yes	No
c. Drugs (i.e. cocaine, heroin, PCP, marijuana)	Yes	No

**2.) Has using drugs or alcohol ever caused you to have problems with your family and friends, your job, or the law? (Circle one answer)**

- a. Yes
- b. No

#### **Dental Health**

**3.) Do you have problems eating or talking because of your teeth? (Circle one answer)**

- a. Yes
- b. No

#### **Economic Health**

**4.) Do you have difficulty paying for doctor's visits, medical tests, treatments or medications? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

#### **Educational Health**

**5.) What is your preferred method of learning? (Circle one answer)**

- a. Visual (pictures, videos)
- b. Listening
- c. Reading
- d. Hands-on-demonstration

#### **Hearing Health**

**6.) Have you ever felt like, or has anyone ever told you that you might have a hearing problem? (Circle one answer)**

- a. Yes
- b. No

#### **Health Perceptions**

**7.) Are there any aspects of your health would you like to improve? (Circle all that apply)**

- a. Physical health (i.e. weight, diet, exercise)
- b. Social health (Relationships)

## APPENDIX J (continued)

### Taylor Ecological Health Assessment Version 5

- b. Mental health
- c. Emotional health
- d. Sexual health
- e. Other: \_\_\_\_\_
- f. No, I am satisfied with my health [If you select this answer, skip question 2]

**8.) What keeps you from improving your health? (Circle all that apply)**

- a. Money problems
- b. Physical problems
- c. Emotional problems
- d. Busy schedule
- e. I don't know how to improve my health
- f. I don't need to improve my health
- g. Other: \_\_\_\_\_

#### **Mental Health Assessment**

**9.) Over the past few months, have you: (Circle one answer for each statement A-E)**

A. Felt like hurting yourself	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	I feel like this now
B. Felt sad or depressed	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	I feel like this now
C. Felt nervous, or been bothered by your "nerves"	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	I feel like this now
D. Felt angry or lost your temper	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	I feel like this now
E. Felt like you couldn't concentrate	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	I feel like this now
F. Felt stressed	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	I feel like this now

**10.) Have you experienced any of the following major life events in the past year? (Circle all that apply.)**

- a. Moved
- b. Death of a loved one
- c. Marriage
- d. Divorce
- e. Started a new job
- f. Lost a job
- g. Birth of a child
- h. Other: \_\_\_\_\_

#### **Physical Health**

**11.) Do you wear seat belts while in the car? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

## APPENDIX J (continued)

### Taylor Ecological Health Assessment Version 5

**12.) When was your last? (Circle one answer for choices a through f.)**

A. Pap Smear	> 1 year ago	1 – 2 years ago	2 – 3 years ago	> 3 years ago	Never
B. Mammogram	> 1 year ago	1 – 2 years ago	2 – 3 years ago	> 3 years ago	Never
C. Tetanus shot	> 1 year ago	1 – 2 years ago	2 – 3 years ago	> 3 years ago	Never
D. STD tests	> 1 year ago	1 – 2 years ago	2 – 3 years ago	> 3 years ago	Never
E. Flu shot	> 1 year ago	1 – 2 years ago	2 – 3 years ago	> 3 years ago	Never
F. HIV test	> 1 year ago	1 – 2 years ago	2 – 3 years ago	> 3 years ago	Never
G. Eye exam	> 1 year ago	1 – 2 years ago	2 – 3 years ago	> 3 years ago	Never
H. Dental exam	> 1 year ago	1 – 2 years ago	2 – 3 years ago	> 3 years ago	Never

**13.) Do you ever have difficulty taking care of your personal or household responsibilities (i.e. getting dressed, eating, bathing, going where you need to go, doing chores)? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

**14.) Have you ever been hurt (mentally, physically or verbally) by anyone? (Circle one answer)**

- a. Never
- b. I don't want to talk about it
- c. Yes, in the past
- d. Yes, this is happening right now

**15.) How often do you exercise? (Circle one answer.)**

- a. I never exercise
- b. < 3 days per week
- c. ≥ 3 days per week

### **Sexual Health**

**16.) Are you sexually active (including vaginal, anal or oral sex)?**

- a. Yes
- b. No

**17.) If you are sexually active, are your sexual partners?**

- a. Male
- b. Women
- c. Both

**APPENDIX J (continued)****Taylor Ecological Health Assessment Version 5**

**18.) Do you have any problems that make it hard for you to have, or enjoy sex? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

**19.) Have you ever been forced to have sex when you don't want to? (Circle one answer)**

- a. Yes
- b. No
- c. I don't want to talk about it

**20.) Do you use protection while having oral, vaginal or anal sex (i.e. condoms, dental dam)? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

**21.) Are you currently trying to get pregnant? (Circle one answer)**

- a. Yes
- b. No

**Spiritual Health**

**22.) Do you think your religious beliefs affect what medical advice you follow, what medications you take, or how you take care of your health? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

**Cultural Health**

**23.) Have you ever felt like you were discriminated against because of: (Circle all that apply.)**

- a. Your race (being African-American)
- b. Your gender (being a women)
- c. Your economic status (how much money you have, where you live)
- d. Your appearance (i.e. weight)

## APPENDIX J (continued)

### Taylor Ecological Health Assessment Version 5

**24.) I would prefer to receive health information that is (Circle all that apply):**

- a. Specifically for women
- b. Specifically for African-Americans
- c. Specifically about diseases that are more common in African-Americans
- d. Specifically for people that are my age
- e. Specifically about diseases that people in my family have

**25.) The health information that I trust most comes from (Circle all that apply):**

- a. Family members or friends
- b. A doctor or nurse
- c. The internet or television
- d. My pastor or members of my church
- e. Reading books, magazines or newspapers
- f. Other: \_\_\_\_\_

### **Environmental Health**

**26.) Do you have somewhere to live? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

**27.) Is your house/apartment big enough for the people that live in it? (Circle one answer)**

- a. Yes
- b. No

**28.) Where you live, do you (Circle yes or no for each statement a – d):**

A. Keep your floors clean and clear of objects (i.e. trash, toys):	Yes	No
B. Have working smoke detectors	Yes	No
C. Have a working carbon monoxide detector	Yes	No
D. Have an escape plan in case of an emergency (i.e. fire, flood)	Yes	No

**29.) How often do you feel safe in your neighborhood? (Circle one answer)**

- a. I **never** feel safe in my neighborhood
- b. I **sometimes** feel safe in my neighborhood
- c. I **always** feel safe in my neighborhood.



## APPENDIX J (continued)

### Taylor Ecological Health Assessment Version 5

**30.) If you do not feel safe in your neighborhood, why? (Circle all that apply)**

- a. Animals (i.e. stray dogs, rats, roaches)
- b. Violence & crime
- c. Trash
- d. Gangs
- f. Sexual predators
- g. Other: \_\_\_\_\_

**31.) In your neighborhood, are there places you can go for (Circle yes or no for each statement a –f):**

a. Fun activities with family and friends?	Yes	No
b. Cultural activities (festivals, parades)	Yes	No
c. Education	Yes	No
d. Childcare	Yes	No
e. Religious activities (i.e. church)	Yes	No
f. Healthcare	Yes	No

### **Occupational Health**

**32.) Are you exposed to any of the following things at your job? (Circle all that apply)**

- a. Loud noise
- b. Chemicals
- c. Heavy lifting
- d. Radiation
- e. Slippery surfaces
- f. Heavy machinery
- g. Bullying
- h. Sexual harassment
- i. Racism
- j. Other: \_\_\_\_\_

### **Social Health**

**33.) Are you able to get along with most people? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

## APPENDIX J (continued)

### Taylor Ecological Health Assessment Version 5

**34.) Do you feel that you and your family members communicate well with each other? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

**35.) I am responsible for making health decisions and/or doctor's appointments for: (Circle all that apply)**

- a. Myself
- b. My children
- c. My parents
- d. Another family member (i.e. aunt, uncle, grandparents, sister, brother)
- e. Other (i.e. friend): \_\_\_\_\_

**37.) Do you have someone who: (Circle one answer for each statement a – d)**

a. You can share your feelings and problems with?	Always	Sometimes	Never
b. Can give you a ride if you need it ?	Always	Sometimes	Never
c. Can lend you money if you need it?	Always	Sometimes	Never
d. Can help you around the house if you are sick?	Always	Sometimes	Never



## APPENDIX L

### Phase 2 Interview Guide - Experts

Hello. My name is Nakia Taylor and I am a PhD student at UIC. First, I would like to thank you for meeting with me today. This interview/meeting should last approximately 45 minutes to 1 hour. The purpose of this meeting/interview is to gain your feedback about a culturally relevant health assessment tool for African-American adults that is in the process of being developed. During this meeting, I will provide you with a copy of this health assessment tool. You will then be asked critique items on the \_\_\_\_\_ health factors, \_\_\_\_\_ health factors and \_\_\_\_\_ health factors subscales of the Taylor Ecological Health Assessment. [Subscales will vary depending on the experts knowledge base, thus each experts will critique a combination of 2 to 3 of the 4 subscales (personal health factors, social health factors, environmental health factors and cultural health factors)]. I would like you to critically review each item one-by-one. After you have read the item, I would like you to provide me with your thoughts or opinions about the items. You may also provide suggestions about how you think each item can be improved.

I will be recording your responses using pen and paper on a novel health assessment evaluation tool that I constructed for the purposes of this study. [Pass experts a copy of the evaluation tool so they can review it]. All of your responses will be kept confidential. Your participation is voluntary, and you may withdraw from the study at any time. Do you have any questions? [Answer any questions before proceeding].

Do you give your consent to participate in this research study? [If yes, proceed with the recruitment script. If no, say, "Thank you for meeting with me today. If you have any questions or concerns feel free to contact me."]

Alright, let's begin. *[Hand participant questionnaire. Give them 5 to 10 minutes to review questionnaire.]*

**Let's start with item #1. [Ask the following questions for every item]**

- **Do you think this question is relevant? (Relevance)**
- **What do you think about the wording of this question? (Wording)**
- **Do you think this question is easy to understand? (Comprehensibility)**
- **What do you think about the format of the responses? (Response format)**
- **Do you think there are responses that should be added? (Response format)**
- **Do you have any other comment about this item?**

**APPENDIX L (continued)****Phase 2 Interview Guide - Experts**

[Once all items have been reviewed. Proceed with script]

Mr./Mrs. \_\_\_\_\_. We have completed reviewing the health assessment tool. Do you have any other feedback you'd like to share? [Record response. Probe as necessary for clarity of response. Possible probes:

- Do you have any general comments about this tool?
- Is there any information missing on this tool that you feel is important?]

This concludes this meeting/interview. Thank you for your time Mr./Mrs. \_\_\_\_\_. Feel free to contact me if you have any further questions or concerns. Have a great day.

## APPENDIX M

### Phase 2 Interview Guide - Laypeople

Hello. My name is Nakia Taylor and I am a PhD student at UIC. First, I would like to thank you for meeting with me today. This interview/meeting should last approximately 45 minutes to 1 hour. The purpose of this meeting/interview is to gain your feedback about a culturally relevant health assessment tool for low-income African-American women ages 18 to 49 that is in the process of being developed. During this meeting, I will provide you with a copy of this health assessment tool. You will then be asked critique every item on the Taylor Ecological Health Assessment. I would like you to critically review each item one-by-one. After you have read the item, I would like you to provide me with your thoughts or opinions about the items. You may also provide suggestions about how you think each item can be improved.

I will be recording your responses using pen and paper on a novel health assessment evaluation tool that I constructed for the purposes of this study. [Pass the laypeople a copy of the evaluation tool so that they can review it]. All of your responses will be kept confidential. Your participation is voluntary, and you may withdraw from the study at any time. Do you have any questions? [Answer any questions before proceeding]. At the end of this study you will be compensated with your choice of a \$20 Walgreens gift card, a \$20 Jewel gift card, or a 7-day CTA bus pass.

Do you give your consent to participate in this research study? [If yes, proceed with the recruitment script. If no, say, "Thank you for meeting with me today. If you have any questions or concerns feel free to contact me."]

Alright, let's begin. *[Hand participant questionnaire. Give them 5 to 10 minutes to review questionnaire.]*

**Let's start with item #1. [Ask the following questions for every item]**

- **Do you think this question is relevant? (Relevance)**
- **What do you think about the wording of this question? (Wording)**
- **Do you think this question is easy to understand? (Comprehensibility)**
- **What do you think about the format of the responses? (Response format)**
- **Do you think there are responses that should be added? (Response format)**
- **Do you have any other comment about this item?**

[Once all items have been reviewed. Proceed with script]

**APPENDIX M (continued)****Phase 2 Interview Guide – Laypeople**

Mrs./Ms. \_\_\_\_\_. We have completed reviewing the health assessment tool. Do you have any other feedback you'd like to share? [Record response. Probe as necessary for clarity of response. Possible probes:

- Do you have any general comments about this tool?
- Is there any information missing on this tool that you feel is important?]

This concludes this meeting/interview. [Hand participant their choice of compensation after they tell you which type of compensation they prefer]. Thank you for your time Mrs./Ms. \_\_\_\_\_. Feel free to contact me if you have any further questions or concerns. Have a great day.

## APPENDIX N

### Taylor Ecological Health Assessment – Version 6

- 1.) Do you have problems eating or talking because of your teeth? (Circle one answer.)
- a. Yes
  - b. No

- 2.) Has anyone ever told you that you might have a hearing problem?
- a. Yes
  - b. No

- 3.) Do you ever have difficulty taking care of your personal needs (i.e. getting dressed, eating, bathing, going where you need to go, doing chores)? (Circle one answer.)
- a. Always
  - b. Sometimes
  - c. Never

- 4.) How many days a week do you exercise 30 minutes or more? (Circle one answer.)
- a. I never exercise
  - b. Less than 3 days per week
  - c. 3 or more days per week

- 5.) Do you wear seat belts while in this car? (Circle one answer)
- a. Always
  - b. Sometimes
  - c. Never

- 6.) When was your last? (Circle one answer for choices a through f.)

a. Pap smear	Within the last 2 years	More than 2 years ago	Never
b. Mammogram	Within the last 2 years	More than 2 years ago	Never
c. HIV test	Within the last 2 years	More than 2 years ago	Never
d. Eye exam	Within the last 2 years	More than 2 years ago	Never
e. Dental exam	Within the last 2 years	More than 2 years ago	Never

- 7.) Do you have any problems that make it hard for you to have, or enjoy sex? (Circle one answer.)

- a. Always
- b. Sometimes
- c. Never

- 8.) Have you ever been forced to have sex? (Circle one answer.)
- a. Yes
  - b. No
  - c. I don't want to talk about it



## APPENDIX N (continued)

### Taylor Ecological Health Assessment – Version 6

9.) When you have sex, what protection do you always use?

- a. I don't use any protection
- b. I don't want to talk about it
- c. Abstinence (I don't have sex)
- d. Barrier methods (i.e. male condoms, women condoms, spermicide, diaphragm)
- e. Oral contraceptives (birth control pill)
- f. Injection (i.e. Depo shot)
- g. Implant (Implanon, IUD)
- h. Vaginal ring (NuvaRing)
- i. Withdrawal method

10.) Has using drugs or alcohol ever caused you to have problems with your family and friends, your job, or the law? (Circle one answer.)

- a. Yes
- b. No

11.) Over the past month, have you: (Circle one answer for each statement a – e.)

a. Felt like hurting yourself	Yes	No
b. Felt sad or depressed	Yes	No
c. Felt nervous, or been bothered by your nerves	Yes	No
d. Felt angry or lost your temper	Yes	No
e. Felt like you couldn't concentrate	Yes	No
f. Felt stressed.	Yes	No

12.) Within the last year, has anyone hit, kicked, slapped or otherwise physically hurt by anyone? (Circle one answer.)

- a. Yes
- b. No

13.) Do you have someone who: (Circle one answer for statements a through d.)

a. You can share your feelings and problems with?	Yes	No
b. Can give you a ride if you need it?	Yes	No
c. Can lend you money if you need it?	Yes	No
d. Can help you around the house if you are sick?	Yes	No

14.) Do you have somewhere to live now? (Circle one answer.)

- a. Yes
- b. No

## APPENDIX N (continued)

### Taylor Ecological Health Assessment – Version 6

15.) Where you live: (Circle yes or no for each statement a through d.)

a. Are floors clean and clear of objects (i.e. trash, toys)	Yes	No
b. Are there working smoke detectors?	Yes	No
c. Is there a working carbon monoxide detector?	Yes	No
d. Is there an escape plan in case of an emergency (i.e. fire, flood)	Yes	No

16.) Do you feel safe in your neighborhood? (Circle one answer.)

- a. I never feel safe in my neighborhood
- b. I sometimes feel safe in my neighborhood
- c. I always feel safe in my neighborhood

17.) In your neighborhood, are there safe places you and your family can go for: (Circle yes or no for each statement a through f.)

a. Fun activities (festivals, parades, parks)?	Yes	No
b. Religious activities (church)?	Yes	No
c. Buying fruits and vegetables?	Yes	No
d. Exercise?	Yes	No
e. School and childcare?	Yes	No

18.) The health information I trust most comes from: (Circle all that apply.)

- a. Family members or friends
- b. A doctor or nurse
- c. The internet or television
- d. My pastor and/or members of my church
- e. Reading books, magazines or newspapers

19.) If your doctor wants to teach you something, how do you learn best? (Circle one answer.)

- a. I learn best by looking at pictures or watching videos.
- b. I learn best by listening to someone explain things about my health to me.
- c. I learn best by reading about my health.
- d. I learn best by seeing a hands-on demonstration

20.) Do you have difficulty paying for doctor's visits, medical tests, treatments or medications? (Circle one answer.)

- a. Always
- b. Sometimes
- c. Never

**APPENDIX N (continued)****Taylor Ecological Health Assessment – Version 6**

- 21.) Is there anything about your health you would like to improve?
- a. Yes
  - b. No

## APPENDIX O

### Pilot Study and Phase 3 Recruitment Script

Hello, my name is Nakia Taylor and I am a PhD student from the University of Illinois at Chicago. I am contacting you about a research study that I am currently conducting. The purpose of this research study is to develop a culturally relevant health assessment tool that can be used by healthcare providers to assess personal, social, environmental and cultural factors that influence the health the health of low-income African-American women ages 18 to 49. I am currently in the third phase of my research study in which I would like to test the psychometric properties of the Taylor Ecological Health Assessment Tool for African-Americans. Basically, I would like to see if the health assessment tool I developed measures the variables it is supposed to.

Participation in this study is completely voluntary. Any information that you provide to me will not be communicated to your healthcare provider, and your responses will have no effect on the healthcare services. I Participation will require about 45 minutes to 1 hour of your time. If you agree to participate, you will be given a research packet to complete. This research packet will contain a demographic questionnaire, a copy of health assessment questionnaire for you to fill out, and a social desirability scale. You will also notice a card in your packet asking for your contact info. For this research study, I would like participants who are interested to fill out the same research packet in 2 to 3 weeks. If you would like to fill out the packet again in 2 -3 weeks, please fill out the card in your packet. I will not share your contact information with anyone, and it will solely be used to send you a second research packet.

Before I continue, I would like to ask you a few questions. To be eligible for participation in this study, there are certain criteria that you must meet. There are two questions that I need to ask you before I proceed.

What is your race? [Pause, wait for response. If response is “African-American”, proceed to next question. If response is anything but African-American, end conversation by responding: “Mrs./Ms. \_\_\_\_\_, thank you for expressing interest in this study, however the population of interest in this research study is African-low-income American women ages 18 to 49. Thank you for your time and have a good day.]

What is your age and birth date? [Pause, wait for response. If response is age 18 or older, proceed with script. If younger than age 18 or older than 49, end conversation by responding, “Mrs. \_\_\_\_\_, thank you for expressing interest in this study. However, due to the purpose of this research study, our population of interest is African-American low-income women ages 18 and older. Thank you for your time and have a good day.]

The last two questions I would like to ask you are what is your yearly household income, and how many people live in your house. [Pause and wait for response. After response is given, compare their information to the 2011 Federal Poverty Guidelines. If they do not

**APPENDIX O (continued)****Pilot Study and Phase 3 Recruitment Script**

classify as being low-income, end conversation by responding, “Mrs. \_\_\_\_\_, thank you for speaking with me today. However, due to the purpose of the research study, our population of interest is low-income African-American women ages 18 to 49. Thank you and have a good day.]

Mrs. \_\_\_\_\_, based on the preliminary screening questions it appears as if you are eligible to participate in this research study.

Upon completion of your research packet, you will receive a \$10.00 gift card from your choice of the following options: Walgreens, Subway, AMC theaters or 2 1-day CTA bus passes. If you complete the packet in two weeks, you will receive another \$10.00 gift card of your choice from the abovementioned options.

Does this study sound like something you would be interested in participating in? [If response is yes, reply, “Okay Mrs. \_\_\_\_\_. Do you have any questions about anything? [Pause and take this time to answer any questions. Once all questions have been answered, proceed with the script]. “Here is your research packet. Please answer all questions as truthfully as possible. When you have completed all of the forms in your packet, please bring them back to me”.

[Once participants return the packet, review it for completeness or any missing items. Once the packet is complete, proceed with the recruitment script].

“Thank you so much for your participation Mrs. \_\_\_\_\_. As stated earlier, for participating in this study, you will receive a \$10.00 gift card to Walgreens, Subway, AMC theaters or 2 1-day CTA passes. Which one of these would you prefer?” [Pause. Give participation they are requesting]. I appreciate your participation, and if you have any further questions, please feel free to contact me.

## APPENDIX P

### IRB Approval Letter – Phase 2

#### UNIVERSITY OF ILLINOIS AT CHICAGO

Office for the Protection of Research Subjects (OPRS)  
Office of the Vice Chancellor for Research (MC 672)  
203 Administrative Office Building  
1737 West Polk Street  
Chicago, Illinois 60612-7227

### Exemption Granted

December 15, 2011

Nakia Lynise Taylor, MS  
Department of Health Systems Science  
845 South Damen Avenue  
Chicago, IL 60612  
Phone: (312) 996-9168 / Fax: (312) 996-9049

**RE: Research Protocol # 2011-1074**

**“Development of the Taylor Ecological Health Assessment, a Culturally Relevant Health Assessment Tool for Low-Income African-American Women”**

Sponsor:	NIH - National Institute of Nursing Research
PAF#:	2006-06397
Grant/Contract No:	T32NR007964
Grant/Contract Title:	Reducing Disparities in Underserved Population's (PI: Barbara
	Dancy, PhD)

Dear Ms. Taylor:

Your Claim of Exemption was reviewed on December 15, 2011 and it was determined that your research protocol meets the criteria for exemption as defined in the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects [(45 CFR 46.101(b))]. You may now begin your research.

Please note the following regarding your exempt research:

<b><u>Exemption Period:</u></b>	<b>December 15, 2011 – December 14, 2014</b>
<b>Performance Site(s):</b>	UIC
<b>Recruitment Site(s):</b>	Mile Square Health Center
<b>Subject population:</b>	Adult (18+ years) subjects only

## APPENDIX P (continued)

### IRB Approval Letter – Phase 2

**Number of Subjects:** 24

**The specific exemption category under 45 CFR 46.101(b) is:**

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

**Research Personnel approved to conduct the research under this exemption:**

- 1) Nakia Lynise Taylor, MS (Principal Investigator)
- 2) Barbara Dancy, PhD (Faculty Sponsor)

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:

1. Amendments You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.
2. Record Keeping You are responsible for maintaining a copy all research related records in a secure location in the event future verification is necessary, at a minimum these documents include: the research protocol, the claim of exemption application, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to subjects, or any other pertinent documents.
3. Final Report When you have completed work on your research protocol, you should submit a final report to the Office for Protection of Research Subjects (OPRS).
4. Information for Human Subjects UIC Policy requires investigators to provide information about the research protocol to subjects and to obtain their permission prior to their participating in the research. The information about

## APPENDIX P (continued)

### IRB Approval Letter – Phase 2

the research protocol should be presented to subjects in writing or orally from a written script. When appropriate, the following information must be provided to all research subjects participating in exempt studies:

- a. The researchers affiliation; UIC, JBVMAC or other institutions,
- b. The purpose of the research,
- c. The extent of the subject's involvement and an explanation of the procedures to be followed,
- d. Whether the information being collected will be used for any purposes other than the proposed research,
- e. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
- f. Description of any reasonable foreseeable risks,
- g. Description of anticipated benefit,
- h. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
- i. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
- j. A statement that the UIC IRB/OPRS or JBVMAC Patient Advocate Office is available if there are questions about subject's rights, which includes the appropriate phone numbers.

Please be sure to:

→ Use your research protocol number (listed above) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 355-2908 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Charles W. Hoehne, B.S., C.I.P.  
Assistant Director, IRB # 2  
Office for the Protection of Research  
Subjects



**APPENDIX P (continued)****IRB Approval Letter – Phase 2**

cc: Arlene Miller, Health Systems Science, M/C 802  
Barbara L. Dancy, Health Systems Science, M/C 802  
OVCR Administration, M/C 672

**APPENDIX Q****IRB Approval Letter – Feasibility Study****UNIVERSITY OF ILLINOIS  
AT CHICAGO**

Office for the Protection of Research Subjects (OPRS)  
Office of the Vice Chancellor for Research (MC 672)  
203 Administrative Office Building  
1737 West Polk Street  
Chicago, Illinois 60612-7227

**Exemption Determination  
Amendment to Research Protocol – Exempt Review  
UIC Amendment # 1**

March 8, 2012

Nakia Lynise Taylor, MS  
Department of Health Systems Science  
845 South Damen Avenue  
Chicago, IL 60612  
Phone: (312) 996-9168 / Fax: (312) 996-9049

**RE: Protocol # 2011-1074  
“Development of the Taylor Ecological Health Assessment, a Culturally  
Relevant Health Assessment Tool for Low-Income African-American Women”**

Dear Ms. Taylor:

The OPRS staff/members of Institutional Review Board (IRB) #2 have reviewed this amendment to your research, and have determined that your research protocol continues to meet the criteria for exemption as defined in the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects [(45 CFR 46.101(b))].

The specific exemption category under 45 CFR 46.101(b) is:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You may now implement the amendment in your research.

## APPENDIX Q (continued)

### IRB Approval Letter – Feasibility Study

Please note the following information about your approved amendment:

**Exemption Period:** **March 5, 2012 – March 4, 2015**

**Amendment Approval Date:** March 5, 2012

**Amendment:**

Summary: UIC Amendment #1 initially submitted to OPRS on February 22, 2010 is the submission of the revised questionnaire based upon expert panel feedback.

**You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:**

4. Amendments You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.
5. Record Keeping You are responsible for maintaining a copy all research related records in a secure location in the event future verification is necessary, at a minimum these documents include: the research protocol, the claim of exemption application, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to subjects, or any other pertinent documents.
6. Final Report When you have completed work on your research protocol, you should submit a final report to the Office for Protection of Research Subjects (OPRS).
7. Information for Human Subjects UIC Policy requires investigators to provide information about the research protocol to subjects and to obtain their permission prior to their participating in the research. The information about the research protocol should be presented to subjects in writing or orally from a written script. When appropriate, the following information must be provided to all research subjects participating in exempt studies:

## APPENDIX Q (continued)

### IRB Approval Letter – Feasibility Study

- f. The researchers affiliation; UIC, JB VAMC or other institutions,
- g. The purpose of the research,
- h. The extent of the subject's involvement and an explanation of the procedures to be followed,
- i. Whether the information being collected will be used for any purposes other than the proposed research,
- j. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
- f. Description of any reasonable foreseeable risks,
- k. Description of anticipated benefit,
- l. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
- m. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
- n. A statement that the UIC IRB/OPRS or JB VAMC Patient Advocate Office is available if there are questions about subject's rights, which includes the appropriate phone numbers.

Please be sure to:

→ Use your research protocol number ( 2011-1074 ) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 355-2908 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Charles W. Hoehne, B.S., C.I.P.  
Assistant Director, IRB # 2  
Office for the Protection of Research  
Subjects

cc: Arlene Miller, Health Systems Science, M/C 802  
Barbara L. Dancy, Health Systems Science, M/C 802

## APPENDIX R

### Miles Square Health Center Letter of Support

11/23/11

Office for the Protection of Research Subjects  
203 Administrative Office Building - M/C 672  
1737 West Polk Street  
Chicago, IL 60612

**Re: Letter of Support**

**Research Proposal submitted by Nakia Taylor:**  
Development of a culturally relevant health assessment tool  
for low-income African-American females

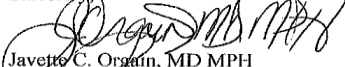
**To Whom It May Concern:**

Mile Square Health Center is pleased to support Nakia Taylor's research proposal entitled, "Development of a culturally relevant health assessment tool for low-income African-American females." African-American women are affected by a myriad of health disparities that result from the interaction between multiple personal, social, environmental and cultural factors. Literature on health disparities suggests that multiple factors must be addressed by healthcare providers to stimulate positive health behavior changes. Nakia Taylor's research is designed to develop a more comprehensive health assessment tool that will allow healthcare providers to (a) identify personal, social, environmental and cultural determinants of health, and (b) create interventions that are targeted toward addressing multiple levels of factors that influence the health of low-income African-American females.

This proposal was approved by Mile Square Health Center's board and management team. If approved, Mile Square Health Center will serve as a performance site for conducting the research study.

Should you have any questions, please feel free to contact me.

Sincerely,

  
Javette C. Orgain, MD MPH  
Medical Director, MSHC  
312-413-1789  
[orgain@uic.edu](mailto:orgain@uic.edu)

cc: Mr. Henry Taylor, CEO



**University of  
Illinois  
Medical Center**

Changing medicine. For good.

Mile Square Health Center (MC 698)  
2045 West Washington Boulevard  
Chicago, Illinois 60612  
T 312-413-1789 F 312-413-7812  
Appointments 312-996-2000

**Satellite Locations**

Mile Square Health Center at  
South Shore  
7131 South Jeffery Boulevard  
Chicago, Illinois 60649  
T 312-996-2000 F 312-363-5794

Mile Square Health Center at  
Back of the Yards  
4636 South Bishop Street  
Chicago, Illinois 60609-3240  
T 312-996-2000 F 773-523-8599

Mile Square Health Center at Cicero  
4747-51 West Cermak Road  
Cicero, Illinois 60804  
T 312-996-2000 F 708-652-4745

**School-Based Health Centers**

National Teacher's Academy  
55 West Cermak Road  
Chicago, Illinois 60616  
T 312-326-4472

Young Women's Leadership  
Charter School Clinic  
2641 South Calumet Avenue  
Chicago, Illinois 60616  
T 312-949-0277

UIC College Preparatory  
Mathematics Program  
1231 South Damen Avenue  
Chicago, IL 60608  
T 312-243-3741

Hope Institute Learning Academy  
1628 West Washington Boulevard  
Chicago, Illinois 60612  
T 312-226-3288

**College of Nursing Practice Sites**

Mile Square IHC North Center Clinic  
4219 North Lincoln Avenue  
Chicago, Illinois 60618  
T 773-537-3950

Mile Square IHC New City Clinic  
734 West 47th Street  
Chicago, Illinois 60609  
T 773-537-3960

Mile Square IHC Near West Clinic  
2310 West Roosevelt Road  
Chicago, Illinois 60612  
T 312-413-7425

## APPENDIX S

### Taylor Ecological Health Assessment Version 7

**1.) Do you have problems eating or talking because of your teeth? (Circle one answer.)**

- a. Yes
- b. No

**2.) Has anyone ever told you that you might have a hearing problem?**

- a. Yes
- b. No

**3.) Do you ever have difficulty taking care of your personal needs (i.e. getting dressed, eating, bathing, going where you need to go, doing chores)? (Circle one answer.)**

- a. Always
- b. Sometimes
- c. Never

**4.) How many days a week do you exercise 30 minutes or more? (Circle one answer.)**

- a. I never exercise
- b. Less than 3 days per week
- c. 3 or more days per week

**5.) Do you wear seat belts while in this car? (Circle one answer)**

- a. Always
- b. Sometimes
- c. Never

**6.) When was your last? (Circle one answer for choices a through e.)**

<b>a. Pap smear</b>	Within the last 2 years	More than 2 years ago	Never
<b>b. Mammogram</b>	Within the last 2 years	More than 2 years ago	Never
<b>c. HIV test</b>	Within the last 2 years	More than 2 years ago	Never
<b>d. Eye exam</b>	Within the last 2 years	More than 2 years ago	Never
<b>e. Dental exam</b>	Within the last 2 years	More than 2 years ago	Never

**7.) Do you have any problems that make it hard for you to have, or enjoy sex? (Circle one answer.)**

- a. Always
- b. Sometimes
- c. Never

**8.) Have you ever been forced to have sex? (Circle one answer.)**

- a. Yes
- b. No
- c. I don't want to talk about it

**9.) When you have sex, do you always use condoms (male or women)?**

- a. Yes
- b. No

## APPENDIX S (continued)

## Taylor Ecological Health Assessment Version 7

**10.) Has using drugs or alcohol ever caused you to have problems with your family and friends, your job, or the law? (Circle one answer.)**

- a. Yes
- b. No

**11.) Over the past month, have you: (Circle one answer for each statement a – f.)**

a. Felt like hurting yourself	Yes	No
b. Felt sad or depressed	Yes	No
c. Felt nervous, or been bothered by your nerves	Yes	No
d. Felt angry or lost your temper	Yes	No
e. Felt like you couldn't concentrate	Yes	No
f. Felt stressed.	Yes	No

**12.) Within the last year, has anyone hit, kicked, slapped or otherwise physically hurt you? (Circle one answer.)**

- a. Yes
- b. No

**13.) Do you have someone who: (Circle one answer for statements a through d.)**

a. You can share your feelings and problems with?	Yes	No
b. Can give you a ride if you need it?	Yes	No
c. Can lend you money if you need it?	Yes	No
d. Can help you around the house if you are sick?	Yes	No

**14.) Do you have somewhere to live now? (Circle one answer.)**

- a. Yes
- b. No

**15.) Where you live: (Circle yes or no for each statement a through d.)**

a. Are floors clean and clear of objects (i.e. trash, toys)	Yes	No
b. Are there working smoke detectors?	Yes	No
c. Is there a working carbon monoxide detector?	Yes	No
d. Is there an escape plan in case of an emergency (i.e. fire, flood)	Yes	No

**16.) In your neighborhood, are there safe places you and your family can go for: (Circle yes or no for each statement a through f.)**

a. Fun activities (festivals, parades, parks)?	Yes	No
b. Religious activities (church)?	Yes	No
c. Buying fruits and vegetables?	Yes	No
d. Exercise?	Yes	No
e. School and childcare?	Yes	No

**APPENDIX S (continued)****Taylor Ecological Health Assessment Version 7**

**17.) The health information I trust most comes from: (Circle all that apply.)**

- a. Family members or friends
- b. A doctor or nurse
- c. The internet or television
- d. My pastor and/or members of my church
- e. Reading books, magazines or newspapers

**18.) If your doctor wants to teach you something, how do you learn best? (Circle one answer.)**

- a. I learn best by looking at pictures or watching videos.
- b. I learn best by listening to someone explain things about my health to me.
- c. I learn best by reading about my health.
- d. I learn best by seeing a hands-on demonstration

**19.) Do you have difficulty paying for doctor's visits, medical tests, treatments or medications? (Circle one answer.)**

- a. Always
- b. Sometimes
- c. Never

**20.) Is there anything about your health you would like to improve?**

- a. Yes
- b. No



## APPENDIX T

### Marlowe-Crowne Social Desirability Scale: Form C

Please read each statement and circle true or false.

#	Question		
1	It is sometimes hard for me to go on with my work if I am not encouraged.	T	F
2	I sometimes feel resentful when I don't get my way.	T	F
3	On a few occasions, I have given up doing something because I thought too little of my ability.	T	F
4	There have been times when I felt like rebelling against people in authority even though I knew they were right.	T	F
5	No matter whom I am talking to, I'm always a good listener.	T	F
6	There have been occasions when I took advantage of someone.	T	F
7	I'm always willing to admit when I make a mistake.	T	F
8	I sometimes try to get even rather than forgive and forget.	T	F
9	I am always courteous, even to people who are disagreeable	T	F
10	I have never been irked when people expressed ideas very different from my own.	T	F
11	There have been times when I was quite jealous of the good fortune of others.	T	F
12	I am sometimes irritated by people who ask favors of me.	T	F
13	I have never deliberately said something that hurt someone's feelings.	T	F

## APPENDIX U

### IRB Approval Letter – Phase 3

#### UNIVERSITY OF ILLINOIS AT CHICAGO

Office for the Protection of Research Subjects (OPRS)  
Office of the Vice Chancellor for Research (MC 672)  
203 Administrative Office Building  
1737 West Polk Street  
Chicago, Illinois 60612-7227

#### **Exemption Determination Amendment to Research Protocol – Exempt Review UIC Amendment # 2**

April 6, 2012

Nakia Lynise Taylor, MS  
Department of Health Systems Science  
845 South Damen Avenue  
Chicago, IL 60612  
Phone: (312) 996-9168 / Fax: (312) 996-9049

**RE: Protocol # 2011-1074**  
**“Development of the Taylor Ecological Health Assessment, a Culturally  
Relevant Health Assessment Tool for Low-Income African-American Women”**

Dear Ms. Taylor:

The OPRS staff/members of Institutional Review Board (IRB) #2 have reviewed this amendment to your research, and have determined that your research protocol continues to meet the criteria for exemption as defined in the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects [(45 CFR 46.101(b))].

**The specific exemption category under 45 CFR 46.101(b) is:**

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You may now implement the amendment in your research.

## APPENDIX U (continued)

### IRB Approval Letter – Phase 3

Please note the following information about your approved amendment:

**Exemption Period:** April 5, 2012 – April 4, 2015

**Amendment Approval Date:** April 5, 2012

**Amendment:**

Summary: UIC Amendment #2 dated March 26, 2012 and submitted to OPRS on March 30, 2012 is an investigator-initiated amendment:

- 1) Revised questionnaire based on pilot study;
- 2) Request to initiate data collection for Phase 3; and
- 3) Revised compensation (subjects can now choose from a variety of gift cards, all with the same dollar value).

**You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:**

8. Amendments You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.
9. Record Keeping You are responsible for maintaining a copy all research related records in a secure location in the event future verification is necessary, at a minimum these documents include: the research protocol, the claim of exemption application, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to subjects, or any other pertinent documents.
10. Final Report When you have completed work on your research protocol, you should submit a final report to the Office for Protection of Research Subjects (OPRS).
11. Information for Human Subjects UIC Policy requires investigators to provide information about the research protocol to subjects and to obtain their permission prior to their participating in the research. The information about the research protocol should be presented to subjects in writing or orally from a written script. When appropriate, the following information must be provided to all research subjects participating in exempt studies:

## APPENDIX U (continued)

### IRB Approval Letter – Phase 3

- k. The researchers affiliation; UIC, JB VAMC or other institutions,
- l. The purpose of the research,
- m. The extent of the subject's involvement and an explanation of the procedures to be followed,
- n. Whether the information being collected will be used for any purposes other than the proposed research,
- o. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
- f. Description of any reasonable foreseeable risks,
- o. Description of anticipated benefit,
- p. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
- q. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
- r. A statement that the UIC IRB/OPRS or JB VAMC Patient Advocate Office is available if there are questions about subject's rights, which includes the appropriate phone numbers.

Please be sure to:

→ Use your research protocol number (2011-1074) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 355-2908 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Charles W. Hoehne, B.S., C.I.P.  
Assistant Director, IRB # 2  
Office for the Protection of Research  
Subjects

cc:     Arlene Miller, Health Systems Science, M/C 802  
        Barbara L. Dancy, Health Systems Science, M/C 802

## APPENDIX V

### Taylor Ecological Health Assessment Version 9

**1.) Do you have problems eating or talking because of your teeth? (Circle one answer.)**

- a. Yes
- b. No

**2.) Has anyone ever told you that you might have a hearing problem?**

- a. Yes
- b. No

**3.) Do you ever have difficulty taking care of your personal needs (i.e. getting dressed, eating, bathing, going where you need to go, doing chores)? (Circle one answer.)**

- a. Always
- b. Sometimes
- c. Never

**4.) When was your last? (Circle one answer for each statement a through d.)**

<b>a. Pap smear</b>	Within the last 2 years	More than 2 years ago	Never
<b>b. HIV test</b>	Within the last 2 years	More than 2 years ago	Never
<b>c. Eye exam</b>	Within the last 2 years	More than 2 years ago	Never
<b>d. Dental exam</b>	Within the last 2 years	More than 2 years ago	Never

**5.) Do you have any problems that make it hard for you to have, or enjoy sex? (Circle one answer.)**

- a. Always
- b. Sometimes
- c. Never

**6.) Has using drugs or alcohol ever caused you to have problems with your family and friends, your job, or the law? (Circle one answer.)**

- a. Yes
- b. No

**7.) Over the past month, have you: (Circle one answer for each statement a through c.)**

a. Felt sad or depressed	Yes	No
b. Felt like you couldn't concentrate	Yes	No
c. Felt stressed.	Yes	No

## APPENDIX V (continued)

### Taylor Ecological Health Assessment Version 9

**8.) Within the last year, has anyone hit, kicked, slapped or otherwise physically hurt you? (Circle one answer.)**

- a. Yes
- b. No

**9.) Do you have someone who: (Circle one answer for each statement a through d.)**

a. You can share your feelings and problems with?	Yes	No
b. Can give you a ride if you need it?	Yes	No
c. Can lend you money if you need it?	Yes	No
d. Can help you around the house if you are sick?	Yes	No

**10.) Where you live: (Circle yes or no for each statement a through c.)**

a. Are there working smoke detectors?	Yes	No
b. Is there a working carbon monoxide detector?	Yes	No
c. Is there an escape plan in case of an emergency (i.e. fire, flood)	Yes	No

**11.) In your neighborhood, are there safe places you and your family can go for: (Circle yes or no for each statement a through e.)**

a. Fun activities (festivals, parades, parks)?	Yes	No
b. Religious activities (church)?	Yes	No
c. Buying fruits and vegetables?	Yes	No
d. Exercise?	Yes	No
e. School and childcare?	Yes	No

**12.) The health information I trust most comes from: (Circle all that apply.)**

- a. Family members or friends
- b. A doctor or nurse
- c. The internet or television
- d. My pastor and/or members of my church
- e. Reading books, magazines or newspapers

**13.) If your doctor wants to teach you something, how do you learn best? (Circle one answer.)**

- a. I learn best by looking at pictures or watching videos.
- b. I learn best by listening to someone explain things about my health to me.
- c. I learn best by reading about my health.
- d. I learn best by seeing a hands-on demonstration

**14.) Is there anything about your health you would like to improve?**

- a. Yes
- b. No

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