I, Rachel Renee Lawson, hereby submit this work as part of the requirements for the degree of:
Master of Arts
in:
the McMicken College of Arts and Sciences
It is entitled:
A Qualitative Investigation of the Influence of Ethnicity on the Understanding of the Self-Rated Health Question

This work and its defense approved by:

Chair: C.Jeffrey Jacobson, Phd
       Martha Rees, Phd
A Qualitative Investigation of the Influence of Ethnicity on the Understanding of the Self-Rated Health Question

A thesis submitted to the
Department of Anthropology at the University of Cincinnati

In partial fulfillment of
Requirement for the degree

of Master of Arts

in the McMicken College of Arts and Sciences

September 24, 2007

by

Rachel Lawson

B.A., English, University of Dayton, 2004

Committee Chair: C. Jeffrey Jacobson, PhD
Committee Member: Martha Rees, PhD
Abstract

Prior research regarding the validity of the self-rated health question has presented data suggesting ethnicity is a barrier when comparing respondent understanding of the self-rated health question. If it can be shown that ethnic minority respondents have an unrecognized understanding of the self-rated health question that would hint at the subjective question being an unreliable measure of health for all ethnic populations. The Jacobson (2004) study was designed to explore this possibility, performing cognitive interviews with a sample (n=74) of diverse ethnic respondents. Respondents were asked the self-rated health question and cognitive questions probing their understanding of the SF-36 questionnaire. The investigation performed in this study was based off analysis of data collected in the 2004 study. This study analyzed responses to the self-rated health question and coded responses to three cognitive questions. Findings suggested ethnic minorities and non-minorities understand the self-rated health question in different manners.
Acknowledgments

I would like to express my sincere gratitude to the committee members, the faculty, and staff within the Anthropology Department for their guidance and patience. Nuha, your spiritual guidance and knowledge proves invaluable. To the head of the Anthropology Department at the University of Cincinnati, Dr. Martha Rees, I thank you for providing both an open ear and strong shoulder of confidence when at times I personally felt overwhelmed. Most importantly to my advisor, Dr. Jacobson, who was always there with words of wisdom that I did not always want but most definitely needed to hear and understand, I truly value the significance of those words.

On a more personal note I would like to thank my parents who gave me life as well as provided me with the encouragement to not tolerate anything in my life but what I wanted, which ultimately is to study anthropology. Secondly, Dr. Clare Talwalker who was the first professor to even introduce me to the field of anthropology, you are irreplaceable. I undoubtedly appreciate the many moments of relaxation and laughter that I shared with Ms. Perkins, Destini “Ms. Lucy”, and William “Rev. Perkins”. As well, I am grateful to Dr. P.G. Moorthy, M.D. for providing me with the encouragement to recognize the difference between a disease and disability, and forcing me to realize that if I do not accomplish something I really desire, it would be because I allowed myself to be disabled.

Last but certainly not least, to my paternal grandmother, Beulah Lawson, who was the finest frenzy in the world, nothing could ever replace your welcomed distractions or just one more Sunday night talk about the weather. “In a fine frenzy rolling, doth glance from heaven to earth, from earth to heaven; and, as imagination bodies forth, the forms of things unknown, the poet's pen Turns them to shapes, and gives to airy nothing. A local habitation and a name.” ~Shakespeare (Midsummer Nights Dream)
Table of Contents

Acknowledgements ........................................................................................................ v

List of Tables ............................................................................................................. vii

Chapter

1. Introduction ........................................................................................................1

2. Background .......................................................................................................1

3. Methods .........................................................................................................8
   Procedures and Measures ..............................................................................9
   Site ...............................................................................................................10
   Data Analysis .............................................................................................13

4. Results and Findings .......................................................................................14
   Response Categories ....................................................................................14
   Qualitative Analysis .....................................................................................15
   - African American Responses ................................................................16
   - Urban Appalachian Responses ...............................................................18
   - Non-Appalachian/white Responses ........................................................19
   Item Comparison of Responses ................................................................21
   - Item #1 .....................................................................................................21
   - Item #2 .....................................................................................................22
   - Item #3 .....................................................................................................23
   Discussion ...................................................................................................24
   - Non-Appalachian/white Respondents .......................................................24
   - Urban Appalachian Respondents ............................................................26
   - African American Respondents ...............................................................28

5. Summary .........................................................................................................29

6. Bibliography .....................................................................................................33
List of Tables

Table 1: African American responses to the Cognitive Interview Questions
Table 2: Urban Appalachian responses to the Cognitive Interview Questions
Table 3: Non-Appalachian/white responses to the Cognitive Interview Questions
Table 4: The # of Responses that were labeled with the 5 Health Attributes-1st Item
Table 5: The # of Responses that were labeled with the 5 Health Attributes-2nd Item
Table 6: The # of Responses that were labeled with the 5 Health Attributes-3rd Item
Table 7: Response to the Self-Rated Health Question
1. Introduction

This study examined if and how ethnicity influences respondents’ understanding of the self-rated health question, “In general, would you say your health is excellent, very good, good, fair, or poor.” The analysis of the manner in which respondents think of the self-rated health question is based on verbatim cognitive responses from a sample (n= 48) of self-identified African American, Urban Appalachian, and Non Appalachian/white adults interviewed in the Jacobson (2004) study. That study consisted of cognitive one-on-one interviews examining the respondents understanding of the SF-36 questionnaire (Jacobson, 2004). Previous research has analyzed evidence suggesting that respondents’ nationality and preferred language choice reflects on the understanding of the self-rated health question. Similar studies examining respondents’ understanding of the self-rated health question have also provided evidence suggesting that respondents’ ethnicity shapes the understanding of the meaning of “health” in the self-rated health question. Unfortunately, the data did not allow the researchers the capability of thoroughly analyzing whether ethnicity is a variable that relates to the respondents’ perception of self-rated health. The uniquely diverse data from the Jacobson (2004) study provided the ability to carry out the primary objectives of evaluating whether respondents from different ethnic backgrounds share a universal understanding of the self-rated health question (and if not whether ethnic influenced understandings are comparable).

2. Background

The potential in being a subjective measure of well-being but also a valid health indicator and predictor of future health, the self-rated health question has been discussed in a variety of studies. A renowned Professor of Economics and Philosophy at Harvard University, Amartya Sen has acknowledged the importance of self-rated health during a discussion regarding the relevance
of perception within the medical field. In the context of acknowledging the existence of different perceptions (e.g. patient, physician, etc.) of health Sen (1990) points out “the importance of each of these […] positions, without attempting to subsume one in another” (122). The following introduction and discussion of the research that has been performed in order to examine the validity and reliability of the self-rated health question as a tool used to measure health provides evidence that this subjective tool is independently significant and valid.

The design of the self-rated health question emphasizes the detection of respondents’ perception of their own health. This is completed by asking respondents to rate their health in general using the ordinal responses, for example “excellent”, “very good”, “good”, “fair”, and “poor”. Initially, the self-rated health question was used as a part of medical surveys in order to examine the patients’ perception of their medical treatment (e.g. outcomes). Examination of the self-rated health question response assisted in the recognition of health disparities that were based on the respondents' ethnicity and economic status. Eventually the self-rated health question was applied to other forms of questionnaires. The Medical Outcomes Study (MOS) is recognized as one of the initial self-rated health questionnaires that applied the self-rated health question. Consisting of 149 items, these questions focused on 40 selected subscales i.e. segments of health (Ware, 2000). While there are subsequent and shorter versions of self-rated health questionnaires they also continue to explore the general self-rated health question.

Research on the self-rated health question has been based on various methods that presented evidence of the validity and reliability of the self-rated health question (Ware, 2000). Subsequent examination of that research has maintained that “self-rated health has strong predictive validity for mortality, morbidity, and mental health, independent of other physiological, behavior, and psychosocial risk factors” (Shi et al. 2002, 536). Since more “objective” measures of
health such as respondents’ endorsement of pre-existing medical conditions (e.g. diabetes, asthma, etc.) were already recognized as valid ways of defining health certain studies evaluated the validity of the subjective measurement of health in comparison to the objective measurement. Idler et al. (1997) reviewed 27 different studies (executed nationally and internationally) in determining self-rated health was a predictor of mortality and its validity as a measure of health. One of the most noticeable aspects of the review findings was evidence of the subjective self-rated health question potentially being a stronger indicator of health than objective measures (Idler et al., 1997; Pijls, Feskens, and Kromhout, 1993). Besides presenting evidence that suggests the self-rated health question is reliable, the review presented evidence of “cross-cultural differences” found in the different studies (Idler et al., 1997). In particular, the varied understanding of both “health” and the ordinal responses (Angel and Guarnaccia, 1989; Appels et al., 1996).

The Borawski et al. (1996) study focused entirely on older adults living in retirement communities in Florida in order to examine the validity of the self-rated health question. The studies’ researchers analyzed open-ended responses regarding the subjective perception of what their own health consists of. All of the open-ended responses were qualitatively examined and then labeled based on 5 categories/attributes of health (physical health, attitudinal/behavioral, externally focused, health transcendence, and non-reflective). Most of these attributes were accepted globally in the medical community as terms used to code the respondents understanding of health (Borawski et al., 1996). However, the non-reflective attribute (which is exemplified by a response such as “I don’t know”) was not identified as a global attribute. Examination of the data from the Borawski et al. study presented evidence of “older adults who were unable or chose not to provide a discernible reason for their health appraisal were four and a half times as likely to die” than the other adults (Borawski et al. 1996, S168). This study found that responses coded as non-
reflective appeared to reflect the respondents’ basic refusal to examine their health. Hence responses that fit into the non-reflective category appeared to come from respondents would not seek medical attention, follow doctor orders, or eat properly. On the other hand, the respondents’ refusal to examine the condition of their health could also be due to their recognition that there is nothing else that can be done to delay their death (Borawski et al., 1996; Haug, Wykle, and Namazi, 1989). Regardless, evidence regarding responses coded by the non-reflective attribute was the only evidence from the Borawski et al. (1996) study that implied examining the code used to label responses to self-rated health question would allow for the ability to measure the risk of mortality. The study was also able to provide evidence that coded responses are valid indicators of the respondents’ mortality. Ironically, this was only based on a code that has not even been recognized nor understood globally.

As previously mentioned, there has been a substantial amount of research regarding the validity and reliability of the self-rated health question. Research has also included examining responses from different cultures, which has proven relevant based the findings that respondents from different nationalities also have different ideas of how to treat their health. A 1998 study investigated responses to the self-rated health question from male and female elderly respondents from two different countries (Jylha et al.). That study described respondents from Tampere, Finland as single and receiving assisted home care. On the other hand, the respondents from Florence, Italy stayed with and were taken care of by their extended family. Analysis of the data findings (from both nationalities) suggested that gender did not influence the understanding of the self-rated health question from either set of elderly respondents. The findings also suggested that understanding of the self-rated health question may be influenced by the culture background of the respondent (Jylha et al., 1998). The different countries demonstrated a common treatment of their
elderly, which included the responsibility of housing and treatment of health. The data from Jylha et al. (1998) study would assist in recognizing the importance of further examination of the understanding of the self-rated health question, particularly whether the respondents’ nationality is influential. Respondents that do not share a universal understanding of the treatment of health would presumably not have the same understanding of their own health.

Other research discussed and presented evidence suggesting a potential problem in comparing responses from respondents that do not share the same understanding of the self-rated health question. Sadana (2000) researched and discussed the negative impact of assuming that all respondents even have a universal interpretation of both the self-rated health question and the response scale used to measure the self-rated health question (e.g. excellent, very good, good, fair, poor). Sadana explains that the:

Inconsistent reporting may result from different expectations and norms for health as well as biased judgmental processes. These may differ by age, sex, and other sub-population characteristics and contribute to the gap between self-reported health status and true health status in complex ways. (Sadana 2000, 5)

The self-rated health question, having already been recognized as a valid measure of health and an indicator of mortality, obviously needed to be further examined. The validity and reliability of the self-rated health question as a measurement tool was based on assuming various socio-demographic factors do not have recognizable significance (i.e. control likelihood of providing a response that is coded as non-reflective). Research would eventually focus on investigating the influence language and ethnicity might have on the respondents understanding of the self-rated health question.

The majority of validated self-rated health questionnaires were created in the U.S. and then translated for use nationally and internationally. A commonly used questionnaire, the SF-36 is a classic example of a self-rated health measurement tool that has been used in a variety of studies. A
validated Quality of Life measure, the SF-36 is the Standard Version which measures 8 subscales of health: Physical Functioning, Role-Physical, Bodily Pain, General Health, Vitality, Social Functioning, Role-Emotional, and Mental Health (Ware et al., 1992). Although the validity of the SF-36 as a measurement tool of self-rated health was suggested through the findings of a variety of different research projects and studies, specific “studies of subgroups indicate slight declines in reliability for more disadvantaged respondents” (Ware 2000, 3132). These “disadvantaged respondents” include those with a lower socioeconomic status, minorities, and non-English speaking Americans. Recent research that analyzed the validity of the self-rated health question included respondents that were non-English speaking, ethnic-minorities, and poor, however the objective of the research was not to investigate whether ethnicity influences the validity of the self-rated health question (Hendricson et al., 1989). In turn there has not been enough research on respondents from different minority ethnic groups in the United States, commensurably their responses to the self-rated health question (Iburg et al., 2000).

As the research previously discussed consists of respondents from different countries the examination of respondents in the United States provided further evidence that even individuals with the same nationality may very well have different interpretations of the self-rated health question. In particular, respondents with a limited grasp of English face barriers when answering a translated self-rated health question. One of the goals of the *Predictors of self-rated health status among Texas Residents* study was to analyze whether the respondents choice of survey language (English or Spanish) was related to the self-rated health question response (Phillips et al., 2005). The study results showed that respondents who chose to be interviewed in Spanish were less likely to report “excellent” in response to a self-rated health question, than those respondents that chose to be interviewed in English (Phillips et al., 2005). Respondents selecting the English translation
had access to the original language and terms used with the non-translated self-rated health questionnaire (Kravitz et al., 2000; Phillips et al., 2005). A translated version may include words or concepts that are not equivalent to the initial English translation. Although the respondents interviewed in Spanish provided a lower number of “excellent” responses this may have been due to those respondents answering a variation of the intended question. Another study, by Hendricson et al. (1989), suggested that using both the English and Spanish translation is helpful because it provided Spanish respondents with the ability to confirm whether the Spanish translation is representative of the English version of self-rated health question. The analysis of responses to the Spanish translation presents evidence of respondents from different ethnicities and language influencing the understanding of the self-rated health question.

In addition to examining whether socio-demographic variables (i.e. gender, social class, age, etc.) influence understanding of the self-rated health question it also proves significant to assess the methods used to research and analyze the subjective measure of health. Articles have discussed the ideal methods and make-up of samples that could be used to examine whether ethnicity is an influential variable. Health-Related Quality-of-Life Assessments in Diverse Population Groups in the United States by Stewart and Napoles-Springer (2000) discusses various approaches that can be taken to assess and compare respondents and their understanding of the subjective health measure. The article not only points out the importance of using both theoretical and psychometric measures but also suggests the use of qualitative methods such as cognitive testing (Stewart and Napoles-Springer, 2000). This approach would result in a potential study having access to data that includes both the respondent response to the self-rated health questionnaire and cognitive interview response. Cognitive interviewing is a qualitative method that would allow for investigating the respondents’ understanding and would “inform the inquirers
of the potential framework that patients use to assess” their understanding of health (Wyrwich et al. 2006, 1003). The discussion in the Wyrwich et al. (2006) article also points out there is no recognized quantitative method that would fully allow for in-depth examining and explaining of the respondents’ understanding of the self-rated health question.

In 2004, Jacobson performed a study that was independent of the research previously discussed in this chapter. The Jacobson (2004) study, *Ethnic Variation in Response to the SF-36 Health Status Assessment Instrument*, gathered data that consisted of respondents from different ethnic populations within the United States. The study consisted of a cognitive face-to-face interview with a small number of respondents (n=74). The participants were all adults who self-identified themselves as African American, Urban Appalachian, Non-Appalachian/white, or Hispanic. Participants were approached, loosely based on their association with local community centers (i.e. West End Community Center and the Urban Appalachian Center) within the urban Cincinnati, Oh area. All participants were provided with financial compensation for their participation. The cognitive interview primarily consisted of first asking questions from the SF-36 questionnaire, followed by additional questions designed to identify what the respondents’ were thinking of when they answered items from the questionnaire. This also included inquiring what the respondent thought of the ordinal responses. The cognitive interviews were each approximately 40-60 minutes long and were all recorded. The recorded interviews were then transcribed verbatim. All of the respondents’ individual identifiers, such as their names, were removed from the transcripts and then the written transcripts were placed in a binder and organized based on their ethnic identifiers.

3. Methods
Dedicated to introducing and explaining the various methods used within this study, this chapter describes the steps taken to provide a data set that allowed for the later discussion of whether respondents from different ethnicities have a share understanding of the self-rated health question. As well, whether the different ethnic populations examined through the study possess an equivalent understanding of “excellent” and “poor” health.

Procedures and Measures

This study had two primary objectives: 1) examining if racial ethnicity influenced the understanding of the self-rated health question and 2) investigating whether responses to the self-rated health question tool are comparable. The data involved in this investigation came from the unpublished transcripts from the Jacobson (2004) study Variation in Response to the SF-36 Health Status Assessment Instrument. Responses from African American (n=16), Urban Appalachian (n=16), and Non-Appalachian /white (n=16) respondents were thoroughly examined by completing the three steps:

- Focusing on the respondents’ interpretation of the self-rated health question.
- Identifying 3 questions from the cognitive interview which highlight the respondents understanding of the two specified elements of the self-rated health question.
- Labeling responses provided to the cognitive interview questions by using 5 health categories introduced and defined in the Borawski et al. (1996) study.

As the cognitive interviews from the Jacobson (2004) were an exploration of the respondents’ understanding of a variety of elements of health (e.g. mental health) through the cognitive interview, this study only examined two elements of health that were explored. These two elements are the respondents’ understanding of their own health and the response options used to measure the self-rated health question. These two elements are basic yet very important aspects of the self-rated health question.
Of the four questions being examined, three of the questions were cognitive questions that inquired about the respondents understanding of their health and the “excellent” and “poor” response options. (The evidence examined through this study is based on the assumption that the responses to the cognitive questions directly relates to the respondents understanding of the self-rated health question.) The first of the cognitive interview questions, “What are you thinking or feeling when you think of your own health?” invites the respondent to identify what they feel and think of when reflecting on their health. The second of the cognitive interview question “What do you view as “excellent” health?” invites the respondent to express or give an example of what they view as “excellent” health. The third of the cognitive interview questions “What do you view as poor health?” invites the respondent to express or give an example of what they view as of “poor” health. It is also understood that the response to the second and third cognitive question examined through this study reflects the respondents understanding of two of the self-rated health question response measures.

The final step in examining the responses to the cognitive questions consisted of coding the responses by using the same five health categories/attributes that were identified, defined, and examined through the Borawski et al. (1996) study.

The respondents coded responses to the three cognitive interview questions were analyzed and then examined in relation to the self-rated health question responses (see Discussion Section). This included investigating the collective coded responses from each individual ethnic population. These comparisons allowed for analyzing whether the respondents understanding of the self-rated health question were reflected through the cognitive responses.

Site

As a direct result of the physical locale, Cincinnati, Ohio has always consisted of a
uniquely diverse population. Situated along the Ohio River, around the early 1800’s Cincinnati became recognized as a river port that was crucial for the transportation of goods, in and out of the city. For example, the metropolis became a strong financial holder within the meat packing industry and acquired nick-name “Porkopolis”, which still stands today. Vying for a part of the growing economy, European immigrants soon arrived, in particular German immigrants. Not only did the population grow, but the city itself became even more prosperous.

In 1860 Cincinnati was recognized as the third ranking industrial center in the nation, the leading manufacturing city of the West, and a principal center for trade between the western, southern and eastern regions of the country. (Over-the-Rhine 2007)

The architecture of the city, religious practices, and music were just a few of the many aspects of Cincinnati influenced by the incoming immigrants. Sites such as the still existent Findlay Market (a locally recognized place to exchange and buy goods) were built within the German-influenced Over-the-Rhine neighborhood. Around the same period of time, Cincinnati became the home to ethnic minority groups seeking freedom, literally. Not considered a slave state, many cities within Ohio played a major part in creating a new life for African Americans. Most notably, a station/stop on the Underground Railroad was located in Cincinnati. Unfortunately, despite the many African Americans hoping to stay in Cincinnati in hopes of finding economic possibilities, racism was active even in the northern state. Borrowing Kentucky’s ordinance that restricted rights (e.g. home ownership) of free African Americans, The Black Laws of 1807 became active in Ohio (Ohio Historical Society, 2007). In the past the economic competition and legalized barriers kept the various ethnic groups segregated within Cincinnati, Ohio. There have been changes that altered the life of the different ethnic groups in Cincinnati. In the mid 1800’s the Black Laws were removed and allowed African Americans the same rights as other residents in Cincinnati, thus making the city an attractive location for African Americans again.
More recently the Hispanic population became a recognizable presence in Cincinnati, Ohio. The 2000 Census Bureau reports that almost 2% of the total population in Cincinnati consisted of “persons of Hispanic or Latino origin” (United States Census 2000). Besides African Americans, the Hispanic population is one of the largest ethnic minority groups in Cincinnati, Ohio. Other ethnic groups have also migrated to Cincinnati, from other states in the United States. For example, the Urban Appalachians are “migrants and the descendants of migrants who have moved to urban areas from the 200,000-square-mile mountainous region that extends along the Appalachian mountains from southern New York to northern Mississippi” (Oklahoma 2007). This population, attempting to create a new life in the Mid-West, began making Cincinnati their new home around 1960 (City of Cincinnati, 2007). Urban Appalachians arriving in the area were initially mistaken as Non-Appalachian/white Americans with low economic status and education, rather than recognized as a separate ethnic group with a distinct lifestyle and belief system. More recently, Urban Appalachians have gained acknowledgement, in particular through the creation of the Cincinnati's Urban Appalachian Council in 1974. The Cincinnati Urban Appalachian Council assists in helping Appalachians receive education, employment, housing, and medical treatment.

Increases in the number of different ethnic groups have also further distinguished the unique ethnic make-up of the city. Statistics show that “Sixteen of Cincinnati’s 48 Statistical Neighborhood Areas have a white concentration of 75% or more” (City of Cincinnati 2004). These areas (e.g. Hyde Park) have larger rates of home ownership and lower rates of crime. There has also been a noticeable decline in the number of White residents in the Cincinnati area as outer suburban development increases. The African American population is largely centered in approximately 12 of the 48 Cincinnati neighborhoods. Areas such as Evanston and Avondale were predominantly African American communities in the early 1900’s. Today these same areas have an
African American concentration of around 75% (City of Cincinnati, 2004). On the other hand, the Hispanic population is not concentrated in any particular neighborhood. Studies show that “Westwood currently houses the largest Hispanic/Latino population of 334 individuals who compromise less than 1% of the neighborhoods total population. Lower Price Hill contains the largest concentration of Hispanics at nearly 11%” (City of Cincinnati 2004). Even though there are a lot of Hispanic residents in specific neighborhoods, these same neighborhoods still have a larger number of residents from other ethnic groups. As the neighborhoods where there is a high concentration of Hispanics reside also have a low amount of home ownership, almost 75% of the Hispanic population in Cincinnati are renters (City of Cincinnati, 2004). Last, the Urban Appalachian population was initially centered in only the Over-The-Rhine neighborhood, however economic and educational progress has resulted in stability:

The vast majority of Appalachians in the metropolitan area are not poor, not on welfare, and are not high school dropouts. Most own their home and have relatively stable families. They are a predominantly blue-collar group. About 10 percent hold managerial and professional jobs. (City of Cincinnati 2004)

Some Urban Appalachians have started moving out to other neighborhoods, but not a noticeable number. Although Cincinnati remains a unique and ethnically diverse community, the various populations reside in different neighborhoods and have little positive social interaction within the neighborhoods. Most recently, in 2001 there was a city-wide riot which resulted from tension between African American and White residents.

**Data Analysis**

There were several specific steps taken in order to separate the responses to the three self-rated health cognitive interview questions and the self-rated health question from all of the other interview question responses. All the transcript responses to all 4 questions examined in this study were first entered into a computer spreadsheet program (MS Excel). The responses to each
individual question (i.e. excellent, very good, good, fair, and poor) were then sectioned off and entered onto separate Microsoft Excel “sheet”. Responses to each of the three cognitive interview questions were handled in a similar manner. The final step consisted of coding responses to the three cognitive interview questions, using the five health attributes: physical health, attitudinal/behavioral, externally focused, health transcendence, and non-reflective. (The basis for coding the cognitive interview responses by health attribute(s) will be explained in the following chapter.) Once all responses were coded by health attribute(s) that best described the respondents’ interpretation of the two elements of the self-rated health question being examined, the task was then to whether there were commonalities expressed by respondents from each of the individual ethnic groups.

4. Results and Findings

As was mentioned above, after the data set had been organized and analyzed, this chapter will: 1) explain the basis of assigning the health categories used to code responses to the cognitive interview question and 2) summarize the responses to each cognitive interview question.

Response Categories

Borawski identified 5 main health attributes: physical health, attitudinal/behavioral, externally focused, health transcendence, and non-reflective. These health attributes were used to code responses to open-ended questions probing the respondents’ understanding of their own health. Physical health is “the first global attribution category [that] conforms to traditional definitions of health, encompassing the subcategories of medical conditions, physical symptoms, and functional capacities” (Borawski et al. 1996, S162). “I have arthritis and my joints hurt” is an example of a response that would be coded physical health since there is mention of a condition and symptoms of a condition. However, a response does not have to have all of the possible
characteristics used to define each individual health attribute. The *attitudinal/behavior* response can be coded based on response discussing attitude or behavior, or both. An example of a response that is coded by the *attitudinal/behavior* attribute would be “I used to go to the gym and work out a lot” since there is mention of activity or behavior. A response labeled as *externally focused* primarily contains an “outside” reference or explanation for an illness or non-existing illness. For example, “It’s all in the genes” is labeled as an *externally focused* attribute because it mentions genes as an explanation. The *health transcendence* attribute is used to code a response that demonstrates a sense of well-being transcending their health. As well, these responses also indicate a condition or issue that may appear contradictory to the well-being transcendence. For example, “I’m doing well, except for my heart and swollen feet” is labeled as *health transcendence* because the response thinks they are doing “well” regardless of the major medical condition(s). The last of the health attributes, the *non-reflective* attribute is used to describe responses that are not internationally recognized within the medical community as a reasonable answer, even after additional questioning from an interviewer. Sometimes there is no answer since the respondent does not understand the question. For instance, “just because” is coded as a *non-reflective* response because there is not a reference of anything that is internationally recognized. Although most responses were described by only one health attribute, the Borawski et al. (1996) article pointed out that some responses were able to be described by multiple health attributes. These same 5 health attributes were used to label the responses to the three cognitive questions.

*Qualitative Analysis*

The qualitative analysis of the unpublished transcripts from the Jacobson (2004) study was organized so that the responses from each ethnic group could be separately presented and examined. This section presents a detailed examination of the responses to the 3 cognitive
interview questions, by first analyzing the African American responses, followed by the Urban Appalachian responses, and finally, the Non-Appalachian/white responses.

**African American Responses**

As was previously mentioned, all responses were labeled with Borawski’s health attributes. (Certain responses were labeled with multiple attributes). In general, the African American responses to all of the cognitive interview questions varied in length, the shortest being just a few words and the longest slightly more than 200 words (from respondent # 7). (However, the transcript responses presented in the tables have been shortened).

Beginning with the very first cognitive question “What are you thinking or feeling when you think of your own health?” all of the respondents provided a response to the question. Only respondent #13 expressed that they did not understand the question (see Table 1). Since respondent #13 did not provide any other detail, this response was labeled as non-reflective. Both the non-reflective and health transcendence attributes were used to label one individual response to this question. The physical health and externally focused attributes labeled 5 responses. Lastly, the attitudinal/behavioral attribute was used to label 7 responses which made it the most common attribute that was used to code responses from the African American sample. An example of a response coded by the attitudinal/behavioral attribute, “I smoke”, is from respondent #6 as the individual is discussing their behavior or actions (see Table 1).

There was not a response to the second cognitive interview question, “What do you view as excellent health?” that directly stated that the respondent did not understand how to answer the question. The non-reflective attribute labeled 2 responses and the and externally focused attributes labeled only 1 response (see Table 1). Most of the responses were coded by the
attitudinal/behavioral category, with a total of 10 responses. The physical health attribute labeled 8 responses. The health transcendence attribute did not label any responses.

<table>
<thead>
<tr>
<th>#</th>
<th>What are you thinking or feeling when you think of your own health?</th>
<th>What do you view as excellent health?</th>
<th>What do you view as poor health?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I'm in pretty good shape</td>
<td>A eating right, um, exercising, mental health peace of mind</td>
<td>A poor health, a disease or illness</td>
</tr>
<tr>
<td>2</td>
<td>like far as diabetes, high blood pressure, and stuff like that. I don't have any of that.</td>
<td>P like I just described</td>
<td>N poor health is like, people that is sick real bad.</td>
</tr>
<tr>
<td>3</td>
<td>I'm blessed to be healthy</td>
<td>A I think a person with excellent health has less visits to the doctor,</td>
<td>E A I think poor health is uh, something, some disease or something, some type of body chemistry</td>
</tr>
<tr>
<td>4</td>
<td>I wish I didn't smoke cigarettes and I wish I never had problems with addictions</td>
<td>A Um, I guess I would say being in pretty good shape, mentally,</td>
<td>A I think of poor health is someone that can't do for themselves.</td>
</tr>
<tr>
<td>5</td>
<td>Um I believe I could be in much better health cause I have like a low iron</td>
<td>P I would say someone who is really like full of energy,</td>
<td>A Lack of energy, maybe some kind of grumpiness. Lack of energy they, attitude</td>
</tr>
<tr>
<td>6</td>
<td>I smoke</td>
<td>A pretty much eating the foods I need to eat and drink what I need to drink.</td>
<td>A Sick, um mentally ill. Emotionally sick. Um... stress</td>
</tr>
<tr>
<td>7</td>
<td>Um, I've been through a lot so, um physically, emotionally, mentally... good.</td>
<td>A P E Well they able to do the things that they desire to do without problems, without pain.</td>
<td>A P I guess not being able to see or help their self wash up or being able to think straight or at least in some matter</td>
</tr>
<tr>
<td>8</td>
<td>I don't have problems, no more than that I'm a diabetic</td>
<td>A Well for me, excellent health would be sound body and mind, no issues.</td>
<td>P E Somebody that's hard-headed, don't listen really don't take good care of themselves and they don't</td>
</tr>
<tr>
<td>9</td>
<td>That I'm feeling well to be able to do enough that I can do to complete my house work</td>
<td>P Um well to me its like when you don't have cancer, you can do more.</td>
<td>A P A in the middle of the night eating junk food, eating eating food like chips and that slows your health</td>
</tr>
<tr>
<td>10</td>
<td>It's important. I care a lot about it. Certain concerns like I had an uncle last year who died of</td>
<td>E Well, I can get out and run and jog, I can run up and down a court for an hour and a</td>
<td>A P A A person who physical habilitation limits them as um, for instance a person with arthritis um bend</td>
</tr>
<tr>
<td>11</td>
<td>My abilities to do stuff.</td>
<td>A It could be anybody</td>
<td>N They don't like how they look. They just overwhelmed</td>
</tr>
<tr>
<td>12</td>
<td>when I go to the doctor and I get a result</td>
<td>E I'm real happy cause I see other people</td>
<td>P P I mean people that takes drugs.</td>
</tr>
<tr>
<td>13</td>
<td>I don't even know how to answer that</td>
<td>N To me that means that person is not sick at all.</td>
<td>P P They got about every kind of disease you can think of.</td>
</tr>
<tr>
<td>14</td>
<td>I think um overall, I think overall my physical, physical capabilities could be better you know,</td>
<td>P I think of your lungs working to full capacity, where you can breathe.</td>
<td>P A you can't hold down what you, what your body just consumed.</td>
</tr>
<tr>
<td>15</td>
<td>See a doctor, I think maybe</td>
<td>E Someone who can jog or run, and things like that move around, fast or not, you</td>
<td>A P People on wheelchairs or canes, things like that.</td>
</tr>
<tr>
<td>16</td>
<td>I don't even let my health worry me... put it in the good Lords hands, let him handle it.</td>
<td>E That's someone he don't have no problems or health problems a good heart.</td>
<td>P P Can't get around and just laid up and just in bed.</td>
</tr>
</tbody>
</table>

*P- physical health, A-attitudinal/behavioral, E- externally focused, H- health transcendence, and N- non-reflective

There was not a response to the second cognitive interview question, “What do you view as excellent health?” that directly stated that the respondent did not understand how to answer the question. The non-reflective attribute labeled 2 responses and the and externally focused attributes labeled only 1 response (see Table 1). Most of the responses were coded by the attitudinal/behavior category, with a total of 10 responses. The physical health attribute labeled 8 responses. The health transcendence attribute did not label any responses.
The final cognitive interview question, “What do you view as poor health?” also did not have any responses that stated that the respondent did not understand the question. There were 8 responses that were labeled by the *attitudinal/behavior* category. There were also 8 responses labeled by the *physical health* category. An example of the *physical health* category is demonstrated from response provided by #13: “They got about every kind of disease you can think of”, since the respondent basis the understanding of “poor” health on having a medical condition (see Table 1). *Externally focused* was a health category that was used to code 5 responses. The *non-reflective* category and *health transcendence* did not label any responses to this specific question from this ethnic group.

**Urban Appalachian Responses**

The responses from the Urban Appalachian group were generally slightly longer than those from the African. Most of the responses to the first cognitive interview question, “What are you thinking or feeling when you think of your own health?” were a few words. The *health transcendence* attribute was not used to label any of the responses to this question. As well, only one response was coded by the *externally focused* attribute. On the other hand, the *physical health* and *attitudinal/behavioral* attribute were used to code the most responses, with a total of 6 responses each (see Table 2). The *non-reflective* attribute labeled 4 responses.

The second question, “What do you view as excellent health?” received responses that were labeled by four health attributes. *Attitudinal/Behavior* labeled 14 responses, whereas *physical health* was the next widely used health attribute with the coding of 5 responses. There were 2 responses labeled by the *non-reflective* category. There were no responses that were labeled by the *externally focused* or *health transcendence* attributes.
Table 2. Urban Appalachian responses to the Cognitive Interview Questions

<table>
<thead>
<tr>
<th>#</th>
<th>What are you thinking or feeling when you think of your own health?</th>
<th>What do you view as excellent health?</th>
<th>What do you view as poor health?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It’s what is overall</td>
<td>N someone that has nothing wrong with them</td>
<td>A walk, eat, able to comprehend things,</td>
</tr>
<tr>
<td>2</td>
<td>Getting through each day and not taking people’s heads off</td>
<td>A not getting sick every month, um...someone that’s chopper all the time</td>
<td>A someone that’s sick all the time, that’s just “biq” all day</td>
</tr>
<tr>
<td>3</td>
<td>If I smoke or if I’ve been sick recently or any illnesses</td>
<td>A pretty much eating the foods I need to eat and drink and what I need to drink</td>
<td>A I guess when you are sick all the time and you need other people to take care of you</td>
</tr>
<tr>
<td>4</td>
<td>Depressed</td>
<td>A someone that’s very healthy, full of energy, and they go can do a lot of things.</td>
<td>A someone that is always sick and always has things going on with them</td>
</tr>
<tr>
<td>5</td>
<td>I am very thin but I have a lot of problems with my joints</td>
<td>P not too fat and has very little sickness, like gets cold and stuff or somebody who can maybe run miles</td>
<td>P I’m somebody who maybe he has a lot of arthritis and like physical conditions</td>
</tr>
<tr>
<td>6</td>
<td>I’m pretty sure about it</td>
<td>N I don’t think nobody has excellent health. Um, I just don’t think that nobody has excellent health.</td>
<td>A My aunt Shelly’s sick in the hospital and is always in the hospital or nursing home</td>
</tr>
<tr>
<td>7</td>
<td>Tired and stressed, wore down</td>
<td>A No mental problems or anything. Yeah. Run up fifty steps and not get out of breath,</td>
<td>A Probably someone with mental problems.</td>
</tr>
<tr>
<td>8</td>
<td>Happy that I am not sick</td>
<td>A Run up fifty steps and not get out of breath,</td>
<td>A where you can barely get up some steps</td>
</tr>
<tr>
<td>9</td>
<td>I’m in good health</td>
<td>N they don’t get sick all the time, they don’t have lung problems...</td>
<td>P like asthmas or something that keeps them from doing something else that’s not a physical thing</td>
</tr>
<tr>
<td>10</td>
<td>Mostly pain... Just from working...wore my knees out</td>
<td>P probably someone with not pain. It would be hard to say mentally. Generally think no one is healthy,</td>
<td>A someone with some kind of disease it’s non-curable, mental,</td>
</tr>
<tr>
<td>11</td>
<td>I think it’s better than other people that’s worse than me</td>
<td>E Like a football player or a basketball player that’s in real good shape and is making a lot of money for it,</td>
<td>A somebody crippled</td>
</tr>
<tr>
<td>12</td>
<td>I’m breathing well</td>
<td>P Birth. That would be excellent health. The thing is you are dying the minute you are born.</td>
<td>A body’s a temple. What you take into it, is what you get out of it</td>
</tr>
<tr>
<td>13</td>
<td>I’m feeling good about my health</td>
<td>A to me would be a vegetarian, a non-smoker, a person, that exercises all the time.</td>
<td>A I would say poor health is somebody that’s just got ill an illnesses you know?</td>
</tr>
<tr>
<td>14</td>
<td>I was just answering the question you asked.</td>
<td>N Nothing wrong with them. Inside or out.</td>
<td>A someone sick on a cane and crutches. They need to get some help for themselves</td>
</tr>
<tr>
<td>15</td>
<td>It means how do I feel...about my body...I don’t get sick often</td>
<td>P they don’t get sick often, uh, as far as physical labor and what not.</td>
<td>A if you have to take medication to relieve your stress, you can’t relieve it on your own,</td>
</tr>
<tr>
<td>16</td>
<td>no stomach problems</td>
<td>P no stomach problems, no, uh, bad eyes</td>
<td>P somebody that’s bad bred</td>
</tr>
</tbody>
</table>

*P- physical health, A-attitudinal/behavioral, E- externally focused, H- health transcendence, and N- non-reflective

The responses to final question “What do you view as poor health?” were only labeled by 3 out of the 5 health attributes. **Attitudinal/Behavior** attribute was used to code 13 of the responses and **physical health** was used to code 8 of the responses (see Table 2). The **externally focused** attribute labeled only 2 different responses. The **health transcendence and non-reflective** attribute were not used to label any response.

**Non-Appalachian/white Responses**

None of the responses to the cognitive question, “What are you thinking or feeling when you think of your own health?” were noticeably long nor short (see Table 4). All of the health attributes were used to describe at least one Non-Appalachian/white response. Most of the responses were labeled with the **physical health** category (total of 8). **Attitudinal/behavioral** was
used to code 4 of the responses and externally focused coded 2 responses (see Table 3). The health transcendence and non-reflective attributes were used to label 1 response, each.

All of the 16 responses to “What do you view as excellent health?” were labeled by the attitudinal/behavioral health attribute. However, two responses were also labeled by more than one attribute. The physical health attribute was used to code 2 Non-Appalachian/white responses. For instance, the response from # 7 “somebody who doesn't get sick very often, somebody who can, can uh, you know, handle physical activity late into life” consist of both medical conditions and behavior.

<table>
<thead>
<tr>
<th>#</th>
<th>What are you thinking or feeling when you think of your own health?</th>
<th>What do you view as excellent health?</th>
<th>What do you view as poor health?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Holistically. Um it’s more than your body, it’s the energy</td>
<td>Capable of age representative, um, achievements, physical achievements</td>
<td>Lots of things to cure, lots of problems</td>
</tr>
<tr>
<td>2</td>
<td>I exercise a lot and so I was thinking of that</td>
<td>Someone that you know on the physical side eats well, exercises,</td>
<td>guess it would be the opposite then, um, someone that has mental health issues</td>
</tr>
<tr>
<td>3</td>
<td>I like um just in general like how Im feeling</td>
<td>it sounds kinda wierd, like a person who does yoga,</td>
<td>somebody that just doesn’t care about themselves</td>
</tr>
<tr>
<td>4</td>
<td>I compare it to the health of other people</td>
<td>Exercise, try to be, uh healthy eater,</td>
<td>unfit that they can’t do things they want to</td>
</tr>
<tr>
<td>5</td>
<td>I think of being able to perform normal activities, I can go to work</td>
<td>someone who is not on medication, who eats in a healthy way,</td>
<td>Someone who perceives themselves as sick</td>
</tr>
<tr>
<td>6</td>
<td>I’m generally thinking of ways to improve my health</td>
<td>who’s obviously fit physically</td>
<td>how they stand, uh I mean if they’re shrunken over</td>
</tr>
<tr>
<td>7</td>
<td>Um, how well I can hold this baby</td>
<td>somebody who doesn’t get sick very often</td>
<td>can’t handle strenuous activities</td>
</tr>
<tr>
<td>8</td>
<td>Well I guess, mainly physical</td>
<td>they are physically healthy, um, and also mentally</td>
<td>someone maybe out of shape</td>
</tr>
<tr>
<td>9</td>
<td>I’m overweight and that I drink too much caffeine.</td>
<td>They um eat what their supposed to</td>
<td>someone who’s sickly</td>
</tr>
<tr>
<td>10</td>
<td>how my energy feels and any presence of pain</td>
<td>Energy, clarity, um buoyancy</td>
<td>Pain and lack of energy. Fatigue</td>
</tr>
<tr>
<td>11</td>
<td>I’ve been having a little stomach something</td>
<td>no limitations and bliss</td>
<td>limitations and negativity</td>
</tr>
<tr>
<td>12</td>
<td>How I feel right now, pretty much</td>
<td>doesn’t have any like diagnosed illnesses or disease, un probably physically fit, mentally competent</td>
<td>some sort illness, cancer, or something like that</td>
</tr>
<tr>
<td>13</td>
<td>like physical abilities, and strength and also like illness</td>
<td>not like depressed or anything stressed out either</td>
<td>kind of frail, or emotionally unstable</td>
</tr>
<tr>
<td>14</td>
<td>comparing myself to what other people are like</td>
<td>Not going to work</td>
<td>think someone who feels helpless</td>
</tr>
<tr>
<td>15</td>
<td>I’m actually um pretty blessed in decent health, I’m just out of shape</td>
<td>look kind of in shape</td>
<td>depression you know, um, slovenly</td>
</tr>
<tr>
<td>16</td>
<td>the bad things I do to myself, I smoke</td>
<td>Someone who does all those things eats well, exercises, doesn’t smoke</td>
<td>Out of shape. Well I don’t. I’m not thinking in terms of disease</td>
</tr>
</tbody>
</table>

*P- physical health, A-attitudinal/behavioral, E- externally focused, H- health transcendence, and N- non-reflective

There were only 3 health attributes that were used to code the responses to the 3rd cognitive question, “What do you view as poor health”. 11 responses were labeled by the
attitudinal/behavioral attribute. There were 4 responses labeled by the physical health attribute. Only 2 responses were labeled by the externally focused attribute.

**Item Comparison of Responses**

This section presents an analysis of the ethnic groups collective responses to the three cognitive interview questions. As each response was labeled with a health attribute, the three items will be individually examined based on the number of the different attributes per each ethnicity.

**Item #1**

The first set of responses being examined and compared are to the first cognitive interview question, “What are you thinking or feeling when you think of your own health”. Table 4 also provides a brief summary of the number of responses to the 1st question that were coded with the different health attributes. The majority of Non-Appalachian/white respondents thought of their health as medical condition(s) and the physical health attribute used to label most of the Non-Appalachian/white responses to the 1st question. On the other hand attitudinal/behavioral was used to label most of the responses from the African American group. Based on the examination of the evidence the majority of the African American respondents thought of their health as an attitude and/or behavior. The majority of Urban Appalachian respondents thought of their health in relation to medical condition(s). There were also a large number of Urban Appalachian responses labeled by the non-reflective attribute. For instance, the Urban Appalachian response from #1 “it’s what it is overall” does not identify what the respondent thought of their health based on the globally accepted ideas of health. None of the responses from the Urban Appalachian ethnic group are labeled with the health transcendence attribute. The African American and Non-Appalachian/white responses also had the minimal number of responses labeled by the health transcendence attribute.
Table 4. The # of Responses that Were Labeled with the 5 Health Attributes- 1st Item

<table>
<thead>
<tr>
<th>Health Attribute</th>
<th># of African American Responses coded</th>
<th># of Urban Appalachian Responses coded</th>
<th># of Non/Appalachian Responses coded</th>
<th>Total # responses coded by Health Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Health</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Externally Focused</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Health Transcendence</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Non-Reflective</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Attitudinal/Behavioral</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>17</td>
</tr>
</tbody>
</table>

**Item #2**

The number of responses to the 2nd cognitive question, “What do you view as excellent health” that were labeled a specific health attribute was similar (see Table 5). Most of the responses from the African American group were labeled by the *attitudinal/behavioral* attribute. An even higher number of responses from the Urban Appalachian and Non-Appalachian/white groups were also coded as *attitudinal/behavioral* (see Table 5). All of the responses from the Non-Appalachian/white group were labeled by the *attitudinal/behavioral* attribute. This would suggest that a large number of respondents think of attitude and/or behavior when thinking of “excellent” health. In addition, two of the Non-Appalachian/white responses were also labeled the *physical health* attribute. A larger number of responses from the African American and Urban Appalachian respondents were also labeled by the *physical health* attribute (see Table 5).
Table 5  The # of Responses that Were Labeled with the 5 Health Attributes- 2nd Item

<table>
<thead>
<tr>
<th>Health Attribute</th>
<th># of African American Responses coded</th>
<th># of Urban Appalachian Responses coded</th>
<th># of Non-Appalachian/white Responses coded</th>
<th>Total # of Responses coded by Health Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Health</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Externally Focused</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Health Transcendence</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-Reflective</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Attitudinal/Behavioral</td>
<td>10</td>
<td>14</td>
<td>16</td>
<td>40</td>
</tr>
</tbody>
</table>

Item 3

The number of responses to the 3rd cognitive question, “What do you view as excellent health” labeled by particular health attributes were also similar. The African American responses were mostly coded with the *attitudinal/behavioral* attribute, which is similar to the Urban Appalachian and Non-Appalachian/white responses (see Table 7). The *physical health* attribute labeled the 2nd largest number of African American responses, followed by the *externally focused* attribute labeling the 3rd largest number. The Urban Appalachian responses were almost only labeled by the *attitudinal/behavioral* attribute. *Physical health* and *externally focused* attributes were also used in coding a few responses from the Urban Appalachian respondents. The majority of the Non-Appalachian/white responses were described by the *attitudinal/behavioral* attributes. Similar to the attributes that described the responses from the other ethnic group respondents, *physical health* and *externally focused* attributes also described the Non-Appalachian/white. Thus, African American respondents understanding of “poor” health was based mostly on attitude and/or...
behavior. This is closely followed by understanding “poor” health to be based on an illness and lastly, a comparison to others.

<table>
<thead>
<tr>
<th>Health Attribute</th>
<th># of African American Responses coded</th>
<th># of Urban Appalachian Responses coded</th>
<th># of Non-Appalachian/white Responses coded</th>
<th>Total # of Responses coded by Health Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Health</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Externally Focused</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Health Transcendence</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-Reflective</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Attitudinal/Behavioral</td>
<td>8</td>
<td>13</td>
<td>11</td>
<td>32</td>
</tr>
</tbody>
</table>

A large majority of Urban Appalachian respondents base their understanding of “poor” health on attitude and/or behavior. They also identify “poor” health based on medical conditions and compare their health to others. Lastly, Urban Appalachian respondent #10 repeatedly stated they did not know [an answer] and at the same time mentioned multiple notions on which to base “poor” health (see Table 3). Although there was mention of multiple mental and physical conditions, this response was labeled *health transcendence* because it was conflicting. The Non-Appalachian/white respondents primarily think of attitude and/or behavior when thinking of “poor” health (the entire response is not included in the table). They also think of medical conditions and health of others when thinking of “poor” health.

**Discussion**

*Non-Appalachian/white Respondents*
As was explained in the Ware et al. (2000) article, some of the initial studies confirming the validity and reliability of the self-rated health question were primarily based on responses from non-ethnic minorities. Responses to the three cognitive interview questions from the Non-Appalachian/white ethnic group presented evidence that this group’s ethnicity appears to have an influence on the understanding of the self-rated health question. Coding the responses to the cognitive interview questions would eventually show that 3 Non-Appalachian/white respondents had responses to all 3 cognitive interview questions labeled by the exact same health attribute, *attitudinal/behavioral*. This suggested that these respondents thought of their health, “poor” health, and “excellent” health in the same manner. As well, out of the 16 Non-Appalachian/white ethnic population only 1 respondent had a single response labeled as *non-reflective*. In turn all but that 1 response was coded by the global health attributes. This suggests that predominantly all the Non-Appalachian/white respondents in this study possess an understanding of health, “excellent” health, and “poor” health that are able to be defined as a valid and reliable internationally recognized health attribute. Specifically only two of the 4 global health attributes were used to code the majority of the cognitive responses, further suggesting this population almost shares exact the same understanding of their own health, “excellent” health, and “poor” health. The majority of the Non-Appalachian/white responses to all of the cognitive interview questions examined through this study were labeled by the *attitudinal/behavioral* and *physical health* attributes (see Table 3). All of the responses to the 2nd cognitive question were labeled by the same global health attribute, *attitudinal/behavioral* (see Table 5). Being that there was only one response labeled by the *health transcendence* health attribute also highlighted that these respondents had an understanding of their overall well-being that was consisted with their health (including existent or non-existent physical illnesses).
In addition, most of the respondents expressed an understanding of their own health, “excellent” health, and “poor” health that was clearly reflected in their initial responses to the self-rated health question. For example, respondent #16 explained that the behavior of smoking was thought of when thinking of their health. Respondent #16 would later define “excellent” health as “Someone who does all those things—eats well, exercises, doesn’t smoke” (see Table 3). That same respondent also answered the self-rated health question with the ordinal response “good” (see Table 7). Similar examples provided evidence suggesting the Non-Appalachian/white responses to the cognitive interview questions provide reliable examination of the respondents understanding of the self-rated health question.

**Urban Appalachian Respondents**

Of the three ethnic groups being examined in this study, the Urban Appalachian ethnicity consisted of respondents that had perhaps the shortest history of social interaction with the other ethnic groups in Cincinnati, Ohio (City of Cincinnati, 2004). The Urban Appalachian responses suggest that even though their understanding of health may not be globally recognized or equivalent to other ethnicities there is still a strong and consistent perception of health, as was previously suggested through examining the evidence in the Borawski et al. article (1995). Quite a few responses were labeled by the non-reflective attribute, meaning they were not understood based on a globally recognized definition. This does not necessarily mean the respondent intentionally gave no effort in answering the cognitive question. For example, the non-reflective response to the 1st cognitive question “I was just answering the question you asked” demonstrates that respondent # 14 is certain they answered the question already, and in turn did not expand any further (see Table 2). (The self-rated health question was asked directly before the 1st cognitive question.) This perhaps could imply that the directions coinciding with the cognitive interview
questions were not clear and the respondent felt they were repeatedly being asked the same question. Another non-reflective response, from respondent #6, to the same cognitive question, “I’m pretty sure about it”, demonstrates that the respondent is confident with their health. This respondent is actually reflecting on their health and the response demonstrates their confidence, but not an example of the condition of their health (i.e. “I have a sinus infection”). Respondent #14 and #6 did not recognize the 1st cognitive question as an invitation to state what their health consists of (i.e. mental stability, exercise, diabetes, etc).

In some ways it appeared as though the Urban Appalachian responses that were labeled as non-reflective based on the 4 global health attributes inability to code the responses. However, these respondents provided clear evidence that their cognitive responses were legitimate explanations for their response to the self-rated health question. For instance, there were only two “excellent” responses to the self-rated health question (see Table 7). Examination of the response from respondent #6 to the 2nd cognitive questions suggests this individual does not even recognize “excellent” health as achievable. Repeating “I don't think nobody has excellent health. Um, I just don't think that nobody has excellent health” #6 clearly thought that no one could have “excellent” health (see Table 2). The same respondent would later identify the continued illness of a family member as “poor” health. As that respondent did not have the same illness of the family member (who they felt exemplified “poor health”) and they also believed no one could have “excellent” health, the response to the self-rated health question was “good”. Additional responses also provided evidence that “poor” health is recognized as an unavoidable life-style. (Similar to “excellent” health being considered a life-style that can not achieved.) Respondent #16 viewed “poor” health as “somebody that’s bad bred and they're not able to get up and go the store or walk to the bathroom, have to use a bed pan” (see Table 2). Based on these responses, some of the
Urban Appalachian respondents think that these two measures of health are predetermined and fixed. The majority of the Urban Appalachian respondents (n=7) in this study identify their health as “good” (see Table 7). In addition none of the respondents identified their health as “poor” and only 2 respondents selected the “excellent” health response.

African American Respondents

The last of the ethnic group responses being discussed in this section were the African American respondents. The majority of responses to the cognitive interview questions are labeled by various codes. Although there were 3 health attributes (attributive/behavioral, physical health, and externally focused) that were used to code most of the responses the other attributes were also used to label responses. Based on the same criteria that suggested Non-Appalachian/white and Urban Appalachian responses were influenced by ethnicity, evidence suggested that the African American respondents’ ethnicity may not influence their responses to the 3 cognitive interview questions, as the responses do not appear to be similar. As well, the responses to the self-rated health question also appeared to further suggest that this populations’ ethnicity does not influence the respondents understanding of the self-rated health question. There was minute evidence of similarity amongst this ethnic population, besides that “poor” was not selected as a response by any of the respondents (see Table 7).

However, evidence from the study did suggest that the respondents consistently understood “excellent” and “poor” health as complete opposite health measures. For example, respondent #13 viewed “poor” health as “They got about every kind of disease you can think of” and the response was coded by the physical health attribute. The same respondent viewed “excellent” health as “that person is not sick at all” and the response was also labeled by the physical health attribute. On the other hand the same respondent selected “good” in response to the self-rated health question their
response to the 1st cognitive question was labeled as *non-reflective*, which proved difficult in identifying this respondent's understanding of the self-rated health question.

<table>
<thead>
<tr>
<th>Responses to the Self-Rated Health Question</th>
<th>African American Respondents</th>
<th>Urban Appalachian Respondents</th>
<th>Non-Appalachian/white Respondents</th>
<th>Total # of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Very Good</td>
<td>5</td>
<td>3</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>Good</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Fair</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Poor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total # per ethnic group</td>
<td>16</td>
<td>15</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

*there were only 15 responses in the Jacobson et al. 2004 transcripts*

In general the African American responses to the cognitive questions and self-rated health question did not appear similar. There was not a particular number of responses to the cognitive questions that were coded by a particular health attribute. This made it difficult to examine whether the Non-Appalachian/white respondents or Urban Appalachian respondents had different responses to the cognitive questions. Ultimately the African American responses were unable to be evaluated in the same manner as the other 2 ethnic populations.

5. Summary

Examination of the data provided through the Jacobson (2004) study ultimately presents some evidence that the non-minority and ethnic minorities have different understanding of the self-rated health question. Respondents self-identifying themselves as Urban Appalachian and African American provided responses to cognitive interview questions and the self-rated health question that could be distinguished in different ways than responses by the Non-Appalachian/white ethnic
population. After first coding responses to cognitive interview questions the study examined these labeled responses in the investigation of whether ethnicity influences the respondents understanding of the entire self-rated health question. Problems with the study became evident when quite a few Urban Appalachian and African American responses to the cognitive questions were evidently not able to be analyzed in the same manner as responses from the Non-Appalachian/white respondents. Thus, the ethnic minority’s ethnicity was not clearly able to be identified as influencing the understanding of the self-rated health question.

The examined data provided evidence that the Non-Appalachian/white responses to the cognitive interview questions and the self-rated health question were unique to this ethnic group. All of the responses to the cognitive questions were labeled primarily by the same health attributes, insinuating this ethnic group has the same frame of reference when thinking of their health. Since the responses to the cognitive questions are coded by the same global health attributes this also suggested that Non-Appalachian/white respondents also have a similar understanding of the self-rated health question.

Based on the same process of data examination, the evidence regarding the Urban Appalachian responses suggested this population also had an understanding of the self-rated health question possibly influenced by ethnicity. All responses, including the number of responses coded with non-reflective health attributes was unique to this population. This evidence demonstrated that this population had an understanding of health that was not labeled by the 4 global health attributes and in turn, different than the Non-Appalachian/white populations’ understanding. Unfortunately the non-reflective attribute basically was used to label all responses that did not fit the other health attributes and were not understood, which went against the main objective of the study. Although the responses are coded as non-reflective the responses were not always similar but for being
labeled by the \textit{non-reflective} attribute. Using just the 5 health attributes from Borawski et al. (1995) appeared to be a problem when labeling responses from ethnic minorities. Nonetheless, the Urban Appalachian responses provided evidence which suggested that this particular ethnicity has a distinct understanding of “excellent” and “poor” health, which might influence responses to the self-rated health question.

The African American responses are partially different than both the Urban Appalachian and Non-Appalachian/white responses. At times the African American responses were even different from one another (i.e. the responses to the same cognitive questions would vary from a couple of words and others around 200 words). As well there does not appear to be consistent evidence that these respondents understanding of the self-rated health question was influenced by ethnicity since the responses were not consistently labeled by any specific health attribute. Based on varied responses to the self-rated health question and diverse variation in the number of each health attribute used to code responses to the cognitive questions, there does not appear to be clear evidence of ethnicity influencing the respondents understanding of the self-rated health question. The responses did not appear to be uniform in any form or fashion. As well, since a number of African American responses to the cognitive questions were labeled as \textit{non-reflective} there is the same problem faced by the Urban Appalachian ethnic population: the inability to clearly recognize, identify, and understand the respondents understanding of the term “health” based on health attributes that are used internationally.

To summarize, as the Non-Appalachian/white responses to both the self-rated health question and cognitive interview questions appeared uniform and almost predictable, these respondents demonstrated a valid and reliable understanding of the self-rated health question (that was confirmed by the cognitive question responses). Unfortunately, due to unforeseen dilemmas
with applying Borawski’s 5 health attributes in coding the cognitive interview responses the study was not able to investigate the African American and Urban Appalachian respondents in the same manner as the Non-Appalachian/white respondents. Regardless the evidence presented in this study invites further research regarding the possibility that ethnicity influences both the understanding of the self-rated health question and the ability to perform a valid and reliable comparison of the responses.
Bibliography


Hendricson, William; Russell, I; Prihoda, Thomas; Jacobson, James; Rogan, Alice; Bishop, George. An Approach to Developing a Valid Spanish Language Translation of a Health-Status Questionnaire. Medical Care 1989. 27(10):959-966.


Shi, Leiyu; Starfield, Barbara; Politzer, Robert; Regan, Jerri. Primary Care, Self-Rated Health, and Reductions in Social Disparities in Health. Health Services Research 2002; 37:3.


