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It Isn't Just Skin Deep: Adolescents and Appearance in Connecticut

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It Isn't Just Skin Deep: Adolescents and Appearance in Connecticut

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It isn't just skin deep: Adolescents and Appearance in Connecticut

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Chapter 1 - Introduction

Skin color and skin tones have been a major area of political, social, and cultural significance for generations within the United States and internationally. Society's current perceptions of skin tone as they relate to beauty and self-image are derived from generations of historical context and mixed messages from a wide-range of sources. *It isn't just skin deep: Adolescents and Appearance in Connecticut* is an ethnographic and anthropologic investigation into this topic as it relates to adolescents and their health within the state of Connecticut today. The specific purpose of this study is to investigate perceptions, self-image, and behaviors related to skin tone and skin tone altering among adolescents. The study will particularly look at what factors, such as peers, parental modeling, media, and knowledge surrounding the health risks associated with skin tone altering activities plays a role in influencing these perceptions and behaviors. Ultimately, the study is meant to highlight key areas for intervention to promote natural beauty and positive self-image while decreasing participation in risky skin tone altering and other appearance altering behaviors for adolescents within our state. The research was conducted within three extracurricular groups in the towns of Hartford, New Britain, and Guilford, Connecticut over the course of the 2012-2013 and 2013-2014 academic years.

Historical Context

Skin tone has been shown to play a significant role in society's current perceptions surrounding beauty.¹ A recent study found that when controlling for other variables of beauty, both dark and light skinned Americans found medium skin tones to be most attractive when asked to compare between light, medium, and dark skin tones.¹ Societal constructs of beauty surrounding this issue have the potential to play a role in fueling skin tone altering activities, such as indoor and outdoor tanning to achieve a "beautiful bronzed" complexion for those with

light skin as well as applying bleaching creams to lighten darker skin.^{1,2} However, current trends behind skin color preferences, skin tone perceptions, and ideals of skin beauty are shaped by the historical context. Today's societal concepts and constructs surrounding skin color have developed over a long history surrounding skin color both globally and within the US. Revisiting this history is an important step in contextualizing current understandings, perceptions, and preferences for skin tone for adolescents today.

The birth of race defined by skin color

Although the topic of the societal importance placed on skin color dates back to inter-racial encounters in medieval and Biblical times, the narrative of race and skin color as it unfolded within the US can be interpreted as beginning in the European "Age of Discovery" starting in the 15th century.^{3,4} Prior to this period, the vast majority of White-Europeans' experiences with diversity were almost exclusively between other White-European individuals from different countries of origin. During the 15th century, White-Europeans began embarking on exploratory conquests into territories that were new to White-Europeans, particularly across the Americas, Asia, and Africa, that had previously been inhabited by individuals indigenous to these areas.³ In doing so, White-Europeans began having their first significant encounters with individuals with differing skin tones.³

As the "Age of Exploration" transitioned into the Colonial Era, White-Europeans continued seizing and settling into these aforementioned territories. British colonization of the now United States began in Virginia in the early 17th century.⁵ Here, White-Europeans interacted, at first amicably and eventually forcefully, with the indigenous Native American populations.⁵ Over time, the colonists continued to develop the land they had usurped from the Native

American inhabitants, creating tobacco farms that grew quickly in size and success. The farms originally depended upon the work of British indentured servants during the first major increase in production in the 1620's.⁵ However, as production continued to grow towards the end of the 17th century, colonists began to "import" and purchase Black slaves from Africa.⁵ After the introduction of slavery towards the end of the 17th century, the practice of importing and subordinating Black slaves by White-Europeans would continue for nearly two centuries. This period saw an onslaught of laws targeted at developing and maintaining the supposed inferiority of Black slaves.³

As colonialism and slavery within the Americas matured, and populations from previously different continents continued to exist in one environment towards the end of the 17th century, the term race, previously used in English as a word akin to "breed" or "species," was adopted to classify the different populations then interacting within America – White, Black and Native American.⁶ Additionally, with overtones of militancy and domineering presence on behalf of White-Europeans, this early settlement period within the now United States planted the seeds for notions of White-White superiority over individuals with "Skin of Color".

As the concept of race began to be used more commonly in written and spoken language at the beginning of the 18th century, the phrase began to hold more weight. The term morphed from a word that had recently come to be used to identify different human populations into a word that was used to stratify groups according to arbitrary social and/or biological differences that were devoid of true meaning or scientific basis.⁶ The word "race" quickly developed into the "idea of race" and began to connote intrinsic differences in character and biology between different populations that had not previously existed.⁶ Prior to this era, during the Renaissance period, Europeans on whole did not self-identify as "White" and notions surrounding fair skinned

individuals were in fact reserved for more derogatory statements about individuals from the Northern most regions of Europe.⁷ However, as the idea of race developed around the Americas, a growing mindset considered “White” the “non-race” as compared to all other, supposedly “inferior” races.⁷ With this in mind, European-Americans used these concepts as a means of dehumanizing Black populations to justify the movement towards legalizing slavery and the entire act of colonialism in and of itself.⁶ Thus, the phrase “race,” now commonly used as a socio-demographic descriptor, was essentially a social construct by European-Americans introduced towards the end of the 17th century and further developed as a concept into the early 18th century designating a social hierarchy that placed fair skinned European-Americans at the top and darker skinned Native Americans just above Blacks at the bottom.^{3,6} In this manner, as the United States came into its very existence, skin color and skin tone held much greater social implications than simple preferences surrounding appearance.

From skin color to science

Following the social construct of race groupings, scientific work in the United States seeking to add biological credence to these beliefs began to take hold in the mid-18th century to defend the act of slavery.⁶ This initiative was sparked by Thomas Jefferson who discussed in, *Notes on the State of Virginia*, the naturally inferior nature of Blacks from his observations of the slaves on his plantation and requested that additional work on this topic be performed to confirm these observations.⁶ Following this call to action by Jefferson, the latter part of the 18th century saw an upswing in pseudo-scientific literature attempting to stratify races based upon scientific data.⁶ This area of study gained additional popularity in the 19th century when researchers focused on measuring skulls and eventually other body parts to pseudo-scientifically determine inequalities among races.⁶ Repeatedly, researchers proposed pseudo-scientific “explanations”

that defended White superiority as a race based upon arbitrary measurements.⁶ Using supposedly objective data, scientists stratified races into a type of biological hierarchy, a body of literature now referred to as scientific racism.³

Dating back to the years of slavery and the sexual relationships between Black slaves and White slave owners, America saw the development of a population with mixed-racial backgrounds.⁸ This growing group of individuals with parents from two different races were often extended “privileges” and “special treatment” from slave owners, setting the groundwork for a hierarchy within the Black population that favored lighter skin tones and disfavored darker skin tones.⁸ This socially constructed hierarchy was further supported by scientific racism which would use supposedly objective scales to quantify races on a continuum that would repeatedly rank mixed race individuals in a separate category between White and Black individuals.⁹ These scientific publications added additional support to this growing social hierarchy.

The fall of slavery

Long after being legally established as a practice in the late 17th century, Abraham Lincoln is often credited with the end of slavery in the United States with the signing of the Emancipation Proclamation in 1863.^{3,10} However, the actual abolishment of slavery did not occur until the 13th Amendment was passed in 1865 at the conclusion of the American Civil War, which officially made the institution of slavery illegal.^{3,11} Although 1865 brought about the abolishment of slavery, the Black-White dichotomy that had been established over the previous two centuries that idealized White skin and discriminated against darker skin tones was far from forgotten.

Fair skin as beauty

From this history of racism, classism, and perceived inferiority of skin of color, at the close of the 19th century and entering the 20th century, American media and fashion trends surrounding skin tone glamorized fair skin as a sign of beauty, wealth, and high class.¹² Conversely, darker skin tones were felt to be less attractive and denoted a job requiring manual labor in which one could not protect their skin from the sun.¹² Beauty ads in the United States at the turn of the 20th century featured articles on how to improve and preserve a fair complexion.¹³ Recipes for topical sun protectants – chalky white pastes that could be applied to the skin - made with petrolatum or almond oil with a thick powder mixed, were occasionally employed.¹³ Magnesia and zinc were often included in the mix. Fashion magazines would run articles on the best way to avoid the sun and to protect one's complexion from sun and wind exposure.¹³ Additionally, bleaching creams were promoted as a way for White women to enhance natural beauty by removing freckles or sun spots to even out complexion.¹⁴ These early bleaching creams posed serious health risks as they often contained toxic chemicals, such as mercury bichloride, arsenic or caustic potash.¹³ Individuals, and particularly women of wealth, would take care to avoid the sun and to use hats, long sleeve clothing, and parasols for protection when avoidance was not possible.¹⁴ Additionally, heavy powders, which were often lead-based, were used as a form of make-up to temporarily lighten the skin.¹²

At this time, perceptions tying fair skin to wealth and beauty were not reserved to the United States.¹⁴ Across the globe, as historical accounts and trends of the “parasol” recounted by the anthropologist Marvin Harris found, royalty and wealthy “nobles” from Rome to Northern Africa were seen being shaded from the effects of the sun with celebratory umbrellas and parasols.¹⁴ Harris noted that because of this, skin several shades lighter, regardless of the

underlying skin tone of the region of the globe that was being studied, became synonymous with wealth and nobility.¹⁴ These trends, in the late 19th and early 20th century, in “fashionably fair” skin and sun-protective practices for the wealthy and elite across the globe are forever immortalized in artistic works dating back to this period, both literature and visual media alike.¹²

The earliest recognition that sunlight might contribute to precancerous and eventually cancerous changes in the skin began appearing in the medical literature in 1894 and 1906 respectively by early dermatologists Paul Gerson Unna and James Nevins Hyde.¹³ However, the mechanisms surrounding ultraviolet generated cutaneous neoplasms were not understood and literature surrounding this topic was scarce and almost exclusively reserved to dermatologic texts.¹³ Therefore, at this time the link between sunlight and skin cancer was not widely embraced by the medical community and certainly had not spread to people outside of the medical community. Sun protective measures at the end of the 19th century were purely for reasons surrounding aesthetics, status, and current fashion trend.¹³

The origins of the suntan

Although, the pre-eminent image of the late 1800’s and early 20th century celebrated fair skin, this period of history also laid the foundation for the eventual popularization of the suntanned appearance which increased exponentially in the 1920s. During this period, medical professionals began to feel that exposure to the sun and sunlight could be a means to promote health.¹³ Some medical literature began broadly attributing good spirit and “good health” of individuals after returning from vacation to sunlight.¹³

This period of time also saw the advent of phototherapy as a medicinal treatment.¹³ Physicians had begun to explore physical therapies such as x-ray therapy, radium therapy, and

fever therapy.¹³ Ultraviolet radiation was brought into the medical literature in 1877 by Downes and Blunt who demonstrated that sunlight had both bactericidal and fungicidal properties.¹³ In 1901, a Danish physician, Niels Finsen, introduced the concept of phototherapy as it is now used when he published an article declaring the successful treatment of cutaneous tuberculosis, also known as Lupus Vulgaris, with ultraviolet radiation.¹³ In 1903, Finsen won the Nobel Prize for this work.^{12,13}

Following its advent, the popularity of this therapeutic treatment spread rapidly among the medical community and ultraviolet radiation was utilized as a therapy in different modalities – from devices that would dissipate heat while allowing specific ultraviolet wavelengths to pass through to utilizing natural sunlight for therapeutic measures, a technique called heliotherapy.¹³ As phototherapy's popularity spread within the medical community, physicians began employing ultraviolet therapy for a wide range of diseases.¹³ Phototherapy was used for cutaneous conditions ranging from lupus erythematosus to ulcers, as well as more systemic non-cutaneous disease such as gout and rheumatoid arthritis. It was from the growing popularity of using sunlight as a medicinal treatment that the first sanitarium was opened in 1903 and the concept of full body sunlight as a treatment for tuberculosis came into practice.¹³ Full body exposure to sunlight became the mainstay of therapy for tuberculosis until 1946 when pharmaceuticals became available.¹² In the wake of the growing body of literature and experience with phototherapy, the notion that ultraviolet radiation could be used as a form of preventative medicine began to be considered, a concept which spread in popularity in the 1920's.¹³

By the end of the early 1900's there were individuals, even among higher social classes, who had become less concerned with sun protection and who were beginning to embrace the tanned

appearance.¹³ This paradigm shift is believed to be credited to social changes in which (1) women were participating in more outdoor activities that involved exposure to sunlight such as golfing, tennis, or biking; (2) recreational swimming was increasing in popularity; and (3) most importantly, the health benefits associated with exposure to sun and sunlight that the medical community had begun to support began to be spread widely to the non-medical community, further supporting the belief that a tanned appearance was one of good health.¹³

The popularization of the sun tan

Although the seeds were planted promoting the suntan at the turn of the 20th century, the 1920's solidified the suntan as the ideal for both beauty and health for White individuals. Early in the 20th century, scientific investigations surrounding potential health benefits continued to be investigated. At the time, rickets, a disease of insufficient bone ossification secondary to vitamin D deficiency, was a common ailment, particularly afflicting children. The mechanisms behind this disease were unknown and therapy was limited until 1919 when controlled animal studies demonstrated that cod liver oil or ultraviolet radiation could be used to prevent or treat Rickets.¹⁵ Additional work in this arena in the early 1920s linked ultraviolet radiation with the production of vitamin D in the skin and unveiled vitamin D as the causative vitamin deficiency behind Rickets.¹² Although vitamin D enriched foods became widely available in the wake of this discovery and made major public health advancements in the prevention and treatment of rickets, public health campaigns continued to promote ultraviolet exposure as another means of treatment and prevention of this disease in the 1920's.¹⁵ Many took the discovery that ultraviolet radiation could be used to treat Rickets by aiding in vitamin D synthesis as confirmation of the health benefits of UV light.¹⁵ In the wake of this discovery, sunlight was believed to prevent common cold, improve metabolism, improve mental stamina, and treat anemia, among other health

claims.¹⁵ Physicians began to experiment with phototherapy for a wide range of maladies. A 1937 textbook published by a renowned Mayo physician listed 176 non-dermatologic and 73 dermatologic conditions for which phototherapy was believed to be effective.¹²

In the 1920s, notions surrounding the use of sunlight and ultraviolet radiation in preventative medicine began to increase and the importance of sunlight in preventative medicine was promoted by both the medical and public health communities.¹² By the end of the 1920's increasing exposure to sunlight became a major public health goal within the United States to maintain and support good health.¹⁵ Exposure to sunlight and subsequently UV radiation was even believed to provide health benefits for the skin by increasing blood supply and subsequent nourishment to skin. The few articles within the dermatologic community that mentioned the possible carcinogenic effects of ultraviolet radiation from sun exposure were far outweighed and essentially silenced by the outflow of literature discussing the health benefits of sunlight.¹⁵ Public health literature promoted porous clothing, ultraviolet lights for schools “where children...should have musical drills and dance round the lamp of artificial sunlight”, and nudist colonies as possible means of capitalizing on the health benefits of ultraviolet radiation for the public at large.¹⁵ Children in particular were identified as a population for increasing exposure to sunlight; “sunbaths” were recommended involving exposing newborns to direct sunlight for 60 minutes twice a day.¹⁵

By 1928, fashion magazines had taken hold of the idea of the suntan for the upper-middle class and wealthy and began promoting it widely.¹² Pro-tanning messages increased exponentially and came in the form of articles specifically discussing the improved appearance of suntanned skin, fashion sections depicting what to wear with a tan, and advertisements promoting tanning products and sun-seeking behavior.¹² An article in the June 1929 edition of

Harper's Bazaar stated "There is no doubt about it. If you haven't a tanned look about you, you aren't part of the rage of the moment."¹² In this year, cosmetic companies began to market products that would either complement a tanned complexion or would help women mimic a tanned appearance for aesthetic purpose. Clothing and swimming lines for the summer became less conservative to permit women to expose their skin to the sun for the purpose of tanning.¹² Concurrently, the late 1920's saw a major decrease in the number of advertisements and articles surrounding skin bleaching and sun-protective practices for White individuals.

Following these medical and fashion influences, sun tanning became popularized and summer beaches were flooded with individuals sitting out for hours with oil to aid in the tanning process.¹⁵ Sun tanning locations also began to be available for purchase on hotel rooftops and in train seats fashioned with glass built to increase ultraviolet penetration.¹⁵ It was also during the late 1920's that sun lamps for the purpose of developing a tan became widely available.¹⁵ Manufacturers of sun lamps capitalized on the medical and public health messages of the era to advertise their products and improve their popularity in the American home.¹⁵ Thus, during the 1920's indoor and outdoor tanning by White populations increased in popularity exponentially.

Contradictory messages surrounding skin tone and skin color

Even as the beautiful bronzed appearance for light skinned individuals was glorified among White population in the United States and Europe, racism towards individuals with darker skin tones persisted. White-dominated legal, ethical, and social norms in the United States continued to view Americans with naturally darker skin tones as inferior.

Following the abolishment of slavery, faulty scientific discoveries were used to support laws, commonly referred to as Jim Crow Laws, which continued to legalize segregation and

discrimination into the 20th century.³ Despite great efforts from Black and progressive-minded White Americans, Black-Americans continued to be legally marginalized into the mid-1900s within the United States.¹⁶ It was not until the passage of *Brown v Board of Ed* in 1954, the 1964 Civil Rights Act, and the 1965 Voting Rights Act that Black Americans gained legal equality within the United States.¹⁶

The construction of modern concepts surrounding skin color

Thus, it is from this long historical background of racism and classism that the social construct of the higher social status of lighter skins blacks and the concept of the high status of the “beautiful bronzed” Euro-American was born. This beauty ideal which prompts naturally fair skinned individuals to find ways to darken their skin and naturally dark skinned individuals to find ways to lighten their skin has persisted into the 21st century and continues to add discomfort surrounding natural skin color for fair and dark skinned individuals alike. These social norms pressure adolescents to change their skin tone to fit into this ideal image and affect the self-image of children, adolescents, and adults.

Current practices in skin tone altering behavior among adolescents

Indoor and outdoor tanning

Neither indoor nor outdoor tanning practices are without risk.¹⁷⁻²⁰ Non-melanoma cancer remains the most common form of cancer within the United States, a trend which began in the mid-1900’s following the popularization of the suntan for White populations.^{12,19,20} In recent years, there has been an increase in incidence of both melanoma and non-melanomatous skin cancers such as basal cell carcinoma and squamous cell carcinoma.²¹ From 1973-2002, melanoma incidence was found to increase 150% throughout the United States²⁰ with UV

exposure found to be the most significant risk factor contributing to the development of melanoma.¹⁹ In Connecticut, a 2007 report demonstrated persistent increases in melanoma diagnoses from 1997-2003 with a particular increase in incidence in towns abutting the shoreline.²² Additionally, melanoma risk has been shown to increase by 87 % in individuals who begin indoor tanning before the age of 35.²³ These data support the need for further public health interventions in Connecticut, preferably starting from an early age²².

Research has suggested that tanning practices may be addictive in nature.^{24,25} One study demonstrated that UV light from tanning beds had a reinforcing effect when compared to beds with the UV light filtered out, resulting in a preference for the UV light beds among frequent tanners.²⁵ Another study found that starting tanning at an earlier age and frequency of use were both associated with increased dependency and difficulty quitting.²⁴ These findings are further substantiated by two recent pilot trials demonstrating the role of reward pathways in motivating tanning.^{26,27} Kaur et al.²⁶ documented decreased UV preference and withdrawal-like symptoms in frequent tanners following administration of an opioid antagonist after tanning, a finding that was not replicated in infrequent tanning controls.²⁶ Harrington et al.,²⁷ compared regional cerebral blood flow during use of UV emitting tanning beds and UV filtered tanning beds for a small number of frequent tanners.²⁷ They found increased blood flow to reward centers in the brain as well as a decreased urge to tan following exposure to the UV emitting beds but not the UV filtered beds.²⁷

Skin bleaching

Alternatively, skin bleaching agents, once used by White individuals to maintain a fair complexion and hide signs of sun exposure, are now being used and marketed across the globe as

a means for individuals with naturally darker skin to lighten their skin tones.¹⁷ While studies have documented the widespread use of skin lightening creams internationally, there is a paucity of literature surrounding skin bleaching practices and perceptions, particularly for adolescents, within the United States. Of note, epidemiologic studies surrounding skin bleaching products have not been conducted in the United States.²⁸

Bleaching has been described in specific immigrant communities who originate from countries in which this practice has gained widespread popularity.²⁹ International studies have shown that individuals who used skin lightening treatments responded that lighter skin made them feel more beautiful or more confident.¹⁷ Anecdotal accounts within the United States document that individuals with darker skin tone who wish to lighten their skin are often motivated by feelings of discrimination and racism, beliefs that lighter skin tones will improve success in schooling and on the job market, and social pressures surrounding aesthetic preferences surrounding skin tone.³⁰

Topical treatments used to lighten the skin are commonly categorized as “bleaching creams.” However, active ingredients in these formulations vary. Some of the more common active ingredients found in these creams include: corticosteroids, kojic acid, salicylic acid, nicotinamide, arbutin, hydroquinone, and tretinoin.^{31,32} Topical steroids, hydroquinone, and retinoic acid, when applied in excess or systemically, are associated with the greatest degree of potential risk.³² The ingredients contained within bleaching agents that are not medically prescribed, however, are not necessarily monitored by regulating bodies, such as the FDA and contamination with toxins such as mercury have been described.³³

Akin to tanning, skin bleaching practices have risks. Skin bleaching agents when used in moderation, as often prescribed by physicians to treat focal areas of hyperpigmentation as seen in the skin condition melasma are relatively safe. However, when used over larger areas of skin, the potential for side effects and complications from these agents increase. Many of these complications, depending on the agent used, involve cutaneous changes including striae, atrophy, steroid acne, permanent hypo pigmentation, ochronosis (irreversible hyperpigmentation), or dermatitis.^{18,32,34} Depending on the agent being used for skin bleaching, internal complications can also occur. Individuals who use harsher agents put themselves at risk for adrenal suppression, infection, kidney, and liver disease.^{31,32,35} Their use may also lead to the development of diabetes mellitus, renal failure¹⁷, and mercury poisoning³⁶.

Both indoor and outdoor tanning practices have been found to increase in frequency in adolescents as they age.³⁷ Overall, prevalence of indoor tanning for adolescents in the United States has been estimated as 10% for use within the past year and 24% for ever use.³⁸⁻⁴¹ Risk factors for adolescent participation in indoor tanning include: female gender, increased age, skin types with low likelihood for burning, low likelihood for sunscreen use at the beach, preference for tanned skin tones, parental approval, and parental/peer behaviors^{38,40,41}. A variety of factors have been postulated to contribute to tanning among teens: peer use,⁴² beliefs surrounding physical attractiveness of tanned skin,^{37,42} disbelief surrounding personal susceptibility to skin damage,⁴² perceptions that tanned skin is associated with affluence and a life of luxury,³⁷ media trends,³⁷ misconceptions surrounding vitamin D,³⁷ addictive behaviors,³⁷ poor body image,^{2,37} and relaxing effects.⁴³ Current literature suggests that the percentage of school aged children who consistently use sun protection, either sunscreen or protective clothing, decreases with

increasing age^{42,44}. Females are more likely to engage in indoor tanning practices, while male adolescents are found to be less likely to use sun protection.⁴²

In Connecticut specifically, research found that students from a wide range of socioeconomic backgrounds who consistently used sun protection, were more likely to respond that they like themselves “most of the time” and were less likely to experience depression compared to students who did not use sun protection⁴². These findings lend support to the hypothesis that positive self-image is likely to be a protective factor in dissuading students from engaging in risky pigment altering activities, while negative self-image is likely to contribute to participation in skin tone altering behaviors. Further work needs to be done in the area surrounding adolescents’ current perceptions of skin, skin tone, and skin tone altering behaviors in our state. Specifically, an understanding needs to be developed regarding how these perceptions of skin and skin tone fit into the larger context of socially constructed beauty ideals influencing teens today.

Specific aims

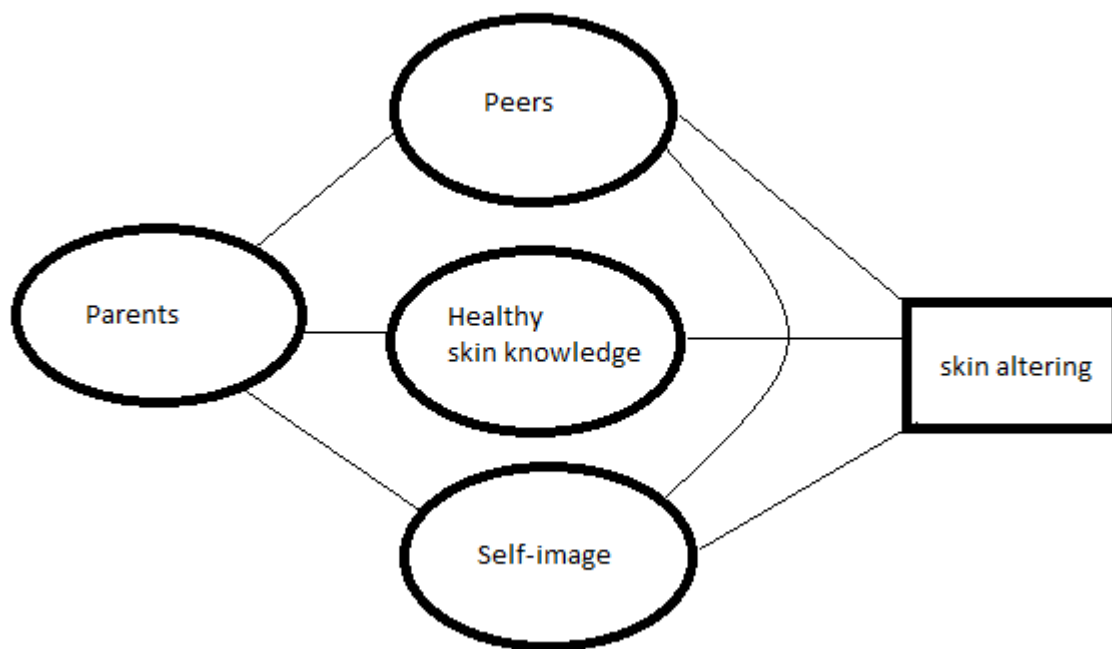
This study uses qualitative and quantitative data to determine: (1) the attitudes and perceptions of adolescents surrounding ideals of beauty and self-image especially as they relate to skin pigmentation; (2) individual and peer participation in skin tone altering behaviors, with a particular focus on indoor/outdoor tanning practices; (3) the knowledge base surrounding the risks associated with skin tone altering behaviors; and (4) the role of peers, parental modeling, and media in shaping and informing self-image, knowledge base, perceptions, and participation in skin tone altering behaviors.

Chapter 2 - Methodology

Research Model

The investigation of skin tone altering practices and perceptions of beauty in adolescents began with a hypothesized model that identified factors influencing perceptions and practices.

Figure 1 – Research model to explain adolescent skin altering behaviors



Adolescents are at a stage of life in which they are beginning to gain independence from their parents and families. In doing so, they fall under the greater influence of their peers and start building a sense of personal identity that shapes their self-image. I hypothesized that the most significant influences related to skin tone altering, would be parents, peers, and self-image. I proposed that parental beliefs, practices, and guidance would play a major role in shaping adolescents' perceptions and behaviors. At the same time, adolescents spend an increasing amount of time with friends and peers who may strongly influence adolescent self-image and behavior. Previous studies have suggested that adolescents with negative self-images are more

likely to participate in practices such as indoor tanning, thus adolescent self-image would be an important factor.²

The level of knowledge of the health risks associated with skin tone altering behaviors was also hypothesized to play an important role. Overall, I hypothesized that family structure and parenting would influence all three independent variables, namely: their peer group, their self-image and their baseline knowledge surrounding the health risks associated with skin tone altering activities. Additionally, it was felt that peers would directly influence the adolescents' self-image.

It was hypothesized that adolescents were likely to experience very different influences surrounding skin tone and skin tone altering behaviors depending on the color of their skin and their ethnic identity. Therefore, the study set out to test these concepts among adolescents with a range of skin colors. Participants were recruited from White, Black, and Hispanic communities across the state of Connecticut.

Study Groups

This study was conducted with three adolescent extracurricular groups within Connecticut: Family Life Education's (FLE) Peace Jam Group in Hartford, Youth Health Service Corps in Hartford and New Britain, and Pilgrim Fellowship (PF) in Guilford, Connecticut.

Family Life Education is a group founded in 1987 with the purpose of providing individual, family, group, and outreach work to underserved communities in Hartford, Connecticut. Their mission is "To build a healthy community, strengthen families and promote the well-being of children and youth through education, outreach and support services."⁴⁵ Peace Jam is one of many empowerment groups of FLE. The Peace Jam group at FLE is one chapter of a global Peace Jam initiative created 17 years ago by Nobel Peace Laureates to mentor youth

across the world. The goal of the group is to develop young leaders by engaging them in their local and global communities. The group follows a curriculum based upon goals created by 13 Nobel Laureates. The Hartford Peace Jam chapter consists of a group of 7 mostly Black and Hispanic girls in sixth – eighth grade. The girls are 10-14 years of age with an average age of 13. The group is run by two adult leaders with several older teenagers who help to mentor and lead the group. The group meets weekly throughout the year to discuss topics relevant to the international Peace Jam curriculum and periodically participates in empowerment activities across Connecticut.

The Youth Health Service Corps (YHSC) is an initiative developed by the Central Connecticut Area Health Education Center (AHEC) based out of Hartford, Connecticut. The YHSC is run by current AmeriCorps members affiliated with CT AHEC and is focused on educating diverse groups of high school students on topics surrounding health care to empower these students to engage in health care related community service activities in underserved communities across the state. Once trained, students are required to complete 50 hours of community service to complete the program. The overall mission of the program is to empower and engage diverse students to ultimately pursue careers in health care related fields.⁴⁶ This project was conducted with the YHSC groups at the Classical Magnet School in Hartford, and EC Goodwin Vocational Technical School in New Britain. The group running out of Classical Magnet School consisted of mostly Black and Hispanic high school students, while the group running out of EC Goodwin was comprised of Black, Hispanic, and White students.

The Pilgrim Fellowship Group is an extracurricular group sponsored by the First Congregational Church in Guilford, Connecticut. Although it is run out of a church, it is an interfaith service-oriented youth group that is run by one paid adult director and several other

volunteer adult and older teen advisors and mentors to the group. The group is designed to empower youth to participate in mission trips, local service events, and fundraising initiatives. The group is comprised of approximately 150 predominantly White high school students. Permission to work with these three adolescent populations was obtained by respective program coordinators prior to initiating research.

Participants were recruited from each of the study groups by providing a description of the project by the student investigator. Students were then invited to volunteer for interviews and surveys by talking with their respective program directors and follow up from the student investigator. Parental consent and adolescent assent was required prior to participation in the study.

Qualitative Data Collection

In-depth semi-structured qualitative interviews were conducted with a total of 18 adolescents from the three study communities outlined above (see interview protocol in Appendix 1). Questions included (1) definitions of beauty, (2) self-image, (3) skin tone as it relates to beauty, (3) the effect of media, parents, and peers on self-image particularly surrounding skin tone, (4) personal, peer, and parental participation in skin tone altering activities, and (5) knowledge surrounding skin tone altering behaviors. Major themes and topic covered were derived from the pre-test research model described above. Overall, 18 adolescents volunteered to participate in the interview stage of research. The ethnicity and gender of these adolescents can be found in **Table 1** below.

Table 1 – Gender and ethnicity of 18 adolescents recruited for interviews

Ethnicity	Gender	Number of adolescents
White	Female	10
Black	Female	4
Black-Hispanic	Female	1
Black-Panamanian	Female	1
Hispanic	Female	1
White	Male	1
Total:		18

All interviews were transcribed into word documents and then further analyzed with Atlas.Ti software, as described in greater detail below.

Quantitative Data Collection

The qualitative data were used to develop a survey instrument that was administered to adolescents in each of the three groups (see survey instrument in Appendix 2). The nine-page survey instrument consisted of nine key sections. Section one consisted of demographic questions aimed at gathering general information about the adolescent's hometown, school and work status, race, living situation, and parental education level. Respondents were also asked what grades they typically got in school.

Section two asked questions to measure the respondent's skin tone. Questions focused on the respondent's skin's response to sunlight, natural hair color, natural eye color, and subjective skin tone. These questions, based on the Fitzpatrick scale, standardizes skin tones into six types based upon the skin's response to the sun: Type 1 – always burns, never tans; Type 2 – usually

burns, tans with difficulty; Type 3 – sometimes develops a mild burn, gradually tans to olive; Type 4 – rarely burns, tans with ease to moderate brown; Type 5- very rarely burns, tans very easily; and Type 6 – never burns, tans very easily, deeply pigmented.⁴⁷ These categories are used frequently within the dermatologic community to stratify a patient’s risk for ultraviolet-induced skin cancer.

Section three asked about skin health of respondents and their family members. Different skin conditions – including acne, hyperpigmentation, hypopigmentation, melisma, scars, blistering sunburns, skin cancer, and vitiligo – were listed in a chart. Respondents were asked to mark in the chart if they had ever had the listed condition and/or if they had a parent or sibling who had ever had the listed condition.

Section four focused on the respondent’s perceptions surrounding skin tone. Ten statements were listed ranging from “Skin color is very important in determining beauty” to “I am very satisfied with the color of my skin.” Responses to each statement used Likert style categories ranging from “strongly disagree” to “strongly agree.”

Section five assessed the respondent’s knowledge surrounding skin health, skin tone altering behaviors and the risks associated with such behaviors. Eighteen statements, some true and some false, were listed in a table format. They included statements such as “skin cancer is not a big deal” and “Bleaching creams have the potential to negatively affect your health.” Respondents were asked to answer true or false for each statement.

Section six asked questions specifically to gain a better understanding of the family, peer, and media pressures that might influence the respondent’s perceptions and behaviors

surrounding skin tones. Questions in this section also asked the respondent what pressures, if any, they felt to lighten or darken their natural skin tone.

Section seven sought information on the respondents' engagement in indoor tanning, outdoor tanning, skin bleaching, sunscreen use, make-up use, and hair treatment use. Respondents who answered positively were asked a series of questions to further characterize the frequency, motivations, and details surrounding this behavior.

Section eight asked questions about friends and family members' involvement in outdoor tanning, indoor tanning, and skin bleaching

The final section, section nine, focused on consequences that resulted from skin tone altering behaviors. Respondents were asked whether they had ever had experienced an adverse effect from indoor tanning, outdoor tanning, skin bleaching or using bronzer.

The survey was distributed to over 175 adolescents from the three study populations. The student investigator of the study delivered the survey instrument, explained the study goals, and paid several visits to each of the study groups. However, several major barriers limited overall participation from adolescents and the final sample involved a total of 27 adolescents. The IRB required written parental consent and adolescent assent before any survey could be completed. Many consent forms were lost, forgotten, or not filled out by adolescents in each of the study groups. Handing out additional consent forms did not increase return rate. Several group meetings were cancelled due to weather and extended the period of time between survey distribution and collection, further decreasing the compliance rate of adolescents. A number of adolescents in each of the groups declined participation in the study. It is not understood whether this was because of a lack of interest of the topic, the length of the survey, or other motivating

factors. A total of 27 adolescents completed the survey. The ethnicity and gender of these adolescents is shown in **Table 2** below.

Table 2 – Gender and ethnicity of the adolescents participating in the survey

Ethnicity	Gender	Number of adolescents
White	Female	10
Black	Female	2
Hispanic	Female	2
White	Male	9
Black	Male	2
Hispanic	Male	1
Black-Puerto-Rican-Italian	Male	1
Total:		27

Statistical Methods

Qualitative data analysis was performed using Atlas.ti, a computer based analytical tool designed to identify primary themes in qualitative textual data⁴⁸. Eleven primary codes were created surrounding major themes and included: beauty, family, hair, make-up, media, peers, race, self-image, skin health, skin knowledge, and skin tone altering. Interviews were then systematically reviewed and codes were assigned to quotations and discussions covering each of the 11 codes. Atlas.ti was then used to generate query reports surrounding each of the major codes⁴⁸. Query reports were reviewed and major themes were extracted. Cross-cutting themes were identified and quantitatively analyzed by recording the number of adolescents who mentioned each of these themes.

Quantitative data analysis was performed using SPSS 20.0. Given the low “n” univariate descriptive statistics including frequencies, percentages, means, medians, and modes were analyzed for each question. Frequencies were generated for the entire survey group, as well as for the female respondents (n=14) and male respondents (n=13) for each question.

Chapter 3 – Qualitative analysis

Eleven major codes were identified for qualitative analysis including: beauty, family, hair, make-up, media, peers, race, self-image, skin health, skin knowledge, and skin tone. Codes were analyzed separately and the interaction among codes was examined to identify major themes.

These themes include the natural vs. artificial beauty dichotomy, ways in which adolescents can change their appearance, weight, tanning among White adolescents, societal difficulties associated with darker skin tones, the influence of media on adolescents, and bullying. Each of these major themes will be discussed below.

Natural vs. artificial beauty

The concept of natural beauty

A major recurring theme throughout interviews focused on the concept of the dichotomy between natural and artificial beauty. Many of the adolescents interviewed felt strongly that being “natural” was most beautiful. However, these same adolescents would bring up the many ways in which peers would change their appearance through hair, altered skin tone, and cosmetic use. Although many of the adolescents’ personal definitions of beauty would key in on natural beauty, when asked to describe the way in which society defines beauty, adolescents would switch to using physical attributes in their description.

Adolescents first brought up this concept of natural beauty when interviews opened by asking about definitions of beauty. When defining beauty, six of 18 adolescents chose to focus their responses on beauty as it relates to physical appearance. However, a majority of 18 adolescents focused in on the theme of natural beauty making statements such as: “*I think being*

natural is beautiful.” or “I think as long as you feel comfortable you are beautiful. It’s not one exact way of looking.”

Eight out of 18 adolescents, focused their responses on personality traits that make someone beautiful and did not comment on physical appearance without prompting. This interpretation of the definition of beauty further contributed to this concept of natural beauty. The adolescents felt that as long as someone had personality traits that were wholesome or “good,” was beautiful. These adolescents felt strongly that “*Beauty comes from within. You need a good personality and good spirit. If you’re ugly inside you’ll be ugly outside.*” Four adolescents brought up both physical aspects associated with beauty while also stressing the importance of personality in determining whether or not someone was beautiful.

In response to “How do you define beauty,” certain words were repeated in their definitions: “*natural*” (six respondents), having “*confidence*” (four respondents), “*how you look at yourself*” (four respondents), “*how comfortable you are with yourself*” (two respondents), and “*being a caring person*” (two respondents). Modesty, humor, intelligence, independence, friendliness, and having a good spirit were each mentioned by one adolescent in their respective definitions of beauty, all adding to this idea of natural being what is most beautiful.

Further supporting this concept of natural beauty was the fact that none of the female adolescents interviewed wore “*major make-up*” including foundation and bronzers. The girls that did use make-up said they would only use very little make-up like mascara and chapstick or said they would wear “*major make-up*” only for special events. One girl commented “*I consider make up a fake face. It makes you look completely different then what you are.*” Another said, “*I love natural beauty. I don’t wear make-up at all – just mascara and chapstick.*” Even the one

boy interviewed said *“My girlfriend used to put on so much make up and I said why do you do that? She said I want you to think I look pretty. I said you are. I really think natural is way more beautiful.”* She commented further *“I really think natural is way more beautiful. Some people put on so much make up and skin stuff and just too much make up overall and it’s not good. Not beautiful.”*

Existing in a world of artificial beauty

Despite the adolescents major focus on natural beauty, many would then go on to discuss the ways that peers would change their looks to fit into a beauty norm and the pressures that influenced adolescents to change their appearance. Thus, while the adolescents interviewed personally defined beauty using more natural terms and themes, they commented on the many influences that promoted artificial beauty.

Cosmetics came up as a major artificial enhancer of beauty; a large majority of adolescents interviewed said they noticed many of their peers using make-up. The adolescents interviewed said peers used the make-up either to change their skin tone or to make themselves look prettier overall. One girl commented that for many of her peers, *“When they say ‘oh I was so lazy today,’ they actually still have on foundation and wear eye make-up! I’ve never really cared THAT much.”*

Adolescents commented that peers also used make-up and bronzers with the purpose of making their skin either lighter or darker depending on their natural skin tone. One Black adolescent noted: *“Many dark skinned girls would want to be lighter skinned. A lot of girls would use bronzer and make up to make their face lighter. I don’t know what type – I don’t use any make-up.”* Another Black adolescent noted: *“Girls in the bathroom will be putting on*

foundations. I'll hear them say things like 'my skin isn't dark enough yet.' But I just think it shouldn't matter what skin tone someone is." The one boy interviewed said that while he preferred natural beauty, he knew of some male friends who were more attracted to girls who wore make-up.

Although the White adolescents interviewed preferred a tanned appearance and wanted to be tan, many made a point to distinguish between a natural tan and artificial tan and commented that they preferred the look of a *"natural tan."* When asked what skin tone had to do with beauty, one of the girls commented, *"I mean, tan to a certain extent in Whites...But not like the super fake tan...You know 'healthy well lived, out in the sun kind of tan."* Although one of the girls had tried indoor tanning once, none of them currently participated in this behavior. Yet, akin to cosmetics, many of the adolescents noted that this was a practice in which many of their peers participated. One girl commented that in certain groups in high school, it was *"popular to become tan almost to the point of orange."*

Adolescents discussed the many messages they received from the media. Magazines in particular were identified as adding to the ambivalence surrounding natural vs. artificial beauty for adolescents today. A number of adolescents commented that it was not uncommon for teen beauty magazines to run one or two articles an issue on concepts surrounding natural beauty or positive self-esteem, yet devote the remainder of the same issue to convincing girls about the specific make-up they should be wearing or how to achieve a certain appearance through artificial means. One girl described this saying, *"Teen Vogue has this section in it called 'Real Talk' and it focuses on things like bullying, self-image etc. – you don't have to do this that or the other thing to be pretty. The rest of the magazine is all over mascara, make-up, and what you should wear."*

Two girls mentioned that airbrushing and photo shop played a big role in how models appear in ads and commercials. They felt that although many girls were aware that these techniques were being used to modify images, most girls aren't focusing on this when they "*are bombarded with magazines,*" rather they see these images as portraying the supposed ideal. They felt that most advertisements and pictures in the media negatively influenced adolescents' ability to accept themselves as they are naturally and fueled the ambivalence between natural and artificial beauty for their age group.

These adolescents felt that more media should focus on natural beauty. They thought that a shift in this direction could help decrease the ambivalence associated with natural vs. artificial beauty for adolescents their age and help promote the message of being comfortable with one's natural self. Two themes centering on this were brought up: (1) the black is beautiful movement and (2) decreasing the amount of airbrushing that is taking place in magazines. One Black girl brought the "Black is Beautiful" ad campaign as one of these more recent media movements centered on natural beauty. She said the campaign focuses on celebrating natural Black skin. She stated: "*In magazines like Ebony there are articles inside where people talk about being proud to be Black. We need more Black media to push the Black is beautiful message along.*" She felt that more ads of this nature could young Black girls feel more comfortable in their natural skin tone regardless of how light or dark it may be and could help decrease media messages that might influence Black girls to pursue artificial means to change their skin color to become lighter than it naturally was.

The role of family in adding to this dichotomy also came up. Five of 18 adolescents mentioned that they felt that messages from family were likely to affect your self-esteem or how one personally viewed or defined beauty. Many adolescents (six) explicitly mentioned that they

felt their parents were good role models or were complimentary to their looks overall. One Black female, when asked if her father liked her natural hair, mentioned: *“He always compliments my locks and says he likes my hair like this. Though I’m sure that if I had another style he would say he liked that too. He’s always been only complimentary towards my look.”* The boy said about his parents, *“[My dad] tells me ‘I have a handsome young boy’ but doesn’t say anything in particular about skin tone. My mom says to her brother ‘Oh look I have two fine young men’ and I’m like ‘Yeah, ok mom.’ They complement me a lot and I guess this is good.”*

Other adolescents brought up personal experiences in which family were more critical and were less supportive of natural beauty. These adolescents brought up that they felt pressure to change certain aspects of their look because of family members. One Black adolescent described how her grandmother had essentially forced her to perm her hair when she spent time living with her. The adolescent said:

[My grandmother] forced me to do it the first time, she did it herself on me. Then she would say – well you already started so now you can’t stop relaxing. You want to look nice and want to look pretty so you have to do this if you want your hair to look a certain way. The funny thing is my grandmother’s hair got bad so she had to keep it short but still would force it on me! She could pull off that look though.

Other adolescents noted that they had felt pressure from family members to change their weight or had experiences with a critical family member.

Several adolescents noted that they felt that their thoughts surrounding beauty had changed over time. In their earlier years they would have been much more likely to focus on the role of appearance in defining beauty rather than thinking that how someone is naturally is beautiful. In these discussions surrounding natural beauty, they felt that defining beauty with natural characteristics is something that comes with age, maturity, and time.

Overall, it seemed that the development of a positive self-image helped these adolescents come to their definition of beauty as being “*natural*.” Across groups, a majority of adolescents interviewed spoke positively about their self-image. Five of the six Black adolescents interviewed said that they had a positive self-image overall and viewed themselves as beautiful or did not spend much time thinking about their own appearance. These same adolescents all responded that they personally felt comfortable with their own skin tones, although two of these adolescents said they knew of other Black peers who struggled with image related to skin tone. Nine of 11 White adolescents responded that they felt that they had positive self-image or that they occasionally struggled with self-image on occasion but “*no more than normal*.”

This concept of natural vs. artificial beauty recurred throughout most interviews. Although adolescents discussed strategies to promote natural beauty, such as promoting natural beauty through media, it is clear that the dichotomy between natural vs. artificial continues to be a prominent struggle for these adolescents.

Weight

Although interviews were geared at understanding adolescents’ self-image, perceptions surrounding beauty and behaviors particularly surrounding skin and skin tone, the major focus of adolescents on weight came up repeatedly throughout interviews. Many adolescents felt strongly about the degree to which weight affected their own or their friends’ self-image and noted that there was a significant degree of pressure from many sources to achieve a particular body type.

Three black adolescents, six White adolescents, and one Hispanic adolescent brought weight up as an important trait of how society determines physical beauty. Adolescents would often mention that it’s important for girls to be “*skinny*” or “*physically fit*.” One girl explained a

peer-used measure to determine this: *“Do you know what a ‘thigh gap’ is? It’s when your legs don’t touch at the top [when you stand with your feet together]. That’s considered beautiful.”*

Although a thin physique was considered to be the ideal among most female adolescents, several adolescents keyed in on the fact that too thin would also be considered unattractive, mentioning things like the importance of having a *“typical nice body but not scrawny.”* As opposed to women, eight of 18 adolescents mentioned that beauty in men is largely determined by being *“fit”* or having big muscles. They mentioned that *“for a guy it’s about muscles and taking care of your body.”*

Related to how the adolescents felt society viewed beauty, a total of six adolescents, said that the aspect they struggled most with surrounding their self-image was weight. One girl mentioned, *“I never had an eating disorder – I like food too much but I would have thought things like what if I gain weight– it puts a lot of stress on people.”* Of the adolescents interviewed, three of 18 brought up the impact of media on their own self-image surrounding weight and noted that it was not uncommon to feel self-conscious about weight when comparing one’s self to the images on the media. When asked if she felt her own self-image was affected by pressures from influences such as the media one girl noted *“A little bit – like with weight. It makes me not want to be too fat or really skinny either.”* Additionally a number of adolescents commented that they knew that their peers and friends also struggled with self-image surrounding this topic. Weight losing tactics that adolescents brought up included working out, carefully watching their diet, and having eating disorders, such as bulimia for girls. For boys, the pressure focused more on gaining muscle and tactics boys used included weight lifting, using protein powders, and using metabolic muscle builders.

Pressure to be a certain size came from many sources, the most significant of which come from the media. Across racial backgrounds of the adolescents, weight was the most commonly touched upon theme in adolescent responses to how media depicts beauty. Ten of 18 adolescents (seven White and three Black) brought weight up when discussing how media demonstrates beauty. Celebrities and models were said to be “*stick thin*,” “*very lean*,” or “*very small*.” One Black adolescent said, “*Weight plays into how media portrays beauty a lot. Also you’ll never see a girl like me – they either have nice long hair or really light skin.*” Adolescents commented on how the uniformly thin or “*fit*” appearance of celebrities and models delivered a very strong message to adolescents about just how important it was to be a certain weight to be considered beautiful.

Pressures to be a certain size or weight also came from family in some instances and peers in others. One girl commented how weight was a major issue in her family. She discussed how her father, who is now fit, had struggled with weight while he was growing up and into young adulthood saying, “*My dad was overweight as a kid so he is very sensitive about weight – he’s very thin now, later in life he has really been eating less and focusing on cutting back on beer and he is OCD about maintaining weight.*” She noted that he added pressure to her and her brother to maintain a set physique. She said when she or her brother gained weight it was not uncommon for her father to comment saying things like “*maybe smaller portions*” or “*looks like you’ve put on a bit.*” This same girl brought weight up repeatedly as an important determinant of beauty throughout her interview and discussed how weight played a role in her own self-image. This suggests that these messages from her father had played an important role in shaping her thoughts surrounding body-image and weight.

Other adolescents commented that peers played a major role in fueling weight-obsession among adolescents. One boy commented that his friends “*have a routine at the gym: tan, lift weights, go on the treadmill – everyday.*” He stated that his friends would pressure him to go to the gym with them to participate in this routine and partly because of this he would go and lift weights at the gym. He noted a certain degree of pressure for boys to develop a fit, muscular look. Additionally, image based bullying among peers commonly centered upon weight. One girl brought this up saying: “*Weight is so important here. It’s weird because I know people who are overweight because of medical problems but they are healthy and can’t change their weight and they get made fun of anyways.*”

The topic of weight seemed to be at the front of every adolescent’s mind. Whether it was staying “*skinny*” or “*fit*,” all adolescents seemed to have an understanding that weight played a major role in society’s definition of beauty. Pressures to fit into this beauty ideal came from media, friends and family and these understandings surrounding ideal weight seemed to shape and influence the self-esteem of adolescents and their peers to a significant degree.

Tanning among White adolescents

The desire to be tan and comments on the pressures to be tan were repeated among a strikingly large majority of White adolescents. Repeatedly, female White adolescents brought up comments surrounding tan skin to be the ideal image of beauty, “*health*” and fashion when it came to skin tones. Many White adolescents participated in outdoor tanning activities and commented that parents, peers, and media all played a role in influencing these behaviors. Additionally, although these adolescents interviewed did not participate in indoor tanning

practices, a vast majority commented that they knew of peers who did participate in these behaviors in an attempt to achieve the ideal tanned complexion.

When discussing beauty as it related to skin tone, a vast majority of White adolescents (ten of 11 White adolescents) felt that “tan” skin was the most beautiful skin tone and only one White adolescent felt that skin tone had nothing to do with beauty. Reasons supporting this preference for tanned skin tones among adolescents varied but a tan’s ability to “*cover blemishes,*” “*even skin tones,*” and “*make you look skinnier and healthier*” were all listed as reasons why White adolescents felt tan skin is more beautiful. One girl described her emotions surrounding skin tone as such “*Pale skin can also be pretty depending on the person but in our times, though, tan skin is more pretty. At least with girls there is more pressure to be tan.*” and “*I think with a tan your skin looks more even toned. When it’s pale it seems sort of ...yuk.*”

Although three of 11 White girls interviewed brought up the fact that they felt pale skin could also be beautiful they all preferred tan skin for themselves. One stated that “*Right now skin color is kind of split – some say ‘pale is the new tan’ others prefer tan so it’s definitely split... But for me, personally, I think I look better when I’m tan.*” Other adolescents felt that pale skin made people look sickly and was not viewed as attractive. When discussing skin tones as they relate to beauty, all White adolescents spoke almost exclusively of skin tone as pertinent to White individuals. Only one White adolescent mentioned skin tone for individuals of another race. These adolescent felt that tan was most beautiful for White skin but felt that both light and dark skin tones can be attractive for Black individuals. Overall, the preference for tanned skin tones among White adolescents was pronounced and almost unanimous among the group of adolescents interviewed. Eight of 11 White adolescents said they personally preferred being tan rather than being pale.

White adolescents' preferences for tanned skin tone influenced their practices and activities in an attempt to achieve this skin tone. In an attempt to develop a tan, six of 11 White adolescents said they sit outside in the summer for the purpose of developing a tan. Several others commented that although they did not sit out to tan, they did enjoy when they got tan from activities like running and playing other sports. One specifically commented *"I do enjoy going for a run and knowing I'll get some color."* Some girls noted that they had to *"burn first"* if they wanted to get a *"nice tan,"* demonstrating girls' willingness to subject themselves to a sunburn in an attempt to achieve this *"beautiful bronzed look."* A few girls had tried either spray tans (two) or rub on tans (one) but mostly commented that these looked *"fake"* as opposed to a *"natural tan."* This suggests that White girls considered tanned skin from sitting outside under the realm of *"natural beauty."*

Six White adolescents had parents who told them to wear sunscreen. However, having parents who told adolescents to wear sunscreen often did not correlate with actual sunscreen use. Three White girls specifically stated that they try not to wear sunscreen so that they can get a tan. Two adolescents had parents with skin cancer and both commented that despite continual instruction from their parents to use sunscreen, they did not wear it very often. One girl commented, *"My mom has had skin cancer so she's not messing around with sunscreen but lots of times I don't wear it. I would say I don't wear it 60% of the time. Honestly, I want a tan."* A White male said, *"My mom screams at me to wear sunscreen. She says I'm gonna get so burnt. I don't wear it though – sometimes, yes, to make her happy but when I do my skin feels all sticky."*

When discussing why these adolescents sought out a tan, all of the girls who tanned or enjoyed being tan brought up their above thoughts on tan skin as the ideal of beauty. Two girls

noted that having tanned skin improved their self-image and overall self-esteem. One girl commented *“The tanner you are the more comfortable you feel with yourself. When I’m tan I feel better. When its summer out you think you will get a tan and that makes you feel better.”*

Three others commented that they felt that they personally looked healthier with a tan commenting, *“When I’m pale I look sickly and my sister will come home from college and say things like “oh you look like you have the flu.”* Many adolescents also discussed feeling pressure from peers, media, and/or parents to develop a tan, especially in the summer months.

Eight of 11 White adolescents thought that their peers in general felt that darker or tanned skinned tones were preferable or more beautiful. Several of these adolescents thought that their peers felt that tanned skin was healthier looking than fair skin. Ten of 11 White girls said that pressures existed among peers to be tan, particularly in the summer and around prom. Of that number, seven felt the pressure to be tan from their close friend group. One of these girls said:

Sometimes if friends have a better tan than me I’ll get jealous and think ‘why can’t I get that tan’... I think we all want to be tan, and if my friends are tan I feel more pressure to be tanner. Even in my school if I see pictures of people I don’t know as well and they are tan, I think ‘I want to look like that.’

A White adolescent stated, *“I think from all the girls I know everyone wants to be tan. Not everyone can be. But everyone’s like “let’s tan.” If you see someone by the pool you get jealous and you think ‘I want to be like that.’”*

Only three of the ten girls who discussed pressure from peers to tan said they did not feel any pressure themselves to be tan in the summer from their peers. One of these three girls, however, commented that there is more pressure among peers to change your skin tone if you are too fair than if you are too dark and noted that it was not uncommon for image based bullying to focus on skin tones. She said *“A couple of people [get teased for being ‘too dark’]. I’ve heard*

rude comments – things like if you go in a dark room with so and so you'll only see them if they smile or their eyes are open (making fun of how dark they are). It's definitely not as bad as if people are 'too white' though." Overall, two of 11 White adolescents felt this way and commented on the fact that pale kids often get teased for being pale. One girl explained how she had been a victim of this type of bullying saying *"Some people will make fun and say I'm white like Casper."*

Another form of pressure to tan came in the form of direct comparing of tans among friends in the summer months. Seven White girls said in the summer many friends compete for the best tan or would compare to see who could get the *"best tan lines."* Two of these adolescents specifically attributed this competition to being involved with cross country or track. They stated how in this sport, having a dark tan was evidence of having been out training. One girl explained this saying, *"People compare arms a lot on track...Tan lines are considered good. It means you've been out a lot practicing/training."* They said having a deep tan was part of the *"culture of running."*

It was uncommon for White adolescents interviewed to wear sunscreen very often because of their desire or the pressure to get a tan. However two adolescents felt they specifically felt pressure from peers not to wear sunscreen. When interviewed together they said, *"There is the thought that if you don't get burned you don't need sunscreen. I would always get made fun of if I was putting it on."* To which the other adolescent responded, *"Yeah there is something that is so not cool about being safe."*

Only a few adolescents commented on pressures and skin tone preferences from members of the opposite sex and how that affected them and their peers. Three White adolescents (one

male and two female) said they did think there was pressure to tan from the opposite sex. One of the White girls commented, *“I’ve heard lots of girls say ‘at least I’ll die tan...For football games I’m pretty and I’m tan.’ The goal is to be attractive and to attract other people. It’s for the boys to see.”* The White male who felt there was pressure to tan from the opposite sex stated, *“I’ve heard a lot of girls like tanner guys. Girls in shop will say ‘oh he’s so tan’ while look at a picture of a guy.”* Two White girls, however, did not feel pressure from the opposite sex to tan.

Another major source of pressure to tan came from media sources. Among White adolescents, a large majority (seven of 11) felt that almost all celebrities and models in the media had a tanned complexion. One White adolescent described this saying, *“Everyone [in the media] has a tan color almost like they sat on the beach so they did something to their skin to make that so.”* Another White adolescent stated, *“People that are considered prettiest in celebs are thin, tan, perfect hair, perfect clothes.”* Two of 11 White adolescents specifically felt that pale looked ugly or sickly. This major theme of highlighting tan models in the media was also echoed by the one Hispanic adolescent I interviewed. She stated that *“[Women in the media] tan to look perfect.”* Only two of 11 White adolescents felt that lighter skin was featured as most beautiful for White models in the media.

In addition to having an effect on overall self-image, a common theme that came up in numerous interviews was how the media’s depiction of tanned skin as beautiful can place pressure on adolescents to change their skin tone either through direct messaging or modeling from role models in the media. When asked what makes people go tanning, a common response was “TV” and “celebrities”. Nine of 18 adolescents felt that the media played the largest or a major influence in pressuring White adolescents to tan. One White adolescent commented, *“Especially when people talk about being tan – it’s what you see in magazines and everywhere.”*

It's probably what society has done to me but I definitely would say tan is beautiful." For White adolescents, the predominant message in the media is that tan is beautiful and this can play a major role in influencing White adolescents to tan both outside and inside at tanning booths.

A newer form of media that had the potential to pressure adolescents to tan was social media including Twitter, Facebook and Instagram. Several adolescents commented that Twitter feeds about how much girls wanted to tan or how important it was to attain a tanned appearance were common among adolescents. Two of the girls specifically commented that if they felt they looked pale in a picture on Instagram or Facebook, they would just *"add a filter"* to the photo to make them have a more tanned appearance when the photo was viewed by friends. The girls commented how these conversations and images could feedback to adolescents and fuel their desires to be tan. One girl commented , *"Even the pictures that we put on Instagram/Facebook ...We end up altering them to get that glowing look. Like if we look too pale we just use the filters to make us glow."*

Although adolescents did not specifically comment that they felt direct pressure to tan from their parents, it was not uncommon for adolescents to feel subliminal messages and subtle pressures to tan based on how their family discussed and approached skin tone. Although many families did not explicitly discuss skin tone or skin tone altering, discussions surrounding who would develop the "best tan" within a family were not uncommon in White families. Four of 11 White adolescents noted that their families would tease one another because of differing abilities among family members to develop a tan. One girl noted how this can pass along a somewhat confusing message about skin health and participation in skin tone altering activities. She commented:

I think [the message from my parents] was definitely mixed. I mean my dad is a dermatopathologist but still [my parents] would mention things like ‘A’ tans really well’ even though it was considered bad in my family. We would talk about it by comparing me and my father who “tan well” with my mom and sisters who don’t. But if I were to get a burn it would be so bad and my dad would be like ‘you will get skin cancer!’ He would leave out pictures of really terrible skin cancers – same as STDs to dissuade me from risky behavior. So it feels kind of like a mixed message – tan can be good but a sunburn is bad.

Two White families had discussed the topic of indoor tanning beds – one family had told their daughter not to use them and another had let their daughter indoor tan after receiving a lot of peer pressure at school, but only after much hesitation and numerous discussions and requests made by the daughter.

Of the White adolescents interviewed, only two brought up that their parents sat outside expressly with the purpose of developing a tan. None of the parents of the adolescents interviewed participated in indoor tanning, skin bleaching, or other skin tone altering practices. Although the adolescents interviewed noted that their parents did not participate in skin tone altering behaviors, they commented that this was not the case for many of their peers. When discussing these peers who participated in risky skin tone altering behaviors, several adolescents brought up parental modeling as a major influence in causing their peers to participate in these behaviors. One adolescent commented:

Good vs. bad parents really rubs off on the child. Moms that tan with their daughters exist at Sacred Heart. They also influence them in other ways. They will buy their daughters alcohol and drugs, etc. They are called the “cool moms.” It’s mostly the younger parents there. My parents are old and not into that at all and would never go tanning at all. Younger parents will go tan with their daughters. One friend said that her mom and her bond over tanning. The thing they do together is go tanning. I think your mom approving is a big part of it.

Two of the 18 adolescents interviewed brought up this pattern of peers indoor tanning with their mothers. Another adolescent had a friends whose mother pressures them to develop a tan over the summer telling them they look more beautiful this way.

Thus, while none of the adolescents interviewed commented that they felt direct pressure to tan from their parents, they did bring up messages surrounding the benefits and preferential appearance of tanned skin within their families. Additionally, although not many of these adolescents had parents who participated heavily in tanning practices, they discussed how parental modeling played an important role in influencing some of their peers who participated in riskier tanning behaviors such as indoor tanning.

Although none of the adolescents interviewed themselves indoor tanned, 13 of 18 adolescents (two Black, ten White, and one Hispanic) commented that they knew indoor tanning was popular among their White peers in an attempt to achieve a tanned complexion. One White adolescent talked about some of the peers in her class saying *“Probably 25-30% [go indoor tanning]. Mostly juniors and seniors though. Probably because they have access to it. They have jobs to pay for it and cars that can drive you to it and friends that go which makes them want to go. I know people who go so much they get addicted – some go every week.”* All 13 of the adolescents who said indoor tanning was popular among peers said they only knew of White peers who would indoor tan. Despite this, eight of the ten Whites who knew of peers who indoor tanned said they did not have any close friends who participated in indoor tanning. Two White adolescents who did not have any close friends who did indoor tanning brought up that they felt that the girls who would indoor tan were also more likely to participate in other risky behaviors, such as drinking, having sex at an early age, and using drugs. Two of the ten Whites who indoor tanned said they had friends who indoor tanned. One of these adolescents was a female who attended an all-girls school. She commented that indoor tanning practices were very popular at her school and that she felt there was an incredible amount of pressure to indoor tan among the student body. She too noted a correlation between girls who frequently participated in indoor

tanning and other risky behaviors. The other adolescent who had close friends who indoor tanned was a White male who had friends who felt strongly about going to the gym to lift weights and tan in order to develop the “*body builder*” or “*tanned muscular look*.”

The adolescents that commented on tanning spoke of two groups. One White adolescent explained this saying “*Well there were two types – there were people who used [tanning booths] all the time and then people who used them around certain events, ‘recreational tanning.’ Like before spring break was huge. They would start going two weeks before to develop a tan so they wouldn’t burn or they would start going three weeks before prom.*” Of the adolescents who tanned year round, several adolescents said that some of them went to the extent that they became addicted. One girl commented on this saying, “*I’ve seen a lot of tanning addicts where skin doesn’t even look normal anymore.*” Eight adolescents (six White and one Black) brought up the extra pressure to indoor tan surrounding prom. One White adolescent who went to an all girls’ school said, “*Around prom it’s just expected – people are like ‘when are you tanning?’ ‘When are you getting your nails done?’*”

Six adolescents (four White and two Black) brought up the fact that they felt White peers who used indoor tanning beds knew that using indoor tanning beds was not healthy or knew that indoor tanning beds could cause skin cancer, but that they did not care or did not think it would affect them. One White male who has a number of male friends who indoor tan said “*I’ve told my friends [who indoor tan] about skin cancer – they don’t seem to care. They’ll say stuff like ‘it’s the price of beauty’ or ‘it won’t happen to me.’*” Another Black adolescent who had White friends who participated in indoor tanning noted, “*There really is a lot of tanning in Whites. There is one girl I know who would tan every day and would use baby oil and aluminum foil. I just think “you are gonna get cancer. A lot of tanning can cause it. The people who tan a lot*

don't care about cancer.” Two White girls knew of a student in their class who was a frequent tanner and developed melanoma on her forehead from her tanning habits.

In addition to indoor tanning practices, half of the 18 adolescents (eight White and one Black) spoke about close friends who tan outdoors. In most cases, the friends who tanned outdoors were, again, predominantly White. However, a few adolescents had Asian, light-skinned Black, and Hispanic friends who would also tan outdoors. The one White adolescent who specifically said she did not have close friends who tan outdoors, said she did know of peers who tanned outdoors. Additional methods peers would use to make their skin darker that the adolescents commented on were spray tans, discussed by five (three White, one Hispanic, and one Black) adolescents, rub on tans, discussed by one White adolescent, and make-up.

Problems associated with darker skin tones

There was much less inclination among Black adolescents to change their skin tone. However, many Black adolescents discussed persistent issues surrounding racism both between and within ethnic groups and persistent messages from the media suggesting that lighter skin tones are most attractive. These acts of racism, skin tone based bullying and messages from media and peers, had the potential to influence a feeling of discomfort among adolescents with naturally darker skin tones.

Racism

Discussions of skin and skin tone brought up themes of racism from individuals or groups with lighter skin that Black adolescents had either experienced themselves or had noticed among peers. Five of six Black adolescents interviewed felt that racism still existed in many communities particularly towards individuals with darker skin tones. One Black adolescent

commented, *“I mean racism towards darker skins is pretty universal – it seems like it exists no matter where you go.”* Three of six Black adolescents had experienced racial slurs directed towards them or had personally seen examples of racism in their community. When asked if she had ever seen someone get teased because of skin tone, one girl responded, *“Yes. Someone told my friend today that they didn’t want to be his friend because his skin makes him look Muslim.”*

Two of six Black adolescents brought up the question of why fair-skinned individuals tan when racism still exists. One of these girls stated:

“Racism in general, lots of times it comes from lighter skinned individuals towards darker skinned. What I don’t understand is why fair skinned people judge or look down on darker skinned individuals when a lot of times they tan themselves to get darker and then they discriminate. Why does this happen? I don’t get how you can be sometimes racist and then go tan over the summer.”

The other girl that brought this theme of the disparity between racism and tanning noted:

“A lot of girls of White race do tan, but a lot of women of colored race feel insecure and colored girls want what they have so I feel more confident being lighter. I used to have white friends who said ‘I want to be tan’ – I’d be like ‘why?’ If you’re white you’re a beauty – it’s what society thinks is beautiful. Light is the only option colored woman have. Whites overdo it with ‘I don’t want to be pale’ that word doesn’t exist to me – you are white or black – pale doesn’t exist.”

Three of six Black adolescents discussed how racism had a big impact on making peers with darker skin tones feel uncomfortable with their skin tone. One Black and Hispanic adolescent reported low self-esteem and use of home remedies, including topical lemon or lime juice, and oral vitamin C supplements to try lightening her skin. She commented how racism and peers who think light skin is more attractive and dark skin is less attractive added to her personal discomfort with her own skin tone. She had seen and experienced racism in her neighborhood, which was a mixed Hispanic and Black neighborhood in Hartford; she said these encounters influenced her desires to lighten her skin. She commented, *“I think it has to do with the environment you were raised into. If you were raised where it was hot and sunny then I’ sure*

you wouldn't be teased for being darker. In my neighborhood you hear things like 'light skin is right skin and dark is not the way.'"

White and Hispanic adolescents were much less likely to cover topics of race and racism during interviews. However, four of 11 White adolescents commented that they had friends who had a hard time with inter-racial relationships. Three of these Whites stated that they personally were more romantically attracted to Whites than individuals from other races. Five adolescents (four White and one Black) said they noticed it was rare to see a White man with a woman of color. Many adolescents who discussed these topics commented on how these issues surrounding racism and inter-racial relationship disparities added to the message to young women of color that lighter skin is more desirable.

Another topic of bullying or racism from lighter skinned individuals towards Black individuals surrounded the topic of hair. Half of Black adolescents interviewed felt that hair was an important aspect in determining beauty. Although most of the Black adolescents that discussed hair preferred natural Black hair, they also stated that society placed value on long, straight hair causing many girls to alter their natural hair. Of the girls interviewed, four of six Black adolescents had had a personal experience or have seen a family member or friend be teased for having 'kinky hair.' Because of this, many of the Black adolescents interviewed commented on the pressures that are out there for Black women to change or style their hair in a certain fashion. One girl who is Black Panamanian mentioned that: *"Even some black Hispanic girls who were lighter than me would be teased by the non-black Hispanics because of their 'kinky hair' even if their skin tone was lighter."* When I asked her if girls were changing their skin tone because of this teasing, she said, *"I didn't really pay attention to people changing their skin tone. I did notice a lot of people using extensions and ashamed of their kinky hair."*

Four of the six Black girls mentioned that they noticed peers using perms, relaxers, or extensions and half of the girls had personal experience using perms and relaxers. Although four of these girls had natural hair at the time of the interview, two girls noted that it was rare to see a girl go “*all natural*” with her hair, but one felt that this style was becoming more popular over time. The girls brought up bad reactions to hair treatments as a reason to go all natural, as three of these six had bad personal experiences with hair treatments or knew someone who had had a bad experience with hair treatments such as burns, hair loss, and broken hair but still continued to use alter their hair because of discomfort surrounding their natural “kinky” hair.

Racism as a major theme did not just come out between ethnic groups, but also was discussed as a major theme within ethnic groups. Several adolescents commented that media and pervasive attitudes in society that light skin is ideal generated racism both within the same race and from one race to the next. One girl commented, “*Racism and discrimination are still prevalent. Even within the same race. Tan light skin or dark skinned people are viewed as ugly. Groups of the same race will say ‘oh, you’re darker.’ They’ll still be Black but will be viewed as darker and discriminated against for this.*” Another Black adolescent said, “*Lots of teens still think lighter skin makes you look pretty even people with naturally darker skin.*” When asked what plays a role in making people think this way she responded, “*Media, racism, and discrimination.*”

Although the Black adolescents interviewed mostly felt comfortable with their own skin tones, they did note that these messages and emotions towards darker skin tones had a major effect on the self-image of their Black peers. The adolescents interviewed noted that they had many Black peers who felt that light skin was more desirable and felt uncomfortable with their darker skin tones. Three of 6 Black adolescents said that they had Black friends who felt that

darker skin was “*ugly*” and felt that light or fair skin is more beautiful overall. The adolescents credited these emotions to the influence of media and racism from lighter skinned Black adolescents and adolescents of other races. Additionally, two Black adolescents commented that they knew of men of color in their community who preferred to date “*lighter skinned*” or Hispanic girls and noted that this added to female peers discomfort with their darker skin tone.

Although most adolescents interviewed said they had not had many conversations with their family surrounding skin and skin tone, four of 18 adolescents (all adolescents of color) had been told by their family members to be happy with their natural skin tone. They felt their family had passed along the message not to change their natural skin tone. One adolescent girl who is Black-Asian stated, “*We don’t crack any jokes about it – my family finds skin tone jokes offensive. We really don’t care, we’re very accepting. My grandmother always says ‘Embrace yourself! Don’t change!’*” One Black adolescent felt that skin tone altering messages had not been expressly discussed, but she had discussed experiences with racism with her family and subsequently been counseled that all skin tones are created equal. Messages surrounding skin tone from family members tended to be more subliminal and less direct, but a majority of Black adolescents did feel like the messages that their parents had passed along encouraged them to embrace their skin as it was and this seemed to help them with their own general comfort with their skin and skin tone.

Similar to the influence of media on White models to tan, a common theme that came up when discussing media with adolescents of color was the potential for media, through featuring models, actors and actresses with lighter skin of color, to fuel a discomfort among adolescents of color with darker skin tones. Almost unanimously, (five of six) Black adolescents said they felt the media showed celebrities and models who were “*light natural*” or “*really light*.” One girl

described this phenomenon saying, “*[I think the media paints] lighter skin [as the most beautiful image]. When you see ads with girls who are skin of color the models always have lighter skin – they are lighter skinned Hispanics, lighter skinned Asians, etc.*” Another girl responded that, “*Models and hot women have light skin tones like Beyonce and Kim Kardashian. You don’t see a lot of girls out there with dark skin being labeled ‘Most Attractive.’*” When asked what she thought the skin tone of most celebrities was, another Black adolescent responded, “*Like perfect. Some look like natural light other look like really light.*” The same adolescent felt that boys picture girls a certain way and when asked who they compare them to she responded, “Ariyanna Grande” who is an actress of Italian descent, half Sicilian, half Abruzzese with a naturally bronzed or light brown skin tone. One Black adolescent brought up that when models or celebrities with darker skin tones were featured in magazines or ads, they were “*dark in an exotic way*” and that the ads would focus on the exotic nature of their features. Because of these images, two of six Black adolescents felt that lighter skin was viewed as more beautiful by society and one of six black adolescents felt that medium skin tones were viewed as most beautiful in society.

Additionally, adolescents who had heard of skin bleaching (seven of 18 adolescents) were mostly first exposed through media and they brought up pop stars who they knew of who had bleached their skin or TV shows they had seen featuring bleaching. One Black adolescent asked me, “*Do you know the reggae artist Vybz Kartell? He was discovered to be using skin bleach and there was a whole thing about it in the Black Hispanic community. He said he used it ‘so his tattoos could show.’*” Another Black adolescent said about skin bleaching, “*I’ve seen it on TV on a show. One lady said she bleached her skin or her sons to make it lighter. She thought it looked good.*” Although most of the adolescents interviewed did not comment that this made

them personally want to lighten their skin, they did know that this media had an effect on their peers in how they defined beauty surrounding skin tones.

Overall, adolescents who commented on media depictions of actors, actresses and models with skin of color as well as the demonstration of skin bleaching in the media could have some very damaging effects on young, Black adolescents especially. In addition to continuing to fuel a sense of discomfort surrounding darker skin tones, the adolescents felt that media's portrayal of skin of color had the potential to fuel ongoing racism against darker skinned individuals.

Significant influence of media on adolescents

The media impacts adolescents views of beauty and self-image, as well. Repeatedly, adolescents brought up how media messaging and images affect their personal sense of beauty, their self-esteem, and the sense of beauty and self-esteem of their peers.

Almost all adolescents (16 of 18) brought up the fact that they would see or hear many peers comparing themselves to stars and felt media had a major effect on how people and peers view themselves. One Black adolescent said, *"I've heard lots of people always comparing how they look and dress to stars – for example, 'oh I've always wanted Jennifer Anniston's hair or so and so's lips."* This impact was almost uniformly negative from the viewpoint of the adolescents I talked with. They felt that media made girls judge themselves and one another by developing an ideal beauty that seemed to be unattainable. When talking about stars and celebrities, one Guyanese-West Indian adolescent brought up that *"Their hair is so long they have no flaws and people think – why don't I look like that? It makes people feel bad about themselves."* Another White adolescent stated *,"I think there's more pressure today when you look at perfect pictures of people...People compare themselves to people in magazines. They have to be just like that and*

there's more pressure that way.” Without prompting, three adolescents mentioned that they felt media was the biggest factor that influenced adolescents self-image and how teens today view themselves. One stated ,“*[the biggest influence on my self-esteem comes from]... TV definitely ...Different celebrities and just magazines.*”

Overall, half of adolescents (nine of 18) used the word “perfect” when describing celebrities or how media portrays beauty, suggesting that a sort a true beauty ideal exists and is something that is displayed to adolescents as what they should seek to attain or achieve. Adolescents used the word “*perfect*” when describing different attributes of models or celebrities such as “*perfect hair*” or “*perfect skin tone.*” However, they also used the word when describing the overall image shown by the media. One girl described celebrities by saying, “*They are perfect people with no mistakes or anything.*” These notions imply a degree of imperfection or “mistakes” in their own appearance that can have very harmful impacts on self-image and adolescents’ perceptions of their own beauty.

In addition to the tanned image for White media figures, the light skinned image for people of color media figures, and the overwhelming messages surrounding weight and the need to be thin or “*fit*”, other common traits depicting “*beauty in the media*” included “*wearing lots of make-up*” (five of 18 adolescents), having “*perfect*” or “*long*” hair (five of 18 adolescents), being tall (three of 18 adolescents). Many other descriptors were brought up by adolescents as beauty ideals as shown in the media, including having high cheek bones, big eyes, big boobs, being symmetric, and having straight teeth.

Another example of media influence is on the use of make-up. Many of the adolescents brought up media and celebrities as a major influence behind why their peers use lots of make-

up. Six of 18 adolescents (five White adolescents and one Black adolescent) commented that media showing pictures of people with flawless skin and lots of make-up or airbrushing can influence teens to use make-up to try to achieve this similar “*flawless*” complexion. One adolescent described these sentiments commenting that ,“*Make up is obviously big [in how media shows beauty] – faces caked in make-up so people think that’s what [celebrities] look like. It’s hard to see through that.*”

Throughout the interviews, it was clear that the influence of media on self-image, confidence, and how adolescents view beauty is incredibly strong. Images being displayed by media are clearly effecting adolescent’s personal opinions surrounding beauty and have in many instances created a beauty ideal that is incredibly difficult, if not impossible to achieve considering the degree of alteration that is going into images through airbrushing and Photoshop. These images are affecting adolescents’ behavior when it comes to activities ranging from weight control to skin tone altering and the power of these messages in affecting adolescents should not be ignored.

Peer influence on image

The role of peers in influencing adolescents thoughts surrounding skin tone and beauty, is pervasive. Thirteen of 18 adolescents (nine White, three Black, and one Hispanic) felt that peers had a major influence on adolescent self-esteem and how adolescents view and define beauty. One girl stated, “*What other people thinks looks prettier is what changes girls to want to change themselves.*” On average, most adolescents felt peers came in a close second behind media as the major factor influencing adolescents’ self-image.

Some adolescents felt that peers played an even more important role in shaping how adolescents view themselves. One adolescent answered the question: “*what do you think most effects adolescents’ self-image?*” with the response, “*What other people think. Like people they want to impress or how they look to the public. Mostly their peers probably and peers in public – because mostly you don’t care too much how you look around close friends –but it’s the other people. It’s more for others.*” Several girls brought up how peers can also have a positive impact on self-image and felt that their friends provided positive feedback and were good for their self-esteem.

Four of 18 adolescents (four Black and four White) brought up the pressure for adolescents to “*look the same as everyone else and fit in*” and talked about how much of this pressure came from seeing how their peers dressed or behaved. Eight of 18 adolescents (four Black and four White) discussed how bullying was a major issue in school. Much of this bullying was image based and could focus on hair type, acne, weight, skin tone, make-up, and dress. Bullying was said to occur face to face but adolescents also brought up the issue of cyber bullying where kids could tease or bully other students via different forums on the internet. One adolescent said “*Cyber bullying is a big thing now. I mean there is a twitter fight every other week. I don’t keep up with that whole thing.*”

Adolescents also commented on how the internet could be used to set new trends and developing an understanding of what images are most popular among friends. The adolescents who discussed this noted that images on Facebook and Instagram can have an effect on how adolescents feel they should look and can cause individuals to ultimately feel pressure to change to fit into this norm. One adolescent stated, “*If someone has 5 million “likes” on Facebook then girls assume that’s how I should look.*” Overall, the effect of peers on self-image and perceptions

surrounding beauty came across as a strong theme in most interviews. Adolescents commented that positive feedback from friends had the potential to positively influence their self-image and that negative feedback from peers, cyber bullying, and/or social media had the potential to make adolescents attempt to conform to a perceived social norm surrounding appearance and beauty perceptions overall.

Chapter 4 – Quantitative Analysis

Demographics and general information

A total of 27 adolescents completed the survey, of which 13 respondents (48.1%) were male and 14 respondents (51.9%) were female. All respondents were from towns within Connecticut. Because of the relatively low number of respondents to the survey, descriptive statistics using univariate analysis and frequencies were performed for all variables by gender and for the entire cohort

Table 3 – General Demographics

Question	Females % (#)	Males % (#)	Total sample % (#)
Gender	51.9 (14)	48.1 (13)	100 (27)
Hometown			
- Guilford	78.6 (11)	46.3 (6)	63.0 (17)
- Branford	7.1 (1)	23.1 (3)	14.8 (4)
- New Britain	0 (0)	23.1 (3)	11.1 (3)
- Hartford	15.4 (2)	11.1 (1)	11.1 (3)
Race			
- White	71.4 (10)	69.2 (9)	70.4 (19)
- Black	14.3 (2)	15.4 (2)	14.8 (4)
- Hispanic	14.3 (2)	7.7 (1)	11.1 (3)
- Other	0	7.7 (1)	3.7 (1)

Over half (63%) of the study population was from the town of Guilford, CT with the remaining participants almost evenly distributed from the towns of Branford, New Britain, and Hartford, CT. A large majority (70.4%) of respondents were White. The remaining eight respondents (29.6%) self-identified as Black, Hispanic, and Black-Puerto-Rican-Italian.

Table 4 – Student and Working Status

Question	Female % (#)	Male % (#)	Total Sample % (#)
Student status			
- Current Student	92.9 (13)	92.3 (12)	92.6 (25)
- Not currently a student	7.1 (1)	7.7 (1)	7.4 (2)
Current grade level			
- Before high school	0 (0)	7.7 (1)	3.8* (1)
- 9 th grade	23.1* (3)	7.7 (1)	15.4* (4)
- 10 th grade	0 (0)	15.4 (2)	7.7* (2)
- 11 th grade	0 (0)	23.1 (3)	11.5* (3)
- 12 th grade	76.9* (10)	30.8 (4)	53.8* (14)
- High school graduate	0 (0)	15.4 (2)	7.7* (2)
Typical grades in school			
- Mostly A's	50.0 (7)	15.4 (2)	33.3 (9)
- A's and B's	35.7 (5)	30.8 (4)	33.3 (9)
- Mostly B's	7.1 (1)	30.8 (4)	18.5 (5)
- B's and C's	7.1 (1)	7.7 (1)	7.4 (2)
- Mostly C's	0	7.7 (1)	3.7 (1)
- Not applicable	0	7.7 (1)	3.7 (1)
Working status			
- Part time	35.7 (5)	15.4 (2)	25.9 (7)
- Full time	0 (0)	7.7 (1)	3.7 (1)
- Not employed	64.3 (9)	76.9 (10)	70.4 (19)

*Denotes valid percent or percentage of respondents who answered particular question

A majority of respondents, both males and females, were students at the time they completed the survey. The greatest percentage of students (53.8%) was in the 12th grade. In

response to questions surrounding the typical grades students received in school two-thirds reported that they received either mostly A's or A's and B's in school.

Although not included in the table, the great majority of respondents lived with family members. Only eight respondents stated that they were currently working during the time that the survey was administered. The majority of employed adolescents had part-time jobs.

Table 5 – Parents' Education Level

Question	Female % (#)	Male % (#)	Total Sample % (#)
Highest level of education attained by mother			
- Some high school	14.3 (2)	0 (0)	7.4 (2)
- High school graduate	7.1 (1)	7.7 (1)	7.4 (2)
- Some college	14.3 (2)	15.4 (2)	14.8 (4)
- College graduate	21.4 (3)	61.5 (8)	40.7 (11)
- Graduate school	42.9 (6)	7.7 (1)	25.9 (7)
- Don't know	0 (0)	7.7 (1)	3.7 (1)
Highest level of education attained by father			
- Some high school	0 (0)	0 (0)	0 (0)
- High School graduate	14.3 (2)	7.7 (1)	11.1 (3)
- Some college	0 (0)	7.7 (1)	3.7 (1)
- College graduate	42.9 (6)	69.2 (9)	55.6 (15)
- Graduate school	35.7 (5)	0 (0)	18.5 (5)
- Don't know	7.1 (1)	15.4 (2)	11.1 (3)

Overall, the adolescents had parents with strong educational backgrounds. Over 60% of both boys and girls had a mother who either was a college graduate or attended a graduate school program. More girls than boys were likely to have a mother who had attended graduate level

training. The education levels of the respondents' fathers were also overall quite high. Most (74.1%) answered that their father had graduated college or had entered a graduate degree program. For those who did know the level of education their father had achieved, all fathers had completed high school.

Skin type and skin cancer risk

The survey sought to characterize the respondents' skin tone and overall risk of skin cancer based on their skins' response to the sun using the standardized Fitzpatrick scoring system.⁴⁷ Additionally, adolescents were asked to self-classify their natural skin color.

Table 6 – Fitzpatrick Skin Type and Self-Perception of Skin Tone

Question	Female % (#)	Male % (#)	Overall % (#)
Fitzpatrick skin type			
- Type I	7.1 (1)	0 (0)	3.7 (1)
- Type II	28.6 (4)	15.4 (2)	22.2 (6)
- Type III	28.6 (4)	46.2 (6)	37.0 (10)
- Type IV	7.1 (1)	15.4 (2)	11.1 (3)
- Type V	21.4 (3)	0 (0)	11.1 (3)
- Type VI	7.1 (1)	23.1 (3)	14.8 (4)
How would you classify your natural skin color			
- Ivory white	7.1 (1)	7.7 (1)	7.4 (2)
- Fair or pale	14.3 (2)	15.4 (2)	14.8 (4)
- Fair to beige, with golden undertone	28.6 (4)	38.5 (5)	33.3 (9)
- Olive or light brown	42.9 (6)	30.8 (4)	37.0 (10)
- Dark brown or black	0 (0)	0 (0)	0 (0)
- Other	7.1 (1)	7.7 (1)	7.4 (2)

The most common Fitzpatrick skin type for both males and females alike was type III skin, or skin that sometimes develops a mild burn but gradually tans to olive. Type II skin was the next most common skin type when considering the entire study population. The girls overall tended to have lower Fitzpatrick skin scores compared with the male cohort, suggesting that the female population had lighter complexions overall and were more at risk for skin cancer from UV radiation. Despite this, it is interesting to note that girls were slightly more likely to categorize their skin as having darker skin tones than their Fitzpatrick score would suggest. Whereas five girls noted that they had type I or type II skin, suggesting a very fair complexion, only three girls described their skin tones as either Ivory white, fair or pale. This finding is consistent with the females beauty preferences for bronzed skin in which girls may have a conscious or unconscious desire to identify as having a darker, “more desirable” skin tone. Conversely, boys were slightly more likely to identify as having a slightly lighter skin tone than their Fitzpatrick score would suggest. Although four boys noted that they had type VI Fitzpatrick skin, none of the boys felt they had dark brown or black skin as this skin typing would suggest. This brings the question of whether a machismo complex is prompting boys to feel that they are immune to burning, but want to identify as having subjectively lighter skin than a Fitzpatrick skin type of VI would suggest.

Skin tone perceptions

The survey sought to tease out perceptions surrounding skin and skin tone as it relates to beauty as well as personal emotions surrounding the need of adolescents to lighten or darken their skin through a series of Likert style questions with responses ranging from 1= strong disagree to 5 = strongly agree.

Table 7 – Perceptions Surrounding Skin Tone

Statement	Female		Male		Overall	
	n	mean	n	mean	n	mean
Skin color is very important in determining beauty	14	2.97	13	2.69	27	2.37
I wish there was a way to make my skin lighter	14	1.71	13	1.31	27	1.52
I wish there was a way to make my skin darker	14	2.64	13	2.15	27	2.41
I am satisfied with the color of my skin	14	3.86	13	3.77	27	3.81
Tanned skin looks healthier than fair skin	14	3.21	11	3.27	25	3.24
In my opinion lighter skin is more attractive	14	2.43	13	2.46	27	2.44
In my opinion darker skin is more attractive	14	3.57	13	2.54	27	3.07
I feel self-conscious when my skin looks fair	13	3.15	13	2.08	26	2.62
I feel self-conscious when my skin looks dark	12	2.33	11	1.64	23	2.00
I feel like I need to do things to change my skin color (tanning or bleaching) for special occasions	13	2.63	13	1.85	26	2.23

On average, boys and girls tended to feel similarly about most statements. However, consistent with the qualitative data, the most significant finding from this series of questions showed that the female population surveyed had a greater affinity for darker skin tones and were more likely to personally feel uncomfortable when their skin becomes fair, or presumably is “untanned,” compared with boys. Girls overall agreed with the statements “in my opinion, darker skin tone is more attractive” and “I feel self-conscious when my skin looks fair,” whereas

boys tended to disagree with these statements. Overall, boys and girls most strongly disagreed with the statement “I wish there was a way to make my skin lighter.

Knowledge surrounding skin health

Adolescents’ overall skin health literacy was assessed through a series of true/false questions asking specifically about the health risks associated with indoor tanning, tanning in general, skin cancer, skin bleach and trying to tease out myths and misperceptions.

Table 8 – Skin Knowledge

Question	Female average % correct	Male average % correct	Total Sample average % correct
Tanning booths increase your risk of skin cancer	100	92.3	96.3
I am not at risk for skin cancer	85.7	61.5	74.1
It is important for me to use sun protective practices to prevent skin cancer	85.7	75	80.8
Bleaching creams have the potential to negatively affect your health	85.7	92.3	88.9
Bleaching creams can cause different long term skin consequences like permanent darkening or lightening	92.9	91.7	92.3
Skin cancer is not a big deal	100	100	100
Tanning booths are safer than outdoor tanning	84.6	84.6	84.6
Tanning (either indoors or outdoors) can cause you to get wrinkles when you get older	100	100	100
Melanoma can be a deadly form of skin cancer	84.6	76.9	80.8
Indoor tanning booths are not dangerous	100	100	100
Skin bleaching creams are safe to use as daily moisturizers	100	91.7	96.2
The only way to get enough vitamin D is to tan	100	84.6	92.6
Tanning indoors (at a tanning booth) or outdoors is not dangerous to my health	92.3	69.2	80.8

(Table 8 continued)

Sunbathing outdoors and/or using a tanning bed/booth is bad for the long-term appearance of skin	100	84.6	92.3
It is important for me to regularly check for any new moles or growths on my skin	85.7	84.6	85.2
Outdoor tanning does not increase my risk of skin cancer	92.9	76.9	85.2

Adolescents, both male and female, scored high on questions surrounding indoor tanning. Almost all adolescents understood that using tanning booth could increase your risk for cancer and that tanning booths could be dangerous to your health. Adolescents were less knowledgeable about the difference between indoor and outdoor tanning answering incorrectly that tanning booths were safer to use than outdoor tanning. Overall, health literacy for both males and females surrounding the dangers of indoor tanning was quite strong. Knowledge could be improved on the differences between indoor and outdoor tanning.

Health literacy on tanning in general was strong, although slightly weaker for male compared with female respondents. Knowledge gaps for boys in this section included understanding that there are other sources of vitamin D than the sun and a general understanding that indoor tanning could be bad for one's health.

Skin cancer knowledge was the greatest area of weakness for both boys and girls. Approximately one-fourth of adolescents did not feel that they were at risk for skin cancer. Other knowledge gaps in this area existed around: (1) understanding the importance of protecting your skin from sunlight by using sunscreen and sun protective clothing to help prevent skin cancer, (2) understanding that it is important to check for new growths and moles on your body to help catch skin cancer at an early stage, and (3) understanding that outdoor tanning could

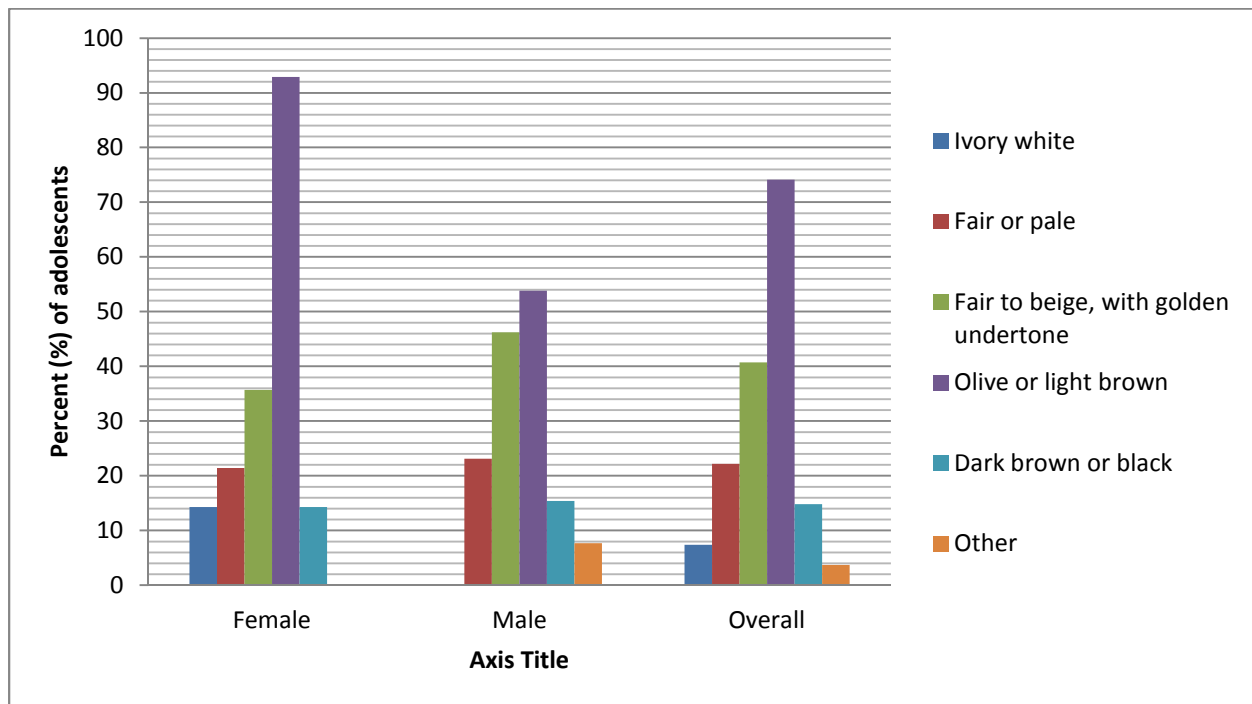
cause skin cancer. Overall, these questions were the weakest area of skin health literacy and are an area that can be targeted for future interventions.

Three questions addressed health literacy regarding bleaching cream and adolescents overall scored well on health knowledge pertaining to skin bleaching. In this section, the question that received the lowest score was the question that addressed whether or not bleaching creams had the potential to negatively affect one's health. Thus, should interventions seek to improve knowledge surrounding skin bleach, educational efforts should focus on discussing potential systemic side effects associated with skin bleaching.

Pressures and influences surrounding skin tone altering behaviors

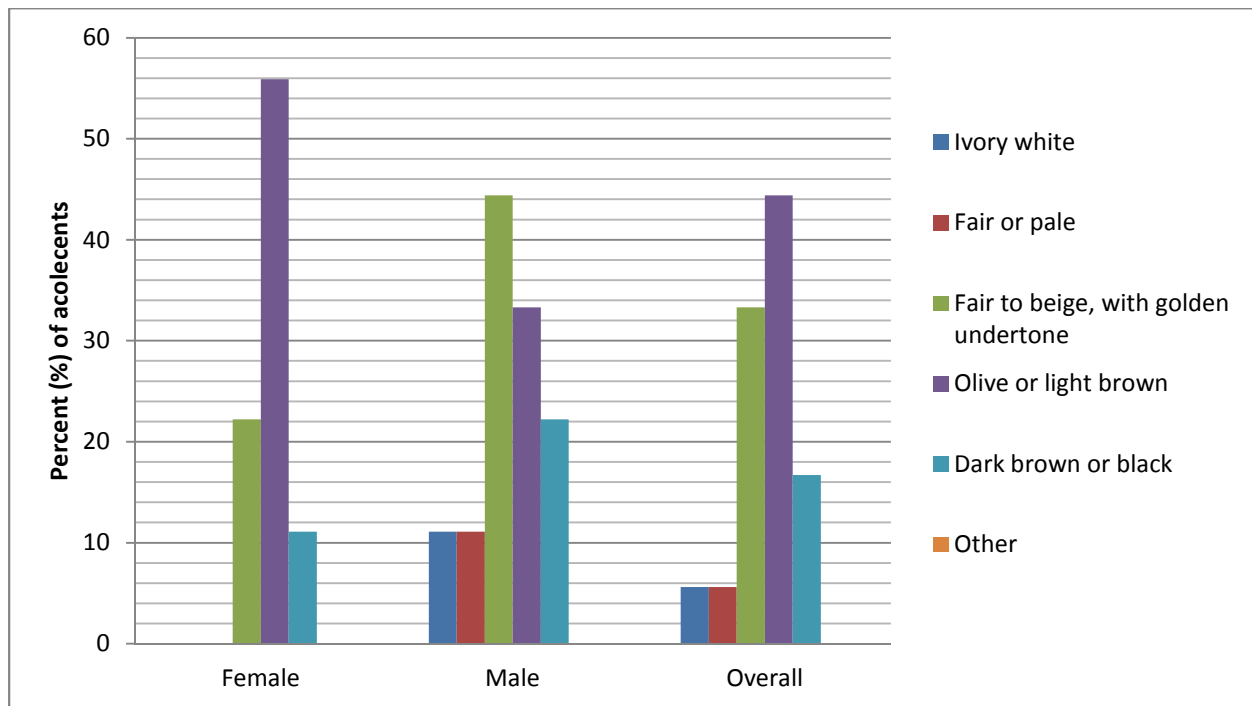
The survey tool sought to assess the pressures from friends, family and media to change and alter skin tone via questions surrounding what skin color most actors and actresses that adolescents saw on TV had, what skin tone their girlfriend or boyfriend preferred, and what skin tones their friends found most attractive. It was felt that these could be areas of subliminal messaging affecting adolescents' skin tone perceptions and behaviors. Additionally, adolescents were asked directly what pressures they felt to lighten or darken their skin tone.

Figure 2 – Skin Tone of Attractive Actors and Actresses as Seen in TV and Movies



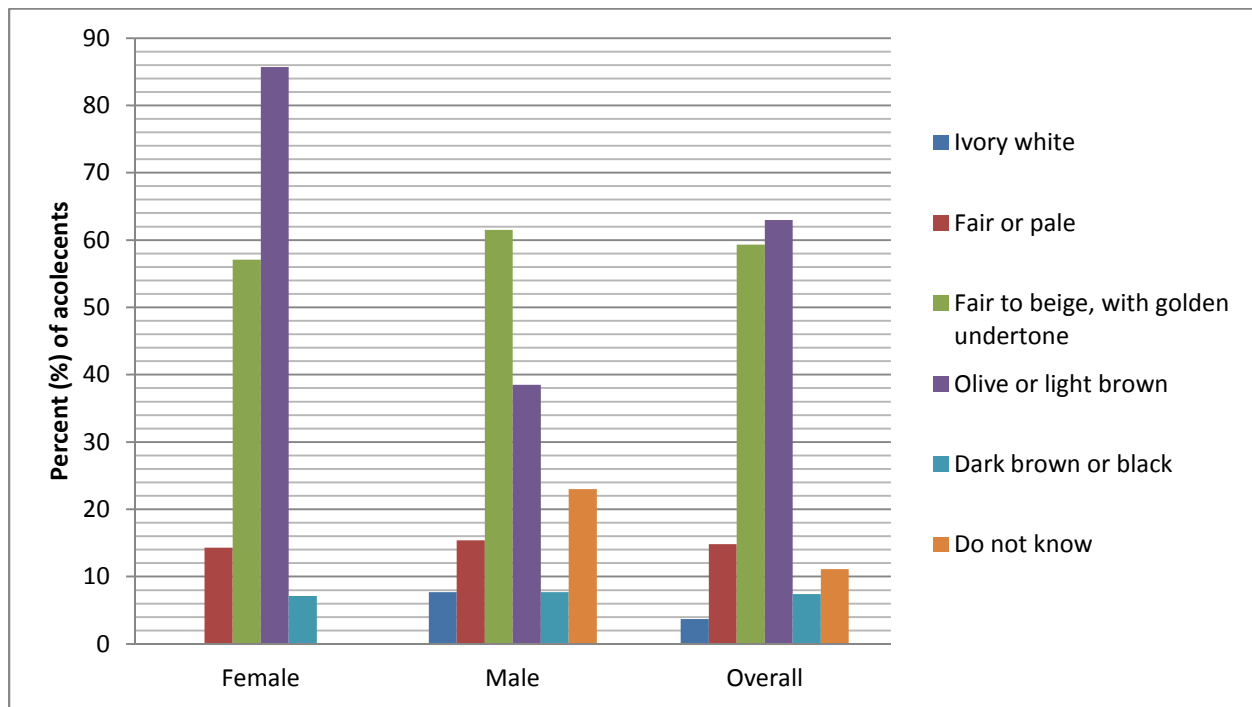
When answering what skin tone most attractive actors and actresses on TV had, all adolescents' answers trended towards more medium bronzed tone skin tones. Olive or dark brown skin tone was the most common response to the questions "what skin tone do most actors and actresses have" for the adolescent group as a whole, especially girls. Frequency of responses trended down for either light or darker skin tones.

Figure 3 – Skin Tones Found Most Attractive by Significant Others



In total nine girls and nine boys answered questions about skin tone preferences of their significant other. The remaining nine adolescents said they did not have a significant other. Similar to the questions surrounding actors and actresses, the most commonly answered preferred skin tone of significant others was olive or light brown for female respondents. However, it is interesting to note that the most common answer surrounding preferred skin tones for boys' significant others was fair to beige, with golden undertones. This discrepancy between boys and girls is interesting, as one might have hypothesized that the skin tone preferences of significant others would be the same for both genders. Like skin tones of attractive actors and actresses, there was a similar trend towards the bronzed medium.

Figure 4 – Skin Tones Found Most Attractive by Friends



When asked what skin tones friends found most attractive, akin to responses from the previous question, girls were more likely to feel that their friends preferred olive to light brown skin and boys were more likely to feel that friends preferred fair to beige skin. Once again, this is an interesting discrepancy and the disparity between these two perceptions should be noted.

Overall, in each of these questions, a very clear preference for medium “bronzed” skin tones is apparent when looking at data about friends, significant others, and media. It is apparent that adolescents’ skin tone ideals, continue to be medium-toned bronzed skin.

Table 9 - Pressures to Tan by Family, Friends, and Media

Question	Female % (#)	Male % (#)	Total Sample % (#)
I feel pressure to be tan by			
- Mother	0 (0)	0 (0)	0 (0)
- Father	0 (0)	0 (0)	0 (0)
- Sister or brother	7.1 (1)	0	3.7 (1)
- Friend	57.1 (8)	23.1 (3)	40.7 (11)
- Models and celebrities	57.1 (8)	15.4 (2)	37.0 (10)
- No one	28.6 (4)	69.2 (9)	48.1 (13)

Two questions specifically asked adolescents if they felt pressure to tan or bleach skin from their mother, father, sister or brother, friend, or the media. Overall, adolescents felt pressure to tan from friends, and media, especially among girls. It is noteworthy that 48% of adolescents said that they did not feel any pressure to tan or bleach their skin.

In addition to perceived preferences for certain skin tones among friends, significant others and the media, as well as perceived pressures from these sources to tan, it was felt that parental and peer modeling could potentially influence adolescents behaviors and perceptions surrounding skin tones and skin tone altering activities.

Table 10 – Friend and Family Participation in Skin Tone Altering Activities

Question	Female % (#)	Male % (#)	Total Sample % (#)
Do any of your close friends or family participate in outdoor tanning			
- Just friends	0 (0)	7.7 (1)	3.7 (1)
- Just Family	0 (0)	7.7 (1)	3.7 (1)
- Both friends and family	66.7 (8)	38.5 (5)	48.1 (13)
- Neither	33.3 (4)	46.2 (6)	37.0 (1)
Do any of your close friends or family participate in indoor tanning*			
- Just friends	33.3 (4)	23.1 (3)	28 (7)
- Just family	16.7 (2)	15.4 (2)	16 (4)
- Both friends and family	0 (0)	0 (0)	0 (0)
- Neither	50 (6)	61.5 (8)	56 (14)
Do any of your close friends or family participate in skin bleaching			
- Just friends	8.3 (1)	7.7 (1)	8.0 (2)
- Just family	0 (0)	0 (0)	0 (0)
- Both friends and family	0 (0)	0 (0)	0 (0)
- Neither	78.6 (11)	92.3 (12)	85.2 (23)

***Two girls did not respond to questions pertaining to this dataset**

A majority of female and male respondents answered that they had both friends and family members who tanned outdoors. Tanning booth use was less popular among friends and family of adolescents, but was still reported to be used by close contacts rather frequently, (44% overall), suggesting that many adolescents still had exposure to indoor tanning through either friends or family.

Similar to qualitative data, reports of skin bleaching among family and friends was rare for adolescents surveyed. Overall, the vast majority of respondents (85.2%), noted that they had

neither friends nor family members who used products with the explicit purpose of bleaching their skin.

Adolescent participation in skin tone altering behaviors and practices

To gain a better understanding of adolescent behaviors, questions were asked directly about adolescents' own behavior with respect to outdoor tanning, indoor tanning, skin bleaching, cosmetics, and hair treatment practices.

Table 11 – Outdoor Tanning Use among Surveyed Adolescents

Question	Female % (#)	Male % (#)	Total Sample % (#)
Do you sit outside for the purpose of developing a tan?			
- Yes	71.4 (10)	38.5 (5)	55.6 (15)
- No	28.6 (4)	61.5 (8)	44.4 (12)

A majority of female respondents (71.4%) reported that they “had ever sat outside for the purpose of developing a tan.” The practice of outdoor tanning was less popular among boys.

Table 12 – Outdoor Tanning Practices among Adolescent Tanners (10 girls and 4 boys)

Question	Total Sample
How often do you sit outside for the purpose of developing a tan?	
- Less than once a month	3
- 1-4 x /week	4
- Once a week	6
- Several times a week	2
Do your parents know that you tan?	
- Yes	14
- No	0
Do your parents approve of your tanning?	
- Yes	13
- No	1
Do you wear sunscreen when you sit outside to tan?	
- Yes	8
- Sometimes	7
- no	0

Responses did not vary greatly between males and females in this section. Questions to further clarify tanning practices were asked of adolescents who reported outdoor tanning. The average age for beginning tanning was around 13 and the average number of minutes spent outside tanning was 35.2 minutes. Most reported sitting outside in the summer with the purpose of developing a tan once a week.

All tanners, reported that their parents were aware of their outdoor tanning habits and all but one girl said that their parents approved of their tanning practices. All 15 said they wore sunscreen all of the time or some of the time when they were out to tan.

Table 13 – Motivation behind Tanning (Out of 10 outdoor female tanners and 4 outdoor male tanners)

Question	Total Sample #
I think I look more attractive with a tan	12
Other people think I look more attractive with a tan	8
It's relaxing	11
I look more athletic with a tan	11
I look healthier with a tan	10
A tan helps hide skin marks or blemishes	4
It's important that I be tan for my job	0

In addition to quantifying their tanning habits, outdoor tanners were asked to provide reasons why they like to tan. The most common response was that they thought they looked more attractive with a tan. Other common responses for boys and girls both were “it's relaxing,” “I look more athletic with a tan,” and “I look healthier with a tan.”

Table 14 – Motivations Not to Tan Outdoors (4 female non-tanners and 8 male non-tanners)

Question	Total Sample #
I am happy with the color of my skin	6
I don't like when my skin gets darker	2
I do not want to get skin cancer	5
It is bad for my health	3
I burn too easily	2
I want to prevent wrinkles in the future	2
I get bored	4
My parents would be upset with me	2
My friends would judge me	0
I don't need to tan	2

Alternatively, the four female and eight male respondents who answered that they did not sit outside to tan outdoors were asked why they did not outdoor tan. The most common response was that the non-tanners were “happy with the color of their skin.” Half of the respondents who answered that they were happy with the color of their skin had skin of color (two Black and one Black-Italian-Hispanic). Two Black adolescents said they “don’t need to tan.” The Black-Italian-Hispanic male also answered that he did not like when his skin gets darker. The most common answer for White respondents was that they did not want to get skin cancer.

The next section focused on skin bleaching cream use and practices. The entire cohort of surveyed students (n=27) responded that they had never used a cream for the purpose of lightening their skin. Two Black, Two Hispanic and 1 Italian-Puerto-Rican adolescents said a major motivation not to use skin bleach is that they are happy with their skin color. One Hispanic adolescent each commented that they do not use skin bleach because they did not know

it existed, they do not like when their skin looks fair, it can be bad for your health, their friends would judge them, and they know their parents would be upset. One Black adolescent also said they did not use bleach because they “did not need it.”

The next questions in this section focused on indoor tanning. Like skin bleaching, the entire cohort of adolescents surveyed answered that they did not participate in indoor tanning.

Table 15 – Motivations Not to Indoor Tan (out of 14 females and 13 males)

Question	Female % (#)	Male % (#)	Total Sample % (#)
I am happy with the color of my skin	37.5 (5)	46.2 (6)	40.7 (11)
I don't like when my skin gets darker	7.1 (1)	0 (0)	3.7 (1)
I do not want to get skin cancer	57.1 (8)	30.8 (4)	44.4 (12)
It is bad for my health	50.0 (7)	46.2 (6)	48.1 (13)
I burn too easily	21.4 (3)	15.4 (2)	18.5 (5)
I want to prevent wrinkles in the future	50.0 (7)	15.4 (2)	33.3 (9)
I get bored	21.4 (3)	7.7 (1)	14.8 (4)
My parents would be upset with me	21.4 (3)	15.4 (2)	18.5 (5)
My friends would judge me	0 (0)	0 (0)	0 (0)
I don't need to tan	7.1 (1)	7.7 (1)	7.4 (2)

Similarly, adolescents were why they refrained from indoor tanning. Most commonly adolescents answered they were happy with their skin color, they knew it was bad for their health, and they did not want to get skin cancer. Cosmetic concerns surrounding future skin aging were more important to females compared to males.

Sunscreen use was also quantified by adolescents.

Table 16 - Sunscreen Use

Question	Female % (#)	Male % (#)	Total Sample % (#)
In the summer months, when spending time outdoors, do you ever wear sunscreen?			
- Yes	85.7 (12)	69.2 (9)	77.8 (21)
- No	14.3 (2)	30.8 (4)	22.2 (6)

Sunscreen use was more common among girls (85.7%) compared to boys (69.2%).

Table 17 – Sunscreen Use Practices

Question	Total Sample
How often do you wear sunscreen?	
- Everyday	3
- Regularly	10
- Sometimes	7
- Rarely	1
What is the SPF of the sunscreen that you use?	
- <15	0
- 15-30	11
- 30-50	3
- 50+	5
- Don't know	2
When spending a day outdoors, how often do you re-apply sunscreen	
- Never	2
- Once a day	9
- A couple times a day	9
- At least every 2 hours	1

Female adolescents were more likely to say they regularly used sunscreen. Boys more frequently reported sunscreen use ‘sometimes,’ suggesting that girls were more compliant with their sunscreen practices than boys. The most common SPF that both girls and boys used for sunscreen was an SPF of 15-30. Approximately 50% of respondents reported that they re-applied sunscreen “a couple of times a day” or “at least every two hours”.

Table 18 – Motivations to Wear Sunscreen

Reasons for wearing sunscreen	Female % (#)	Male % (#)	Total Sample % (#)
I am happy with the color of my skin	21.4 (3)	15.4 (2)	18.5 (5)
It helps protect my skin from skin cancer	64.3 (9)	61.5 (8)	63.0 (17)
I do not want to get a sunburn because it looks bad	71.4 (10)	46.2 (6)	59.3 (16)
I do not want to get a sunburn because it hurts	85.7 (12)	53.8 (7)	70.4 (19)
I do not want to get a sunburn because it increases my risk of skin cancer	78.6 (11)	53.8 (7)	66.7 (18)
I do not want to get darker	0 (0)	7.7 (1)	3.7 (1)
I want to prevent wrinkles in the future	50.0 (7)	15.4 (2)	33.3 (9)
My parents make me	78.6 (11)	38.5 (5)	59.3 (16)
My friends wear sunscreen so I do too	7.1 (1)	0 (0)	3.7 (1)

Five major factors influenced over 75% of sunscreen users: feelings that sunburns hurt, knowledge that a sunburn increases the risk for skin cancer, knowledge that sunscreen use can help prevent skin cancer, thoughts that a sunburn looks bad, and instruction from parents to wear sunscreen. A desire to prevent wrinkles and feeling happy with natural skin color were less common, but still prevalent reasons given for sunscreen use.

Of the 6 respondents who did not wear sunscreen, additional questions were asked of them surrounding the reasons behind this. The most common response for not wearing sunscreen was that “they did not need it.”

Other image-altering behaviors among adolescents surrounding make-up product use and hair treatment use were asked of girls in the survey.

Table 19 – Cosmetic Use among Female Respondents

Cosmetic type	Percent reporting % (#)
Lipstick	28.6 (4)
Blush	21.4 (3)
Foundation	35.7 (5)
Sunless tanner	0 (0)
Mascara	71.4 (10)
Eye shadow	42.9 (6)
Bronzer	7.1 (1)
Eyeliner	42.9 (6)
None	21.3 (3)

Over three-quarters of the girls surveyed wore some type of make-up with only three girls responding that they did not wear any make-up. The most common cosmetics used were mascara, eye shadow, eyeliner, and foundation, in that order. Less commonly, girls wore lipstick and bronzer. None of the girls used sunless tanner. None of the male cohort surveyed used any of the listed cosmetics.

Similar to cosmetics, respondents were then asked to check off any and all treatments they had used for their hair including highlights, hair dye, perms, relaxers, dread locks, chemical straightening, or none. Five girls (35.7%) dyed their hair, three girls (21.4%) highlighted their

hair, and one girl relaxed her hair (7.1%). Eight girls (57.1%) said they kept their hair all natural. None of the boys noted having ever used any of the listed treatments on their hair.

Complications associated with image-altering behaviors

Questions were specifically asked about complications associated with indoor tanning, outdoor tanning, skin bleaching, use of bronzer, or use of hair products. Overall, few adolescents had experienced complications associated with image-altering behaviors. A few adolescents wrote that they had had complications from outdoor tanning including: three females (27.3%) who experienced sunburn, one female (9.1%) who developed blisters, and one male respondent (7.7%) who developed skin peeling. Other complications that adolescents wrote in included “turning orange” as reported by one female using bronzer and “burning hair” as reported by one girl from hair treatments.

Chapter 5 – Discussion and Conclusion

In this study, I sought to shed light on the perceptions and practices surrounding skin tone and skin tone altering behaviors as well as the major influences shaping these practices and perceptions in the CT adolescent population. The qualitative and quantitative data showed several major recurring themes. These involved how skin tone is positioned as a part of the larger context surrounding image and beauty for adolescents, differential approaches to skin tone for White populations compared with Black and Hispanic populations, and major sources of influence shaping adolescent perceptions and behaviors, overall.

Key results

Skin tone in the wider conception of beauty and image: beauty through the eyes of adolescents vs. beauty through the eyes of society at large

A major goal of this study was to understand how skin tone influences concepts of beauty for adolescents. Through both interview and survey data, adolescents participants reported that they viewed beauty as something that they saw as more “natural” or personality-based than appearance-based. The idea of natural beauty first came up in interviews in which adolescents used a number of character traits and references to “being true to oneself.” This view was echoed in the quantitative analysis in which both male and female respondents disagreed with the statement “skin color is very important in determining beauty.”

It became apparent that despite these concepts surrounding natural beauty, adolescents live in a world in which they are bombarded with messages focused on the importance of appearance and image. Messages from peers, media, and even family establish appearance-centered beauty ideals that encourage artificial beauty or image altering-behavior. Adolescents

discussed how behaviors and messages from peers, media, and family surrounding cosmetic use, weight, and tanning could add pressure to conform to a societal beauty norm. Adolescents felt that the more bronzed or medium skin tones were viewed as the pinnacle of beauty by media sources, significant others, and friends. While adolescents stressed the importance of natural beauty and character as being the major drivers in their definitions of beauty, they exist within a world that values outward appearance.

Society's definition of beauty: "weighing" skin tone against other aspects of beauty

Although skin tone came up as a prominent part of society's beauty ideals, the most consistent concerns across ethnic backgrounds were those of weight. This was a major topic for adolescents in the definition of beauty as it relates to appearance and took precedence over skin tone as the most important factor affecting self-confidence and self-image. All adolescents were concerned with monitoring their weight and wanting to stay as fit or thin as possible. Messages surrounding weight came from media, family, and friends. As opposed to skin tone's effect on beauty, the effect of weight on beauty was unwavering in its importance. The disparity between the importance of skin tone, as well as other beauty factors as compared to weight should be used to contextualize interventions targeted at improving self-image and confidence of adolescents as a means to decrease skin tone altering behavior.

Continued desires for the tanned complexion among White adolescents

White adolescents continued to demonstrate a preference and desire for tanned skin tones. In interviews, many White adolescents felt that tanned skin was more attractive than lighter skin. Some commented that they felt that tanned skin looked "healthier" while pale skin was "ugly" or "sickly." Girls indicated that they felt more comfortable and confident when their skin was tan.

This was echoed in survey responses in which White girls in particular responded that they felt “darker skin tones were more attractive” and felt self-conscious when their skin looked too fair. This preference for tanned skin among the White adolescents was consistent in both qualitative and quantitative analyses.

This image of tanned skin as the ideal is influenced by media and friends. In interviews White adolescents repeatedly commented that they felt that most celebrities and actors and actresses were tanned or had a bronzed complexion. Additionally, they said that friends would often compare tan lines and compete for who could achieve the “best tan” in summer months. Quantitative analysis demonstrated that adolescents felt that their friends and significant others found bronzed or medium skin tones to be most attractive and that this was mirrored in media depictions of beautiful skin tones. Consistent with these perceived preferences, White adolescents noted that they personally felt pressure to tan by friends and media alike.

Despite having a solid general knowledge surrounding the health risks associated with tanning, many White adolescents noted that they participated in outdoor tanning practices and often would avoid sunscreen to achieve the best tan. In doing so, by spending excessive amounts of time unprotected in the sun, adolescents were increasing their risks of developing skin cancer later in life. Although White adolescents in this cohort did not indoor tan, they spoke of many friends and peers who participated in this practice noting that although some peers indoor tan year round, this practice is more common around spring break and prom. Overall, participating in tanning practices either outdoors or indoors continues to be common in White adolescent populations to achieve the “ideal” bronzed, tanned complexion that is so strongly promoted by society.

Skin tone has significantly different meaning for White adolescents than adolescents of color

Black and Hispanic adolescents were more likely to discuss the role of skin tone as it relates to race, racism, and persistent societal hierarchies associated with skin color. White adolescents focused skin tone responses on tanning and darkening skin tone as a means of improving physical beauty. Rarely did Whites discuss aspects of skin tone related to race, racism, and societal privileges or disadvantages surrounding skin color.

Black adolescents had a much greater focus on racism both within and between different ethnic groups when discussing skin color and skin tones. Adolescents commented that racism and prejudices from lighter skinned individuals towards darker skinned individuals continued to be prevalent in society today. These same adolescents commented that racism was often a problem within ethnic groups and that they were aware of Black adolescents who felt that darker skin tones were less attractive. They also pointed to media's focus on featuring lighter skinned celebrities of color in fueling racist sentiments. Adolescents of color focused their discussions surrounding skin color on the continued marginalization of skin of color populations and noted that society's message surrounding skin tones and skin color continued to fuel racism into the current day.

A majority of adolescents of color interviewed and surveyed said that they were happy with their skin color and that they did not participate in skin bleaching activities. Skin bleaching was discussed as a skin tone altering behavior that was reserved for certain populations, such as Jamaican women and celebrities. For the most part, Black and Hispanic adolescents did not talk about skin bleaching as a beauty-altering behavior. Thus, while White adolescents took a more

image-centric approach to discussions surrounding skin color, adolescents of color were more race-centric in their responses surrounding skin color.

Major role of media on adolescent image and self-image

One of the major themes that ran through both interview and survey data was the role of the media in influencing adolescents' views surrounding physical beauty and self-image. The data highlighted how common it was for adolescents and their peers to compare themselves to celebrities and models. Although adolescents knew about techniques to alter media images such as airbrushing and Photoshop, these image altering techniques were not the first thing that came to mind when viewing these images of celebrities and models on TV, the internet, and in magazines. Adolescents often used terms such as “perfect” or “flawless” when describing models, suggesting that images created by the media were being used as a near impossible standard against which adolescents were comparing their own “imperfect” selves.

Adolescents commented on how they felt a sense of pressure from media to alter their own image. Across all skin tones, the greatest pressures from the media surrounded weight, and particularly attempting to achieve the “stick thin” or “very fit” appearance that was displayed in magazine, TV, and film. White adolescents felt pressured to tan because of images displayed in the media. A newer form of media pressure came in the form of social media in which peers could use filters to alter images, Twitter chats to discuss beauty ideals, or the anonymity of the internet to cyber bully other peers. The role of media in negatively affecting adolescents' self-image and risky image-altering behaviors should not be minimized and should be addressed in campaigns seeking to improve overall self-image and confidence among adolescents.

The trend for a middle skin tone ideal for both White and Black adolescents

Discussion themes surrounding skin tone varied for White and Black adolescents. However, although they approached the topic from different directions, both groups demonstrated a preference among peer groups and society at large for a middle ideal skin tone. Interestingly, this encourages a preference for tanning for White adolescents and if not in this day in age bleaching (as done in other cultures), then a feeling of status discrepancy among people of color. With the limited “n” of the study, this preference is not necessarily characteristic of the representative sample. However, the agreement of this middle skin tone is quite striking and would be an interesting topic to test with a larger sample.

Limitations of current study

Limitations of this study surround the narrow scope of the adolescent populations sampled and the low number of interviewees and survey respondents overall. All the adolescent populations recruited for the study were involved with extra-curricular groups focusing on community service and/or empowerment. Thus, the population sampled was not representative of general adolescent populations within Connecticut, or even within the same high school or town. Adolescents who may have been more likely to participate in higher risk skin tone altering behaviors may not have been included in the sample.

Additionally, although the study sought to recruit equal numbers of adolescents who identified as White, Black, and Hispanic, the actual study population ended up consisting of more White adolescents compared with adolescents from other racial or ethnic groups. The predominance of White adolescents meant that results, outcomes, and opinions from the adolescents were heavily weighted towards the perspectives and behaviors of White adolescents.

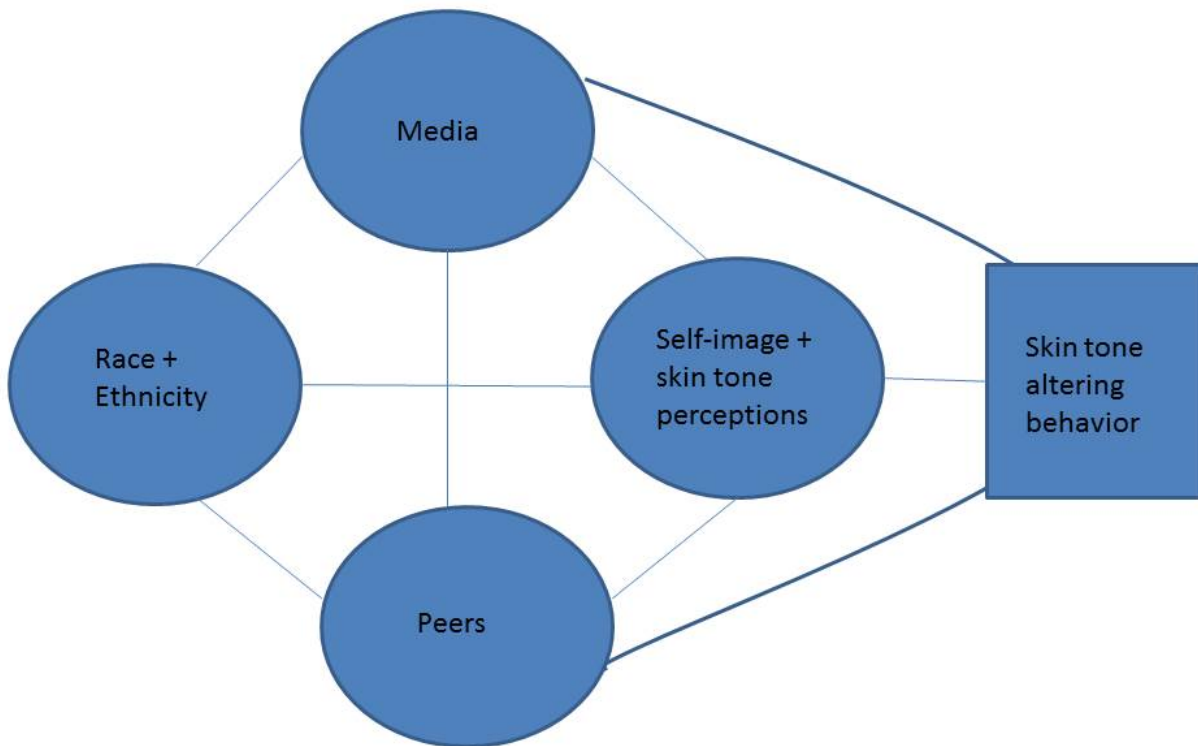
The opinions of the relatively few numbers of Hispanic and Black adolescents only provide small windows into their communities at large.

Finally, as described in greater detail in the methodology, recruitment was limited by a number of factors. Most importantly, the requirement to receive written parental consent from all parents to participate in both interview and survey stages of the study presented a major barrier in recruitment. Because parents were not present with the adolescents in the study groups, parental consent forms had to be sent home with the adolescents. Many adolescents lost or forgot the parental consent forms and having these filled out and returned was a major barrier to participation. The resulting small sample size overall provided for a very low statistical power. Bivariate statistical analytics were not able to produce statistically significant results meaning that the analyses were limited to univariate descriptive statistics. Overall, results from the study should not be extrapolated and interpreted as representing the communities of the respondents at large, but instead should be viewed as more of a pilot study gaining a basic introduction to these larger issues within the Connecticut adolescent population.

Revised research model

The results of this study can be used to help inform a new post-research model that could be used as a starting point for a more complete study surrounding the topics of skin tone and skin tone altering behavior among adolescent populations within our state.

Figure 5 – Post-Research Logic Model



It is clear that a key predictor for how adolescents in this study group start to approach topics of skin, skin color, and skin tone altering behavior was self-identified race and different skin tone. White adolescents in the study approached the topics of skin and skin tone very differently than adolescents of color. An adolescent's race and ethnicity have the potential to play a major role in who they associate with, what media they are exposed to and their overall self-image and skin tone perceptions. Peers have the potential to influence media and vice versa. Both an adolescents peers, as well as the media they are exposed to are likely to significantly influence their self-image as well as skin tone perceptions. Self-image and skin tone perceptions are likely to play the largest role in shaping an adolescents' participation in skin tone altering

behavior. However, media and peers may directly influence participation in this type of behavior, both indirectly by affecting the adolescents' self-image and skin tone perceptions as well as directly by influencing adolescents decisions about participation surrounding skin tone altering behaviors.

Possible interventions

As adolescents move away both literally and figuratively from family influence's this period constitutes a prime time for educational interventions to help shape this transition in a healthy manner. Interventions should take four main approaches to decreasing skin tone altering behavior (particularly tanning practices) and improving comfort and confidence for adolescents with their natural skin tones.

First, interventions to address and reduce risky skin tone altering behaviors among adolescents, such as indoor tanning, outdoor tanning, sun protection, and skin lightening should be incorporated into school health settings. These interventions should involve adolescents of all skin tones,⁴⁹ include activities for improving knowledge surrounding skin tone altering activity risks,^{18,19} and have a major focus on promoting self-esteem building campaigns to address issues surrounding self-image² and the quest for physical attractiveness⁴¹ that drive risky skin tone altering activities. Although discussions should include information on the risks associated with skin tone altering behaviors, skin health literacy appears to play a minimal role on effecting skin tone altering practices. Rather, educational interventions should devote a greater focus to self-esteem building and should seek to deconstruct the societal concept of bronzed skin as beautiful and "healthy." Attention should be paid to discussing the pressures that exist to alter skin tone. In particular, discussions should cover the artificial alteration of images within the media and the

major role that media can have on self-image. These discussions should seek to include broader topics in beauty such as weight and other image-altering activities to help improve adolescents' comfort with natural beauty and allow for dialogue on the pressures that exist in society today to change one's self. Additionally, the importance of topics surrounding race and racism in a comprehensive educational intervention surrounding skin tone cannot be ignored. Research has shown that "race talks,"⁵⁰ or constructive dialogues surrounding race, when broached in an appropriate and skillful manner, have the potential to decrease participant's intimidation and fear of racial differences, increase compassion, improve appreciation for individuals from varying races and backgrounds, and increase a sense of connection between groups from many different backgrounds.⁵⁰ In doing so, the education system can take major steps in improving the comfort of adolescents from all skin tones in embracing their natural skin.

As an MD/MPH student who will be entering her medical residency in dermatology this summer, additional attention to be paid to how this pilot study can help shape and inform dermatologists' and primary care physicians' (PCP) approach to adolescent counseling and anticipatory guidance surrounding skin tone altering behaviors and skin tone perceptions. This study suggests that skin and skin tone play a major role in adolescents self-image and should be a topic of discussion with adolescents during office visits. Questions can be asked surrounding adolescent comfort with his or her own skin tone, pressures felt to alter that skin tone and any skin tone altering behaviors the adolescent is currently participating in. However, when dealing with adolescents in conversations surrounding skin tone, dermatologists and PCPs should be recognize that skin may be just one of the many factors that affect adolescents self-image and comfort with their overall appearance. When counseling adolescents regarding skin tone and skin tone altering behaviors, skin tone should be considered within the larger context of beauty

and providers should be prepared to brood discussions surrounding the effect of skin tone on self-image as well to include discussion on general self-image and other aspects of beauty and sources of insecurity for adolescents. In addition, with skin tone specifically, providers should be aware of the social pressures to tan for White adolescents from the media and peers, as well as ongoing experiences surrounding race and racism for adolescents of color. This knowledge can fuel discussions surrounding media, peers, race, and racism between the provider and their adolescent patients.

As discussed in our introductory chapter, the topic of skin and skin tone is grounded in centuries of history in the United States and internationally. Although time has helped to improve the public health messages delivered surrounding the health risks associated with tanning and to improve social justice surrounding race and racism within the United States, damaging messages surrounding skin tone preferences, skin tone altering and race continue to be propagated. Deconstructing these damaging messages will require cooperative work from public health professionals, physicians, scientists, teachers, and society at large. However, by targeting adolescent populations within the United States, we can begin to improve the messages surrounding skin and skin tone for the generations to come.

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Appendix I - In depth interview questions

1. Tell me what constitutes “beauty for you? How would you define beauty?
2. How does society portray beauty?
3. What does the appearance of a person’s skin have to do with beauty?
4. Tell me about your image of yourself? Can you describe your self-image to me?
5. What is the feedback from your peers (who are they, their activities)?
6. How does media portray beauty? What are the most beautiful skin tones in the media?
7. Tell me about your family...what image did they have of you...what was their feedback?
8. What do you do to alter your skin tone to make you (or the way you feel) more attractive?

What do your peers do?

Appendix II – survey tool

SECTION 1: In this section we would like to get a bit of general information about you:

1. In what town do you currently live (please write your hometown in the area provided below)?

-
2. Are you currently a student (select one)?

- ☐ yes
☐ no

If yes,

The school that I currently attend is:

_____ and I am in grade
(select one):

- ☐ before high school
☐ 9th grade (freshman in high school)
☐ 10th grade (sophomore in high school)
☐ 11th grade (junior in high school)
☐ 12th grade (senior in high school)
☐ post-graduate

3. What is your current working status (select one)?

- ☐ full time
☐ part time
☐ don't work

4. What is your gender (select one)?

- ☐ male
☐ female

5. To which racial or ethnic group do you most identify?

- ☐ Black (non-Hispanic)
☐ Asian/Pacific Islander
☐ White (non-Hispanic)
☐ Latino or Hispanic
☐ Native American
☐ Other: _____

6. Who do you live with (check all that apply):

- ☐ Mother
☐ Father
☐ Grandmother
☐ Grandfather
☐ Brother
☐ Sister
☐ Just myself
☐ Other: _____

7. What is the highest level of education that your mother has achieved (select one)?
- ☐ some high school
 - ☐ high school graduate
 - ☐ some college
 - ☐ college graduate
 - ☐ graduate school
 - ☐ don't know
8. What is the highest level of education that your father has achieved (select one)?
- ☐ some high school
 - ☐ high school graduate
 - ☐ some college
 - ☐ college graduate
 - ☐ graduate school
 - ☐ don't know
9. Do you have a child (select one)?
- ☐ yes
 - ☐ no
10. What grades do you typically get in school (select one)?
- ☐ mostly A's
 - ☐ A's and B's
 - ☐ mostly B's
 - ☐ B's and C's
 - ☐ mostly C's
 - ☐ C's and D's
 - ☐ mostly D's
 - ☐ D's and F's
 - ☐ mostly F's
 - ☐ I am not currently a student

SECTION 2: In this section we would like to get a bit of information about your skin type and general appearance. For each question below, please select the one best answer for you.

1. How does your skin respond to the sun?
- ☐ always burns, never tans
 - ☐ usually burns, tans with difficulty
 - ☐ sometimes mild burn, gradually tans to olive
 - ☐ rarely burns, tan with ease to a moderate brown
 - ☐ very rarely burn, tan very easily
 - ☐ never burns, tans very easily, deeply pigmented

2. What is your natural hair color?
- ☐ red or light blond
 - ☐ blonde
 - ☐ dark blonde or light brown
 - ☐ dark brown
 - ☐ black
 - ☐ other, please describe: _____
3. What is your eye color?
- ☐ light blue, light grey, or light green
 - ☐ blue, grey, or green
 - ☐ hazel or light brown
 - ☐ dark brown
 - ☐ brownish black
 - ☐ other, please describe: _____
4. How would you classify your natural skin color?
- ☐ Ivory white
 - ☐ fair or pale
 - ☐ fair to beige, with golden undertone
 - ☐ olive or light brown
 - ☐ dark brown or black
 - ☐ other, please describe: _____

SECTION 3: In this section we'd like to know a bit more about your skin and the skin of your family members. Please place an "X" under "I have had this" for any skin finding you have had and place an "X" under "My parents or a sibling have had this" for any skin finding a family members had. As far as you know, have you or a family member ever had:

	I have had this	My parents or a sibling have had this
Acne		
Darkening of areas of skin		
Lightening of areas of skin		
Melasma, or blotchy brown spots, on sun-exposed areas of the face		
Scars that are a cosmetic concern		
Blistering sunburn		
Skin cancer		
Vitiligo or "white spot disease", a skin condition in which there is a loss of color, or pigment, from areas of skin, resulting in irregular white patches that feel like normal skin		
A complication from using skin lightening products		

SECTION 4: In this section, we'd like to know a bit more about your perceptions surrounding skin tones. For each question, please circle your answer:

	Strongly disagree		Neutral		Strongly agree	Not applicable
1. Skin color is very important in determining beauty	1	2	3	4	5	<input type="checkbox"/>
2. I wish there was a way to make my skin lighter	1	2	3	4	5	<input type="checkbox"/>
3. I wish there was a way to make my skin darker	1	2	3	4	5	<input type="checkbox"/>
4. I am satisfied with the color of my skin	1	2	3	4	5	<input type="checkbox"/>
5. Tanned skin looks healthier than fair skin	1	2	3	4	5	<input type="checkbox"/>
6. In my opinion lighter skin is more attractive	1	2	3	4	5	<input type="checkbox"/>
7. In my opinion darker skin tones are more attractive	1	2	3	4	5	<input type="checkbox"/>
8. I feel self-conscious when my skin looks fair	1	2	3	4	5	<input type="checkbox"/>
9. I feel self-conscious when my skin looks too dark	1	2	3	4	5	<input type="checkbox"/>
10. I feel like I need to do things to change my skin color (tanning, bleaching) for special occasions like school dances	1	2	3	4	5	<input type="checkbox"/>

SECTION 5: In this section, we'd like to know a bit more about your thoughts on the health risks associated with different behaviors. For each question, place an "X" next to either true or false:

	True	False
1. Tanning booths increase your risk of skin cancer		
2. I am not at risk for skin cancer		
3. I am worried about developing noticeable light or dark spots on my skin as a long term effect of tanning		
4. It is important for me to use sun protective practices (wear sunscreen, avoid mid-day sunlight, or wear sun protective clothing) to prevent skin cancer		
5. Bleaching creams have the potential to negatively affect your health		
6. Bleaching creams can cause different long term skin consequences like permanent darkening or lightening		
7. Skin cancer is not a big deal		
8. Tanning booths are safer than outdoor tanning		
9. Tanning (either indoors or outdoors) can cause you to get wrinkles when you get older		
10. Melanoma can be a deadly form of skin cancer		
11. Indoor tanning booths are not dangerous		

12. Skin bleaching creams are safe to use as daily moisturizers		
13. The only way to get enough vitamin D is to tan		
14. Tanning indoors (at a tanning booth) or outdoors is not dangerous to my health		
15. Sunbathing outdoors and/or using a tanning bed/booth is bad for the long-term appearance of skin		
16. It is important for me to regularly check for any new moles or growths on my skin		
17. My doctors thinks I should tan		
18. Outdoor tanning does not increase my risk of skin cancer		

SECTION 6: In this section, we'd like to know a bit more about your thoughts surrounding skin tones:

1. Most of the attractive actors and actresses I see in movies and on TV have a skin tone that is (check all that apply):
 - ☐ Ivory white
 - ☐ fair or pale
 - ☐ fair to beige, with golden undertone
 - ☐ olive or light brown
 - ☐ dark brown or black
 - ☐ other, please describe: _____
2. My girlfriend/boyfriend prefers skin tones that are (check all that apply):
 - ☐ Ivory white
 - ☐ fair or pale
 - ☐ fair to beige, with golden undertone
 - ☐ olive or light brown
 - ☐ dark brown or black
 - ☐ other, please describe: _____
3. My friends think the most attractive skin tones are (check all that apply):
 - ☐ Ivory white
 - ☐ fair or pale
 - ☐ fair to beige, with golden undertone
 - ☐ olive or light brown
 - ☐ dark brown or black
 - ☐ other, please describe: _____
4. I feel pressure to be tan by (select all that apply):
 - ☐ Mother
 - ☐ Father
 - ☐ Sister or brother
 - ☐ Friend
 - ☐ Models and actresses on the TV or in magazines
 - ☐ No one

5. I feel pressure to lighten my skin by (select all that apply):
- ☐ Mother
 - ☐ Father
 - ☐ Sister or brother
 - ☐ Friend
 - ☐ Models and actresses on the TV or in magazines
 - ☐ No one

SECTION 7: In this section, we'd like to know a bit more about your behaviors and practices.

OUTDOORS TANNING:

1. Have you ever sat outside for the purpose of developing a tan?
 - ☐ yes (proceed to question 2)
 - ☐ no (proceed to question 3)
2. *If you answered yes to question 1, please answer questions below, otherwise, proceed to question 3 in this section. Select multiple choice answer or write answer in space provided.*
 - a. What age did you first sit outside for the purpose of developing a tan?:

 - b. During the summer months, how often do you sit outside to develop a tan:
 - ☐ less than once a month
 - ☐ 1-4 x/ month
 - ☐ once a week
 - ☐ several times a week
 - ☐ daily
 - c. When you sit outside to "tan" how many minutes do you spend outside tanning?:

 - d. Do your parents know that you tan?
 - ☐ yes
 - ☐ no
 - e. If yes, do they approve of your tanning (if you answered no to d you may skip this question)?
 - ☐ yes
 - ☐ no
 - f. Do you wear sunscreen when you sit outside to tan?
 - ☐ yes
 - ☐ sometimes
 - ☐ no
 - g. I like to tan because (select all that apply):
 - ☐ I think I look more attractive with a tan

- ☐ Other people think I look more attractive with a tan
- ☐ It's relaxing
- ☐ I look more athletic with a tan
- ☐ I look healthier with a tan
- ☐ A tan helps hide skin marks or blemishes
- ☐ It's important that I be tan for my job
- ☐ Other _____

3. If you answered no to question 1 above, please answer the question below, otherwise move on to the next section.

- a. Why don't you sit outside to tan (select all that apply)?
- ☐ I am happy with my skin color
 - ☐ I don't like when my skin gets darker
 - ☐ I do not want to get skin cancer
 - ☐ It is bad for my health
 - ☐ I burn too easily
 - ☐ I want to prevent wrinkles in the future
 - ☐ I get bored
 - ☐ My parents would be upset with me if I sat outside to tan
 - ☐ My friends would judge me if I sat outside to tan
 - ☐ other: _____

SKIN LIGHTENING:

1. Have you ever used a cream to lighten your skin?

- ☐ yes
- ☐ no

2. If you answered yes to question 1, please answer the following questions, otherwise proceed to question 3. Unless otherwise noted, select one multiple choice answer for each question:

- a. Was the lightening cream prescribed to you by a doctor?
- ☐ yes
 - ☐ no
- b. Have you used the cream more than recommended for the purpose of lightening your skin?
- ☐ yes
 - ☐ no
- c. I like to lighten my skin because (select all that apply):
- ☐ I think I look more attractive with lighter skin
 - ☐ Other people think I look more attractive with lighter skin
 - ☐ I look healthier with lighter skin
 - ☐ Lighter skin helps hide skin marks or blemishes
 - ☐ All the attractive actors and actresses have lighter colored skin
 - ☐ It's important that I lighten my skin for my job

- d. How often do you use lightening cream?
- ☐ < 1 x/month
 - ☐ 1-4 x/month
 - ☐ weekly
 - ☐ several times/week
 - ☐ daily
- e. Where do you apply the lightening cream? (select all that apply):
- ☐ face
 - ☐ neck
 - ☐ arms
 - ☐ legs
 - ☐ trunk
- f. Do you know the name of the lightening cream you use?
- ☐ yes (please specify) _____
 - ☐ no

3. If you answered no to question 1, please answer the following question, otherwise move on to the next section:

- a. Why haven't you used skin lightening products to lighten your skin (select all that apply)?
- ☐ I am happy with my skin color
 - ☐ I did not know they existed
 - ☐ I do not like how I look when my skin is fair
 - ☐ They are too expensive
 - ☐ They are not good for my health
 - ☐ I know they can have bad side effects (Ex. Causing irreversible darkening of the skin,)
 - ☐ My parents would be upset if I used skin lightening products
 - ☐ My friends would judge me if I used skin lightening products
 - ☐ Other _____

INDOOR TANNING:

1. Have you ever tanned indoors at a tanning booth?
- ☐ yes
 - ☐ no
2. ***If you answered yes to question 1, please answer the questions below, otherwise proceed to question 3. Unless otherwise, noted, select one multiple choice answer or write answer in space provided:***
- a. What age did you first use a tanning booth?: _____

- b. During the winter months, how often would you say you use a tanning booth:
- ☐ less than once a month
 - ☐ 1-4 x/ month
 - ☐ once a week
 - ☐ several times a week
 - ☐ daily
- c. When use a tanning booth, how many minutes do you usually tan for?:

- d. Do your parents know that you tan?
- ☐ yes
 - ☐ no
- e. If yes, do they approve of your tanning (if you answered no to d you may skip this question)?
- ☐ yes
 - ☐ no
3. ***If you answered no to question 1, please answer the question below, otherwise proceed to the next section on sunscreen:***
- a. Why haven't you used indoor tanning booths (select al that apply)?
- ☐ I am happy with my skin color
 - ☐ I don't like when my skin gets darker
 - ☐ I do not want to get skin cancer
 - ☐ It is bad for my health
 - ☐ I burn too easily
 - ☐ I want to prevent wrinkles in the future
 - ☐ I get bored
 - ☐ My parents would be upset with me if I sat outside to tan
 - ☐ My friends would judge me if I sat outside to tan
 - ☐ other: _____

SUNSCREEN:

1. In the summer months, when spending time outdoors, do you ever wear a sunscreen?
- ☐ yes
 - ☐ no
2. ***If you answered yes or sometimes to question 1, please answer the following questions, otherwise, proceed to question 3:***
- a. Why do you wear sunscreen (check all that apply):
- ☐ I am happy with my skin color
 - ☐ It helps protect my skin from skin cancer
 - ☐ I do not want to get a sunburn because it looks bad
 - ☐ I do not want to get a sunburn because it hurts
 - ☐ I do not want to get a sunburn because it increases my risk of skin cancer
 - ☐ I do not want my skin to get darker

- ☐ I want to prevent wrinkles in the future
- ☐ My parents make me
- ☐ My friends wear sunscreen so I do too
- ☐ Other: _____
- b. How often do you wear sunscreen:
 - ☐ everyday
 - ☐ regularly
 - ☐ sometimes
 - ☐ rarely
- c. What is the spf of the sunscreen that you use?
 - ☐ < 15
 - ☐ 15-30
 - ☐ 30-50
 - ☐ 50+
 - ☐ don't know
- d. When spending a day outdoors, how often do you re-apply sunscreen?
 - ☐ never
 - ☐ once a day
 - ☐ a couple times a day
 - ☐ at least every 2 hours
- 3. ***If you answered no to question 1 above, OR do not use sunscreen regularly, please answer the following question, otherwise proceed to the next section on make-up***
 - a. Why don't you wear sunscreen regularly? (select all that apply)
 - ☐ I don't like how it feels on my skin
 - ☐ it's too expensive
 - ☐ It takes too long to put on
 - ☐ None of my friends wear sunscreen
 - ☐ It gets on my clothes
 - ☐ I do not like how it smells
 - ☐ I forget
 - ☐ I am not at risk for skin cancer
 - ☐ other: _____

MAKE-UP:

- 1. What make-up products do you use on a regular basis (check all that apply)?
 - ☐ Lipstick
 - ☐ Blush
 - ☐ Foundation
 - ☐ Sunless tanner
 - ☐ Mascara
 - ☐ Eye shadow
 - ☐ Bronzer
 - ☐ Eyeliner
 - ☐ I do not wear make-up

HAIR:

1. What hair treatments have you used in the past or do you currently use (check all that apply)?:
 - ☐ Highlights
 - ☐ Hair dye
 - ☐ Perm
 - ☐ Relaxer
 - ☐ Dread locks
 - ☐ Chemical straightening
 - ☐ I keep my hair natural

SECTION 8: In this section, we'd like to know a bit more about the behavior of your family or friends.

In this table, please place an X in the corresponding boxes if you have any friends or family members that participate in the following behaviors:		
	Family member	Friend
1. Tans outdoors		
2. Tans indoors at a tanning booth		
3. Uses creams or lotions to lighten their skin		

Section 9: In this section, we'd like to know if you've experienced any complications from the following activities:

1. Indoor tanning:
 - ☐ Yes
 - ☐ No
 - If yes, please describe: _____
2. Outdoor tanning:
 - ☐ Yes
 - ☐ No
 - If yes, please describe: _____
3. Skin bleaching:
 - ☐ Yes
 - ☐ No
 - If yes, please describe: _____
4. Using bronzer:
 - ☐ Yes
 - ☐ No
 - If yes, please describe: _____
5. Hair products:
 - ☐ Yes
 - ☐ No
 - If yes, please describe: _____