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Misperceptions and Barriers to Seeking Dermatologic Care in Minority Populations

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B.S., Southern Connecticut State University, 2004

A Thesis

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Master of Public Health Thesis

Misperceptions and Barriers to Seeking Dermatologic Care in Minority Populations

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ABSTRACT

BACKGROUND: Members of minority groups are generally low utilizers of dermatologic specialty care. Research in the area of health disparities among minority ethnic groups in dermatology is limited. Racial and ethnic disparities in the basic science knowledge, epidemiologic evaluation, and clinical investigations of dermatologic disease have been reported. This study sought to expand on previous research in an attempt to better understand the factors related to access to dermatologic care among minority populations.

METHODS: The study was a cross-sectional survey designed to explore reasons for the reduced use of dermatologists among minority populations. The study population was recruited from medical offices affiliated with the University of Connecticut Health Center (UCHC) and Hartford Hospital (HH). One hundred and thirty individuals participated in this study. Data were analyzed using a combination of univariate, bivariate, and multivariate analysis. The independent variables were barriers that were found in the literature and those identified during phase one of the study. The dependent variable was *use of dermatologic care*. SAS® (Statistical Analysis Software) was used to conduct all the analyses.

RESULTS: This study examined numerous reasons for reduced use of dermatologists by minority populations. The statistically significant reasons for limited use of dermatologists were:

- *"I have to wait a long time for an appointment"*
- *"I am not sure if insurance will cover it"*
- *"I don't have a dermatologist"*

- *“My problems are not taken seriously”*
- *“My doctor doesn’t listen to me”*
- *“I was not pleased with the service at the doctor’s office”*

Other factors related to not seeing a dermatologist were, whether or not the individual was employed, the location where the patient was recruited, the financial resources of the individual, and knowing someone who had seen a dermatologist.

CONCLUSION: All of the reasons found to have a significant relationship to use of dermatologic care are amenable to interventions such as educating patients, educating providers, and making changes in the health care delivery system. Promoting greater use of specialized dermatologic care among racial and ethnic minorities is important because this population group is at risk for significant skin-related problems.

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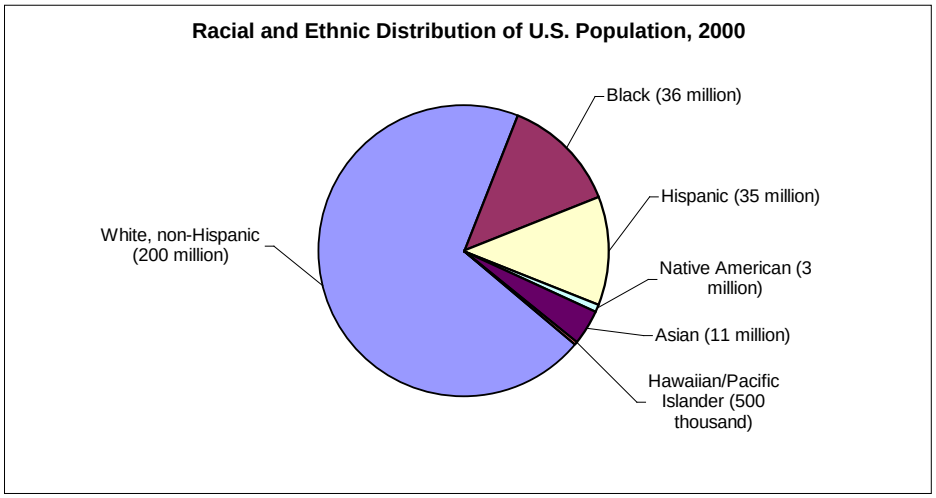
CHAPTER ONE: INTRODUCTION

Dermatologic care involves the assessment and treatment of various skin, hair, and nail conditions. Providers can be either generalists or specialists. This study looked specifically at care provided by dermatologists. Members of minority groups are generally low utilizers of dermatologic care. When patients who have darker skin are asked why they do not see a dermatologist, most cite the cost of the service as well as a self-perceived lower risk of skin cancer. However, despite the lower incidence of skin cancer in people of color, racial and ethnic minorities experience increased morbidity and mortality when skin cancer, especially melanoma, does occur. [1]

Individuals with skin of color most commonly include members of minority groups: African Americans, Africans, Caribbeans, Hispanics, Asians, Native Americans, and Hawaiian/Pacific Islanders. Skin of color, as defined by previous studies, includes Fitzpatrick skin types IV, V, and VI. These skin types rarely or never burn on sun exposure and tan readily.[2]

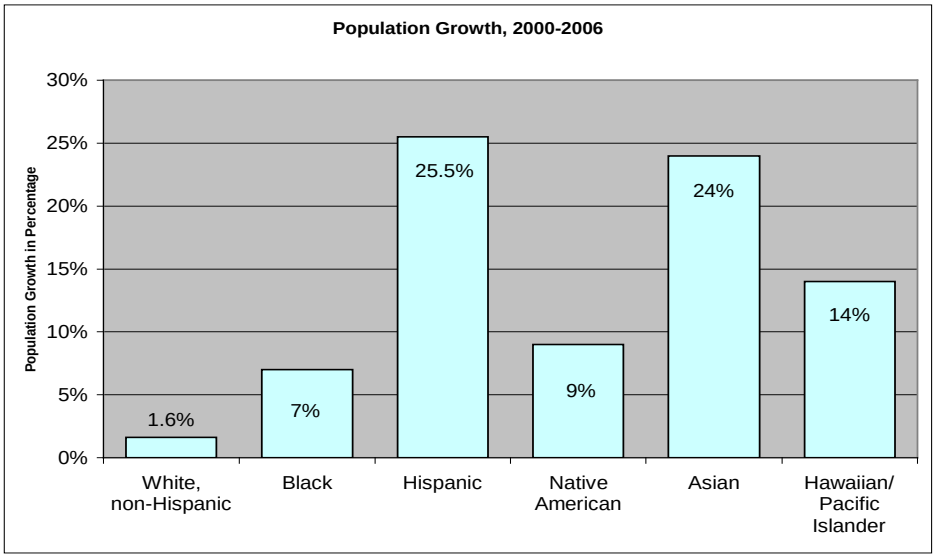
The ever-changing U.S. demographic profile increases the need to understand and address issues of access to care by racial and ethnic minorities. The current U.S. population is approximately 300 million. As of the 2000 census, the white - non Hispanic population was approximately 200 million, the black population was approximately 36 million, the Hispanic population was approximately 35 million, the Native American population was approximately 3 million, the Asian population was approximately 11 million, and the Hawaiian/Pacific Islander population was approximately 500 thousand (Figure 1).

Figure 1:



The growth for these groups as of 2006 was estimated at 1.6% for whites, 7% for blacks, 25.5% for Hispanics, 9% for Native Americans, 24% for Asians, and 14% for Hawaiian/Pacific Islanders[3] (Figure 2). Being knowledgeable about the barriers that may be keeping minority patients from seeking care will empower providers to make changes that will aid in providing and improving care to a broader patient population.

Figure 2:



The goal of this research project is to understand the barriers faced by racial and ethnic minorities in accessing dermatologic care, so that interventions can be designed to promote appropriate utilization of dermatologic services. This study sought to expand on previous research in an attempt to better understand the factors related to access to dermatologic care among minority populations.

Study Aims

1. Explore perceived barriers experienced by racial and ethnic minorities when seeking specialized dermatologic care.
2. Assess the impact of these barriers on the utilization of specialized dermatologic care.
3. Examine use of general medical care versus specialized dermatologic care.
4. Determine what factors facilitate the use of specialized dermatologic care.

CHAPTER TWO: REVIEW OF LITERATURE

Health disparities in the U.S. health care system are widely discussed in research literature. One study[4] looking at the use of medical and dental services among children of various ethnic groups found that compared with white children, minorities were significantly less likely to have a physician visit or to have been given a prescription in the past year. Minorities were noted to have suboptimal medical and oral health insurance and were more likely to be uninsured. Furthermore, minorities were less likely to have a usual source of medical care, had more unmet dental care needs, and had fewer routine preventive dental visits. Another study[5] examined the influence of race and racism on health and found that a distrust of the health care system exists that not only relates to, but also extends beyond the aftermath of the Tuskegee syphilis project[*]. Furthermore, health disparities with African Americans reflect a form of institutionalized, structural racism that is related to education, employment, socioeconomic status, health insurance coverage, and housing segregation**.** A study[6] comparing disease mortality between blacks and whites found that blacks had higher disease mortality for most major diseases. Minorities diagnosed with diabetes were more likely to die from its complications.

Research in the area of health disparities among racial and ethnic minority groups in dermatology is limited. Studies show that, as with health care in general, barriers to accessing dermatologic care are multifaceted. Barriers exist

[*] "The project, which was conducted by the U.S. Public Health Service (PHS) from 1932 to 1972, examined the natural course of untreated syphilis in African American men. The subjects were not told that they had syphilis or that the disease could be transmitted through sexual intercourse. Instead, they were told that they suffered from "bad blood," a local term used to refer to a range of ills. Treatment was initially part of the study, and some patients were administered arsenic, bismuth, and mercury. But after the original study failed to produce any useful data, it was decided to follow the subjects until their deaths, and all treatment was halted." Britannica Online <http://www.britannica.com>

in the infrastructure of the health care delivery system, education, psychosocial, and socioeconomic and financial realms. Commonly found barriers include: transportation, trusting the doctor, communicating with the doctor, cost and insurance, clinic accessibility, social support, service at the doctor's office, lack of knowledge about skin cancer risk, lack of fear of skin cancer, and common use of folk medicine or home "cures."[7]

Racial and ethnic disparities in the basic science knowledge, epidemiologic evaluation, and clinical investigations of dermatologic disease have also been reported. Limited although important research has occurred in the biology of skin of color. Skin of color has more melanin, which protects the skin from ultraviolet damage. Individuals with skin of color have the same number of melanocytes as fair-skinned individuals. However, differences are noted in the size, aggregation, and distribution of melanosomes. Darker skin has large melanosomes that are unaggregated and distributed throughout the entire epidermis. Additionally, differences are noted in the characteristics of dermal fibroblasts and hair follicles. These differences in biology may account for variations in disease presentations in skin of color. [1,2,8]

Disparities have also been described in the education of dermatologists. One study[9] showed that the current education of dermatologists-in-training has been severely lacking in emphasis on skin of color. At American Academy of Dermatology annual meetings, skin of color is underrepresented at teaching sessions, although in recent years this has been addressed and improved. Even dermatology textbooks have a small percentage of pictures showing dark skin. A

lack of appropriate education results in a generation of practioners who are not adequately trained or equipped to tackle disorders that present in skin of color. Another study[10] on the skin of color curriculum at U.S. dermatology residency programs showed less than 20 percent of programs had specific curriculum or clinics dedicated to skin of color. However, a higher percentage of programs did report that their residents had treated skin conditions that are commonly seen in skin of color, such as keloid and melasma. The study concluded that there is a need for increased exposure, educational sessions, and overall training in diseases pertaining to skin of color in U.S. dermatology residency programs.

In addition, photography, which plays an important role in the documentation of cutaneous lesions, has limitations when dealing with skin of color. Film photography is unable to adequately illustrate the cutaneous detail in skin of color. Film processing of dermatoses in dark skin is more difficult. The range of tones between normal and pathologic skin is narrow, so the film has to be overexposed and underdeveloped to hold detail in the shadows without blowing out pathologic highlights. New technological developments in digital photography may eliminate the disparity in imaging black and white skin. The most important development in digital photography is image stabilization, which keeps the lens focused on an object even when the camera moves due to an unsteady hand, or without a flash, and without washing out color or producing flash artifacts. Other important features of digital photography are macro mode and white balance.[11]

The limited use of dermatologists by minority groups is sometimes linked to the perceived reduced risk of skin cancer. However, while skin cancer may not be a common presenting complaint among individuals with skin of color, a wide-range of other skin diseases are of concern. The three most common skin disorders in minority populations are acne, eczema, and pigmentary disorders. Other diseases more commonly seen in minority populations include, but are not limited to, acne keloidalis nuchea, keloid, and pseudofolliculitis barbae.[12,13]One study[14] comparing the presenting complaints of white and black patients found the five most common diagnoses in black patients were acne, dyschromia, eczematous dermatitis, alopecia, and seborrheic dermatitis. Among whites, the five most common were acne, 'lesion of unspecified behavior,' benign neoplasm of the skin, eczematous dermatitis, and psoriasis. Additionally, individuals with skin of color may have different presentations for common skin conditions or have subtle disease or morphologic variants.[12,13] The ability to perceive erythema in a background of abundant melanin requires skill and training. In addition, the consequences of altered pigmentation (either hypo- or hyperpigmentation) can be much more noticeable and devastating in this patient population.

Although uncommon, skin cancer does occur among racial and ethnic minorities. The most common sites of involvement are sun-protected surfaces: palmar, plantar, subungual, and mucosal. Sun exposure is a widely accepted cause of melanoma, but the role of sun exposure in the causation of melanoma in minority populations is unknown. Melanin has been proposed to have a protective role through its free-radical scavenging properties. The most common

melanoma among black Americans and Hispanics are acral lentigionous and superficial spreading melanoma, respectively. Studies on skin cancer in minority populations have found that melanoma is usually diagnosed at an advanced stage and associated with decreased survival. Melanoma tends to present with increased Breslow thickness and regional or distant metastases when compared to Caucasians. Delayed diagnosis of melanoma may reflect lower skin cancer awareness among certain populations. Individuals with skin of color perceive themselves as having low or no risk for melanoma, and many of the public education efforts have targeted white populations. Reduced awareness of skin cancer risk likely influences decisions to seek or not seek medical care for suspicious skin lesions. Diligent melanoma surveillance in minority populations is of great importance. Primary and secondary prevention efforts in Hispanic populations and other minority groups are lagging. [15-20]

CHAPTER THREE: RESEARCH DESIGN AND METHODS

Study Question

This study was designed to examine barriers to the utilization of dermatologic care among racial and ethnic minorities.

Study Design

The study was a cross-sectional survey designed to explore reasons for the reduced use of dermatologists among minority populations. The study population was a convenient sample of individuals recruited from medical offices affiliated with the University of Connecticut Health Center (UCHC) and Hartford Hospital (HH). One hundred and thirty participants were recruited for this study. The data was analyzed using descriptive statistics. The Institutional Review Boards at the University of Connecticut Health Center and Hartford Hospital approved this study.

Study Participants

Participants were approached in waiting rooms and patient examination rooms, where they were introduced to the purpose of the study and informed that participation was voluntary.

This study was originally intended to be performed at sites inside and outside of the healthcare system, but recruitment at public places, like shopping malls and grocery stores, was not permitted by the respective management groups.

Inclusion Criteria

Participants were adult, English-speaking, and self-reported members of racial or ethnic minority groups. Adult participants were selected so that direct consent could be obtained.

Exclusion Criteria

Individuals who were non-English speaking, Caucasian, or decision-impaired were excluded from this study. Language was used to exclude participants, because of the need to be able to communicate with the study coordinator. Race and ethnicity were used to exclude participants, because this study was focused on the experiences of these particular groups. Decisional capacity was also used, because individuals had to be able to understand the nature of the study and make an informed decision as to whether or not to participate.

Description of study sites

The UCHC dermatology clinic is a hospital-affiliated outpatient facility that provides comprehensive evaluation and treatment of skin, hair, and nail diseases through medical and surgical intervention. Dermatologists-in-training and board-certified dermatologists provide care. The UCHC medical clinic is also a hospital-affiliated outpatient facility, which provides general medical care to adults with an emphasis on prevention, wellness, screening, and ongoing management of medical problems. The physicians are board-certified in internal medicine. The patient population served by the UCHC clinics is diverse in race and ethnicity, income, and education. Patients had either private or state-funded

health insurance. These clinics are located in the suburban town of Farmington, Connecticut.

The Hartford Hospital Brownstone medical clinic is a hospital-affiliated outpatient facility where internal medicine physicians-in-training provide care under the supervision of board-certified attending physicians. The patient population served by the Brownstone clinic is predominantly Hispanic with varying income and education. Most patients had state-funded health insurance. This clinic is located in inner-city Hartford, Connecticut.

Data Collection/Storage

Data collection occurred in two phases. Phase one involved a qualitative interview of 30 individuals, which was designed to generate a list of perceived barriers to use of dermatologic care. A review of the literature and the results from phase one were used to develop the phase two questionnaire. Phase two involved the administration of the final questionnaire to 100 individuals. Prior to beginning the second phase of the study, the original questionnaire was revised by adding ‘Insurance status’, and separating race and ethnicity into two distinct categories. Also, a question was added on the use of dermatologists by friends or family members. The questions that were unique to the second phase of the study were those looking specifically at the “reasons” for limited use of dermatologic care. The demographic questions were mostly unchanged through both phases of the study.

Data were recorded in a computer database and stored. Data will be securely stored for 5 years in the office of the principal investigator (PI). Furthermore, no identifiable information was collected or stored. Data are password-protected. Access to the data is limited to the PI and study team.

Statistical Analysis Methods

Data were analyzed using a combination of univariate, bivariate, and multivariate analysis. The independent variables were barriers that were found in the literature and those identified during phase one of the study, such as: *transportation*, *trusting the doctor*, *communicating with the doctor*, *cost*, *social support*, *service received at the doctor's office*, *lack of knowledge about skin cancer*, and the *risk of skin cancer*. Variables were both categorical and continuous. Some variables were converted from categorical to either dichotomous or continuous variables. These recoded variables were labeled with a 2, for example, income2. The dependent variable was *use of dermatologic care*. Means, frequencies, medians, standard deviations, distributions, and percentages were determined for each variable. The relationship of the independent variables to the dependent variable, *use of dermatologic care*, was assessed using chi-square testing, t-test, and Pearson's correlation. Multiple independent variables and the dependent variable were analyzed together using logistic regression. SAS® (Statistical Analysis Software) was used to conduct all the analyses.

CHAPTER FOUR: RESULTS

There were 3 recruitment sites used in this study, the UCHC dermatology clinic (30%), the UCHC medical clinic (30%), and the HH Brownstone medical clinic (40%). The average age of participants was 45.3 (SD = 15.4, range = 18.0 – 87.0). Approximately 30 percent of the participants were male and 70 percent female. The major racial group represented was black (69.2%), and the major ethnic group represented was Hispanic (56.3%). The education level of respondents was highly variable. Twenty percent reported having less than a high school degree, 35.4 percent reported having a high school/GED degree, 13.9 percent reported having an associate's degree, 10 percent reported having a bachelor's degree, and 20.8 percent reported having a graduate degree. The average number of years of education was 13.5 (SD = 2.9, range 10.0 – 18.0). Most participants reported being employed full-time (45.4%); 9.2 percent reported part-time employment; 24.6 percent reported being unemployed; 2.3 percent reported being students; and 18.5 percent were retired. Overall, 54.6 percent of participants were employed, and 45.4 percent did not have any employment. Yearly income was also widely varied: 20.3 percent reported making $4,999 or less; 21.1 percent reported between $5,000 and $9,999; 21.9 percent reported between $10,000 and $24,999; 10.9 percent reported between $25,000 and $39,999; 21.1 percent reported between $40,000 and $74,999; 3.1 percent reported between $75,000 and $99,000; and 1.6 percent reported making more than $100,000. The average yearly income was $27,094 (SD = $25,579, range $2,500 – $112,500). Most participants (79.2%) reported

receiving regular medical care at a medical doctor's office. Ninety-five percent reported having medical insurance. Nearly 44 percent reported having private employer-provided insurance, 4.3 percent reported having private individual insurance, 13.8 percent reported having Medicare, 20.2 percent reported having Medicaid, 9.6 percent reported having HUSKY, and 8.5 percent reported having both Medicare and Medicaid. Overall, 47.9 percent of participants had private insurance, and 52.1 percent had other forms of insurance. Approximately 90 percent of participants reported having a primary care provider. Fifty-seven percent reported never seeing a dermatologist in their lifetime, and 41.5 percent reported not seeing a dermatologist even when it was needed. Approximately 50 percent of the participants reported having friends or family members who had seen a dermatologist. (Table 1)

Phase two of the survey examined reasons for the reduced use of dermatologists among racial and ethnic minorities. The following are reasons that were reported by greater than 20 percent of participants. The reasons are listed from highest to lowest percentage:

- *"I see my primary care provider instead"* (50%)
- *"I don't have any problems"* (49%)
- *"I use home remedies/over-the-counter creams"* (40%)
- *"I don't have a dermatologist"* (38%)
- *"I am not sure if insurance will cover it"* (36%)
- *"I have to wait a long time for an appointment"* (32%)
- *"My primary care provider never referred me"* (27%)

- *"I ignore the problem"* (26%)
- *"I am not sure when I should go"* (24%)
- *"It is too expensive"* (24%)
- *"I don't know where to go"* (22%) (Table 2)

The variables found to have a statistically significant relationship with *use of dermatologic care* are shown in table 3. These variables are:

- *Location*
- *Location2* (The 'location' variable was recoded into a 2-level, dichotomous, variable; HH Brownstone medical clinic or UCHC clinics)
- *Employment status2* (The 'employment' variable was recoded into a 2-level, dichotomous, variable; Employed or unemployed)
- *Yearly income*
- *Having friends and family who used dermatologists*
- *"I have to wait a long time for an appointment"*
- *"I am not sure if insurance will cover it"*
- *"I don't have a dermatologist"*
- *"My problems are not taken seriously"*
- *"My doctor doesn't listen to me"*
- *"I was not pleased with the service at the doctor's office"*

Respondents recruited at the HH Brownstone medical clinic were less likely to have used dermatologic care than individuals recruited at the UCHC clinics. Respondents who were unemployed were less likely to have used dermatologic care. Higher income respondents were more likely to have used

dermatologic care. Respondents who reported *having a family member or friend who used dermatologists* were more likely to have seen a dermatologist as well. Individuals who reported *"I am not sure if insurance will cover it"* or *"I don't have a dermatologist"* were less likely to have used dermatologic care. Respondents who reported *"I have to wait a long time for an appointment"* or *"My doctor doesn't listen to me"* or *"I was not pleased with the service at the doctor's office"* were more likely to have used dermatologic care. (Tables 3a/3b)

The variables *age* (t=0.94, p=0.350), *income2* (t=-1.81, p=0.072), and *education2* (t=-0.79, p=0.433), had no statistically significant correlation to *use of dermatologic care*. Individuals who used dermatologic care and individuals who did not, had very similar characteristics. (Table 4) *Age* had a statistically significant negative correlation to *income2*, and also to *education2*. *Income2* had a statistically significant positive correlation to *education2*. The correlations among age, income2, and education2 show that these variables may all be measuring the same characteristic in the respondents. There were no statistically significant correlations found with any of these three variables and *use of dermatologic care*. (Table 5)

Multivariate Analysis

In looking at the combined effects of *location*, *having friends/family who used a dermatologist*, *"I have to wait a long time for an appointment," "I am not sure if insurance will cover it," "I want a doctor that looks like me," "I wasn't satisfied with my care at my last visit," "My problems are not taken seriously," "I*

was not pleased with the service at the doctor's office," and the *use of dermatologic care,* a few statistically significant relationships were found. Individuals who responded that *friends/family see a dermatologist* were more likely to have seen a dermatologist. This also held true for those who *stated "I have to wait a long time for an appointment," "My problems are not taken seriously," "I was not pleased with the service at the doctor's office."* Those who reported, *"I am not sure if insurance will cover it"* were less likely to have seen a dermatologist. The variable *"I want a doctor that looks like me"* was included for interest. (Table 6)

TABLE 6: MULTIVARIATE LOGISTIC REGRESSION MODEL PREDICTING USE OF DERMATOLOGIC CARE (N=100-130)

CHARACTERISTIC	***Adjusted OR (95% CI)***	***P value***
Location2 *UCHC clinics* *HH Brownstone medical clinic*	0.39 (0.13 – 1.18)	0.094
Friends/Family see a dermatologist	3.01 (1.10 – 8.24)	0.032
I have to wait a long time for an appointment	3.12 (1.03 – 9.45)	0.044
I am not sure if insurance will cover it	0.23 (0.07 – 0.72)	0.012
I want a doctor that looks like me	0.19 (0.01 – 2.97)	0.239
I wasn't satisfied with my care at my last visit	0.08 (0.00 – 1.61)	0.100
My problems are not taken seriously	13.6 (1.34 – 137.4)	0.027
I was not pleased with the service at the doctor's office	20.85 (2.06 – 211.60)	0.010

CHAPTER FIVE: DISCUSSION

This study investigated reasons for the reduced use of dermatologists by racial and ethnic minorities. This was a two-phase cross-sectional study. The final administered questionnaire incorporated barriers generated from phase one of the study and the literature review. This was a convenient sampling and not intended to be fully representative of all racial and ethnic minorities, however, it serves as an approximation of the state of care in minority populations.

The predominant racial group represented in this study was black, and the major ethnic group represented was Hispanic. This pattern is a reflection of the population demographics in the Hartford area. Furthermore, studies have shown that females seek medical attention more readily than their male counterparts[24] which likely explains why most of the respondents in this survey were female. The average income of respondents was only $27,000, which falls below the national median household income reported in 2007[25], and may constitute a significant financial barrier to the use of dermatologic care. This low income is probably related to the low education level and low employment rate reported by respondents.

Previous studies have reported a variety of reasons for the limited use of dermatologists by racial and ethnic minorities. Some variables that were reported in previous studies as significant reasons for the reduced use of dermatologists by minority populations were not found to be significant in this study. These unexpected findings may be due to the small size of the study population or these reasons may not be widely applicable.

Although not identified as a statistically significant barrier to not seeing a dermatologist, many of the study participants reported seeing a generalist, and some patients reported seeing their primary care provider instead of seeing a dermatologist for skin-related concerns. Furthermore, some reported not receiving a referral from the primary care provider. Improved communication between healthcare providers may decrease this occurrence.

Respondents who stated, *"I have to wait a long time for an appointment,"* or *"My doctor doesn't listen to me,"* or *"I was not pleased with the service at the doctor's office"* were more likely to have used dermatologic care. The reason may be that these respondents sought specialty dermatologic care and a negative prior experience became a deterrent. The other two reasons, *"I am not sure if insurance will cover it"* or *"I don't have a dermatologist",* were reported by those who had not seen a dermatologist. Additionally, *"I want a doctor that looks like me"* had no statistically significant relationship to use of specialized dermatologic care. This variable was included, to examine whether or not racial and ethnic minorities prefer to receive care from individuals with a similar racial or ethnic background. This was not found in our study, however it is important to note that some respondents were confused by the question.

Other factors related to not seeing a dermatologist were: whether or not the individual was employed, the location where the study was performed, the financial resources of the individual, and knowing someone who had seen a dermatologist in the past. Individuals who reported *having a friend or family member who had seen a dermatologist* in the past were more likely to also have

seen a dermatologist. For these respondents, the idea of seeing a dermatologist was no longer a foreign concept, increasing the likelihood of seeking specialized dermatologic care. Furthermore, the significance of location may actually be linked more to financial resources than location. When location was analyzed in the context of the other statistically significant variables, the relationship to *use of dermatologic care* was no longer significant.

So what are the possible solutions? The results of this study suggest starting with education. Teaching sessions in the schools and in the community, including health fairs and public service announcements that emphasize skin care can go a long way toward increasing the awareness of the population regarding the value of specialized dermatologic care. Sessions should also introduce the public to local dermatologic resources. In addition, providers need to be educated on the need to address the dissatisfaction that patients may experience in seeking dermatologic care. Provider education can take place through continuing medical education sessions focused on studies such as this one. However, education alone is not sufficient to improve the overall access to dermatologic care among racial and ethnic minorities. Other interventions are needed to address barriers such as the long wait time for an appointment, which may be better addressed by increasing the dermatology workforce. Studies have shown that both a shortage and a geographic maldistribution of dermatologists exists.[26] Possible solutions will be to increase the number of training positions and to provide incentives for physicians to work in underserved areas. In addition, training primary care providers in the fundamentals of dermatology, and

recruiting physician assistants and nurse practitioners to the field of dermatology may help to improve this problem. Some of the identified barriers are more challenging to manage with interventions, such as employment status and financial resources. This is an area that has been further affected by the current economic crisis.

The limitations of the study are that it was conducted on a relatively small convenient sample of individuals who had established contact with the health care system. This creates selection bias, and limits the ability to generalize from the results. Also contributing to the limited ability to generalize from this study is the use of only one geographic region for recruitment. One of the strengths of this study was the use of three different sites for recruitment, which resulted in greater demographic diversity. Also, conducting the study in two phases allowed for changes to be made to improve the final administered questionnaire. Future studies should recruit participants from schools and churches, as well as other geographic regions in order to get a broader representation of the population, including individuals who are not already in the health care system.

CHAPTER SIX: CONCLUSION

Studies have shown that racial and ethnic minorities do not utilize dermatologic care as much as their Caucasian counterparts. The barriers that have been previously reported are transportation, trust in the doctor, communicating with the doctor, cost and insurance, clinic accessibility, social support, service at the doctor's office, lack of knowledge about skin cancer risk, lack of fear of skin cancer, and common use of folk medicine or home "cures". [7]

Barriers that were identified in this study population include:

- *Limited financial resources*
- *Lack of friends and family who used dermatologists*
- *Long wait times for an appointment*
- *Uncertainty as to whether insurance will cover visit*
- *Lack of a dermatologist*
- *Feeling problems are not taken seriously*
- *Feeling that the doctor does not listen*
- *Displeasure with the service at the doctor's office*

Although all the reasons that have been previously reported in the literature and those that were revealed during phase one of this study were tested, only the factors listed above were found to be statistically significant in the study population. The reason for reduced use of dermatologic care was not that the participants did not have any problems, or that the service was too expensive, or the use of home remedies, for example. While some people did

report having these barriers, they were not statistically significant. Other reasons played a more important role.

All of the barriers reported by the respondents are amenable to interventions such as education of patients, education of providers, and by making changes in the health care delivery system. While these barriers cannot be overcome instantaneously, interventions can bring about a gradual change. Through sustained educational interventions, such as teaching sessions, significant improvements may be noted in the use of dermatologic care by racial and ethnic minorities. Also, increasing the dermatology workforce will be very beneficial.

Promoting greater use of specialized dermatologic care among racial and ethnic minorities is important because as this and previous studies have shown, this population group is at risk for significant skin-related problems. Contrary to popular belief, skin cancer continues to cause disproportionate morbidity and mortality in minority populations. Dermatologic care is invaluable to racial and ethnic minorities.

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APPENDIX A

TABLE 1: DEMOGRAPHICS/CLINICAL CHARACTERISTICS (N=100 – 130)

CHARACTERISTIC	*n (%)*
Location, *n = 130*	
UCHC dermatology clinic	39 (30.0)
UCHC medical clinic	39 (30.0)
HH Brownstone medical clinic	52 (40.0)
Location2 *n = 130*	
UCHC clinics	78 (60.0)
HH Brownstone medical clinic	52 (40.0)
Age, mean [range] (SD) *n = 129*	45.3 [18.0 – 87.0] (15.4)
Gender, *n = 130*	
Male	38 (29.2)
Female	92 (70.8)
Race, *n = 78*	
White	8 (10.3)
Black	54 (69.2)
Asian	15 (19.2)
Native American	1 (1.3)
Race2, *n = 78*	
Black	54 (69.2)
Non-black	24 (30.8)
Ethnicity, *n = 112*	
Hispanic	63 (56.3)
Non-Hispanic	41 (36.6)
Indian	6 (5.4)
Chinese	1 (0.9)
Cape Verdean	1 (0.9)
Ethnicity2, *n = 112*	
Hispanic	63 (56.3)
Non-Hispanic	49 (43.7)
Education, *n = 130*	
None/<High School	26 (20.0)
High school/GED	46 (35.4)
Associate's degree/2-year college	18 (13.9)
Bachelor's degree/4-year college	13 (10.0)
Graduate/professional degree	27 (20.8)
Education2 *(years)*, mean [range] (SD) *n = 130*	13.5 [10.0 – 18.0] (2.9)
Employment Status, *n = 130*	
Employed, full-time (35 hours or more)	59 (45.4)

Employed, part-time (less than 35 hours) Unemployed Student Retired	12 (9.2) 32 (24.6) 3 (2.3) 24 (18.5)
Employment2, *n = 130* Employed Unemployed	 71 (54.6) 59 (45.4)
Yearly Income ($), *n = 128* 0 – 4,999 5 – 9,999 10 –24.999 25 – 39,999 40 – 74,999 75 – 99,999 > 100,000	 26 (20.3) 27 (21.1) 28 (21.9) 14 (10.9) 27 (21.1) 4 (3.1) 2 (1.6)
Income2, mean [range] (SD) *n = 128*	$26,093.80 [2,500.00 – 112,500.00] ($25,579.41)
Site of Regular Medical Care, *n = 130* Medical/Doctor's office Emergency room Walk-in/Hospital clinic Community health center	 103 (79.2) 3 (2.3) 11 (8.5) 13 (10.0)
Site of Regular Medical Care2, *n = 130* Medical/Doctor's office Other	 103 (79.2) 27 (20.8)
Medical Insurance, *n = 100* No Yes	 5 (5.0) 95 (95.0)
Type of Insurance, *n = 94* Private – Employer-provided Private – Individual Medicare Medicaid Husky Medicare/Medicaid	 41 (43.6) 4 (4.3) 13 (13.8) 19 (20.2) 9 (9.6) 8 (8.5)
Type of Insurance2, *n = 94* Private Other	 45 (47.9) 49 (52.1)
Have primary care provider, *n = 130* No Yes	 17 (13.1) 113 (86.9)
Ever seen a dermatologist, *n = 130* No Yes	 74 (56.9) 56 (43.1)
Ever needed to see a dermatologist but did not go, *n = 130*	

No Yes	76 (58.5) 54 (41.5)
Friends/Family see a dermatologist, *n = 99* No Yes	 50 (50.5) 49 (49.5)

TABLE 2: REASONS FOR REDUCED USE OF DERMATOLOGIC CARE (N=100)

Reasons	
I don't have any problems, n (%) No Yes	 51 (51.0) **49 (49.0)**
I am not sure when I should go, n (%) No Yes	 76 (76.0) **24 (24.0)**
I have to wait a long time for an appointment, n (%) No Yes	 68 (68.0) **32 (32.0)**
It is too expensive, n (%) No Yes	 76 (76.0) **24 (24.0)**
I am not sure if insurance will cover it, n (%) No Yes	 64 (64.0) **36 (36.0)**
I use home remedies/over-the-counter creams, n (%) No Yes	 60 (60.0) **40 (40.0)**
I ignore the problem, n (%) No Yes	 74 (74.0) **26 (26.0)**
The office is too far away, n (%) No Yes	 89 (89.0) **11 (11.0)**
The office hours are not convenient for me, n (%) No Yes	 82 (82.0) **18 (18.0)**
I don't have transportation to get to the office, n (%) No Yes	 86 (86.0) **14 (14.0)**
I don't know where to go, n (%) No Yes	 78 (78.0) **22 (22.0)**
I don't have a dermatologist, n (%)	

No Yes	62 (62.0) **38 (38.0)**
I see my Primary Care Physician instead, n (%) No Yes	 50 (50.0) **50 (50.0)**
My Primary Care Physician never referred me, n (%) No Yes	 73 (73.0) **27 (27.0)**
I am afraid of treatment side effects, n (%) No Yes	 86 (86.0) **14 (14.0)**
I want a doctor that looks like me, n (%) No Yes	 94 (94.9) **5 (5.1)**
I wasn't satisfied with my care at my last visit, n (%) No Yes	 89 (89.0) **11 (11.0)**
My problems are not taken seriously, n (%) No Yes	 87 (87.0) **13 (13.0)**
I don't trust the doctor, n (%) No Yes	 94 (94.0) **6 (6.0)**
My doctor doesn't listen to me, n (%) No Yes	 93 (93.0) **7 (7.0)**
I am not comfortable talking to my doctor, n (%) No Yes	 94 (94.0) **6 (6.0)**
My family and friends discourage it, n (%) No Yes	 98 (98.0) **2 (2.0)**
I was not pleased with the service at the doctor's office, n (%) No Yes	 86 (86.0) **14 (14.0)**
I don't want to be told I may have cancer, n (%) No Yes	 96 (96.0) **4 (4.0)**
I am not at risk for serious problems (skin cancer), n (%) No Yes	 81 (81.0) **19 (19.0)**

TABLE 3a: UNADJUSTED ASSOCIATIONS BETWEEN STUDY VARIABLES AND USE OF DERMATOLOGIC CARE (N=100 – 130)

CHARACTERISTIC	***N***			***% with USE OF DERM CARE***		***P Value***
Location		**N**	**Y**	**N**	**Y**	0.001
UCHC dermatology clinic	39	17	22	43.6	56.4	
UCHC medical clinic	39	17	22	43.6	56.4	
HH Brownstone clinic	52	40	12	76.9	23.1	
	Total	74	56			
Location2		**N**	**Y**	**N**	**Y**	<0.001
HH Brownstone clinic	52	40	12	76.9	23.1	
UCHC clinics	78	34	44	43.6	56.4	
	Total	74	56			
Gender		**N**	**Y**	**N**	**Y**	0.190
Male	38	25	13	65.8	34.2	
Female	92	49	43	53.3	46.7	
	Total	74	56			
Race		**N**	**Y**	**N**	**Y**	0.593
White	8	5	3	62.5	37.5	
Black	54	27	27	50.0	50.0	
Asian	15	9	6	60.0	40.0	
Native American	1	0	1	0.0	100.0	
	Total	41	37			
Race2		**N**	**Y**	**N**	**Y**	0.496
Black	54	27	27	50.0	50.0	
Non-black	24	14	10	58.3	41.7	
	Total	41	37			
Ethnicity		**N**	**Y**	**N**	**Y**	0.353
Hispanic	63	40	23	63.5	36.5	
Non-Hispanic	41	20	21	48.8	51.2	
Indian	6	3	3	50.0	50.0	
Chinese	1	1	0	100.0	0.0	
Cape Verdean	1	0	1	0.0	100.0	
	Total	64	48			
Ethnicity2		**N**	**Y**	**N**	**Y**	0.124
Hispanic	63	40	23	63.5	36.5	
Non-Hispanic	49	24	25	49.0	51.0	
	Total	64	48			
Education		**N**	**Y**	**N**	**Y**	0.482
None/<High School	26	13	13	50.0	50.0	
High school/GED	46	31	15	67.4	32.6	
Associate's degree/2-year	18	10	8	55.6	44.4	

college	13	7	6	53.8	46.2	
Bachelor's degree/4-year college	27	13	14	48.2	51.8	
Graduate/professional degree	**Total**	74	56			
Employment Status		**N**	**Y**	**N**	**Y**	0.147
Employed, full-time (≥ 35 hours)	59	28	31	47.5	52.5	
Employed, part-time (≤ 35 hours)	12	6	6	50.0	50.0	
Unemployed	32	22	10	68.8	31.2	
Student	3	3	0	100.0	0.0	
Retired	24	15	9	62.5	37.5	
	Total	74	56			
Employment Status2		**N**	**Y**	**N**	**Y**	0.023
Employed	71	34	37	47.9	52.1	
Unemployed	59	40	19	67.8	32.2	
	Total	74	56			
Yearly Income ($)		**N**	**Y**	**N**	**Y**	0.037
0 – 4,999	26	17	9	65.4	34.6	
5 – 9,999	27	20	7	74.1	25.9	
10 –24.999	28	14	14	50.0	50.0	
25 – 39,999	14	7	7	50.0	50.0	
40 – 74,999	27	11	16	40.7	59.3	
75 – 99,999	4	4	0	100.0	0.0	
> 100,000	2	0	2	0.0	100.0	
	Total	73	55			
Site of Regular Medical Care		**N**	**Y**	**N**	**Y**	0.250
Medical/Doctor's office	103	57	46	55.3	44.7	
Emergency room	3	3	0	100.0	0.0	
Walk-in/Hospital clinic	11	8	3	72.7	27.3	
Community health center	13	6	7	46.2	53.8	
	Total	74	56			
Site of Regular Medical Care2		**N**	**Y**	**N**	**Y**	0.476
Medical/Doctor's office	103	57	46	55.3	44.7	
Other	27	17	10	63.0	37.0	
	Total	74	56			
Medical Insurance		**N**	**Y**	**N**	**Y**	0.215
No	5	4	1	80.0	20.0	
Yes	95	49	46	51.6	48.4	
	Total	53	47			
Type of Insurance		**N**	**Y**	**N**	**Y**	0.165
Private – Employer-provided	41	18	23	43.9	56.1	
Private – Individual	4	4	0	100.0	0.0	
Medicare	13	9	4	69.2	30.8	
	19	11	8	57.9	42.1	

Medicaid	9	3	6	33.3	66.7	
Husky	8	4	4	50.0	50.0	
Medicare/Medicaid	**Total**	49	45			
Type of Insurance2		**N**	**Y**	**N**	**Y**	0.547
Private Insurance	45	22	23	48.9	51.1	
State Insurance	49	27	22	55.1	44.9	
	Total	49	45			
Have primary care provider		**N**	**Y**	**N**	**Y**	0.378
No	17	8	9	47.1	52.9	
Yes	113	66	47	58.4	41.6	
	Total	74	56			
Ever needed to see a dermatologist but did not go		**N**	**Y**	**N**	**Y**	0.241
	76	40	36	52.6	47.4	
No	54	34	20	63.0	37.0	
Yes	**Total**	74	56			
Friends/Family see a dermatologist		**N**	**Y**	**N**	**Y**	0.021
	50	32	18	64.0	36.0	
No	49	20	29	40.8	59.2	
Yes	**Total**	52	47			

TABLE 3b: UNADJUSTED ASSOCIATIONS BETWEEN STUDY VARIABLES AND USE OF DERMATOLOGIC CARE (N=100 – 130)

REASONS FOR LIMITED USE OF DERMATOLOGIC CARE	***N***			***% with USE OF DERM CARE***		***P Value***
I don't have any problems		**N**	**Y**	**N**	**Y**	0.225
No	51	24	27	47.1	52.9	
Yes	49	29	20	59.2	40.8	
	Total	53	47			
I am not sure when I should go		**N**	**Y**	**N**	**Y**	0.124
	76	37	39	48.7	51.3	
No	24	16	8	66.7	33.3	
Yes	**Total**	53	47			
I have to wait a long time for an appointment		**N**	**Y**	**N**	**Y**	0.033
No	68	41	27	60.3	39.7	
Yes	32	12	20	37.5	62.5	
	Total	53	47			
It is too expensive		**N**	**Y**	**N**	**Y**	0.736
No	76	41	35	53.9	46.1	
Yes	24	12	12	50.0	50.0	

	Total	53	47			
I am not sure if insurance will cover it		**N**	**Y**	**N**	**Y**	0.040
No	64	29	35	45.3	54.7	
Yes	36	24	12	66.7	33.3	
	Total	53	47			
I use home remedies/over-the-counter creams		**N**	**Y**	**N**	**Y**	0.120
No	60	28	32	46.7	53.3	
Yes	40	25	15	62.5	37.5	
	Total	53	47			
I ignore the problem		**N**	**Y**	**N**	**Y**	0.577
No	74	38	36	51.4	48.6	
Yes	26	15	11	57.7	42.3	
	Total	53	47			
The office is too far away		**N**	**Y**	**N**	**Y**	0.595
No	89	48	41	53.9	46.1	
Yes	11	5	6	45.5	54.5	
	Total	53	47			
The office hours are not convenient for me		**N**	**Y**	**N**	**Y**	0.778
No	82	44	38	53.7	46.3	
Yes	18	9	9	50.0	50.0	
	Total	53	47			
I don't have transportation to get to the office		**N**	**Y**	**N**	**Y**	0.808
No	86	46	40	53.5	46.5	
Yes	14	7	7	50.0	50.0	
	Total	53	47			
I don't know where to go		**N**	**Y**	**N**	**Y**	0.750
No	78	42	36	53.8	46.2	
Yes	22	11	11	50.0	50.0	
	Total	53	47			
I don't have a dermatologist		**N**	**Y**	**N**	**Y**	0.045
No	62	28	34	45.2	54.8	
Yes	38	25	13	65.8	34.2	
	Total	53	47			
I see my Primary Care Physician instead		**N**	**Y**	**N**	**Y**	0.161
No	50	23	27	46.0	54.0	
Yes	50	30	20	60.0	40.0	
	Total	53	47			
My Primary Care Physician never referred me		**N**	**Y**	**N**	**Y**	0.225
No	73	36	37	49.3	50.7	
Yes	27	17	10	63.0	37.0	
	Total	53	47			
I am afraid of treatment		**N**	**Y**	**N**	**Y**	0.738

sided effects	86	45	41	52.3	47.7	
No	14	8	6	57.1	42.9	
Yes	**Total**	53	47			
I want a doctor that looks like me		**N**	**Y**	**N**	**Y**	0.223
No	94	49	45	52.1	47.9	
Yes	5	4	1	80.0	20.0	
	Total	53	46			
I wasn't satisfied with my care at my last visit		**N**	**Y**	**N**	**Y**	0.070
No	89	50	39	56.2	43.8	
Yes	11	3	8	27.3	72.7	
	Total	53	47			
My problems are not taken seriously		**N**	**Y**	**N**	**Y**	0.021
No	87	50	37	57.5	42.5	
Yes	13	3	10	23.1	76.9	
	Total	53	47			
I don't trust the doctor		**N**	**Y**	**N**	**Y**	0.066
No	94	52	42	55.3	44.7	
Yes	6	1	5	16.7	83.3	
	Total	53	47			
My doctor doesn't listen to me		**N**	**Y**	**N**	**Y**	0.033
No	93	52	41	55.9	44.1	
Yes	7	1	6	14.3	85.7	
	Total	53	47			
I am not comfortable talking to my doctor		**N**	**Y**	**N**	**Y**	0.066
No	94	52	42	55.3	44.7	
Yes	6	1	5	16.7	83.3	
	Total	53	47			
My family and friends discourage it		**N**	**Y**	**N**	**Y**	0.179
No	98	51	47	52.0	48.0	
Yes	2	2	0	100.0	0.0	
	Total	53	47			
I was not pleased with the service at the doctor's office		**N**	**Y**	**N**	**Y**	0.011
No	86	50	36	58.1	41.9	
Yes	14	3	11	21.4	78.6	
	Total	53	47			
I don't want to be told I may have cancer		**N**	**Y**	**N**	**Y**	0.902
No	96	51	45	53.1	46.9	
Yes	4	2	2	50.0	50.0	
	Total	53	47			

I am not at risk for serious problems (skin cancer)		**N**	**Y**	**N**	**Y**	0.135
No	81	40	41	49.4	50.6	
Yes	19	13	6	68.4	31.6	
	Total	53	47			

TABLE 4: T-TESTS BETWEEN CERTAIN STUDY VARIABLES AND USE OF DERMATOLOGIC CARE (N=100 – 130)

CHARACTERISTICS	***Ever seen a dermatologist? (Y/N)***	***N***	***Mean***	***SD***	***T value***	***DF***	***P Value***
Age	**N**	73	46.5	15.8	0.94	127	0.350
	Y	56	43.9	14.7			
Income2	**N**	73	$22,568	$24,360	-1.81	126	0.072
	Y	55	$30,773	$26,618			
Education2	**N**	74	13.4	2.7	-0.79	128	0.433
	Y	56	13.8	3.1			

TABLE 5: PEARSON'S CORRELATIONS (N=100 – 130)

R ***P-value*** ***N***	1	2	3	4
1) Age	1.00 129	-0.23 0.009 128	-0.31 <0.001 129	-0.08 0.350 129
2) Income2	-0.23 0.009 128	1.00 128	0.57 <0.001 128	0.16 0.072 128
3) Education2	-0.31 <0.001 129	0.57 <0.001 128	1.00 130	0.07 0.433 130
4) Ever seen a dermatologist	-0.08 0.350 129	0.16 0.072 128	0.07 0.433 130	1.00 130

TABLE 6: MULTIVARIATE LOGISTIC REGRESSION MODEL PREDICTING USE OF DERMATOLOGIC CARE (N=100-130)

CHARACTERISTIC	***Adjusted OR (95% CI)***	***P value***
Location2 *UCHC clinics* *HH Brownstone medical clinic*	0.39 (0.13 – 1.18)	0.094
Friends/Family see a dermatologist	3.01 (1.10 – 8.24)	0.032
I have to wait a long time for an appointment	3.12 (1.03 – 9.45)	0.044
I am not sure if insurance will cover it	0.23 (0.07 – 0.72)	0.012
I want a doctor that looks like me	0.19 (0.01 – 2.97)	0.239
I wasn't satisfied with my care at my last visit	0.08 (0.00 – 1.61)	0.100
My problems are not taken seriously	13.6 (1.34 – 137.4)	0.027
I was not pleased with the service at the doctor's office	20.85 (2.06 – 211.60)	0.010

APPENDIX B

Cover Letter for Study Participants

July 24, 2008

To whom it may concern:

I am a fourth year medical student at the University of Connecticut School of Medicine. I am also working toward a Master of Public Health (MPH). I am doing this research study to find out what the reasons are for limited use of skin doctors by racial and ethnic minorities. Skin doctors take care of various skin, hair and nail conditions. Once we find out the reasons, programs can be developed to help to promote future use of this resource. I am asking you to be a part of the study because you are an adult, and belong to a minority group.

The survey that will follow will take between 15 and 30 minutes to complete. Please turn in the survey to the study coordinator when completed. In the survey, you will not provide any information that could be used to identify you at a future date. Your responses will not ever be directly linked to you. You have the option of participating or not. Also, you are free to stop taking the survey at any time. You may skip any questions you are not comfortable answering. By completing this survey, you are agreeing to help with the study.

Thank you for your time and consideration. If you have any questions, please email me. My address is taina@student.uchc.edu. Or, you may contact my advisor, Mr. Charles Huntington, at 860 679 7968.

Yours truly,

Titilopemi Aina, MSIV
University of Connecticut School of Medicine
MPH thesis project

APPENDIX C

Phase 1 Questionnaire

1. Subject #?

2. Location?

3. Age?

4. Gender?

5. Ethnicity (check all that apply)

White	☐No	☐Yes
Black	☐No	☐Yes
Hispanic	☐No	☐Yes
Asian	☐No	☐Yes

Other _____

6. Education
   - ☐ None/<High School
   - ☐ High school/GED
   - ☐ Associate's degree/2-year college
   - ☐ Bachelor's degree/4-year college
   - ☐ Graduate/professional degree

7. Employment status
   - ☐ Employed, full-time (35 hours or more)
   - ☐ Employed, part-time (less than 35 hours)
   - ☐ Unemployed
   - ☐ Student

8. Yearly Income ($)
   - ☐ 0 – 5000
   - ☐ 5 – 10000
   - ☐ 10 –25000
   - ☐ 25 – 40000
   - ☐ > 40000

9. Where do you get regular medical care?
   - ☐ Medical/Doctor's office
   - ☐ Emergency room
   - ☐ Walk-in clinic
   - ☐ Community health center

10. Do you have a PCP (Primary Care Provider)? ☐No ☐Yes

11. Have you ever seen a dermatologist? ☐No ☐Yes

12. Have you ever felt you needed to see a dermatologist but didn't go? ☐No ☐Yes

13. What are the reasons why you haven't seen a dermatologist or delayed seeing a dermatologist? *(Ex. "I have to wait a long time for an appointment", "It is too expensive"...etc)*

Phase 2 Questionnaire

1. Subject #?

2. Location?

3. Age? (In years)

4. Gender
   - ☐ Male
   - ☐ Female

5. Race
   - ☐ White
   - ☐ Black
   - ☐ Asian
   - ☐ Native American
   - ☐ Other _____

6. Ethnicity
   - ☐ Hispanic
   - ☐ Non-Hispanic
   - ☐ Other _____

7. Education
   - ☐ None/<High School
   - ☐ High school/GED
   - ☐ Associate's degree/2-year college
   - ☐ Bachelor's degree/4-year college
   - ☐ Graduate/professional degree

8. Employment status
   - ☐ Employed, full-time (35 hours or more)
   - ☐ Employed, part-time (less than 35 hours)
   - ☐ Unemployed
   - ☐ Student
   - ☐ Retired

9. Yearly Income ($)
   - ☐ 0 – 4,999
   - ☐ 5 – 9,999
   - ☐ 10 –24,999
   - ☐ 25 – 39,999
   - ☐ 40 – 74,999
   - ☐ 75 – 99,999

☐ > 100,000

10. Where do you get regular medical care?
    - ☐ Medical/Doctor's office
    - ☐ Emergency room
    - ☐ Walk-in/Hospital clinic
    - ☐ Community health center

11. Do you have health insurance? ☐No ☐Yes

12. What type of health insurance do you have?
    - ☐ Private – Employer-provided
    - ☐ Private - Individual
    - ☐ Medicare
    - ☐ Medicaid
    - ☐ Husky

13. Do you have a PCP (Primary Care Provider)? ☐No ☐Yes

14. Have you ever seen a dermatologist? ☐No ☐Yes

15. Have you ever felt you needed to see a dermatologist but didn't go? ☐No ☐Yes

16. Do your family members and/or friends see a dermatologist? ☐No ☐Yes

17. Which of the following <u>reasons</u> have caused you not to see a dermatologist or delay seeing a dermatologist?

    a. I don't have any problems
       ☐No ☐Yes
    b. I am not sure when I should go
       ☐No ☐Yes
    c. I have to wait a long time for an appointment
       ☐No ☐Yes
    d. It is too expensive
       ☐No ☐Yes
    e. I am not sure if insurance will cover it
       ☐No ☐Yes
    f. I use home remedies (over the counter creams…etc)
       ☐No ☐Yes
    g. I ignore the problem
       ☐No ☐Yes
    h. The office is too far away
       ☐No ☐Yes

i. The office hours are not convenient for me
☐No ☐Yes

j. I don't have transportation to get to the office
☐No ☐Yes

k. I don't know where to go
☐No ☐Yes

l. I don't have a dermatologist
☐No ☐Yes

m. I see my Primary Care Physician instead
☐No ☐Yes

n. My Primary Care Physician never referred me
☐No ☐Yes

o. I am afraid of treatment side effects
☐No ☐Yes

p. I want a doctor that looks like me
☐No ☐Yes

q. I wasn't satisfied with my care at my last visit
☐No ☐Yes

r. My problems are not taken seriously
☐No ☐Yes

s. I don't trust the doctor
☐No ☐Yes

t. My doctor doesn't listen to me
☐No ☐Yes

u. I am not comfortable talking to my doctor
☐No ☐Yes

v. My family and friends discourage it
☐No ☐Yes

w. I was not pleased with the service at the doctor's office
☐No ☐Yes

x. I don't want to be told I may have cancer
☐No ☐Yes

y. I am not at risk for serious problems (skin cancer)
☐No ☐Yes