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AMERICAN MEDICAL PROVIDER PERCEPTIONS OF MEDIA COVERAGE OF  
SKIN CANCER AND ITS INFLUENCE ON WOMEN UNDER THE AGE OF 40: A  
QUALITATIVE STUDY

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## **ABSTRACT**

Although there is research on coverage of cancer in the media, skin cancer is not touched on as heavily. Furthermore, there is little published research on gaining a better understanding of the perceptions of medical providers who have experience treating and detecting skin cancer. This thesis aims to understand the opinions and perceptions these medical providers have about media coverage of skin cancer and whether or not media coverage influences women under the age of 40. The results of this thesis suggests that medical providers have mixed thoughts about media coverage of skin cancer, but think that it may influence the actions and behaviors of women under the age of 40. Most medical providers agreed that the media coverage of skin cancer is less compared with other cancers, but they believe coverage has improved over the years. To improve media coverage of skin cancer, a public awareness campaign featuring well-known celebrities embracing their natural skin tone and getting skin checks could be beneficial. Additionally, it is a common perception that coverage would be more efficient if there was more specific information and powerful statistics concerning sunscreen and tanning beds.

## TABLE OF CONTENTS

List of Tables .....	iii
Acknowledgements.....	iv
Chapter 1 Introduction .....	1
Chapter 2 Literature Review.....	3
Chapter 3 Methods.....	7
Design and setting.....	7
Recruitment and sampling.....	8
Data collection.....	8
Analysis.....	9
Chapter 4 Results .....	10
Overall opinion of media coverage of skin cancer.....	11
Thoughts on young women’s perceptions of skin cancer .....	12
Thoughts on the perceptions young women get from media coverage of skin cancer ....	13
Perceptions of the role media coverage of skin cancer plays when treating women under 40.....	15
Perceptions of media coverage of skin cancer compared to media coverage of other cancers.....	16
Perceptions of the influence media coverage has on the behaviors and actions of women under 40 when it comes to skin cancer prevention and treatment .....	19
Opinions on possible factors contributing to the rising incidence rates of melanoma in young women aged 18 to 39 .....	21
Perceptions of media coverage as a source for young women.....	23
Should the media care about covering skin cancer? .....	26
Views on how media coverage of skin cancer could be improved .....	27
Chapter 5 Discussion .....	30
Perceptions of media coverage of skin cancer .....	30
Perceptions of effects of media coverage of skin cancer .....	31
Perceptions on how media coverage of skin cancer could be improved.....	34

Chapter 6 Conclusion.....	38
Appendix A Interview Schedule.....	40
Appendix B Informed Consent Copy.....	42
Appendix C Transcripts .....	43
Participant 1 .....	43
Participant 2 .....	48
Participant 3 .....	53
Participant 4 .....	58
Participant 5 .....	62
Participant 6 .....	67
Participant 7 .....	72
Participant 8 .....	78
Participant 9 .....	82
BIBLIOGRAPHY .....	90

**LIST OF TABLES**

Table 1: Participant demographic information .....	10
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## ACKNOWLEDGEMENTS

During the summer of 2012, I shadowed at a dermatology practice near my hometown of Duxbury, Massachusetts, over the course of several weeks. I had the privilege to observe a wide variety of cases (ranging from acne to Darier's disease, which is very rare) and patients (ranging from teenage boys to elderly women). However, I was probably most struck by the range of views and attitudes that the young to middle-aged women had toward skin cancer and tanning. Some said they were very diligent about protecting skin, and you could tell – they had no appearance of darkened skin from the sun, but their skin was smooth and healthy looking. On the other hand, I shadowed a dermatologist who performed Mohs surgery on one patient to remove her second melanoma. Another dermatologist I shadowed removed a woman's third basal cell carcinoma.

As a young woman myself, I am aware of the attitudes and behaviors of my friends and fellow female students toward tanning. While I am naturally fair and try to protect my skin in the sun (reading magazines, such as *Allure*, since before high school, and shadowing at a dermatologist's office can have this affect), I realize I am not like most of my peers. I have always been an avid magazine reader, and I also find skin care and the field of dermatology intriguing (hence my love for *Allure*). Other young women may or may not be consistent magazine readers or have the same passion for skin care as I do, but there is no doubt that media is a huge part of our lives. News broadcasts, newspapers, magazines, social media – I think every woman consumes some sort of media almost every day, and they are likely to receive a lot of information about health, including skin cancer, via these channels.

However, what do medical providers, such as dermatologists, family care doctors, nurse practitioners and plastic surgeons, think of the media coverage? They are the ones who talk with these young women every day about their behaviors and their skin health. They are also

appropriate judges of the quality and accuracy of media coverage. To the average person, a certain article or news broadcast might contain some good information about skin cancer and prevention, but a knowledgeable medical provider may be able to point out that some information is missing, that the whole message is not there. On the other hand, they may think media coverage has really picked up and is having a big impact on women. In any case, I was interested to find out.

I would like to thank my thesis supervisor, Dr. Colleen Connolly-Ahern, and my honors adviser, Dr. Martin Halstuk, for taking the time to help shape the initial direction of thesis, and for offering their much-needed support and suggestions. I would also like to thank my family, whom I could always rely on for emotional support and encouragement, in not only this thesis, but in everything I do. Also to my Mom, specifically – thank you for giving me the idea to further explore the relationship between health information and the media in the first place.

## Chapter 1

### Introduction

More than 3.5 million skin cancers in over two million people are diagnosed annually, making skin cancer the most common form of cancer in the United States (Rogers et al., 2010). There are more new incidences of skin cancer each year than the combined incidences of breast, prostate, lung and colon cancer (American Cancer Society, 2013). The three most common types of skin cancer are basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and melanoma. Melanoma is the most dangerous and deadly form of skin cancer, especially when not detected early. BCC and SCC are rarely deadly, but can be highly disfiguring if allowed to grow.

While nonmelanoma skin cancers, such as BCC and SCC are the most common, incidence rates of melanoma are rising, especially among young women. Incidence rates have shown that lifetime rates of melanoma is approximately 1.5 times greater in males than in females. However, among young people aged 18 to 39, this trend is reversed (American Cancer Society, 2013). This increase, particularly among women under 40, has been linked by some research studies to the popularity of indoor tanning in the U.S (Ting, Schultz, Cac, Peterson, & Walling, 2007; Lazovich et al., 2010; Zhang et al., 2012). A 2010 study found that tanning bed users under the age of 35 increase their risk for melanoma by 75% (Lazovich et al., 2010). In 2009, the International Agency for Research on Cancer classified ultraviolet (UV) radiation from tanning beds to be “carcinogenic to humans” under group 1, which also includes carcinogens such as plutonium and cigarettes (El Ghissassi et al., 2009). Indoor tanning has been linked to increased risk for nonmelanoma skin cancers, as well. A 2012 study found that there is a dose-dependent relationship between tanning bed use and BCC, especially if the use occurs during



high school/college (Zhang et al., 2012). Still, despite the dose-dependent relationship between skin cancer and indoor tanning, the indoor tanning industry continues to grow. It currently takes in \$5 billion a year in revenue and attracts more than 30 million customers (Manne & Heckman, 2012).

Studies have found that the media can shape public awareness and perceptions of health and diseases, and that young women, in particular, are receptive to media messages about skin cancer (Stryker, Moriarty, & Jensen, 2008; Hay, Coups, Ford, & DiBonaventura, 2009).

American medical providers may be appropriate judges of the quality of media coverage of skin cancer in the United States and how it influences women under the age of 40.

## Chapter 2

### Literature Review

At the time this study was conducted, there was no other published research focusing on gaining a better understanding of medical provider's perceptions of media coverage of skin cancer, including how it relates to women under the age of 40. However, a number of studies have researched media content relevant to skin cancer. One of these studies conducted a content analysis of Associated Press news coverage of skin cancer between 1979 and 2003 (Stryker, Solky, & Emmons, 2005). The study concluded that prevention and detection were rarely mentioned and coverage focusing on these topics had not increased since 1986. Instead, treatment of skin cancer was found to receive more attention in the news coverage.

Only one other study, conducted by Heneghan and colleagues, analyzed 874 skin cancer articles that were published in *The New York Times* between 1980 and 2004. The study determined the number of skin cancer articles to make up approximately 2% of all cancer-related articles. Furthermore, it was concluded that there is seasonal variation in the frequency of coverage of skin cancer, as well as sunscreen and tanning (Heneghan, Hazan, Halpern, & Oliveria, 2007).

Cho and colleagues conducted a content analysis of skin cancer-related articles published in eight popular women's magazines from 1997 to 2006. They found the coverage of the risks and consequences associated with tanning bed use was less than 50% of the coverage dedicated to tanning benefits. Most of these tanning benefits related to looking healthy. Also of note was that the coverage in teen magazines was almost 50% less than the coverage in the other magazines examined. In addition, the study found about 21% of the articles included photos that encouraged

UV exposure, and about 23% that included photos that sent mixed messages (both encouraged and discouraged UV exposure). While the coverage of risk and prevention did increase from 1997 to 2006, the coverage of tanning benefits also increased (Cho, Hall, Kosmoski, Fox, & Mastin, 2010).

A study by Cokkinides and colleagues analyzed 144 skin cancer prevention articles from newspapers and magazines in 4 specific months (January, May, July and October) in 2009. It was determined that the majority of the articles were published in May and July. The majority of articles were found to focus on skin protection and skin cancer prevention via the use of sunscreen. However it was concluded that these articles lacked ideal coverage of the full range of recommended ultraviolet radiation (UVR) behaviors. Less than 10% of the articles mentioned avoidance of sun tanning or use of tanning beds (Cokkinides, Kirkland, Andrews, Sullivan, & Lichtenfeld, 2012).

Another study conducted a content analysis of online cancer news from the four most frequented news websites (Google News, Yahoo! News, MSNBC.com and CNN.com) to describe trends relating to specific cancers, stages in the cancer continuum and types of news articles. It was found that skin cancer was ranked 5<sup>th</sup> in terms of total attention, behind breast, digestive (e.g. colon), genitourinary (e.g. prostate) and gynecological (e.g. cervical) cancers, respectively. However, the online news coverage of skin cancer was the best-rounded in terms of article types, including articles on research, awareness, fundraisers, politics and profiles of people dealing with cancer (Hurley, Riles, Sangalang, 2014).

Similarly focusing on coverage of cancer, in general, Slater and colleagues analyzed cancer news coverage in a sample of local nightly TV newscasts and local daily newspapers during 2002 and 2003. Network evening newscasts, CNN, *USA Today*, *Times*, *Newsweek* and *U.S. News & World Report* were also sampled. Again, coverage of breast cancer dominated, making up about 30% of cancer coverage in each media channel (newspaper, magazines,

newscasts). Skin cancer made up about 8% and 12% of magazine and newscast coverage, respectively. The researchers noted that, for most cancers, there was significant coverage on causes and treatments, but a lower proportion of coverage focused on prevention. This was found to be true even for skin cancer, which is a readily preventable cancer (Slater, Long, Bettinghaus, & Reineke, 2008).

Another study aimed to gain a better understanding of medical students' perceptions of skin cancer. Four focus group interviews each with 20 medical students from the University of Texas Health Science Center were conducted. The researchers found that while most of the students understood the causes of skin cancer, many did not understand sun protection factor (SPF) and how to properly use sunscreen. Also of note was that the majority of students reported using a tanning bed or tanning in the sun to improve their appearance (Nanyes, McGrath, & Krejci-Manwaring, 2012).

Significantly, none of the above mentioned studies included the perspective of medical professionals, despite their important role in helping prevent, identifying and treating skin cancer. A qualitative study was conducted to gain a better understanding of American physician perceptions of direct-to-consumer advertising, however (Germeni, Orizio, Nakamoto, Wunsch, & Schulz, 2013). Therefore, this study was examined to provide direction on the procedures and structure of this present study. Germeni and colleagues conducted 10 face-to-face qualitative interviews with physicians practicing in Blacksburg, Virginia in order to explore participant perceptions in great depth. Participants were sampled to represent a wide range of medical specialties and years of professional experience. The identities of the participants were kept confidential. The researchers employed "the process of constant comparison, involving the comparison of one piece of data (one interview, one statement, one theme) with all others...to ensure that the thematic analysis represented all perspectives (Germeni, Orizio, Nakamoto, Wunsch, & Schulz, 2013).



## **Chapter 3**

### **Methods**

#### **Design and setting**

Between January and February 2014, 9 interviews were conducted, either face-to-face or over-the-phone, with medical providers in the New York City, Greater Boston and Central Pennsylvania areas. This thesis aims to understand the opinions and perceptions medical providers have regarding media coverage of skin cancer. Therefore, qualitative interviews were used because they allow for these opinions and perceptions to be explored in more detail than a survey may allow. Qualitative interviews were chosen over focus groups due to time and logistical constraints. In addition, qualitative interviews allowed for more personal and in-depth exploration of medical providers' perceptions than a focus group would have allowed for. An informed consent was read to all interviewees and verbally agreed upon prior to interview participation.

McCracken explains the benefits of the long interview: "The method can take us into the mental world of the individual, to glimpse the categories and logic by which he or she sees the world. It can also take us into the lifeworld of the individual, to see the content and pattern of daily experience. The long interview gives us the opportunity to step into the mind of another person, to see and experience the world as they do themselves" (McCracken, 1988). McCracken argues that the long qualitative interview is advantageous because it helps put quantitative data into perspective within the greater social and cultural context. Furthermore, this study aimed to ask open-ended questions that would allow participants more freedom to convey their perceptions. McCracken supports the long qualitative interview again for this reason, saying,

“When the questions for which data are sought are likely to cause the respondent greater difficulty and imprecision, the broader, more flexible net provided by qualitative techniques is appropriate” (McCracken, 1988).

### **Recruitment and sampling**

While most skin cancers are treated by dermatologists, they can be screened for by medical providers from various specialties. Therefore, participants were sampled to represent this range of medical specialties. Another factor in recruitment and sampling was the years of professional experience a medical provider had. These factors were considered to ensure that the different views and experiences were reflected.

A list of physicians, physician’s assistants and nurse practitioners that would likely be willing to participate and would be able to provide insightful information was developed. The purposive sampling frame was developed based on the researcher’s own connections, but none of the participants were personally known to the reviewer prior to interviews. Nine participants agreed to participate in interviews. This was sufficient, as McCracken argues that eight respondents is an acceptable sample for many qualitative research projects (McCracken, 1988).

Potential participants were contacted by either phone or email. They were informed of the purpose of the thesis and what the general structure and nature of the interview would be. As many participants were interviewed as time and resources would allow.

### **Data collection**

All data was collected via interviews with medical providers. The interviews were held either at medical providers’ offices or over-the-phone. The average duration of interviews was

approximately 25 minutes, with the shortest interview being about 15 minutes and the longest interview being about 28 minutes. At the beginning of each interview, the purpose of the thesis was explained. The term “media coverage” was clarified to include “news broadcasts, newspapers, magazines, advertisements and any websites that these companies and organizations may have.” As part of the verbal informed consent, interviewees were told that their name would not be used in the write-up of this thesis. Interviewees were told that only the following identifying information would be used: gender, area of specialty, years of professional experience and the geographical region they practice in.

### **Analysis**

Each interview was recorded and transcribed verbatim onto a Word document. The statements in response to each question were compared across all interviews to ensure that overall trend analysis represented all perspectives. More specifically, the process of constant comparison (the comparison of one piece of data, one interview, one statement or one theme with all others), as described by Germení and colleagues, was used (Germení, Orizio, Nakamoto, Wunsch, & Schulz, 2013).



## Chapter 4

### Results

Nine practicing medical providers of various specialties participated in interviews (Table 1). The majority of participants were female (eight). The average length of professional

**Table 1: Participant demographic information**

Participant	Gender	Medical Specialty	Geographical Region	Years of professional experience
1	Female	Plastic Surgery	Greater Boston	25
2	Female	Physician's Assistant – Dermatology	Greater Boston	21
3	Female	Dermatology	New York City	10
4	Female	Family Medicine	Greater Boston	22
5	Male	Family Medicine	Greater Boston	30
6	Female	Nurse Practitioner – Family Medicine	Greater Boston	3
7	Female	Nurse Practitioner – Adult Medicine	Greater Boston	18
8	Female	Dermatology	Central Pennsylvania	24
9	Female	Dermatology	New York City	2

experience was 17.2 years, with a range of 2-30 years. Only one participant was in a solo practice, while the others were working in a group practice setting (eight). Reflecting the geographical distribution of the participants, most were practicing in the Greater Boston area

(six), while others were practicing in New York City (two) and Central Pennsylvania (one). The specialty represented in majority was dermatology (four), while the other specialties represented included plastic surgery, family medicine and adult medicine. Three participants were members of the American Academy of Dermatology.

### **Overall opinion of media coverage of skin cancer**

Medical providers were split on their opinions of media coverage of skin cancer, with four participants reporting positive opinions, and five participants reporting less favorable or negative opinions. Participant 2 explained her frustrations: ‘I don’t think it’s as good as it should be. I think they focus much more on the cosmetic end of it than they do on actual skin cancers and prevention.’ Participant 1 explained: ‘I don’t think there’s enough of it...I think a step was taken when the FDA changed the way they label sunscreen to no longer have it say ‘sunblock’; it has to say ‘sunscreen.’ So, that’s going to help a tiny bit. But educating the generation – I still see girls going to tanning booths. I still see girls that say, ‘I just like to get tan. It feels good, blah blah blah.’ That whole generation does not understand the skin cancer concept.’ Likewise, Participant 5 described the mixed messages presented by the media: ‘It’s amazing how the media will forever consider a dark tan a desirable thing, and that influences young peoples’ behavior. Any [media] coverage might be once in a while when it is summertime and they tell you to wear sunscreen. But, the commercial models never have light skin. They always have dark skin and are in bikinis. So, I think it’s a mixed message. But, our actions show you maybe what’s more desirable.’

However, other medical providers held a favorable view of media coverage of skin cancer, and believed it sends the right message. Participant 8 explained: ‘I think they’re continuing to educate people about the dangers of sun exposure, the dangers of tanning beds and

what to do to prevent damage and prevent skin cancer. I think they repeat those messages often. They do it yearly – often before the beginning of summer...I think there is an interest in getting the message out there. When I see interviews [with dermatologists], I think they always pick the high points, and I think they really do get the message across.’ Participant 9 viewed media coverage of skin cancer as a positive tool for patients: ‘I think [the media coverage] is starting to pick up a lot. This isn’t a scientific response, but, I do have a lot of patients come in who are concerned about [skin cancer] because they read an article about it. They’ve also read articles about tanning beds. I think it’s a positive thing, even if some of these patients are particularly in high risk categories. I think it can be a really positive tool to get patients into the office.’

Even if a participant’s view was less than favorable of media coverage of skin cancer, the majority of providers admitted that there is more coverage compared with when they first started practicing.

### **Thoughts on young women’s perceptions of skin cancer**

A common theme seemed to be that women under 40 do not think they are at risk for skin cancer. Participant 5 explained: ‘I think cancer, in general, is felt to be an older person’s problem. So, under 40, they probably think they’re too young to have to think about that. There’s a bigger emphasis on looks. It’s not an immediate threat, so they choose not to think about it.’ Participant 1 furthered that sentiment: ‘[Young women believe] that it will never happen to them. [They think] mostly that it’s genetic. You know, ‘Oh, my mom never had that. I’m fine. I’m young.’ I think below 40 you still kind of feel that you’re the exception, that you’re not going to age, that you’re not going to get a disease.’

Another perception was that women in this age group have more knowledge about skin cancer, but also misperceptions. Participant 6 commented: ‘I think people don’t really understand

that even just lying on the beach with SPF 8, maybe won't necessarily cause it, but they're definitely increasing their risk. Also, young women don't understand that it doesn't have to [occur] on sun-exposed areas. I think the biggest thing is that everybody thinks that you can only really get it from a tanning bed, which is not really the truth at all.' Participant 1 explained: 'I think definitely, in general, people are using more sunscreen and they are careful with that. The matter is maybe not enough of sun exposure reduction. Some people think that just going out there and putting on SPF 50 [is good enough], but they stay out there for 12 hours, so they're still getting cumulative sun damage.'

### **Thoughts on the perceptions young women get from media coverage of skin cancer**

Again, medical providers had varying opinions and thoughts on what perceptions of skin cancer women under the age of 40 get from media coverage of skin cancer. Participant 2 commented: 'I think it's glamorized. I don't think there's enough about the dangers, the real dangers, of melanoma.' Several participants felt they could not provide any significant thoughts on young women's perceptions because of the lack of media coverage, in their opinion. Participant 6 explained: 'I'm in my late 20s, and my friends – I told them I had this interview – they couldn't even think of the last time they had seen anything on the news or any media.'

In contrast, other participants had more optimistic views of the perceptions young women form about skin cancer as a result of media coverage. Participant 3 said: 'I think the media coverage is pretty aligned with dermatologists' perceptions about skin cancer. So, I think they are getting the perception that skin cancer is something that can happen to them. Also, that it's something related to sun exposure and tanning bed use.' In addition, Participant 7 believed women have more accurate knowledge due to media coverage: 'I think the media is doing a good job of explaining 'broad spectrum.' I think the media is doing a really good job of telling what

the worrisome signs of a skin cancer are – you know, the ABCDEs [an acronym used to determine if a mole is a skin cancer: Asymmetry, Border, Color, Diameter, Evolving]. I have women coming in a lot saying ‘this one is bigger, this one is irregular,’ that kind of thing. I think if you asked people what the characteristics of a melanoma are, or at least what to be worried about, they would be able to tell you irregular shape, irregular color, etc.’ (American Academy of Dermatology, 2014).

Participant 9 summed up the various perceptions, and a possible reason for the differences: ‘I think that there may be an interest in sunscreen because of skin cancer, but it’s sort of hard to say. In my experience, this all has to do with the kind of person the patient is – their socio-economic background, their cultural background and what their friends are doing. I feel like it’s very variable. So, I have some patients who come in and – a lot of this I think is media coverage, but also the way they were raised and whether their parents slathered sunscreen on them – they don’t really go out in the sun and they’re very cautious. But, then I have other patients who seem like they haven’t quite gotten those messages, or if they have, they don’t pay quite so much attention to them. I mean all media attempts to target different ages. They all have their target audiences. I think some people are being targeted to get the message and some people aren’t. It’s a complicated mixture of the way people are raised, the way they’re used to thinking about the sun from childhood and all that kind of stuff – it plays into their perceptions.’

However, the general perception held by the medical providers interviewed is that women are more educated about skin cancer than they were 20, or even 10, years ago. Participant 3 explained: ‘I think women are definitely more educated compared to 20 years ago and 10 years ago...About 25 or 30 years ago, NYU dermatologists came up with the mnemonic, the ABCDEs of melanoma. A stands for asymmetry. B stands for irregular borders. C for too many different colors. D for diameter, or size bigger than a pencil eraser. E came more recently and stands for evolving or changing. There was a real push in the ‘80s to get the message across...Public skin

cancer screening started around then, too.’ Participant 7 commented: ‘I would say women are more educated because of the media and education through healthcare. Unfortunately, the incidence rates don’t seem to reflect that. My presumption, though, is that if you asked 10 women today for facts and information about skin cancer, they would be able to give you more accurate information than if you asked those same women 10 years ago. I guess whether or not they’re actually following the guidelines is a different story.’

### **Perceptions of the role media coverage of skin cancer plays when treating women under 40**

Most participants said that media coverage has helped some of their patients in some way. Participant 3 said: ‘That’s why people come in, because they read something in a magazine or saw something on television, and it sounded like what they have. I definitely think that people have been alerted to look for things based on media coverage.’ Similarly, Participant 5 explained: ‘In the general sense of media coverage, our hospital will have [skin] cancer screening clinics. I presume people find out about them through the media and local newspaper ads. They also advertise through their newsletters. We’ve certainly had patients who have had skin cancer found through these screenings.’ This theme was further addressed by Participant 9: ‘I did have a mom come in recently...She had something on her back that she was really worried about. She came in to have a biopsy and it did turn out to be a melanoma. She didn’t come out and say that she saw a special on television. But, I do feel like the ‘new moles, changing moles’ message is repeated quite often by dermatologists [in interviews], and, because of that, people are more in tune with their skin. I did have another patient who came in and thought she had a basal cell carcinoma, but it wasn’t. But, that’s OK – I like patients who pay attention to their skin and want to come in to get something checked out. So, I do feel like sometimes patients read articles and then come in and say ‘Oh, I read about this...’ Even if it isn’t something they need to be worried

about, it doesn't matter because it establishes care with a dermatologist and awareness about the ability of screening to catch something early.' Participant 2 commented that media coverage of celebrities with skin cancer has motivated patients to make an appointment with her: 'I think people relate to that - kind of the same thing with how Amy Robach has breast cancer. I think people relate to the stars when they have something. It makes it more real.'

The majority of participants could not recall a time when media coverage of skin cancer was problematic in terms of treating a patient. However, Participant 2 said that misinformation is a problem: '...Specifically, sunscreens. I think media coverage of sunscreens has been really crazy. Especially from the people who make the sunscreens and how they're touting these '100 SPFs.' I think that's been a problem, because there is no such thing as 100 percent sun protection.' Participant 6 said that it is not so much misinformation that is the problem, but lack of information: '...A lot of people come in and don't even know what to look for. There's really not anything great out there to show people what to look for...I know I go over a million times a day with patients on what to look for, something as simple as a changing mole or changing color. It's more lack of information and knowledge they have, rather than a misperception.'

### **Perceptions of media coverage of skin cancer compared to media coverage of other cancers**

Most of the medical providers said that media coverage of skin cancer is much less than coverage of other cancers. Participant 6 explained: 'I think one of the biggest things we know about, or see in the media, in my opinion, is breast cancer, which is great. But, the coverage of skin cancer is very limited compared to other cancers, and it's something that shouldn't be.' This was a common perception that was also addressed by Participant 1: 'It's not as good as lung cancer or throat cancer, like they do with tobacco. Probably not as good as breast cancer. Also, probably not as good as some of the GI cancers, you know with Katie Couric having the

colonoscopy and things like that. I think those categories would be first tier. I do think the increased awareness of sunscreens has helped a little bit recently. Also, the fact that the government is becoming more controlling – I think people are noticing that.’ Others said that media coverage of skin cancer is comparable to the coverage of other cancers, or that it may depend on what your sources are. As Participant 3 put it: ‘I think we actually get a lot of media coverage because skin cancer is so common. It’s even something that people can detect by themselves at home. I think it’s something that deserves a lot of media attention, and I think that media outlets understand that and really do put it out there. People can see marks on their skin and worry about marks on their skin, so I think there’s a lot of public interest in it. Because of this, I think the media responds by covering it. A lot of people know someone who has had skin cancer so they’re interested in it for that reason. Either they had it themselves or they know someone who has skin cancer.’ Participant 9 said it depends on what media people are reading or watching: ‘If you’re reading *The New York Times* a lot, you’re not going to see quite as much on skin cancer. Again, this is just anecdotally. I didn’t do a content analysis. All this is based on my experience and my perceptions. But, if you’re reading *The New York Times*, it’s reporting the latest news in colon cancer, breast cancer – you know all that stuff that came out recently about mammograms, etc. I think it depends where you’re looking. I do think a lot of fashion magazines do tend to run a lot on melanoma. I think that’s good. I think a lot of young women read those. With lots of cancers, early detection is better. That’s a good question, though. I mean, cervical cancer is covered in the fashion magazines, too. I don’t know what their health editors’ intents are. I’m sure they’re trying to reach a target population. I’m sure they’re trying to reach mostly women and trying to address things that women can do to improve their health.’

When it came to a possible explanation for the differences between media coverage of various cancers, participants gave a variety of reasons. Participant 1 linked differences to famous cases: ‘I don’t know why – other than these people who’ve developed a disease and then make it



a cause, I guess. Why that hasn't happened as much, or why that hasn't been in the media as much with skin cancer, I don't know. I mean some of it is treatable, but some of it, if you catch it later, it's not. So, the thing that I think is important – and it's the same thing with colonoscopies and colon cancer – it's a very treatable disease. More so even than breast cancer. If you catch it small, you can eliminate it with a tiny, tiny scar. If not, it's lethal. So, I think there should be more exposure. I don't know why it hasn't clicked in as much. At least in my experience, the media is not as prominent as in other kinds.'

Participant 4 said the amount of media coverage for a cancer probably has to do with the public perception of the cancer: 'I think for some of them, say lung cancer and colon cancer, there's the perception that it's going to kill you. Also, there's probably the perception that those cancers affect more people, even though skin cancer actually affects more people. I think there's the perception that these other cancers are more serious.' Participant 5 also mentioned that skin cancer is not a "sexy" topic: 'They love to hype new treatments. We live in the Boston area and a lot of research is done here. They seem to be quick to jump all over anything that seems exotic and new, and there's probably not a lot that's new with skin cancer. So, it's not like there is going to be breaking, 6 o'clock news stories, whereas if some hospital has an exciting, new computer or cancer treatment for lung, prostate, ovarian...they love to talk about that stuff because it's a new procedure and they want to be the first ones to report it. I don't know if there's a lot that's new in the world of skin cancer for people to get excited about...Bad news and exotic, new sexy treatments are the things they like.' Participant 9 commented: 'Often that is driven by response and what's coming out that's the latest and greatest. Or any controversies. That's for media coverage in general. Melanoma research has really been promising lately. Several new molecules were brought to market. There was a lot of media coverage surrounding that. There was a lot of media coverage about mammograms recently...I think there are these little, seminal events sometimes that either have to do with somebody well-known developing a particular type

of cancer or there's some kind of research development in the field that often will prompt media coverage. Then again, I'm sure there are editors who say, 'We haven't done an article on skin cancer for a while. Let's do that.'" Several participants explained there is a seasonal factor that comes into play. Participant 8 commented: 'You hear about breast cancer year-round. Prostate cancer you hear about year-round, too. The media usually brings skin cancer up at the beginning of the season. Sun damage is obviously a big factor with skin cancer. So they bring it up in the springtime – that's the seasonal variation. It could be that people don't worry as much about skin cancer compared to some of the other cancers...Maybe society doesn't think it's as big of a deal.'

#### **Perceptions of the influence media coverage has on the behaviors and actions of women under 40 when it comes to skin cancer prevention and treatment**

While most of the medical providers interviewed said media coverage of skin cancer influences women under 40, they were split on the degree to which women are influenced. Some of the participants did not hesitate to say that media coverage does influence young women when it comes to skin cancer prevention and treatment. However, others said the media may influence women somewhat, but there are additional factors that influence them as well.

Participant 3 commented: 'I do [think the media influences women], just totally based on what patients tell me. They say they used to tan, used to use tanning beds and used to sit in the sun, but they've changed their behaviors based on articles they have read. I know, for example, the Skin Cancer Foundation likes to highlight a particular patient's story. There are celebrities who have had skin cancer and have come out and talked about it. I think that's important in changing people's behaviors' Participant 7 agreed that media coverage of skin cancer influences young women, but said there is still progress to be made: 'Oh, definitely. No question. I think the whole tan thing – just being tan is equated with being healthy. That's a huge battle, especially

amongst teenagers. All the tanning beds – it’s a huge battle. The kids are still doing it. I would imagine the numbers are dropping, though. The nice thing with the media, is now, when you see a 15-year-old or 16-year-old, her friends see her, they’re more inclined to say ‘What’s up? You didn’t go away.’ If she says, ‘Oh, I went tanning,’ I think at least some of those friends are going to say, ‘You’re an idiot! What the hell is wrong with you?!’ There’s going to be some negative feedback that that girl is going to get now, which is from the media, and I think that’s great.’

Many of the participants mentioned that the media coverage of skin cancer may be influencing some young women, but the degree to which they are influenced depends on various factors. For example, Participant 1 explained: ‘I think they’re resistant. But, I do think they understand more now – maybe when they’re shown the aging component of it. I think women are more afraid of the aging component of what sun can do to their skin – from making it look bad versus the cancer component. Sometimes I think it’s because these younger women don’t think they’re susceptible to it. But when they know they can age and get wrinkles, I think that helps a little bit.’ Participant 5 said the source of the information is key: ‘I think media coverage could [influence young women], if it came from the right source. Meaning, if a glamorous movie star got skin cancer and went public with it on Facebook, Twitter and all the rest, saying ‘Girls, look what happened to me as a result of going tanning.’ I think that would influence young women. But, if the reporter on the 6 o’clock news said the exact same thing, I don’t think it would have nearly the same impact.’

Some participants were somewhat unsure if media coverage of skin cancer influences the behaviors and actions of young women when it comes to skin cancer prevention and treatment. Participant 8 explained: ‘I hope so. I don’t know. I don’t know if it affects behavior. I think it affects knowledge, but it takes a lot more to affect behavior. People can hear about the dangers of tanning beds, but it doesn’t mean they’re going to stop using them.’ In addition, Participant 9 said: ‘In the field of communications and media studies, they’re always asking those types of

questions. You know, what kinds of impacts do media have on people's behaviors? How does that work? That's not a body of literature that I'm super up-to-date on, but, again, as a physician, do I think that the media really impacts people's behaviors? Yes and no. I definitely think there are things that are much more important than the media – for example, the community of friends you hang out with. Do you hang out with a bunch of people who think it's really great to be really tan? Then you're going to be really tan. It's a complicated question. I don't think there's a one-to-one correlation.'

### **Opinions on possible factors contributing to the rising incidence rates of melanoma in young women aged 18 to 39**

Research data has shown that melanoma incidence rates are rising, especially among young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39 (American Cancer Society, 2013). Almost all of the participants interviewed said that tanning bed use and intentional tanning are factors contributing to this statistic. Participant 9 explained: 'I think a lot of it has to do with tanning. That would be my guess, because a lot of the other factors aren't really gender specific. The presence of an atypical mole and family history – all those kinds of things should be distributed evenly between men and women. The biggest thing is tanning, in general. Obviously, tanning beds are much more dangerous than sun tanning. I haven't looked at the literature supremely closely, but they're always wondering if people find things earlier, so there's that. Maybe young women go to their physicians more often. But, I mean, if there's a real statistically significant difference, then I would suspect it's because of tanning practices.' Likewise, Participant 1 commented: 'Sun exposure. I mean I don't know what else it is. It has to be, and it has to be tanning beds that many people are still using. I still

see the occasional patient who will come in and say, ‘Oh, I have my prom coming up, so I went in the tanning bed.’ Then, usually what they’re telling me is ten times less than what they’re actually doing. So, I have to say, the desire to look tan, to look pretty, to look fit – being outside too much at the beach because it feels good – and just that feeling of it’s not going to happen to me.’

Other participants, such as Participant 4, mentioned the need for the “perfect” tan: ‘I think it’s more of an appearance thing. I mean I guess young men spend as much time in the sun as young women do, but I find that many more women are going out there to get that perfect tan...around here it seems to be a factor. I think the media does sometimes encourage that tan. I think the media is getting better, though. You see some of the stars less tan than they used to be or promoting self-tanning and things like that. Also, there’s more of a message now that pale is OK.’ Similarly, Participant 6 explained: ‘It’s getting back to that ideal image. I think women struggle a little bit more than men do, for the most part, with being the perfect type of person: fit, beautiful and tan. Everybody likes to be tan because they feel better about themselves. There’s a hierarchy of people who go tanning, and I think it’s the younger generation that’s going to be more insecure about themselves. I know, myself, being young and stupid, have used a tanning bed in the past. You want to look good. As you grow up, you learn more and you’re a little more in tune with health – it’s not all about looks. I think that’s a huge part of why the numbers are rising.’ Participant 5 said: ‘I would probably say the emphasis on beauty, including tanning. The marketing of tanning products and tanning salons is heavily, heavily tilted toward women in that age group. I would bet that the vast majority of people going to tanning salons and defining a good tan and sun exposure as a desirable thing would be heavily tilted toward women. Early skin cancers are such cause and effect with ultraviolet exposure. The accumulated sun exposure is probably higher in young women, but it evens out over time...When you’re 50 or 60 years old, everyone’s risk is going to be fairly high. But, when you’re 30 years old, I think women have

more sun exposure, especially those who have spent a lot of time and effort toward achieving that 'perfect' tan.'

Finally, Participant 3 again stated tanning bed use as a primary factor, but said women are starting to get the message that their natural skin tone is OK: 'We do think that tanning beds are playing a role in increasing melanoma rates in young women, because that's the population that's using the tanning beds...I think young women do get messages from the media about tanning. I think the media has gotten really good at highlighting celebrities who aren't using tanning beds. There are a lot of celebrities now who were just born with naturally fair skin, and they're embracing that. They look beautiful and glamorous, even though they have fair skin. The message from The Skin Cancer Foundation is 'Go with your own glow.' If you were born with dark skin, great. If you were born with fair skin, that's fine, too. You just want to make your skin look as healthy and naturally beautiful as possible, rather than doing things that endanger your health, like using tanning beds'

### **Perceptions of media coverage as a source for young women**

Participants said that information presented by the media regarding skin cancer prevention and treatment tends to reflect the views of dermatologists, while others said it would be beneficial to have more specific information relayed. However, most of the medical providers interviewed said the information they see in the media is accurate, for the most part.

Dermatologists do get "talking points" for when they are interviewed by the media, as Participant 3 pointed out: 'Dermatologists have organizations to help when they get interviewed by the media. For example, if you go on to The Skin Cancer Foundation's site or the American Academy of Dermatology's site, they have information for the media. So, when dermatologists, like myself, get interviewed by the media, they can always refer to those facts to help get the right

message across to patients. It helps us get clear, accurate information to patients through the media.’ This point was further emphasized by Participant 8: ‘The American Academy of Dermatology has a lot of talking points that they always recommend we say when we talk to the media: applying enough sunblock, reapplying every two hours, avoid tanning beds, avoid purposeful tanning, wear a broad-brimmed hat, etc...it seems that they do always emphasize those important points. The message gets across, I think, very well – or, is portrayed well. Whether it’s understood, well...I don’t know.’

However, some participants would like to see the media present more specific information. Participant 7 explained: ‘They might just need to focus a little more on sunscreen, how to use sunscreen and what to look for in a sunscreen...There are so many products out there and people buy whatever is on sale, and maybe it’s not a good product. Or they’re using expired sunscreen. Is it broad spectrum? Is it a cream or a spray? Are you applying enough? When you use the spray, are you actually getting it on the skin or are you spraying half of it into the air around you? Do you rub it in or do you not rub it in? Do you take two passes or only one? I think there needs to more specifics about the products: how strong it is, what’s in it, what the active ingredients are and how effective they are.’

The success at getting the word out about melanoma may have come at the expense of news about nonmelanoma skin cancers. Participant 2 said: ‘I can’t remember the last time I saw anything about a non-melanoma skin cancer in the media. I just don’t see it. I don’t hear about it much.’

Despite the results of content analyses in the area, medical providers believe that prevention and detection of skin cancer are the main topics media coverage focuses on. Participant 2 said: ‘I think detection and prevention are better than other aspects. I think they’re telling people to use sunscreen, but they’re misleading them on how to use them and what to use. I definitely think sunscreen use is better, but it’s misleading. People are also coming in more

because they're more aware of skin cancer. That's a trend I definitely see.' Participant 3 stated: 'I think there's a lot of emphasis on prevention. But, really, the most important is on detection, because, skin cancer, when it's found early, is very treatable. We really want to detect it as early as possible.'

While participants were in agreement that prevention and detection are emphasized by the media, Participant 6 mentioned the lack of focus on treatment: 'Most people don't necessarily know how melanoma is treated. There's some prevention. You see stories about someone who died from skin cancer at the age of 25, and this is how you check your skin. I don't think people know much about how it's treated and how grueling of a treatment it can be. I would say detection is covered the most.'

Many of the providers said they think the media is a source of information for young women. Participants also said they would count young women's dermatologists or primary care doctors as a source, but they differed in opinion of how much information these providers actually provide compared to the media. Participant 5 explained: 'They probably get as much, if not more, information from the media as they do from their doctors. I mean, we certainly talk to them, but we have their attention for only 15 or 30 minutes a year, sometimes less. The media has their attention for multiple hours per day.' Similarly, Participant 3 said: '...A lot of them aren't going to dermatologists or they're otherwise healthy and may not be seeing a doctor regularly. The media can really fill in and get the message across.' Furthermore, Participant 8 commented: 'The media is so huge for young people. It's where they get all their information.'

However, other medical providers said young women's doctors play more of a role, or that young women have other sources. Participant 2 said: 'I think women visiting their primary care and being told they need to get a skin check is part of it, too. I think, medically, we've become more aware of it. So, just in primary care offices, they'll refer a lot of patients over for a mole or whatever...It used to be that you would never see a doctor refer a patient for a mole, or at



least not too frequently. Now, it's commonplace to get a skin check every year, whereas years ago you wouldn't do that.' Participant 9 mentioned: 'It's probably a source. If people have family or friends who have been affected by skin cancer, then their personal experiences become a source. Also, if you call Googling things as part of the media, then yes, a lot of people do that.'

### **Should the media care about covering skin cancer?**

Interviewees had a variety of opinions about why the media should care about covering skin cancer. For example, Participant 1 stated: 'Because there's a rising rate. I think it's an alarming, increasing rate and something is happening, for whatever reason why...and they should address it. There's a trend, but it's probably not sensationalized enough for them [to cover it]. I mean, you need someone who did the mammogram on TV and ended up having breast cancer. You need a personality who has it and really speaks about it. I've never seen that happen in the media [with skin cancer].' Participant 6 added on: 'It's something that's really preventable, and numbers are rising. The media is such a great way to reach people. The main people who are looking at the media are the young individuals who are on Twitter, Facebook, Instagram and seeing commercials during TV shows. I think it's the best way to reach out to people and there's rising numbers [of skin cancer] in this age group, so I think it's kind of silly not to.'

Other participants noted that the public has an interest in the coverage of skin cancer. Participant 8 explained: 'It's a public service effort. It affects so many people. People care about their skin, so they pay attention. It's interesting. It's easy to understand the main talking points about skin cancer, too.'

Finally, some of the medical providers mentioned the importance of prevention and early detection. Participant 4 said: 'There are different types of skin cancer and not all of them are going to kill you. But, in my office, I see a lot of skin cancer every year. I think it's important to

realize that melanoma is [a possibility] and can be deadly. You know, it's one of those cancers that younger people can get. Younger people don't get lung cancer – usually – or even colon or breast cancer. But, skin cancer is something that people in their 20s and 30s can die from. So, I think it's a good age group to emphasize prevention.' Participant 9 talked about early detection: 'It's one of the cancers where, if they're lucky and it develops somewhere where they can see it, people can detect it themselves. So, it's one of the public health campaigns where educating people what to look for can actually have an impact on mortality.' Furthermore, Participant 2 added on: 'It benefits everybody. If you can prevent skin cancer, it's good, obviously, for humanity, but also for our overall health care system. Having a skin cancer caught early costs a whole lot less than if somebody has a deep stage melanoma. The cost is much higher at that point. But that's putting aside the obvious, personal tragedies.'

### **Views on how media coverage of skin cancer could be improved**

While a few of the participants said the media does a good job with its coverage of skin cancer, other participants offered various suggestions on how coverage could be improved. For example, Participant 5 commented: 'I think getting an attractive movie star spokesperson to deliver the message out that you can be pretty without having dark skin is key...If a role model for young women said she starts every morning using sunscreen and still looks good without being dark all over, one would hope that would send the message and influence behavior in those that look up to them. That could be an advertising approach, but seasonal, timely information about making good choices is important, too...Even around Labor Day, reminding people that the sun is still a threat until October around here.' Furthermore, Participant 1 offered some ideas: 'I think there should be more shock value. I mean, all these women are on Facebook. Maybe some kind of advertising campaign that's on social media. You know, basically scaring people of what the

scar would look like if they had to have a skin cancer removed...Maybe advertising the fact that if you go to the dermatologist, it's included in your health care and it's something you should be doing. A lot of primary care providers, I think, are screening well, but especially if you're someone who has a lot of moles or have a family history of it, I think it's something that should be addressed by a dermatologist. Maybe you're not going to be encouraged by your family care provider, so you have to ask...The problem is that a lot of dermatologists are getting into the cosmetic realm more where they're doing facial fillers, Botox and things like that. So, it's very difficult to get an appointment and this deters people, young and old. When I tell people that they need to see a dermatologist, they say 'Oh, well I tried, but they don't have any available appointments for eight months.' So, it's almost like they don't have enough providers to treat and screen people. Still, I tell them to go ahead and see the nurse practitioner, go see the physician's assistant – they see a lot of people and you'll get in to see they doctor that way.'

Participant 6 would like to see more quality coverage from the media: 'I think there could be more quality of facts, more quality of the type of media that's put out there and who it's geared toward. Everybody knows that you shouldn't use tanning beds, but not everybody knows how one visit to the tanning salon can increase your risk. I think that kind of information is going to hit home with the age group that is using the tanning beds. So, it doesn't have to be that you're spitting out a million facts. I think it's all about picking the best information that's going to hit home and do it in the best possible way.' Participant 4 further commented: 'I think there needs to be more awareness that, you know, this is something serious. It can affect anybody and can kill you. Also, more about detection. We talk about the ABCDEs in our office. So, having media that talks about what to look for in terms of an abnormal skin lesion could certainly be helpful.'

Finally, Participant 9 said media coverage is good, overall, but offered some suggestions: 'I mean, I think it's pretty good. A lot of times they'll do these personal stories of young people who have passed away with skin cancer, which I don't know how ethical that is. But, I'm not

super-critical of the media coverage. It depends on how the personal stories are done, though. Sometimes, I feel like they start to feel like the same story over and over again. Once that happens, I think they lose their impact. I don't think people read them and think 'Oh, this is so sad...' I think that kind of genre of story can get a little old. There's this book called Compassion Fatigue that's about war and famine and media coverage of these really tragic things. The argument that the book makes is that when people see the same message reported over and over and over again, it sort of loses its impact. So, I feel like you could get compassion fatigue with [skin cancer] stories like that, too...As far as visual stories, I have mixed feelings about them. But, things that focus on prevention, early detection – I think those can be really helpful.'

## **Chapter 5**

### **Discussion**

Several studies have researched content analysis of media coverage of skin cancer, but none have investigated how American medical providers perceive this media coverage and whether or not it influences women under the age of 40. Therefore, this study sought to gain a better understanding of medical provider's experiences and views as they relate to the relationship between media coverage and women under the age of 40.

#### **Perceptions of media coverage of skin cancer**

Those who had more favorable views of the media coverage tended to think the important educational messages are getting out to patients via the media. Some participants backed up this perception and said they have patients who come in because they read an article or saw a segment on TV. Participants who had less favorable views were more likely to hold the view that the media sends mixed messages. In other words, while a journalistic article or feature on skin cancer may convey educational information and encourage healthy behaviors, advertisements and images in the media may tell a different story. Participant 5 mentioned that there is seasonal coverage of skin cancer, but commercial models "always have dark skin and are bikinis." The participants who had a more favorable view may have been referring to journalistic pieces, while those who had a less favorable view may have been referring more to advertisements and images or "ideals" presented by the media.

Other participants noted that some of the journalistic pieces on skin cancer focus more on the cosmetic end of things, as well. A possible explanation for this is that women, aged 18 to 39,

care more about looks than the dangers of skin cancer, which is a concept that many of the medical providers mentioned. The media may recognize this and gear their content toward this interest in obtaining the perfect beauty look.

It should be noted that three participants were members of the American Academy of Dermatology. This may be of interest, since these participants seemed to be either more aware of media coverage of skin cancer or had a more favorable opinion of the coverage. It was noted by two of these members of the American Academy of Dermatology that they are given “talking points” to refer to when being interviewed by the media. While it is a small portion of the medical providers interviewed, there is a possibility that these participants had a biased opinion of the media. On the other hand, most of the other participants were not specialists in dermatology. Therefore, media coverage of skin cancer may not frequently be on their radar. Still, all participants were interviewed because they discuss skin cancer, screen for skin cancer or treat skin cancer in women under the age of 40 on a regular basis.

However, regardless of whether a participant viewed the media coverage as positive or not, the majority of them said that the coverage has improved compared to when they first started practicing. If a participant did not comment that there had been improvement, it was because they felt they had not been practicing long enough to recognize a significant change for better or worse.

### **Perceptions of effects of media coverage of skin cancer**

Many participants commented throughout their interviews that tanning beds are still a problem. However, again, participants had mixed perceptions about whether messages about the dangers of tanning beds are getting across to patients via the media. Some medical providers said they think that women in this age group are getting the messages about the dangers of tanning

beds. As a result, it may not necessarily be a desirable thing to do anymore. Some interviewees noted they have patients who avoid tanning beds now and are more careful about sun exposure. Participant 7 noted that young women who use tanning beds today are more likely to experience “negative feedback” compared to several years ago.

However, other interviewees held the perception that tanning bed use is still a major problem. Several providers mentioned that, in this age group, most women are putting time and effort into achieving that “perfect” look, which includes tanning bed use and purposeful sun exposure. In fact, nearly all participants admitted that tanning bed use is likely the reason for the increasing incidence rates of melanoma that is being seen in young women. This could be the effect of “ideals” that are perpetuated through advertisements and fashion and beauty spreads in women’s magazines. These aspects of the media add to our culture, which is also influenced by movies, TV, music and celebrities. For the past decade or so, the beauty “ideal” has been tan, fit and healthy-looking. Young women may aspire to these ideals, or are influenced by their friends who are on the quest for the “perfect” tan and body. Further research could be done to determine what exactly the beauty “ideal” currently is, and what ideals the media perpetuates.

Fortunately, attitudes toward tanning and our society’s definition of what is beautiful may be starting to change – if ever so slightly. A few of the providers commented that they are seeing more and more celebrities who are sticking with their naturally fair skin tone. Many of the participants noted the importance of a celebrity role model or spokesperson. If a young woman sees one of her favorite celebrities wearing a broad-brimmed hat and applying sunscreen, or showing up to a red-carpet event embracing their natural skin tone and looking beautiful, that young woman may be more encouraged to do the same. Participant 3 mentioned that The Skin Cancer Foundation emphasizes the message, “Go with your own glow.” It seems there is a major opportunity for the media to help continue to shift young women’s attitudes toward tanning. A suggestion would be for The Skin Cancer Foundation to run a campaign in magazines and on TV

using the “Go with your own glow” tagline. They could feature celebrities with a variety of skin tones, but none would have a tan, fake or real. Several participants said that social media is important with this age group, so The Skin Cancer Foundation could reach young women via those channels as well.

Medical providers do seem to think that media coverage is helping their patients. Multiple participants said that the main reason a lot of their patients come in for a visit or to get a skin check is because of pieces they saw or read about skin cancer. However, some participants noted that it is their perception that there is misinformation, mixed messages or a lack of information. It does seem there is less coverage of skin cancer compared with coverage of other cancers (Hurley, Riles, & Sangalang, 2014; Slater, Long, Bettinghaus, & Reineke, 2008). Interestingly, many participants noted this discrepancy when asked how the coverage of skin cancer compares with coverage of other cancers, but only one participant mentioned it as a problem when treating patients. Concerning the misinformation that was mentioned (specifically, concerning sunscreens) it seems, based on comments from other participants, that the abundance of products out there may be partly to blame. There are lotions, sprays and powders, physical sunscreens (e.g. titanium dioxide and zinc oxide) and chemical sunscreens, different SPF's – to the average young women it is likely confusing to try to determine what to use and how to use it. Therefore, they may be deterred from using sunscreen. The media could do a better job of simplifying sunscreen for young women by providing more complete and specific, yet easy-to-understand information. In turn, this could encourage more young women to use sunscreen and possibly limit their sun exposure.

Several participants mentioned that a good deal of coverage they see focuses on the cosmetic aspect of skin cancer. This may be giving some women false perceptions about the risk and consequences of skin cancer. In the study by Nanyes and colleagues, one student noted that “people have the perception that they can fix their skin later because companies sell products for



age reversal, so people think they can fix the problem later and not worry about it now” (Nanyes, McGrath, & Krejci-Manwaring, 2012).

Still, participants mentioned that their patients, young women included, are starting to use more sunscreen. Many of the interviewees said that prevention and detection seem to be the main focus of the media coverage, so it is possible that these messages are starting to hit home with young women. Unfortunately, the majority of medical providers said there is not a lot of focus on the treatment of skin cancer. Compared with other cancers, such as breast cancer, the treatment process for skin cancer may be less well known. Young women also may not realize the differences between basal cell carcinoma, squamous cell carcinoma, actinic keratosis and melanoma, and therefore, may not know how they are treated differently. Therefore, there is an opportunity for the media to have an impact because young women may have little previous knowledge on treatment procedures for skin cancer.

### **Perceptions on how media coverage of skin cancer could be improved**

All of the participants said that the media should care about the coverage of skin cancer, and there is a wealth of studies that support the reasons they pointed out. The incidence rates of BCC, SCC and melanoma are all increasing faster in young women under 40 than in young men (Christenson et al., 2005; American Cancer Society, 2013). However, as all of the participants mentioned, skin cancer is highly curable if detected and treated early. Both BCC and SCC have about 95% cure rates if detected and treated early (Neville, Welch, & Leffell, 2007). Likewise, melanoma has a five-year survival rate of 98% if it detected and treated before it spreads to the lymph nodes (American Cancer Society, 2013). However, if it is left undetected until it reaches a regional or distant stage, the five-year survival rates are 62% and 15%, respectively (American Cancer Society, 2013). Furthermore, as a few participants pointed out, the cost of treating skin

cancer is a burden on our health care system, especially if it is not detected early. In 2010, the estimated total direct cost associated with the treatment of melanoma was \$2.36 billion in the United States (National Cancer Institute, 2011). Additionally, a review of literature from 1990 to 2011, found that annual per-patient costs for Stage IV melanoma ranged from \$34, 103 to \$152, 244 in the United States, compared with annual costs between \$2,169 and \$14,499 for Stage-I melanoma (Guy et al., 2012).

A common perception was that media coverage of skin cancer could be improved. As a comparison, skin cancer receives much less media attention than breast cancer (Hurley, Riles, & Sangalang, 2014; Slater, Long, Bettinghaus, & Reineke, 2008). Nanyes and colleagues found that the “most common reason for ignoring skin cancer warnings, as one student stated, was ‘because it is not as scary as other cancers,’ such as breast and lung cancer, which were described as widely publicized” (Nanyes, McGrath, & Krejci-Manwaring, 2012). Another student in the study by Nanyes and colleagues mentioned, “they put [breast cancer] in the movies, on big billboards, or in a big race; there’s nothing like that for skin cancer” (Nanyes, McGrath, & Krejci-Manwaring, 2012).

As for how media coverage could be improved, participants had several suggestions. Several medical providers said that having a celebrity spokesperson would be beneficial and influence the actions of young women. More and more celebrities are starting to embrace their natural skin color, but media campaigns could be established to make young women more aware. It may be effective for a celebrity or well-known figure to get a skin check on TV, similar to how Amy Robach got a mammogram on Good Morning America in November 2013. A few of the participants commented that many young women are not getting their skin checked annually. They also may not realize that a skin check by a dermatologist is covered by health insurance, or that their primary care provider can offer one. Therefore, a widely-publicized campaign to get

screened for skin cancer featuring well-known celebrities could help women realize what is covered in their insurance while also educating them on the importance of early detection.

In addition, media coverage of skin cancer seems to be highly seasonal, with most coverage happening in May and June. Several participants said that while coverage is important during these months to remind young women of safe sun practices, it would be beneficial to have more regular coverage around the year. A 2009 study found that while young people are receptive mass media health information, they tend to be less knowledgeable about skin cancer and less likely to be consistent users of sun protection (Hay, Coups, Ford, & DiBonaventura, 2009). This may be due to the less frequent coverage of skin cancer compared to other cancers. More frequent coverage could increase skin cancer awareness and the importance of prevention.

Participants also called for better quality and more efficient media coverage. Participant 6 said that there is no need to regurgitate statistic after statistic; it's all about using the ones that are going "to hit-home with this age group." For instance, instead of using the statistic of how many skin cancer cases in the U.S. are associated with indoor tanning, it would be more effective to mention how young women who first use a tanning bed before age 35 increase their risk for melanoma by about 75% (Lazovich et al., 2010). The first number may not carry much meaning for young women and, therefore, probably will not be effective. A statistic like the second one, on the other hand, would likely be more effective because it is easy to put in perspective, not to mention shocking.

Finally, young women may stop responding to repeated exposure to personal tragedy stories related to skin cancer. Participant 9 mentioned that "compassion fatigue" may make these stories less effective if it starts to seem like the same story over and over again. However, no studies have researched this phenomenon as it relates to skin cancer media coverage specifically. This could be an area of future research to help the media determine what the most effective types of articles and media are for their target audiences.



## **Chapter 6**

### **Conclusion**

Incidence rates of both nonmelanoma and melanoma skin cancers are rising in women under the age of 40. Numerous research studies, and the majority of participants interviewed, associated this increase with the prevalence of tanning bed use and purposeful tanning. Young women are a major target audience of the media, and they tend to be receptive to mass media health information. Therefore, the media has a unique opportunity to increase awareness about skin cancer, including recommended prevention strategies, the importance of early detection and how the different types of skin cancer are treated. The majority of participants said that media coverage has increase and improved in quality over the past 20, or even 10 years, but there is still much room for improvement. Many participants noted that while it is their perception that sunscreen use seems to be more prevalent, messages in the media about the different types of sunscreen and how to use them properly seem to be unclear or lacking. Future research could do a content analysis of media coverage as it relates to sunscreen.

Many participants held the perception that tanning bed use and purposeful tanning are still huge problems, although it seems that attitudes about tanning and are starting to slowly shift. It may be effective for the American Academy of Dermatology or The Skin Cancer Foundation to release a widely-publicized campaign that reveals the consequences of tanning, as well as the importance of annual skin checks. Many participants held the opinion that campaigns such as these could be more influential if they feature celebrities that young women admire.

Of course, every study has their limitations, and this one is not without them. First, the results were limited by the small participant sample due to the qualitative approach. Furthermore, all of the participants practice on the east coast of the United States. Medical providers practicing

in the other regions of the country may have different views about the media coverage of skin cancer and whether or not it influences the behaviors and actions of women under the age of 40. Additionally, if a bigger sample had been used, there could have been a more equal distribution in the medical specialties represented, including the added presence of obstetrician-gynecologists, who serve as a primary care doctor for many women under the age of 40. The lack of male medical providers involved in this study might have been another limitation. Additionally, some participants might have been more aware of media coverage of skin cancer than other participants, and this could have affected their perceptions and opinions.

However, the timing of this study and the context in which it was carried out are appropriate and important. Both nonmelanoma and melanoma skin cancer incidence rates are increasing in the overall general population, but rates are increasing most alarmingly in women under the age of 40. Many participants noted that this is an important group that the media should be targeting more.

The results of this study help to gain a better understanding of medical providers' perceptions and opinions of media coverage of skin cancer and how it may be influencing women under the age of 40. Their views and opinions can help inform the media in the United States on its strengths and weaknesses. Furthermore, the results and views presented open the door for further research opportunities.

## **Appendix A**

### **Interview Schedule**

1. What do you think of media coverage of skin cancer?
2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?
3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?
4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?
5. Can you recall a time when media coverage of skin cancer helped a patient?
6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?
7. How does media coverage of skin cancer compare to media coverage of other cancers?
8. How do you account for the differences between media coverage of various cancers?
9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?
10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?
11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?
12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)

13. Do you think the media is a main source of information for young women regarding skin cancer?
14. Why should the media care about covering skin cancer?
15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?
16. How could media coverage of skin cancer be improved?



## **Appendix B**

### **Informed Consent Copy**

(read before the interviewer before the beginning of the interview and verbally agreed upon by the interviewee)

Thank you for your willingness to participate in this interview for my thesis. Before we start the interview, I would like to go over an informed consent.

I am a student in the Schreyer Honors College at Penn State, and currently conducting research for my thesis. The aim of my thesis is to gain a better understanding of medical providers' opinions of media coverage of skin cancer and how the coverage may affect women under the age of 40. Therefore, this is a qualitative study that I am conducting. To clarify, media coverage can include news broadcasts, newspapers, magazines, advertisements and any websites that these companies and organizations may have.

Your participation in this interview is entirely voluntary.

You are free to refuse to answer any question or withdraw at any time.

Your answers will be used for research purposes for my thesis.

Your name will be kept confidential. Only your area of specialty, years of professional experience, the geographical region you practice in and your gender will be used.

By agreeing to participate, you are giving consent that I can use quotes from this interview in my thesis. Do you agree to participate?

## Appendix C

### Transcripts

#### Participant 1

1. What do you think of media coverage of skin cancer?

“I don’t think there is enough of it. I think especially directed at this younger age group. I think that it’s a common problem, and devastating with melanoma and some of these skin cancers related to sun exposure. I think a step was taken when the FDA changed the way they label sunscreen, to no longer have it say “sunblock,” it has to say “sunscreen.” So that’s going to help a tiny bit. But educating the generation – I still see girls going to tanning booths, I still see girls that say ‘I just like to get tan, it feels good, blah blah blah.’ And that whole generation does not understand the skin cancer concept. There should be some mandatory advertising by the government in journals, like they do with cigarettes. They could be more aggressive with those kinds of things. So, I see people and I don’t see a drastic change for the better. “

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

“I don’t remember anything then. I remember, maybe over the last 5 or 10 years, a little bit of an increase in awareness, but not drastic. They’ve had some commercials on the TV talking about melanoma. And maybe with the tax they put on the tanning booth - that helped a little bit, too. But yes, there’s been a trend of having a little bit more.”

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

“That it will never happen to them. Mostly that it’s genetic – you know, oh my mom never had that, I’m fine, I’m young. I think below 40 you still kind of feel that you’re the exception, that you’re not going to age, that you’re not going to get a disease. I think definitely in general, though, people are using more sunscreen and people are careful with that. The matter is maybe not enough of sun exposure reduction. Some people think that just going out there and putting on SPF 50 [is good enough], but they stay out there for 12 hours, so they’re still getting cumulative sun damage.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

*No answer*

5. Can you recall a time when media coverage of skin cancer helped a patient?

“Not a particular patient because I don’t have a derm practice. But, I’ve had plenty of people ask me about the shape of moles, which I think they’ve learned from media – you know the asymmetry and the ‘ABCDE’ [an acronym used to help determine if a mole is cancerous – Asymmetrical, Border, Color, Diameter, Evolving] that they’ve learned. People don’t see dermatologists. It’s very strange. So many people say, ‘I’ve never had a skin check, I’ve never had a skin check.’ You know, they get their eyes checked every year, but they don’t get a skin check, and insurance companies cover that. So, that’s always surprising to me. The trend hasn’t really changed of getting a baseline screening. I have noticed younger people are having melanomas found. I hear, say, about a friend or cousin of a patient. I hear about that more.”

6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“No, not problematic.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“Not as good as lung cancer or throat cancer, like they do with tobacco. Probably not as good as breast cancer. Also, probably not as good as some of the GI cancers, you know with Katie Couric having the colonoscopy and things like that. I think those categories would be first tier. I do think with this awareness of sunblocks, that has helped a little bit recently. Also, the fact that the government is becoming more controlling – I think people are noticing that.”

8. How do you account for the differences between media coverage of various cancers?

“I don’t know why. Other than these people who’ve developed this disease and then make it a cause, I guess. Why that hasn’t happened as much, or why that hasn’t been in the media as much with skin cancer, I don’t know. That’s a good question. I mean some of it’s treatable, but some of it, if you catch it later, it’s not. So, the thing that I think is important – and it’s the same thing with colonoscopies and colon cancer – it’s a very treatable disease. More so even than breast [cancer]. If you catch it small, you can eliminate it with a tiny, tiny scar. If not, it’s lethal. So, I think there should be more exposure. I don’t know why it hasn’t clicked in as much. At least in my experience, the media is not as prominent as in other kinds.”

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

“I think they’re resistant. But, I do think they are understanding more now, maybe when they’re shown the aging component of it. I think women are more afraid of the aging component of what sun can do to your skin – from making it look bad versus the cancer component. Sometimes I think it’s because these younger women don’t think they’re susceptible to it. But when they know they can age and get wrinkles, I think that helps a little bit. People have more interest in it, and along with that is the decrease in skin cancer, because they’re coming to see a provider for it.”

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

“Sun exposure. I mean I don’t know what else it is. It has to be, and it has to be tanning booths that many people are still using. I still see the occasional patient who will come in and say, ‘Oh, I have my prom coming up, so I went in the tanning booth.’ Then usually what they’re telling me is probably ten times less than what they’re actually doing. So, I have to say the desire to look tan, to look pretty, to look fit – being outside too much at the beach because it feels good – and just that feeling of it’s not going to happen to me. So, I just think decreasing the sun exposure is important.”

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

“It doesn’t seem like it is shocking enough. They have the shock value more with those tobacco ads. They’re so intense now. I think it would be better if they had a young person talk about, say, ‘I have this big shark bite out of my leg now, because I was in the tanning booth for years and I didn’t see a dermatologist, so this is what they had to do.’ Maybe that would spook people into going for more regular skin checks. I don’t know how it’s going to help with sun avoidance, though.”

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

“It seems like detection, because they’re always talking about what the moles can look like. Prevention, I’d have to say also, because of the sunblock commercials. And again, it’s tied to the anti-aging. I think the commercials for sunblock are reasonable. They’re always focused on the newest products to help with the strength of the product – whether it’s a chemical or a

physical block that's more cosmetically appealing to everyone, not just younger patients. But I do think there's a component of it feeling heavy and greasy, being expensive – maybe that deters women from using [sunscreen].”

13. Do you think the media is a main source of information for young women regarding skin cancer?

“No, I would hope it's their primary care or their ob-gyn. It would be scary if the media was their only source because the media is trying to sell. Or at least, I guess the advertising component of the media is. But, I think there is way more trying to sell products that may or may not help versus the media educating the importance of sun avoidance.”

14. Why should the media care about covering skin cancer?

“Because there's a rising rate. I think it's an alarming, increasing rate and something is happening, for whatever reason why – we don't know why – and they should address it. There's a trend, but it's probably not sensationalized enough for them [to cover it]. I mean, you need someone who did the mammogram on TV and ended up having breast cancer. You need a personality who has it and really speak about it. I've never seen that happen in the media [with skin cancer].”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“I think they're more educated. I think the over 40 crowd is more aware, they're seeing the doctors more, and again, they're concerned with the wrinkles. They're seeing that their skin is damaged and they understand that it's a risk. But, I think the sun damage is really done earlier – more in the early 20s. And that's the population that's difficult to educate.”

16. How could media coverage of skin cancer be improved?

“I think there should be more shock value. I mean, all these women are on Facebook. Maybe some kind of advertising campaign that’s on social media. You know, basically scaring people of what the scar would look like if they had to have a skin cancer removed. Also, what the moles would look like, what you should be looking for. Maybe advertising the fact that if you go to a dermatologist, it’s included in your health care and it’s something you should be doing. A lot of primary care providers, I think, are screening well, but especially if you’re someone who has a lot of moles or have a family history of it, I think it’s something that should be addressed [by a dermatologist]. Maybe you’re not going to be encouraged by your family care provider, so you have to ask. So, I think a campaign for going to see your dermatologist. The problem is that a lot of dermatologists are getting into the cosmetic realm more where they’re doing facial fillers, Botox and things like that. So, it’s very difficult to get an appointment and this deters people, young and old. When I tell people that they need to see a dermatologist, they say ‘Oh, well I tried, but they don’t have any available appointments for 8 months.’ So, it’s almost like they don’t have enough providers to treat and screen people. Still, I tell them to go ahead and see the nurse practitioner, go see the physician’s assistant, they see a lot of people and you’ll get in to see the doctor that way. Part of it is they’re just deterred because it takes so long to see the doctor.”

## **Participant 2**

1. What do you think of media coverage of skin cancer?

“I think it mostly focuses on the cosmetic end of it rather than the importance of skin cancer. I don’t think it’s as good as it should be. I think they focus much more on cosmetics than they do on actual skin cancers and prevention.”

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

“It’s definitely better now. It’s still not great, but it’s better. I think there’s more of it. I think when I first started, I don’t think I ever heard of media coverage of skin cancer. I do think it’s becoming more prevalent, but not as much as it should be.”

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

“I think people are much more educated today compared to when I first started. I think people know more about it. People come in and are concerned about a spot, and they’ll bring it to our attention. Before, I don’t think you would have seen that. But, I still think that [young women] are still more worried about the cosmetics of it than they are the actual skin cancers.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

“I think it’s glamorized. I don’t think there’s enough about the dangers, the real dangers, of melanoma. I don’t think you see enough of that.”

5. Can you recall a time when media coverage of skin cancer helped a patient?

“Yeah, I think I’ve had some patients. You know when a star – I can’t think of who it was – had a melanoma and it was publicized. I think people relate to that. Kind of the same thing with how [Amy Robach] has breast cancer. I think people relate to the stars when they have something. It makes it more real.”



6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“No, I don’t think that’s it has ever been problematic. Well, misinformation sometimes, I guess. Yes, misinformation is a problem. Specifically, sunscreens. I think media coverage of sunscreens has been really crazy. Especially from the people who make the sunscreens and how they’re touting these ‘100 SPFs.’ I think that’s been a problem, because there is no such thing as 100 percent sun protection. Those 100 SPFs are not any better than a 30 SPF. So, media coverage in that respect has not been good.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“I don’t know. I think colon cancer gets a lot of advertisement. [Skin cancer] is probably on the lower end of things.”

8. How do you account for the differences between media coverage of various cancers?

“I think it has to do with the importance to people. Again, I think if people in the media have these things, they tend to publicize it more.”

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

“I think media coverage is better than it used to be, that’s for sure. I think young women are slowly changing their behaviors because of it. I think they’re definitely wearing more sunscreen than they used to. Less tanning. I think tanning booths are being used less, or at least I hope. That’s another thing – media coverage of tanning booths is not there and people need to be much more aware of the dangers of tanning booths.”

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

“Tanning booths. I think women use tanning booths much more frequently than men do. I think it’s the cosmetic part. Women are more into tanning and being out in the sun, whereas men cover up more or they don’t lie out as much. I don’t think men lie out as much in the sun.”

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

“As far as sunscreens go, I don’t think it’s accurate at all. So, as far as prevention goes, I think there’s a lot of misinformation there. As far as melanoma, I think they’re pretty accurate, but as far as sunscreen and prevention, I don’t think they’re doing as good of a job there. Also, I can’t remember the last time I saw anything about a non-melanoma skin cancer in the melanoma. I just don’t see it. I don’t hear about it, I don’t see much.”

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

“I think detection and prevention is better than other aspects. I think they’re telling people to use sunscreen, but they’re misleading them on how to use them and what to use. I definitely think sunscreen use is better, but it’s misleading. People are also coming in more because they’re more aware of skin cancer. That’s a trend I definitely see.”

13. Do you think the media is a main source of information for young women regarding skin cancer?

“One of the sources, yes. I think women visiting their primary cares and being told they need to get a skin check is part of it, too. I think, medically, we’ve become more aware of it. So, just in primary care offices, they’ll refer a lot of patients over for a mole or whatever. So, on that end, I think it’s gotten a lot better, too. It used to be that you would never see a doctor refer a patient for a mole, or at least not too frequently. Now, it’s commonplace to get a skin check every year, whereas years ago you wouldn’t do that.”

“But yeah, overall, I think there is media coverage out there where young women are getting information.”

14. Why should the media care about covering skin cancer?

“Because it benefits everybody. If you can prevent skin cancer, it’s good, obviously, for humanity, but also for our overall health care system. Having a skin cancer caught early costs a whole lot less than if somebody has a deep stage melanoma. The cost is much higher at that point. But that’s putting aside the obvious, personal tragedies.”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“Definitely more educated, by far. They’re more educated in prevention and detection. I think women know what to look for more than they used to.”

16. How could media coverage of skin cancer be improved?

“There needs to be more accurate coverage of sunscreens and more coverage [of skin cancer] in general. Also, there should be more coverage of how to prevent it and on early

detection of melanoma, and what that even means. More coverage of skin exams , too. Also, the dangers of tanning booths. Women should be encouraged that if they're concerned about a spot, they shouldn't wait to get it checked out. Those are the big things."

### **Participant 3**

1. What do you think of media coverage of skin cancer?

"I think the media plays an important role in helping us get information out to the public about skin cancer. Most skin cancers are very curable if they are detected early. So, that's why the media is really important to help teach people what some of the early signs of skin cancer are so that they can get to the doctor."

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

"Well, I'm only five years out of my residency, so there really hasn't been much of a change since I first started."

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

"This is a very important age group. This is an age group where we're seeing a real increase in skin cancer, especially basal cell and melanoma. This is an age group where we see past tanning bed use. There are published studies that show that women under 40 are having a real increase in skin cancer. So, this is the age group that we really have to target to be on the lookout and come in to see the doctor. And then also, this is the age group that is currently using

tanning beds. So, the media can play an important role in getting the message out that tanning beds are not safe and increase your risk of skin cancer.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

“I think the media coverage is pretty aligned with dermatologists’ perceptions about skin cancer. So, I think they are getting the perception that skin cancer is something that can happen to them. Also, that it’s something related to sun exposure and tanning bed use.”

5. Can you recall a time when media coverage of skin cancer helped a patient?

“That’s why people come in, because they say they read something in a magazine or saw something on television and it sounded like what they have. Yes, I think definitely people have been alerted to look for things based on media coverage.”

6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“I’ve seen quotes and information from the tanning bed industry that can be misleading. But, in my experience, I think whenever I’ve seen that, I’ve seen a lot more compelling information in the same article that comes from dermatologists and the medical field that will dispute the information that comes from the tanning industry.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“I think we actually get a lot of media coverage, because skin cancer is so common. It’s even something that people can detect by themselves at home. I think it’s something that deserves a lot of media attention, and I think that media outlets understand that and really do put

it out there. People can see marks on their skin and worry about marks on their skin, so I think there's a lot of public interest in it. Because of this, I think the media responds by covering it. A lot of people know someone who has had skin cancer so they're interested in it for that reason. Either they had it themselves or they know someone who has skin cancer."

8. How do you account for the differences between media coverage of various cancers?

"Because skin cancer is actually so common, I think that's why people want to hear about it and read about it from the media."

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

"I do, just totally based on what patients tell me. They say they used to tan, used to use tanning beds and used to sit in the sun, but they've changed their behaviors based on articles they have read. I know, for example, the Skin Cancer Foundation likes to highlight a particular patient's story. There are celebrities who have had skin cancer and have come out and talked about it. I think that's important in changing people's behaviors."

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

"So we do think that tanning beds are playing a role in increasing melanoma rates in young women, because that's the population that's using the tanning beds. You know, the vast majority of people who use tanning beds are young women. So, we think that tanning beds may be responsible for that big increase in that group."

“I think young women do get messages from the media about tanning. I think the media has gotten really good at highlighting celebrities who aren’t using tanning beds. There are a lot of celebrities now who were just born with naturally fair skin and they’re just embracing that. They look beautiful and glamorous even though they have fair skin. The message from the Skin Cancer Foundation is ‘Go with your own glow.’ If you were born with dark skin, great. If you were born with fair skin, that’s fine too. You just want to make your skin look as healthy and naturally beautiful as possible, rather than doing things that endanger your health, like using tanning beds.”

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

“You know I think it’s actually really good. Dermatologists have organizations to help when they get interviewed by the media. For example, if you go on to the Skin Cancer Foundation’s site, the American Academy of Dermatology has information for the media. So, when dermatologists, like myself, get interviewed by the media, they can always refer to those facts to help get the right message across to patients. It helps us get clear, accurate information to patients through the media.”

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

“I think prevention, treatment and detection are all a focus of media coverage. I think there’s a lot of emphasis on prevention. But, really, the most important is on detection because, skin cancer, when it’s found early, is very treatable. We really want to detect it as early as possible.”

13. Do you think the media is a main source of information for young women regarding skin cancer?

“I think it is because a lot of them aren’t going to dermatologists or they’re otherwise healthy and may not be seeing a doctor regularly. The media can really fill in and get the message across.”

“If you don’t have another skin problem, you may not be in the dermatologist’s office. It’s usually older people who are seen regularly or someone who is younger and has another problem that gets them to the dermatologist. But, if you’re just sitting at home and no one is checking your skin, you may not realize that you have a skin cancer.”

14. Why should the media care about covering skin cancer?

“The media can really fill in the gaps and get information to young women, and to people of all ages, about what the important signs are and what to look for in order to detect the skin cancer early.”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“I think young women are definitely more educated compared to 10 years ago and 20 years ago. Especially 20 years ago. About 25 or 30 years ago, NYU dermatologists came up with the mnemonic, the ABCDEs of melanoma. A stands for asymmetry. B stands for irregular borders. C for too many different colors. D for diameter, or size bigger than a pencil eraser. E came more recently and stands for evolving or changing. But, there was a real push in the ‘80s to get the message across. Before that, I think there was much, much less information for the public about melanoma detection. There wasn’t much media coverage, but there has been much more outreach since the ‘80s. Public skin cancer screening started around then, too.”



16. How could media coverage of skin cancer be improved?

“I actually think there are really good messages out there. I think they do a good job. There’s usually a big push in the springtime when we have Skin Cancer Awareness Month in May, and you see a lot of it. I think it’s actually very good.”

#### **Participant 4**

1. What do you think of media coverage of skin cancer?

“I guess it’s pretty limited, or at least up here [in the Northeast]. There’s not that much. I am trying to think about something that stands out on TV, in magazines or online and I don’t think it’s as broad as it should be or as prevalent. It’s not a priority, let’s put it that way.”

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

“There’s probably more now. I think we know more about the dangers of the sun than we did, say, 20 years ago. From an advertising standpoint, certainly with cosmetics, there’s a lot more you see emphasizing SPF protection. Twenty years ago, none of that was there.”

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

“I don’t think they realize it’s as common as it really is. I don’t think they understand the danger and that skin cancer can kill you – if you have a melanoma, for example. I think a lot of young women are just not in that mode to be thinking cancer.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

“They do get the message that the sun is bad and that they should be protecting their skin.

They get the message that they should be staying out of the sun, I guess.”

5. Can you recall a time when media coverage of skin cancer helped a patient?

“No, I really can’t.”

6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“No, I can’t really think problematic.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“I think it’s much less. Everybody hears about smoking, how bad that is, and the type of cancers that go along with it. You hear a lot about colon cancer. [Skin cancer] is really not covered as much.”

8. How do you account for the differences between media coverage of various cancers?

“I think for some of them, say lung cancer and colon cancer, there’s the perception that it’s going to kill you. Also, there’s probably the perception that those cancers affect more people, even though skin cancer actually affects more people. I think there’s the perception that these other cancers are more serious.”

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

“I think somewhat. I think there’s still the idea that the tan is what everyone wants to have. I do see more women, though, who are doing the fake tan more than they used to because they know that skin cancer is a possibility. So, I do think they get the message in that aspect.”

“Also, I think there is less tanning booth use. You know, I still have a lot of patients who go to tanning booths, but probably less than I used to. More women know it’s not a good thing. I think there’s also better sunscreen use than there used to be. But, [where I live], everyone has a tan in the summer. So, the message isn’t there completely.”

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

“I think it’s more of an appearance thing. I mean I guess young men spend as much time in the sun as young women do, but I find that many more women are going out there to get that perfect tan. I don’t know if that’s really the reason, but certainly around here it seems to be a factor.”

“I think the media does sometimes encourage that tan. I think the media is getting better, though. You see some of the stars less tan than they used to be or promoting self-tanning and things like that. Also, there’s more of a message now that pale is OK.”

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

“I think it’s pretty accurate. I think the right information is being presented, just not enough of it. On TV and in magazines, I don’t think there is as much as there could be or should be, for that matter. But, I think that when it is out there, it’s usually pretty accurate. You know,

in terms of using SPF 30, staying out of the sun during the peak times and not using tanning booths.”

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

“I think they mostly focus on prevention.”

13. Do you think the media is a main source of information for young women regarding skin cancer?

“Yes, I would say the media and their doctor. I mean obviously younger women are spending more time on their cellphones and on Twitter than they are seeing me. It’s obviously a place where some impact can be made.”

14. Why should the media care about covering skin cancer?

“There are different types of skin cancer and not all of them are going to kill you. But, in my office, I see a lot of skin cancer every year. I think it’s important to realize that melanoma is [a possibility] and can be deadly. You know, it’s one of those cancers that younger people can get. Younger people don’t get lung cancer, usually, or even colon or breast cancer. But, skin cancer is something that people in their 20s and 30s can die from. So, I think it’s a good age group to emphasize prevention.”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“I think definitely more. Pretty much everybody knows now that they should be wearing sunscreen. When I was a teenager, we wore baby oil. I think it has been pretty drummed in. Especially in the advertising and cosmetics, they probably give more information. I mean,

honestly, if I look at a magazine, I will see all of these ads about products that have SPF, but I won't see a single ad from a dermatology group that talks about skin cancer specifically."

16. How could media coverage of skin cancer be improved?

"I think there needs to be more awareness that, you know, this is something serious. It can affect anybody and can kill you. Also, more about detection obviously. We talk about the ABCDEs in our office. So, having media that talks about what to look for in terms of an abnormal skin lesion could certainly be helpful."

### **Participant 5**

1. What do you think of media coverage of skin cancer?

"It's amazing how the media will forever consider a dark tan a desirable thing and that influences young people's behavior. Any [media] coverage might be once in a while when it is summertime and they tell you to wear sunscreen. But, the commercial models never have light skin. They always have dark skin and are in bikinis. So, I think it's a mixed message. But, our actions show you maybe what's more desirable."

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

"I would say it's probably not a whole lot different. I don't remember it being covered heavily then and I get the sense that it's not heavily covered now. It does seem to only be a once in a while thing. It's mentioned, but it's not like smoking and lung cancer."

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

“It would never happen to me. I think cancer in general is felt to be an older person’s problem. So, under 40, they probably think they’re too young to have to think about that. There’s a bigger emphasis on looks. It’s not an immediate threat, so they choose not to think about it.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

“My exposure is probably less than average, so I don’t know if I can answer that.”

5. Can you recall a time when media coverage of skin cancer helped a patient?

“In the general sense of media coverage, our hospital will have [skin] cancer screening clinics. I presume people find out about them through media and local newspaper ads. They also advertise through their newsletters. We’ve certainly had patients who have had skin cancer found through these screenings.”

6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“Not really. I don’t think it’s been a problem.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“I would say much less. They love to hype new treatments. We live in the Boston area and a lot of research is done here. They seem to be quick to jump all over anything that seems exotic and new, and there’s probably not a lot that’s new with skin cancer. So, it’s not like there is

going to be breaking, 6 o'clock news stories, whereas if some hospital has an exciting, new computer or cancer treatment for lung, prostate, ovarian...they love to talk about that stuff because it's a new procedure and they want to be the first ones to report it. I don't know if there's a lot that's new in the world of skin cancer for people to get excited about. The media, in general, has to report the latest and greatest. The worst day for them is when there is nothing new to report. Bad news and exotic, new sexy treatments are the things they like."

8. How do you account for the differences between media coverage of various cancers?

*Answered in previous question*

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

"I think it could, if it came from the right source. Meaning, if a glamorous movie star got skin cancer and went public with it on Facebook, Twitter and all the rest, saying 'girls, look what happened to me as a result of going to the tanning booths.' I think that would influence [young women]. But, if the reporter on the 6 o'clock news said the exact same thing, I don't think it would have nearly the same impact."

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

"I would probably say the emphasis on beauty, including tanning. The marketing of tanning products and tanning salons is heavily, heavily tilted toward women in that age group. I would bet that the vast majority of people going to tanning salons and defining a good tan and sun

exposure as a desirable thing, would be heavily tilted toward young women. Early skin cancers are such cause and effect with ultraviolet exposure. The accumulated sun exposure is probably higher in young women, but it evens out over time. There's the time factor. When you're 50 or 60 years old, everyone's risk is going to be fairly high. But, when you're 30 years old, I think women have more sun exposure, especially those who have spent a lot of time and effort toward achieving that "perfect" tan."

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

"I can't recall any specifics, so I don't know if I can say."

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

"I think it would be prevention and detection. There's the advertising of screening clinics and you hear limiting sun exposure and using sunscreen. There seems to be a bigger emphasis on that."

13. Do you think the media is a main source of information for young women regarding skin cancer?

"I would say yes. They probably get as much, if not more, information from the media as they do their doctors. I mean, we certainly talk to them, but we have their attention for only 15 or 30 minutes a year, sometimes less. The media has their attention for multiple hours per day."

14. Why should the media care about covering skin cancer?



“I guess if they truly have a public service mission. If their mission is just money-making, they could probably care less, unless it makes them money. I grew up with traditional television and radio, where the news department had a higher purpose than just making money. It was always putting out a product that would be useful for society and there was a mission that involved being good for your community and society. So, health news that is good for society would be them fulfilling that mission. You could also say that if it’s good for society to get information through the media, and not a one-on-one with a nurse practitioner or doctor, then they could play a role in communicating that information that’s not getting communicated in other ways.”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“I would say more because I think we’re slowly but surely you have more young women getting skin cancer. So, people either know somebody or medical personnel talk more about skin cancer prevention than they did in the past, because we see it more in younger people. Medical people probably perceive it as a real threat, so we bring it up at physicals as part of preventative care.”

16. How could media coverage of skin cancer be improved?

“I think getting an attractive, movie star spokesperson to deliver the message out that you can be pretty without having dark skin. Since they’re such a modeling of behavior, if a role model for young women said she starts every morning using sunscreen and still look good without being dark all over, one would hope that would send the message and influence behavior in those that look up to them. That could be an advertising approach, but seasonal, timely information about making good choices is important, too. You know, when people are starting to

think about their tans, that's when you want to deliver the message that there is a better choice. Even around Labor Day, reminding people that the sun is still a threat until October. I think hitting people when their most likely to be [tanning].”

### **Participant 6**

1. What do you think of media coverage of skin cancer?

“I honestly don't think there's much out there. There are things that come up in the news here and there. Overall, though, I feel it's not in the news or media that much at all.”

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

“There's a little bit more out there now. I do stumble across things on Facebook here and there. But, for the most part, I'd say it's pretty much the same. I feel like I'm more aware of it being in the medical field, but I would say not much has changed over the past couple of years, unfortunately.”

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

“That one of the main causes is tanning. I think people don't really understand that even just lying on the beach with SPF 8, maybe won't necessarily cause it, but they're definitely increasing their risk. Also, young women don't understand that it doesn't have to be on sun-exposed areas. I think the biggest thing is that everybody thinks that you can only really get it from a tanning bed, which is not really the truth at all.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

“I think the biggest thing I’ve seen in the media is stories of young women who have died and it’s a sad story. But, I don’t think there’s really that much out there. I’m in my late 20s, and my friends – I told them that I had this interview – they couldn’t even think of the last time they had seen anything on the news or any media.”

5. Can you recall a time when media coverage of skin cancer helped a patient?

“There was a video of a bunch of young girls who had talked about someone they knew under the age of 30 who had died [of skin cancer], and I actually had a patient come in and get a skin check because of that video. She had seen one of those what-to-look-for-in-a-mole guides at the health center, too.”

6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“I think the biggest thing – I don’t even think there necessarily a misperception – a lot of people come in and don’t even know what to look for. There’s really not anything great out there to show people what to look for. I wouldn’t say I ever had people come in with a misperception; it’s more a lack [of knowledge]. I know I go over a million times a day with patients on what to look for, something as simple as a changing mole or changing color. It’s more the lack of information and knowledge they have, rather than a misperception.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“I would say there’s not as much out there. I think one of the biggest things we know about, or see [in the media], in my opinion, is breast cancer, which is great. But, the coverage of skin cancer is very limited compared to other cancers, and it’s something that shouldn’t be.”

8. How do you account for the differences between media coverage of various cancers?

“I feel like everyone kind of knows somebody who has been affected by breast cancer, whereas melanoma or basal cell, squamous cell [carcinomas], any type of skin cancer – not everybody knows someone who has had it or people don’t really even know they have it. I feel like if you asked somebody if they knew someone with breast cancer, everybody knows somebody. Whereas skin cancer, I feel like less people are aware of their own family history or if anybody they know has it.”

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

“Definitely, definitely. I know a lot of people who still use tanning beds, still go to the beach and slather on oil. People are afraid of getting, say, brain cancer from standing in front of the microwave and they’ll stand 10 feet away. Also, drinking alcohol before your period is kind of a myth with breast cancer. People have these wacky things they’re doing that don’t necessarily make a difference, but yet they’re still going tanning. They don’t have as much knowledge as they about everything else.”

“I think the media encourages the tanning. I think it’s changed a little bit over the course of the past couple of years with models being all tan and bronzed up – you’re seeing more and more models that are lighter. But, I think a lot of the images out there are still of tan, beautiful people and not of people lathering on sunscreen, being pasty white and getting their skin checked.”

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

“It’s getting back to that ideal image. I think women struggle a little bit more than men do, for the most part, with being the perfect type of person: fit, beautiful and tan. Everybody likes to be tan because they feel better about themselves. There’s a hierarchy of people who go tanning, and I think it’s the younger generation that’s going to be more insecure about themselves. I know, myself, being young and stupid, have used a tanning bed in the past. You want to look good. As you grow up, you learn more and you’re a little more in tune with health – it’s not all about looks. I think that’s a huge part of why the numbers are rising.”

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

“I think the accuracy, for the most part, is decent. I don’t think the quality is there. There could be a lot more information, and better information, out there. It could also be geared more toward the right age group.”

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

“I’d say probably detection. Most people don’t necessarily know how melanoma is treated. There’s some prevention. A lot of the stuff you see is a story about someone who died from skin cancer at the age of 25, and this is how you check your skin. I don’t think people know much about how it’s treated and how grueling of a treatment it can be. If you’d have to pick one, I would say detection.”

13. Do you think the media is a main source of information for young women regarding skin cancer?

“I’d say no. I’d say they get the most information when they go see their provider. I know at our practice, it’s important to be talking to them about this, because there isn’t much out there. More people know to do their self-breast exams, but not everybody knows to take a good look at their skin every so often, and everywhere, head to toe. So, I don’t think the media is doing much. I think it’s more when they come in and see their doctor that they’re getting the information they need.”

14. Why should the media care about covering skin cancer?

“It’s something that’s really preventable, and numbers are rising. The media is such a great way to reach people. The main people who are looking at the media are the young individuals who are on Twitter, Facebook, Instagram and seeing commercials during TV shows. I think it’s the best way to reach out to people and there’s rising numbers [of skin cancer] in this age group, so I think it’s kind of silly not to.”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“I’d definitely say more at this point. We’ve learned a lot about skin cancer over the past 20,30 years. People know more about sunscreen. You know, 20 years ago, people were using baby oil. Now, it’s sunscreen, sunscreen, sunscreen. Maybe it’s not seen in the numbers, maybe people aren’t following what they are learning. But, I think we know more and people are more aware compared to way back when.”

16. How could media coverage of skin cancer be improved?

“Just getting more out there. It’s so easy to have something pop up on Facebook or have a 10-second ad. I think just getting anything out there is going to be helpful.”

“I think there could be more quality of facts, more quality of the type of media that’s put out there and who it’s geared toward. Everybody knows that you shouldn’t use tanning beds, but not everybody knows how one visit to the tanning salon can increase your risk. I think that kind of information is going to hit home with the age group that is using the tanning beds. So, it doesn’t have to be that you’re spitting out a million facts. I think it’s all about picking the best information that’s going to hit home and do it in the best possible way.”

### **Participant 7**

1. What do you think of media coverage of skin cancer?

“I think they do a pretty good job of getting the word out. They’re not overly alarmist about it, and they do a pretty good job of telling people to use sunscreen. I think they could probably do a better job of telling them how to use it, as far as telling people that they need to reapply and put it on thick. I think overall they do a good job. It’s pretty well known among kids and adults. Kids are pretty accepting at this point of the fact that they need to wear sunscreen.”

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

“I think it was pretty good then, too. I think as long as I’ve been practicing, they’ve been doing a good job, I believe. I mean, I would say, in the past five years, it’s probably become more of a big deal and they’ve put more money into it. I think, as a result, you see someone with a tan and it’s no longer ‘wow, you have a great tan,’ it’s ‘what are you doing?’ Being tan isn’t necessarily something to strive for anymore, which is a good thing.”

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

“I think they probably equate it with burns as opposed to accumulated sun exposure. I think they know they’re at risk even if they use sunscreen now, but they got a lot of burns as a kid. They’ll say that a lot to me. They’ll say they want to come in, get checked even though they use sunscreen now and they’re good now, but they didn’t as a kid because they didn’t know. They understand they’re still at risk.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

“I’m thinking commercials and they certainly say ‘use my product, use my product,’ but then there are some that talk about the UVA/UVB. I think the commercials do a good job of talking about broad spectrum. It’s hard to know, because am I getting my information from the commercials or am I getting it from my own literature? I think the media is doing a good job of explaining ‘broad spectrum,’ though. I think the media is doing a really good job of telling what the worrisome signs of a skin cancer are – you know, the ABCDEs. I have women coming in a lot saying ‘this one is bigger, this one is irregular,’ that kind of thing. I think if you asked people what the characteristics of a melanoma are, or at least what to be worried about, they would be able to tell you irregular shape, irregular color, etc.”

5. Can you recall a time when media coverage of skin cancer helped a patient?

“Yeah, definitely. It’s more frequent that they’ll say their spouse saw something on their back and noticed it had gotten bigger. They know to look for change. The media has told them that a change in something is bad or something to go see your doctor about, at least.”



6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“No, I can’t think of a time when someone didn’t seek medical care or sought it too late, and the reason was because they were falsely reassured of something from the media. Also, I can’t really recall a time where I had to plead my case with a patient because they had a misperception from the media that had to fight it. The only thing I would say is if somebody comes in and they have something dark or different, and it’s a seborrheic keratosis. Then I might have to explain to them the difference between a seborrheic keratosis and something else. But, usually it’s easy to convince them it’s benign and not a melanoma, even though it’s big and ugly. They don’t argue with it.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“I think it’s probably comparable to breast cancer screening. They’re very proactive about getting yourself tested, keeping an eye on yourself and being your own advocate. So, I’d say it’s similar to breast cancer, in that way.”

8. How do you account for the differences between media coverage of various cancers?

“I guess there is probably a lot more media coverage put into skin cancer than say, prostate cancer. Skin cancer is so universal – it’s men, it’s women, it’s young, it’s old, it’s kids, it’s adult. It’s not really age-specific or gender-specific. It’s probably something that you can get a lot of money for and a lot of media coverage for because it hits everybody. The patient profile, or targeted audience, is really anybody. On the other hand, with breast cancer, the patients that you’re targeting are mostly women. Prostate cancer is obviously just men. Other cancers are probably going to have a much smaller target audience in terms of gender and age. So, I would think skin cancer would have an easier time getting funds, media attention and public buy-in. If

you have a room with 10 people and you say something about skin cancer, all 10 people are likely going to have an interest.”

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

“Oh, definitely. No question. I think the whole tan thing – just being tan is equated with being healthy. That’s a huge battle, especially amongst teenagers. All the tanning beds – it’s a huge battle. The kids are still doing it. I would imagine the numbers are dropping. The nice thing with media is now, when you see a 15-year-old or 16-year-old her friends see her, they’re more inclined to say ‘What’s up? You didn’t go away.’ If she says, ‘Oh, I went tanning,’ I think at least some of those friends are going to say ‘You’re an idiot! What the hell is wrong with you?!’ There’s going to be some negative feedback that that girl is going to get now, which is from the media and I think that’s great. That’s hopefully starting to influence the kids that are doing the tanning. I think there are still people doing it. Even the people who have stopped doing it regularly, they’ll still do it before their prom or stuff like that. Maybe their parents are stepping in now, too, and telling them not to. It’s still a huge thing, though. I mean, just speaking of my own politics, I’m very against, in general, the government stepping in really at all with anything, but if they’re going to step in, I’d rather see them step in and get rid of tanning booths before they step in and regulate e-cigarettes like they’re starting to do. I don’t even know why there are still tanning booths available – it’s just ridiculous.”

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

“The whole environmentalist issue is the first thing that pops into my mind. If my perception is correct, maybe it’s incorrect, but if my perception is correct that more people are using sunscreen and they’re staying out of the sun more – they certainly are compared to 20 years ago – then you start to wonder if the sun is more potent. You wonder about the environment and the ozone. I don’t know if it’s true or not, but that’s what I wonder. I can’t imagine that people aren’t truly exposing themselves to the sun less. I mean, it’s what I hear from my patients [that they’re getting less sun], and it’s what I seen in my own life and in my own friends. I know, obviously, the beaches are still packed, but so many people use sunscreen now. That used to not be the case.”

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

“I think it’s pretty good. I think they make it simple, which is important. They use a lot of different types of media. They use pictures, analogies, cartoons, print ads, television ads, posters, etc. Even in my kid’s school, they’ve had people come in and give talks. So, I think they’ve done a pretty good job. They might just need to focus a little more on sunscreen, how to use sunscreen and what to look for in a sunscreen. Maybe that’s why the melanoma incidence rates are going up. There are so many products out there and people buy whatever is on sale, and maybe it’s not a good product. Or they’re using expired sunscreen. Is it broad spectrum? Is it a cream or a spray? Are you applying enough? When you use the spray, are you actually getting it on the skin or are you spraying half of it into the air around you? Do you rub it in or do you not rub it in? Do you take two passes or only one? I think there needs to be more specifics about the products need to be clearer: how strong it is, what’s in it, what the active ingredients are and how effective they are.”

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

“I would say probably detection – the ABCDEs are covered a lot.”

13. Do you think the media is a main source of information for young women regarding skin cancer?

“Probably. I would like to say there medical provider is, but the media is the main source of information for most things.”

14. Why should the media care about covering skin cancer?

“I presume the media is motivated by public interest. Anything that’s going to be of public interest is going to be something the media is interested in as well.”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“I would say women are more educated because of the media and education through the media and healthcare. Unfortunately, the numbers of incidence rates don’t seem to reflect that. My presumption, though, is that if you asked 10 women today for facts and information about skin cancer, they would be able to give you more accurate information than if you asked those same women 10 years ago. I guess whether or not they’re actually following the guidelines is a different story.”

16. How could media coverage of skin cancer be improved?

“I think if they showed more personal things. You know, for example, in those anti-smoking commercials where they’ll show a specific person who had their larynx removed or something like that. If they showed more specific things using an actual person, it might hit

home more than if they used cartoons and straight information. If they made it less abstract and more personal, it might be better.”

### **Participant 8**

1. What do you think of media coverage of skin cancer?

“I think in general it’s very good. I think they’re continuing to educate people about the dangers of sun exposure, the dangers of tanning beds and what to do to prevent damage and prevent skin cancer. I think they repeat those messages often. They do it yearly, often before the beginning of summer. I know I’ve been interviewed a bunch of times for those types of things. I think there is an interest in getting the message out there. When I see the interview, I think they always pick the high points and I think they really do get the message across.”

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

“I don’t really remember any.”

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

“I think they’re not aware of how often it occurs. I don’t think they’re aware that they’re at risk. I think many people still don’t understand the long term effects of sun damage.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

“I think anytime a movie star or someone famous gets a skin cancer, it makes the news. So, they realize that famous people can get it too. I think there is more and more information about younger people getting skin cancer out there.”

5. Can you recall a time when media coverage of skin cancer helped a patient?

“I don’t know if I can recall a specific time. But, often patients will say that they saw something or read about something that said if a mole is changing, then it should be checked by a doctor. So, they learn that from the media.”

6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“No, I can’t.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“I’m probably biased because I get very excited when I see any media coverage for skin cancer and I don’t pay as much attention to prostate cancer or lung cancer. But, it’s probably more seasonal. You hear about breast cancer year-round. Prostate cancer you hear about year-round, too. The media usually brings skin cancer up at the beginning of the season.”

8. How do you account for the differences between media coverage of various cancers?

“Sun damage is obviously a big factor with skin cancer. So, they bring it up in the springtime – that’s the seasonal variation. It could be that people don’t worry as much about skin cancer compared to some of the other cancers. Maybe there isn’t as much media coverage of skin cancer as some other cancers. Maybe society doesn’t think it’s as big of a deal.”

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

“I hope so. I don’t know. I don’t know if it affects behavior. I think it affects knowledge, but it takes a lot more to affect behavior. People can hear about the dangers of tanning beds, but it doesn’t mean they’re going to stop using them.”

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

“I think tanning bed use contributes to that. [I think there has been improvement in media coverage of tanning beds, though]. Many states are trying to pass legislation to ban minors from using tanning beds. I think with all the legislation being passed in some states and the attempts to pass legislation in other states, that it’s covered more in the media.”

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

“Very good. The American Academy of Dermatology has a lot of talking points that they always recommend that we say when we talk to the media about applying enough sunblock, reapplying every two hours, avoid tanning beds, avoid purposeful tanning, wear a broad-brimmed hat, etc. So, it seems to me that when people get interviewed, and then the interview gets put together to be aired on television or on the radio, it seems that they do always emphasize those important points. The message gets across, I think, very well – or, is portrayed well. Whether it’s understood well...I don’t know.”

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

“I think prevention and detection. They try to get the point across that if you have a changing mole or a non-healing lesion, get it checked. There is also an emphasis on what you can do to prevent skin cancer.”

13. Do you think the media is a main source of information for young women regarding skin cancer?

“Yes. The media is so huge for young people. It’s where they get all their information.”

14. Why should the media care about covering skin cancer?

“It’s a public service effort. It affects so many people. People care about their skin, so they pay attention. It’s interesting. It’s easy to understand the main talking points about skin cancer, too.”

“I don’t think young women are worried about how a skin cancer will look. I think they’re more worried about wrinkles.”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“I think they are more educated. I think the importance of wearing sunblock is emphasized more than it was 20 years ago. Also, I think how to wear it properly is emphasized. Most people when they use sunscreen don’t use enough and they don’t reapply. That message – using enough and reapplying – is continually emphasized in any media coverage I see. I don’t think they talked about that as much before.”



16. How could media coverage of skin cancer be improved?

“I think personal stories are always really helpful. Maybe not just seasonal – having media coverage more often.”

**Participant 9**

1. What do you think of media coverage of skin cancer?

“I think it’s starting to pick up a lot. This isn’t a scientific response, but, I do have a lot of patients come in who are concerned about it because they read an article about it. They’ve also read articles about tanning beds. I think it’s a positive thing even if some of these patients aren’t particularly in high risk categories. I think it can be a really positive tool to get patients into the office.”

2. What was media coverage of skin cancer like when you first started practicing medicine compared to now?

“It’s all been so recent, so I wouldn’t report a change.”

3. What do you think are the biggest perceptions women under the age of 40 have about skin cancer?

“I think that people are starting to recognize that tanning bed use is a really big problem, which I think is very positive. That’s probably something that’s relatively new. I’m 40 and I know just as a young woman, growing up in the 90s, we knew that tanning beds weren’t so great for you, but the risk and connection to skin cancer wasn’t so apparent.”

4. What perceptions of skin cancer do you think women under the age of 40 get from the media coverage?

“I think that there may be an interest in sunscreen because of skin cancer, but it’s sort of hard to say. In my experience, this all has to do with the kind of person the patient is, their socioeconomic background, their cultural background and what their friends are doing. I feel like it’s very variable. So, I have some patients who come in and – a lot of this I think is media coverage, but also the way they were raised and whether their parents slathered sunscreen on them – they don’t really go out in the sun and they’re very cautious. But, then I have other patients who seem like they haven’t quite gotten those messages, or if they have, they don’t pay quite so much attention to them. I mean all media attempts to target different ages. They all have their target audiences. I think some people are being targeted to get the message and some people aren’t. It’s a complicated mixture of the way people are raised, the way they’re used to thinking about the sun from their childhood and all that kind of stuff – it plays into their perceptions.”

5. Can you recall a time when media coverage of skin cancer helped a patient?

“I did have a mom come in recently and see me who was in her 40s. She had something on her back that she was really worried about. She came in to have a biopsy and it did turn out to be a melanoma. She didn’t come out and say that she saw a special on television. But, I do feel like the new moles, changing moles message is repeated quite often by dermatologists [in interviews], and, because of that, people are a little more in tune with their skin. I did have another patient who came in and thought she had a basal cell carcinoma, but it wasn’t. But that’s ok – I like patients who pay attention to their skin and want to come in to get something checked out. So, I do feel like sometimes patients read articles and then come in and say ‘Oh, I read about this...’ Even if it isn’t something they don’t need to be worried about, it doesn’t matter because it

establishes care with a dermatologist and awareness about the ability of screening to catch something early.”

6. Can you recall a time when media coverage of skin cancer was problematic in terms of treating a patient?

“I don’t think so. I do think that sometimes people get very worried and very anxious, especially in certain populations. New York is a population where we have a lot of people who are just kind of anxious in general and anxious about their health in general. I do suspect that sometimes media coverage can play into a generalized anxiety about stuff like that. I don’t think that’s particularly healthy for people – not in terms of their skin, just their overall well-being. I don’t think I’ve encountered too much of that kind of thing with skin cancer. I’ve encountered it with lots of other things, but not skin cancer.”

7. How does media coverage of skin cancer compare to media coverage of other cancers?

“It depends on what your sources are and what you’re reading. If you’re reading *The New York Times* a lot, you’re not going to see quite as much on skin cancer. Again, this is just anecdotally. I didn’t do a content analysis. All this is based on my experience and my perceptions. But, if you’re reading *The New York Times* or other articles that are reporting the latest news in colon cancer, breast cancer – you know all that stuff that came out recently about mammograms, etc. I think it depends where you’re looking. I do think a lot of the fashion magazines do tend to run a lot on melanoma. I’ve seen a lot in [those magazines] before. I think that’s good. I think a lot of young women read those. With lots of cancers, early detection is better. That’s a good question. I think it really depends on the source. I mean, cervical cancer is covered in the fashion magazines, too. I don’t know what their health editors’ intents are. I’m sure they’re trying to reach a target population. I’m sure they’re trying to reach mostly women

and trying to address things that women can do to improve their health. I do feel like I see quite a bit reported on skin cancer in women's magazines."

8. How do you account for the differences between media coverage of various cancers?

"Often that is driven by response and what's coming out that's the latest and greatest. Or any controversies. That's for media coverage in general. Melanoma research has really been promising lately. Several new molecules were brought to market. There was a lot of media coverage surrounding that. There was a lot of media coverage about mammograms recently. I think a lot of it has to do with drug development. I think some of it has to do with if somebody well-known develops a particular disease and celebrities have something to say about it. I think there are these little, seminal events sometimes that either have to do with somebody well-known developing a particular type of cancer or there's some kind of research development in the field that often will prompt media coverage. Then again, I'm sure there are editors who say, 'We haven't done an article on skin cancer for a while. Let's do that.'"

9. Do you think media coverage influences the behaviors and actions of young women (under 40) when it comes to skin cancer prevention and treatment?

"That is an excellent question. In the field of communications and media studies, they're always asking those types of questions. You know, what kinds of impacts do media have on people's behaviors? How does that work? That's not a body of literature that I'm super up-to-date on, but, again, as a physician, do I think that the media really impacts people's behaviors? Yes and no. I definitely think there are things that are much more important than the media – for example, the community of friends that you hang out with. Do you hang out with a bunch of people who think it's really great to be really tan? Then you're going to be really tan. It's a complicated question. I don't think there's a one-to-one correlation."

“So, anti-smoking advertisements. There’s a way to do anti-smoking advertisements – and I’m sure you might know this...there’s a history of this campaign and lots of people have written about it. There’s a way to do anti-smoking advertisements aimed at youth where you can actually paradoxically get more kids to smoke. It kind of depends on how the ads are targeted. If you target the ads in a really condescending way, where kids feel babied – that actually doesn’t stop anyone from smoking at all. So, when cigarette companies are penalized in court and have to give money to anti-smoking stuff, that’s the kind of stuff that they always want to support – stuff that doesn’t really stop anyone from smoking. But, then there are other kinds of ads that can be very successful with youth. So, the American Legacy Foundation – Cheryl Heaton used to run it – they did all these ads and it was called the ‘truth’ campaign. They were pretty powerful ads. They didn’t look anything like the kinds of ads that I grew up with. The question about whether people are affected? It totally depends. Is it the primary thing? Probably not. Certain campaigns have more impact definitely than others, or at least we know that from smoking. I don’t know of any literature that has looked at that with skin cancer, though.”

“I mean there are quite a few campaigns for skin cancer. The American Academy of Dermatology has the SPOT campaign. I know that a lot of organizations will have a skin cancer screening booth at public events. I feel like that is kind of a prevention campaign method, even though it’s a real screening – it gets the message out.”

10. Research data has shown that melanoma incidence rates are rising, especially in young women. While incidence rates have shown that lifetime rates of melanoma is about 1.5 times greater in males than in females, this trend is actually reversed among young people aged 18 to 39. What factors contribute to this statistic?

“I think a lot of it has to do with tanning. That would be my guess, because a lot of the other factors aren’t really gender specific. The presence of an atypical mole and family history –

all those kinds of things should be distributed evenly between men and women. The biggest thing is tanning, in general. Obviously, tanning beds are much more dangerous than sun tanning. I haven't looked at the literature supremely closely, but they're always wondering if people find things earlier, so there's that. Maybe young women go to their physicians more often. But, I mean if there's a real statistically significant difference, then I would suspect it's because of tanning practices."

11. How would you rate the quality of information that is presented by the media regarding skin cancer prevention and treatment?

"I think it's pretty good. I think the 'wear sunscreen' messages are pretty good. I mean, sometimes if they go crazy, people start ignoring them altogether. If people are like, 'wear sunscreen every day,' even when it's zero degrees outside in New York City and you're walking under all these skyscrapers – I think people tend to tune stuff out if it's a) isn't something that's going to be easy for them to do or b) sounds ridiculous. I try to be pragmatic with my patients because I know how hard it is to put sunscreen on every single day, especially when it's zero degrees outside and there's no sun. It just seems sort of silly."

12. What do you think is the primary focus of media coverage on skin cancer (i.e. prevention, treatment, detection, etc.)?

"I think it's mostly about prevention and early detection. I feel like a lot of the articles are about sunscreen. A lot of times when dermatologists are quoted in the media, they're talking about sunscreen practices and sun health practices. Sometimes they'll talk about the types of things to look for in terms of changing moles. There's probably more about prevention, but prevention and early detection are the main two."

13. Do you think the media is a main source of information for young women regarding skin cancer?

“It’s probably a source. If people have friends or family who have been affected by skin cancer, then their personal experience becomes a source. Also, if you call Googling things as part of the media, then yes, a lot, a lot of people do that.”

14. Why should the media care about covering skin cancer?

“It’s one of the cancers where, if they’re lucky and it develops somewhere where they can see it, people can detect it themselves. So, it’s one of the public health campaigns where educating people what to look for can actually have an impact on mortality.”

15. Do you think women under the age of 40 are more or less educated about skin cancer compared to 10 years ago? 20 years ago?

“I feel like they’re probably more educated. I think, in general, women under the age of 40 are more educated about lots of health things.”

“I think they’re more educated about sunscreen. For a lot of them it’s not just in terms of concerns about skin cancer, but concerns about aesthetics and anti-aging.”

16. How could media coverage of skin cancer be improved?

“That’s a good question. I mean I think it’s pretty good. A lot of times they’ll do these personal stories of young people who have passed away with skin cancer, which I don’t know how ethical that is. I’m not super-critical of the media coverage.”

“It depends on how the personal stories are done. Sometimes, I feel like they start to feel like the same story over and over again. Once that happens, I think they lose their impact. I don’t think people read them and think ‘Oh, this is so sad...’ I think that kind of genre of story

can get a little old. There's this book called Compassion Fatigue that's about war and famine and media coverage of these really tragic things. The argument that the book makes is that when people see the same message reported over and over and over again, it sort of loses its impact. So, I feel like you could get compassion fatigue with [skin cancer] stories like that, too."

"As far as visual stories, I have mixed feelings about them. But, things that focus on prevention, early detection – I think those can be really helpful."



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## ACADEMIC VITA

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### EDUCATION

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#### THE PENNSYLVANIA STATE UNIVERSITY

*Expected Graduation: May 2014*

Bachelor of Arts in Print Journalism

Minor in Biology

Schreyer Honors College

#### MURDOCH UNIVERSITY, Perth, Western Australia

*February 2013 – June 2013*

### COMMUNICATIONS EXPERIENCE

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#### VALLEY MAGAZINE, Advertising Director, University Park, PA *Fall 2011 – Spring 2014*

- Direct print advertising for *Valley Magazine*, PSU's 60-page life and style publication that is circulated to 5,000 readers biannually within the Penn State community
- Continually meet quota of 8 advertisements in the print issue, as well as 2-3 advertisements on *Valley's* website
- Actively promote *Valley* during "Valley Week," the week the magazine is released, by monitoring and updating social media outlets such as Facebook, Twitter and Instagram

#### CHEMSTATION-BOSTON, Intern, Weymouth, MA

*Summer 2011*

- Assisted in the writing and design of the company's marketing material aimed at promoting and selling the company's environmentally-friendly industrial cleaning solutions

### MEDICAL EXPERIENCE

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#### SOUTH SHORE SKIN CENTER, Shadowed, Plymouth, MA

*Summer 2012*

- Shadowed Dr. Richard Eisen, Dr. Navid Bouzari, Stacey Burns, PA-C, Elizabeth McLeish, PA-C and Vanessa Rando, PA-C, as well as Lori Skinner, RN, BSN at The Spa at the South Shore Skin Center
- Observed patient consultations and treatments ranging from Mohs Micrographic Surgery to Sculptra Aesthetic and Fraxel laser treatments
- Analyzed biopsies on a microscopic level and compared to normal skin cells

#### MOUNT NITTANY MEDICAL CENTER, Shadowed, State College, PA

*January 2013*

- Scrubbed in for three full knee replacement surgeries and one arthroscopic shoulder surgery

## **ASSOCIATION MEMBERSHIPS/ACTIVITIES**

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**NATIONAL SOCIETY OF LEADERSHIP AND SUCCESS**, *Member*      *Fall 2012-Current*

**STUDENT SUPPORT SERVICES PROGRAM**, *Tutor*, University Park, PA      *Spring 2012*

- Tutored a low-income, first-generation college student in Mass Media Law 1-2 times per week for a semester.

## **HONORS AND AWARDS**

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**RAY J. DYAS SCHOLARSHIP**      *2013-2014*

- Awarded by Penn State, in memory of Ray J. Dyas, to students who have achieved superior academic records and demonstrate financial need.

**COLLEGE OF COMMUNICATIONS GENERAL SCHOLARSHIP**      *2013-2014*

- Awarded to full-time students in the College of Communications who demonstrate financial need.

**CIEE GLOBAL ACCESS INITIATIVE (GAIN) SCHOLARSHIP**      *Spring 2013*

- Awarded by CIEE to help students overcome the barrier of cost to studying abroad.

**GENE FOREMAN TRUSTEE MATCHING SCHOLARSHIP**      *2012-2013*

- Awarded to full-time students majoring in journalism in the College of Communications who have a demonstrated financial need.

**LAWRENCE G. AND ELLEN M. FOSTER TRUSTEE SCHOLARSHIP**      *2011-2012*

- Awarded to full-time students majoring in journalism in the College of Communications who have a demonstrated financial need.

**SCHREYER HONORS COLLEGE ENDOWMENT FOR ACADEMIC EXCELLENCE SCHOLARSHIP**      *2010-2014*

- Merit scholarship funds from the Schreyer Honors College awarded to Schreyer Honors College students who have achieved superior academic records.

**THE PARTRIDGE AWARD**, Duxbury, MA      *2010-2014*

- Scholarship funds contributed yearly toward college tuition by The Duxbury Partridge Academy; awarded to a senior achieving academic excellence