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Physical Therapist Professional Appearance: From the Patients' Perspective

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PHYSICAL THERAPIST PROFESSIONAL APPEARANCE:
FROM THE PATIENTS' PERSPECTIVE

by

Brock Clements
Kelsey DeCamp

A Scholarly Project Submitted to the Graduate Faculty of the
Department of Physical Therapy
School of Medicine and Health Sciences
University of North Dakota

in partial fulfillment of the requirements for the degree of
Doctor of Physical Therapy

Grand Forks, North Dakota
May, 2017
This Scholarly Project, submitted by Brock Clements and Kelsey DeCamp in partial fulfillment of the requirements for the Degree of Doctor of Physical Therapy from the University of North Dakota, has been read by the Advisor and Chairperson of Physical Therapy under whom the work has been done and is hereby approved.

Cindy Flom-Moland
(Graduate School Advisor)

[Damaged Signature]
(Chairperson, Physical Therapy)
PERMISSION

Title PHYSICAL THERAPIST PROFESSIONAL APPEARANCE - FROM THE PATIENT'S PERSPECTIVE

Department Physical Therapy

Degree Doctor of Physical Therapy

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Date 12-14-16

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Date 12-15-16
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Finally, thank you to our family and friends for their support.

Brock Clements
Kelsey DeCamp
CHAPTER 1

BACKGROUND AND PURPOSE

The act of expressing oneself through different art forms has become more and more popular in the American culture over the years. The most recent change in expression has been individuality using tattoos and piercings to different hair colors and dramatic makeup. This has become an area of concern for employers as well as consumers because of the negative stereotypes associated with this type of expression, including potentially lower competence, sociability, and character due the violation of expected social norms. \(^1\) As the employee is quite often the face of a company, many places of employment have policies or criteria about exposed body art along with facial piercings in order for their employees to project an image of what the company feels it stands for. Dress codes are also put in place in order to keep personal dress from interrupting professional duties. In the Fargo VA Healthcare System, for example, women’s jewelry and body piercings are allowed as long do not interfere with work performance and are considered appropriate (email communication, September 2015). Examples of things considered inappropriate in this establishment include numerous ear piercings, facial piercings, extremes of hairstyle/color, and tattoos that promote extremist views, violence, racism, or sexually explicit material. While it is commonplace for many organizations to have some degree of dress code policy, some are more liberal and allow their employees to be more expressive. People are faced with the choice of whether or not to be expressive; should they have exposed tattoos or dramatic hair and piercings, or is this considered deviant? At what point could self-expression interfere with the professional duties required in the healthcare field? As the trend of individualization grows, the way people perceive this change has not been closely studied.

\(^1\)
Appearance and Professionalism

In the professional world, especially in the healthcare field, it is important to gain each patient’s confidence and trust with the first attempt and it usually begins the instant the professional walks into the patient’s room. Appearances are the first thing people see and often times the first impression is a lasting impression. In a study observing patient professionalism in dentistry, over half of the patients in the study agreed their first impressions of a dental student greatly affected their confidence levels in his or her abilities, with 80 percent agreeing that appearance/attire affected their feelings about the care they would receive in the future.² Our culture is becoming more and more expressive; “About three in ten Americans (29%) have at least one tattoo, up from roughly two in ten (21%) just four years ago. What’s more, few inked Americans stop at one; among those with any tattoos, seven in ten (69%) have two or more.”³ This same source reported that about half of Millennials and over a third of Gen Xers report having at least one.³ While only 13% of Baby Boomers and 10% of Matures report having tattoos. Many of these individuals with tattoos try covering their tattoos when job hunting. Fox News has reported that it is about catering to your clientele, so if tattoos are more accepted or piercings are flavorful, then it is more accepted; however, it is about making sure the environment and setting is appropriate.⁴

Although many individuals may say they have no preference about the appearance of their healthcare provider, they may still develop perceptions of them that could affect the provider/patient relationship. A study by Cha et al⁵ revealed that the majority of patients thought appearance would not have an impact on their comfort level and had no preference if their physician wore a white coat. Despite this, the study respondents had lower levels of perceived competence toward professionals with casual dress and had the highest levels of perceived
competence with those wearing a white coat and scrubs. Dressing the part, being confident, and knowing who you will be serving/encountering is important when making a first impression and displaying professionalism. As the tattoo trend and other expressive measures rise, the question of whether or not this is viewed as “unprofessional” remains. More physical therapists have body art and facial piercings, so it is important to seek more information about patient preference and level of confidence based on appearance.

According to the American Psychological Association (APA), there are no second chances for a first impression. The APA highlighted six tips for making a good first impression and, of the six, there was one that included knowing your audience as well as dressing neatly.

As found in an article written by Thomas et al., solid scrubs were found to be preferred over a printed scrub top and was thought to show great skill and professionalism.

Perception and Policy Across Multiple Professions

Every employer has a right to have a policy regarding appropriate attire and body art exposure, and according to Title VII of the Civil Rights Act of 1964 “an employer may require all workers to follow a uniform dress code even if the dress code conflicts with some workers’ ethnic beliefs or practices.

However, if the dress code conflicts with religious practices, the employer must modify the dress code unless doing so would result in undue hardship.” There are policies in the workplace depending on facility. Each type of job has different expectations as far as appropriateness and other factors such as avoiding spread of disease or infection. The Society for Human Resource Management writes that employers who prohibit all tattoos and piercings may run into issues. Although employers have the right to prohibit visible tattoos which are demeaning or feature profanity or do not promote/enhance a safe and productive workplace, they must make sure their
profanity or do not promote/enhance a safe and productive workplace, they must make sure their policies are addressing safety concerns, e.g. not allowing certain piercings around machinery. Policies can differ across professions, but also vary among hospitals. In Dowart’s study regarding policy with nurses and body art considered policies from 13 different hospitals. Policies varied regarding tattoo and piercing exposure and there was a lack of rationale and references regarding each policy. This article made recommendations for policies which included: apply dress codes uniformly, address violations consistently, and clearly specify acceptable standards. A study by Nair et al found formal attire was correlated with higher patient trust. The researchers proposed a number needed to dress (NND) in which a minimum threshold of 2 items of formal attire (dress pants, dress shirt, tie, or white coat) were needed to instill a reasonable amount of confidence in a physician.

**Tattoos and Piercings**

Tattoos and piercings can be a unique way of demonstrating individuality and can often easily be hidden or disguised. When tattoos are exposed or piercings are visible however, people may potentially make preconceived notions about character. According to Dorwart et al, “as body art has evolved to become a mainstream practice, the perception of this form of self-expression has been slow to change within some generations and some professions.” Forty percent of employers surveyed in a study in Australia, said they would be influenced by the presence of a visible tattoo. This is just one employer, but it is likely that many other employees also look at body art as either an essence or a hindrance. Attitudes towards people with tattoos, regardless of the group or profession they represent, are generally very consistent. As written by Stuppy et al, “Less than 30% of employers from the beauty, hospitality, office and retail sectors of business would employ a person with a tattoo and over 40% of those surveyed would
audience and the specific policies in place at the facility of employment. Laumann and Derick\textsuperscript{12} conducted a study on tattoos and piercings in the United States, and it was reported that 22 percent of the individuals in the study (who had piercings) felt they were treated differently than their peers because of their piercings while at work along with 14 percent reporting they were treated differently in social situations. A study by Newman et al\textsuperscript{13} examined healthcare recipient and medical school faculty’s attitudes, perceived competency, and trustworthiness toward physicians with facial piercings. Study participants were shown images of models with nontraditional piercings and asked to gauge appropriateness. Results of the study showed nose and lip piercings were found appropriate by 24 and 22 percent of participants, with negative competency and trustworthiness associated. Male ear piercing was appropriate to 20 percent of faculty and would bother 25 percent. Nose and eyebrow piercings were appropriate to only 7 and 5 percent of med faculty and would bother 58 and 59 percent of them. Nose rings were also found to have a negative effect on patient trust and confidence of physicians in a study by Nair.\textsuperscript{10} Nontraditional piercings were generally found to be inappropriate and would affect perceived competence and trustworthiness. Healthcare providers should be aware of this and that it may negatively affect a patient’s or a co-worker’s opinion of their abilities or confidence.

A Hawaii based study investigating patient and parent confidence in pediatric physicians with piercings and tattoos carried out by Johnson, Doi, and Yamamoto\textsuperscript{14} found physicians with tattoos had lower confidence ratings than non-tattooed physicians, greater degrees of discomfort towards physicians with facial piercings, and all demographics surveyed had lower confidence ratings of those healthcare practitioners with tattoos or piercings. Piercings can be tasteful and appealing to some, but they are something that draws attention whether it be positive or negative. Having piercings is a personal choice, and it is also a business owner’s personal choice as to
negative. Having piercings is a personal choice, and it is also a business owner’s personal choice as to whether they are willing to hire an employee with piercings. Dowart\(^9\) conducted a study which gave individuals a survey regarding piercings and tattoos which found that after viewing the photographs on the survey, the respondents reported that the individuals who had piercings were viewed as having issues related to credibility and hiring appeal. In the healthcare field this can be a health or safety concern, referring to infection and spreading of diseases.

**Hairstyles, facial hair and makeup**

According to Takeda et al.\(^{15} p.90\) “Hair is perhaps the most powerful symbol of individual and group identity - powerful first because it is physical and therefore extremely personal and second because, although personal, it is also public.” In this same article, the hair color bias was examined among Chief Executive Officers (CEOs) in the United Kingdom. It was found that blondes, who are thought to be less competent but more likable, are underrepresented in upper management while redheads, who are thought to be more competent and less likeable, are overrepresented. It is suggested that this hair color bias be addressed and people should be made more aware to eliminate hair color discrimination and stereotypes. This type of research is limited in the healthcare profession, but this study will aid in providing better understanding of preferred hairstyles along with like or dislike of dramatic hair color change using the provided survey. Hairstyle has also been found to have impacts on professionalism, dominancy, and agency. A 2015 series of studies by Opie and Phillips\(^{16}\) found that when comparing black women with Eurocentric hair to Afrocentric, study participants thought those with Afrocentric hair of dreadlocks or afros were more dominant and less professional, especially among the demographic of Black evaluators. The authors describe a “tightrope” that black women may need to cross between the hairstyle of their own choosing or adopting a more Eurocentric
Perception Changes Over Time

Tattoos have not always been as widely accepted and people have not always been as open to showing off their tattoos as they are now. The results of a 2008 study show that tattoos hinder interpersonal perceptions. The same study provided experimental evidence that, in certain circumstances, obtaining a tattoo may lead to one being judged less positively than would be the case without a tattoo.\(^{17}\) There was also a study by Timming and Perrett\(^{18}\) that investigated the level of trust that is portrayed by differing tattoos. This particular study indicated that a cross tattoo seemed to have a more positive perception for people and reported to give the sense of being more trustworthy. There seems to be an idea that tattoos are more widely accepted in society, but in the workforce tattoos are still hit or miss.

Perception Differences Among Age, Culture, and Religion

Age, culture, and religion are all factors that can potentially influence a patient’s feelings toward a provider based on his or her appearance. Age is considered to be influential on whether an individual considers tattoos appropriate or not. Older populations generally have a negative outlook on tattoos, whereas younger populations are typically more accepting to body art.\(^{19}\) An Israeli study examining patient preference of a healthcare professional’s dress code found that while Israelis born in North Africa preferred a doctor in a white coat more than those born in Eastern Europe while Native Israelis least preferred a white coat. The preference of the more traditionally professional dress of a white coat also increase with age among the study participants, ranging from 50 percent preference it in those age 19-30 to 78 percent preference in those above age 50. This study found no different preference based on religion.\(^{19}\)
*Purpose*

There is a lack of knowledge in the healthcare system, especially physical therapy, regarding patient preference based on a variety of body art forms along with dramatic hair and makeup, this study will aid in the gathering of patient data based on their survey responses. The purpose of this study was to investigate patients’ perception of healthcare professionals, specifically physical therapists, with body art, facial piercings, unusual hairstyles, and unnatural makeup.
CHAPTER 2

METHODS

Study Design

The survey was completed within four physical therapy setting types in the local area, including: hospital, home health, outpatient clinic, and rehab hospital. The study was approved by the Institutional Review Boards at the University of North Dakota and Altru Health Systems. See IRB found in Appendix A.

Participants

The survey was sent to each of the areas of physical therapy in a Midwest community where it was then given to patients either by physical therapists or student physical therapists. Participation in the study was voluntary and completion of the survey indicated informed consent. Inclusion criteria for the study included currently receiving physical therapy care in one of the four physical therapy settings and deemed cognitively appropriate by the treating physical therapist administering the survey.

Survey Design

The survey given to study participants was created by physical therapy faculty at the University of Tennessee - Chattanooga and the University of North Dakota. The survey displayed six images of a male and six of a female. The headshots of the models displayed them wearing identical black polos to keep from distracting from the other attributes of the images. The first image for each set acted as a control. In each following image, one aspect of the individual’s physical appearance was changed, including hairstyle, piercings, tattoos, facial hair on men, and jewelry on women. Along with each image set, a 4 point Likert scale was used to determine
confidence in each model as a physical therapist with 4 representing very confident and 1 representing no confidence. A second 4 point Likert scale was used to assess comfort of the patient with letting the model come into the patient’s home to administer home health physical therapy with 4 representing very comfortable and 1 representing uncomfortable.

Following these questions, the patient was asked to choose one male and one female model they would most prefer and on male and one female model they would least prefer to be their physical therapist. A copy of the survey can be found in Appendix B.

Procedure

Physical therapists and student physical therapists administered a survey to assess patient preference in the professional image for physical therapists in order to evoke confidence. These surveys were given to participants in a variety of healthcare settings including hospital, home health, outpatient clinic, and rehab hospital. In total, 133 individuals completed the survey. For the purposes of the study, demographic data was collected regarding respondent gender, race, age, city/state, education level, previous experience with physical therapy, primary payor of services, and several traits of personal appearance.

Data Analysis

Data was collected through paper surveys in all locations. All data points were entered into an Excel spreadsheet and then was input into SPSS version 21. Traditional descriptive (frequencies and percentages) and inferential statistics (Chi-square) were run. The alpha level was set at .05 for all inferential statistics.
CHAPTER 3
Results and Discussion

Research Questions

The purpose of this study was to determine the level of confidence and comfortability patients have with therapists based on their physical appearance. Due to the multiple demographic pieces to the survey, the researchers chose to focus on the following questions:

- Does age influence confidence and/or comfortability?
- Does gender influence confidence and/or comfortability?
- What physical adornments are more accepted?
- Does education level influence confidence?
- If someone is confident in a certain therapist are they necessarily comfortable with them?

The analysis of the questions is reported below along with a comparison to the results of research presented in our literature review.

Based on the collected data, out of 132 respondents, the mean age was 67.96. The minimum age was 20, the maximum age was 98, and the data was normally distributed with a standard deviation of 15.186.

For our sample population 43.6% of respondents were male and 56.4% were female. When comparing difference of men versus women in how they responded to the survey, there were no statistically significant differences in their responses. As such, the groups were included together for statistical analysis.

Regarding race of respondents, 91% of the group identified as Caucasian, 1.5% as African
American, 2.3% as Hispanic, 1.5% as Asian/Pacific Islander, and 2.3% as other. All of the respondents who chose “other” identified as Native American. For education, 9.8% of respondents’ highest level of education was less than high school, 52.6% was high school, 25.6% was a bachelor’s degree, and 12% was a graduate degree. The majority of physical therapy setting type was hospital with 37.6% of the total sample and outpatient clinic with 36.8%. Other settings were home health with 16.5% and rehab hospital with 9%.

Table 1: Percentage of Respondents that Reported Having Each Physical Adornment.

<table>
<thead>
<tr>
<th>Respondent Adornments</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Hair</td>
<td>9%</td>
</tr>
<tr>
<td>Pierced Ears</td>
<td>36.8%</td>
</tr>
<tr>
<td>Facial Piercings</td>
<td>1.5%</td>
</tr>
<tr>
<td>Facial Hair</td>
<td>15%</td>
</tr>
<tr>
<td>Tattoos</td>
<td>11.3%</td>
</tr>
<tr>
<td>Unnatural Hair Color</td>
<td>11.3%</td>
</tr>
</tbody>
</table>
Table 2: Correlation Between Respondent Confidence or Comfort in Each Photo and the Highest Level of Education or Degree Received

| Highest Edu/Degree | Confidence in Male A | | | Confidence in Female A | | | Confidence in Male B | | | Confidence in Female B | | | Confidence in Male C | | | Confidence in Female C | | | Confidence in Male D | | | Confidence in Female D | | | Confidence in Male E | | | Confidence in Female E | | | Confidence in Male F | | | Confidence in Female F |
|-------------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                   | Spearman’s Rho      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
|                   | Confidence in Male A | Correlation Coefficient 0.079 | Sig. (2-tailed) 0.371 | N 132 |
|                   | Confidence in Male B | Correlation Coefficient 0.101 | Sig. (2-tailed) 0.249 | N 132 |
|                   | Confidence in Male C | Correlation Coefficient 0.021 | Sig. (2-tailed) 0.813 | N 130 |
|                   | Confidence in Male D | Correlation Coefficient 0.020 | Sig. (2-tailed) 0.816 | N 132 |
|                   | Confidence in Male E | Correlation Coefficient 0.025 | Sig. (2-tailed) 0.731 | N 131 |
|                   | Confidence in Male F | Correlation Coefficient 0.110 | Sig. (2-tailed) 0.211 | N 130 |
|                   | Comfortable with Male A | Correlation Coefficient -0.012 | Sig. (2-tailed) 0.891 | N 130 |
|                   | Comfortable with Male B | Correlation Coefficient 0.177 | Sig. (2-tailed) 0.045 | N 129 |
|                   | Comfortable with Male C | Correlation Coefficient 0.181 | Sig. (2-tailed) 0.041 | N 128 |
|                   | Comfortable with Male D | Correlation Coefficient 0.077 | Sig. (2-tailed) 0.383 | N 129 |
|                   | Comfortable with Male E | Correlation Coefficient 0.094 | Sig. (2-tailed) 0.291 | N 129 |
|                   | Comfortable with Male F | Correlation Coefficient 0.238 | Sig. (2-tailed) 0.007 | N 129 |
|                   | Confidence in Male A | Correlation Coefficient 0.036 | Sig. (2-tailed) 0.732 | N 132 |
|                   | Confidence in Male B | Correlation Coefficient 0.101 | Sig. (2-tailed) 0.246 | N 131 |
|                   | Confidence in Male C | Correlation Coefficient 0.007 | Sig. (2-tailed) 0.937 | N 130 |
|                   | Confidence in Male D | Correlation Coefficient 0.011 | Sig. (2-tailed) 0.901 | N 130 |
|                   | Confidence in Male E | Correlation Coefficient 0.089 | Sig. (2-tailed) 0.312 | N 131 |
|                   | Confidence in Male F | Correlation Coefficient 0.091 | Sig. (2-talled) 0.303 | N 130 |
|                   | Comfortable with Male A | Correlation Coefficient -0.037 | Sig. (2-tailed) 0.971 | N 130 |
|                   | Comfortable with Male B | Correlation Coefficient 0.083 | Sig. (2-tailed) 0.351 | N 129 |
|                   | Comfortable with Male C | Correlation Coefficient 0.031 | Sig. (2-tailed) 0.730 | N 129 |
|                   | Comfortable with Male D | Correlation Coefficient 0.091 | Sig. (2-tailed) 0.301 | N 130 |
|                   | Comfortable with Male E | Correlation Coefficient 0.071 | Sig. (2-tailed) 0.422 | N 129 |
|                   | Comfortable with Male F | Correlation Coefficient 0.125 | Sig. (2-tailed) 0.158 | N 130 |
Table 3: Correlation and Comparison of Respondent’s Level Comfort and Comfortable in Each Photo

<table>
<thead>
<tr>
<th>Spearman’s Rho</th>
<th>Male A</th>
<th>Correlation Coefficient</th>
<th>0.752***</th>
<th>Sig. (2-tailed)</th>
<th>0.000</th>
<th>N</th>
<th>130</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female A</td>
<td>Correlation Coefficient</td>
<td>0.639**</td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>N</td>
<td>131</td>
</tr>
<tr>
<td>Male B</td>
<td>Correlation Coefficient</td>
<td>0.759**</td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>N</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>Male C</td>
<td>Correlation Coefficient</td>
<td>0.76**</td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>N</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>Male D</td>
<td>Correlation Coefficient</td>
<td>0.882**</td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>N</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>Male E</td>
<td>Correlation Coefficient</td>
<td>0.83***</td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>N</td>
<td>128</td>
<td></td>
</tr>
<tr>
<td>Male F</td>
<td>Correlation Coefficient</td>
<td>0.86**</td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>N</td>
<td>127</td>
<td></td>
</tr>
</tbody>
</table>

Photo Most Preferred as PT

Figure 1: Cluster bar graph depicting survey respondent’s most preferred photograph of male and female physical therapists. Favorite photo of each gender was Photo A, the image depicting a therapist without any additional adornments. Photo B of the female therapist with more makeup was also a preferred image.
Figure 2: Cluster bar graph depicting survey respondent’s least preferred photograph of male and female physical therapists. The least favorite photo of each gender was Photo C, the image depicting a therapist with facial piercings. The next highest were Female Photo E, the image depicting a therapist with additional jewelry and Male Photo F, the image depicting a therapist with longer hair.

Table 4: Chi-Squared Test Results

<table>
<thead>
<tr>
<th>Photo</th>
<th>N</th>
<th>x²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>132</td>
<td>1.543</td>
<td>.214</td>
</tr>
<tr>
<td>B</td>
<td>132</td>
<td>.120</td>
<td>.730</td>
</tr>
<tr>
<td>C</td>
<td>130</td>
<td>.018</td>
<td>.894</td>
</tr>
<tr>
<td>D</td>
<td>132</td>
<td>.136</td>
<td>.712</td>
</tr>
<tr>
<td>E</td>
<td>131</td>
<td>.554</td>
<td>.457</td>
</tr>
<tr>
<td>F</td>
<td>130</td>
<td>.059</td>
<td>.808</td>
</tr>
</tbody>
</table>

This table shows that there is no significant difference in confidence, on any given photo, between males and females. N=number of respondents
Discussion

In comparisons with previously conducted research and other supporting resources, our study is congruent with what has been found in the past. As seen above in Figure 1, most individuals who completed the survey prefer a clean shaven face on a male, and a woman with natural hair color and minimal make-up. Facial piercings on either gender, additional jewelry on females, and longer hair on males were the least favored among patients as seen in Figure 2. The findings of the study could potentially be skewed because of the midwestern sample population, lack of ethnic diversity with 91% of the group being caucasian, and population age with the average age of respondents being around 67 years old. With this being said, we feel it is important for patients to be confident and comfortable with their therapist, so it would be reasonable for employers to have dress codes and visible adornment/tattoo restrictions.

The correlation between respondent confidence or comfort in each photo and the highest level of education or degree received was investigated in Table 3. Three statistically significant data points were found in this area between level of comfort and highest education received with Male B (n=129, r_s=0.177, p=0.045, R^2=3.13), Male C (n=128, r_s=0.181, p=0.041, R^2=3.28), and Male F (n=129, r_s=0.238, p=0.007, R^2=5.66) which were the images of a male therapist with facial hair, the therapist with facial piercings, and the male with longer hair. As it is common to meet and engage with a wider variety of people outside of your own demographic in academia, it could be postulated that exposure to others in this capacity in education could correlate with a higher comfort with them.

As indicated above in Table 3, there was a strong correlation between respondent’s level of comfort and confidence for the same photo with p ≤ .05 for each data point. This information was expected initially, as we felt higher levels of confidence would likely lead to
higher levels of comfort and vice versa. This does not indicate causation in either direction, but it is important to note the positive correlation between confidence and comfort.

Several patients reported that they would have to get to know the therapist before really determining their confidence in their clinical skill as a professional and that they try not to let initial impressions affect their impression of an individual. Three patients also went against the directions of the study to circle each photograph as their favorite, stating that they didn’t think physical appearance would affect their view of the therapists.

Limitations

Throughout the research, several limitations were apparent. The survey, the process of obtaining data, the small data set, and the area the survey was conducted all provided limitations to the study.

Several limitations were found based on the survey itself. Some respondents felt that because the control image was furthest to the left, they felt that they were expected to rank it higher compared to the non-traditional images. A way to correct this could be randomization of order. A potential bias that was not discussed was if a respondent preferred their therapist to be male or female. Some completed surveys seemed to be more critical of non-traditional looks in one gender compared to another and a distinctive preference of one gender over another as a provider could explain this. Out of the respondents that reported having a tattoo, many of them stated that it was in an area that was easily hidden. As the images with tattoos featured a non-hidden tattoo on the neck, a demographic question should have been asked if respondent tattoos were hidden or not. Unnatural hair color should have been clarified in the demographic section as well. In relation to the images, unnatural hair color would be a dyed color that is outside the realm of normal hair color for humans such as blue or purple. The
term unnatural hair color could also include any altered hair color, including gray coverage. As it was written in the demographic section, it is left up to the interpretation of the respondent. The education section on the demographics page could have been expanded more to fit a wider range of possibilities, such as an associate’s degree or trade school. These could have been added as options or an “other” choice could have been added. Many respondents also had difficulty following the flow of the survey. Revisions to the way the survey was presented would be beneficial such as having the Likert scale directly next to each image they were scoring.

Prior to conducting the survey, there was a specific procedure that we had to go through in order to have the survey filled out within the facility. This process took time and there were difficulties with obtaining clearance within the long term care facility which lead to a reduction in the amount of surveys we were able to acquire. There were also challenges when completing the fifty surveys at the acute care hospital setting because of patient’s level of awareness and/or appropriateness for the study. Because of the challenges encountered, the surveys were read to each patient for clarification and in order to speed up the process. In the home health and inpatient rehab setting, it was difficult to reach 50 surveys because of the smaller population and amount of clients seeking home health therapy. If given more time, it may have been possible to receive the projected amount of surveys, but with a time constraint, only 132 out of 250 were filled out.

Based on the location of study, there were not a lot of statistically significant differences among respondents. Most of the people who completed the survey were from no more than 90 miles away, making it difficult to determine whether there lack in statistical
significance is due to area of study. Future research should explore multiple areas of the country in order to explore location differences along with examination of whether or not preferences change among generations. Also 70% of our sample population was over the age of 60, making it difficult to compare the differences between younger and older generations.
CHAPTER IV

CONCLUSION

Based on the gathered information, the majority of patients that participated in our study prefer physical therapist with minimal adornments, clean shaven face, and minimal make-up with natural colored hair. Since there were no statistically significant differences between males and females based on their reporting, we can conclude that men and women in the location of the study did not differ in confidence/comfortability. When an individual reported confidence in a specific picture they also indicated that they would be comfortable receiving home health therapy with the indicated photo. This data concludes that confidence in a therapist is correlated with being comfortable with them. If an individual was unconfident in a specific photo, they would also, likely be uncomfortable with them in their home. We can assume that employers have dress codes and policies regarding tattoos and piercings because of not only health concerns but also for safety and patient comfortability and trust. Our study indicates that individuals who have higher education reported being more confident and comfortable with the photos overall.

Our study utilized a sample of convenience, therefore our results are not conclusive of all regions/locations and further studies should be done in order to detect the significance of appearance of therapist on patient confidence and comfortability.
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doi:10.1016/j.jretconser.2015.11.005
University of North Dakota Exempt Certification Form – JANUARY 2015 VERSION

Research Involving the Use of Survey, Interview, Observational Procedures or Educational Tests

Complete this form if you are requesting permission to use survey, interview, or observational procedures, or educational tests.

All research with human participants conducted by faculty, staff, and students associated with the University of North Dakota, must be reviewed and approved as prescribed by the University’s policies and procedures governing the use of human subjects. No activities are to be initiated without prior review and approval by the Institutional Review Board.

Please answer the following questions regarding your research. Handwritten forms are not accepted – responses must be typed.

1. Are prisoners included in the research? □ Yes ☒ No
If you answered “Yes” to the above question, this research does not qualify as exempt. Please fill out and submit a “Human Subjects Review Form”. If you answered “No”, continue to question 2a.

2a. Are children included in the research? □ Yes ☒ No
If you answered “No” to the above question, please skip question 2b and continue to question 3. If you answered “Yes”, continue to question 2b.

2b. Does the research include survey or interview procedures? Does the research involve the observation of public behavior with researcher interaction with the subjects? □ Yes □ No
If you answered “Yes” to questions 2a and 2b, this research does not qualify as exempt. Please fill out and submit a “Human Subjects Review Form”. If you answered “No”, continue to question 3.

3a. Will the data be documented in such a manner that subjects cannot be identified, either directly or through identifiers linked to the subjects (subject name, social security number, birth date, coding, etc.)? ☒ Yes □ No
If you answered “Yes” to the above question, please skip question 3b and continue with the rest of the form. If you answered “No”, continue to question 3b.

3b. Will the disclosure of the subjects’ responses outside of the research reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects’ financial standing, employability, or reputation? □ Yes □ No
If you answered “Yes” to the above question, this research does not qualify as exempt. Please fill out and submit a “Human Subjects Review Form”.

4. Will the research involve the use of audio, video, digital or image recordings of subjects? □ Yes ☒ No
If you answered “Yes” to the above question, this research does not qualify as exempt. Please fill out and submit a “Human Subjects Review Form”. If you answered “No”, provide the information requested below:

Principal Investigator: Cindy Flom-Meland
Telephone: 777-4130 E-mail Address: cindy.flom.meland@med.und.edu
Complete Mailing Address: 501 North Columbia Road, stop 9037, Dept of PT rm 1510
School/College: SMHS Department: Physical Therapy

Student Advisor (if applicable):
Telephone: Address or Box #:
School/College: Department:

*** All IRB applications must include a Key Personnel Listing

Project Title: Physical Therapist Professional Appearance - from the Patients’ Perspective
Proposed Research Beginning Date: June 2016

Exempt research will be approved for 3 years from the original approval date.

Funding agencies supporting this research: NA

(A copy of the funding proposal for each agency identified above MUST be attached to this proposal when submitted.)

Does any researcher associated with this project have a financial interest in the results of this project? If yes, submit on a separate piece of paper an additional explanation of the financial interest. The Principal Investigator and any researcher associated with this project should have a Financial Interests Disclosure Document on file with their department.

☐ YES or ☒ NO

Will any research participants be obtained from another organization outside the University of North Dakota (e.g., hospitals, schools, public agencies, American Indian tribes/reservations)?

☑ YES or ☒ NO

Will any data be collected or obtained from another organization outside the University of North Dakota?

If yes to either of the previous two questions, list all institutions:

<table>
<thead>
<tr>
<th>University of TN - Chattanooga</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altru Health System</td>
</tr>
</tbody>
</table>

Letters from each organization must accompany this proposal. Each letter must illustrate that the organization understands its involvement and agrees to participate in the study. Letters must include the name and title of the individual signing the letter and should be signed on organizational letterhead.

Does any external site where the research will be conducted have its own IRB? ☒ YES or _____ NO

If yes, does the external site plan to rely on UND’s IRB for approval of this study? ☒ YES or _____ NO

(If yes, contact the UND IRB at 701 777-4279 for additional requirements)

If your project has been or will be submitted to other IRBs, list those Boards below, along with the status of each proposal.

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<tr>
<th>University of TN - Chattanooga</th>
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<th>Status: ☒ Approved ☐ Pending</th>
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<td>Date submitted: 5/26/16</td>
<td>Status: ☒ Approved ☒ Pending</td>
</tr>
</tbody>
</table>

(include the name and address of the IRB, a contact person at the IRB, and a phone number for that person)

Type of Project: Check “Yes” or “No” for each of the following.

☑ YES or ☒ NO New Project ☐ YES or ☒ NO Dissertation/Thesis/Independent Study

☐ YES or ☒ NO Continuation/Renewal ☒ YES or ☒ NO Student Research Project

☐ YES or ☒ NO Is this a Protocol Change for previously approved project? If yes, submit a signed Protocol Change Form, along with a signed copy of this form with the changes bolded or highlighted.

Please provide additional information regarding your research by responding to questions 5-11 on a separate sheet of paper.

5. In non-technical language, describe the purpose of the study and state the rationale for this research.

6. In non-technical language, describe the study procedures. How will subjects be informed of the research? If you will be having subjects sign a consent form, justify why. How will instrument(s) be distributed-collected? Will compensation be provided? What is the suspected duration of subject participation? Etc.

7. Where will the research be conducted?

8. Describe what data will be recorded.

9. How will data be recorded and stored (that is will it be coded, anonymous, etc.)?

Note: Must state that data will be stored for a minimum of three years after data analysis is complete, or for a period of time sufficient to meet federal, state, and local regulations, sponsor requirements, and organizational policies and procedures.
10. Describe procedures you will implement to protect confidentiality of data collected from participants and privacy of participants when participating in research activities.

11. Describe the nature of the subject population and the estimated number of subjects.
   If participants who are likely to be vulnerable to coercion and undue influence are to be included in the research, define provisions to protect the privacy and interests of these participants and additional safeguards implemented to protect the rights and welfare of these participants.

12. Include a copy of the study information sheet to be given to participants (either in person or online, depending on the nature of the research) that discloses research information. A template is available under 'Exempt Certification Forms' on the IRB Forms page of the IRB website: http://und.edu/research/resources/human-subjects/forms.cfm

Necessary attachments:
- Signed Student Consent to Release of Educational Record Form (students and medical residents only);
- Investigator Letter of Assurance of Compliance;
- Key Personnel Listing;
- Surveys, interview questions, or educational tests;
- Printed web screens (if survey is over the Internet);
- Advertisements, including recruitment emails/letters and social network postings; and
- Informed consent statement.

NOTE: The UND IRB requires that all key personnel involved in the research complete human subject education before IRB approval to conduct research can be granted.

By signing this form, I certify that the above information is accurate and that this research will be conducted in accordance with the statements provided above; this research does not involve prisoners, but if a subject becomes a prisoner, I will notify the IRB.

(Principal Investigator) Date: 5-24-14

(Student Adviser) Date:

**All students and medical residents must list a faculty member as a student advisor on the first page of the application and must have that person sign the application.**

Submit the signed application form and any necessary attachments to the Institutional Review Board, 264 Centennial Drive Stop 7134, Grand Forks, ND 58202-7134; or bring it to Twamley Hall, Room 106.
5. In non-technical language, describe the purpose of the study and state the rationale for this research.

The purpose of this study is to examine patient perceptions of professional image of physical therapists.

Previous studies performed by Ingram et al. have investigated patients' and clinic directors' opinions about physical therapists attire, but these studies did not examine other aspects of professional appearance such as facial piercings, tattoos, facial hair, unusual hair color and styles, and dramatic make-up. The study based upon patient preference found that scrubs were deemed to be the most practical and were favored by the patients. Clinic directors at outpatient facilities preferred khakis and a polo whereas, inpatient directors preferred scrubs. This study seeks to further the research done by Ingram et al. to determine if patients have confidence in physical therapists who wish to express themselves in a physical manner.

Physical expressions of individuality have become more common in the general population including body art, piercings, and unusual hairstyles. Thus, there is a need to examine patients' confidence in healthcare professionals who wish to express themselves in this way. Few studies have been published regarding this topic. This study seeks to investigate patients' perception of healthcare professionals, specifically physical therapists, with body art, facial piercings, unusual hairstyles, and unnatural makeup.

People from a diversity of backgrounds, including varying ages, professions, and social classes are expressing themselves through body art. "Persons choosing tattooing or other forms of invasive body adornment are negatively stereotyped by many in the general public as being social deviants who are out of touch with, and undesirable to, the cultural mainstream." Similarly, Dorwart et al. stated, "as body art has evolved to become a mainstream practice, the perception of this form of self-expression has been slow to change within some generations and some professions." Age is considered to be influential on whether an individual considers tattoos appropriate or not. Older populations generally have a negative outlook on tattoos, whereas younger populations are typically more accepting to body art. A patient's overall perception of their healthcare provider is vital to the success of treatment, and thus must be considered in the realm of professional appearance.

With our culture seeing a popularity of visible piercings in both men and women, we are left wondering how this might be perceived in the field of physical therapy. Newman et al. examined the attitudes, perception of competency, and trustworthiness of patients and their visitors had of their physicians with visible piercings in an emergency department setting. The majority of those surveyed considered non-traditional piercings
to be inappropriate for a physician in the hospital setting. In addition, a study conducted by Nair et al found that patients' confidence was decreased most significantly in physicians with a nose ring. Less traditional facial piercings have not been widely accepted by the general population, therefore it could be implied that patient's confidence in healthcare providers could be negatively affected.

A limited amount of research is available on patient perceptions of unusual hair styles, facial hair and unnatural makeup in a clinical setting. A study performed by Menahem et al found that physicians with long hair were least preferred by patients. Additionally, females were more likely to determine a dentist's professionalism by their hairstyle, jewelry or makeup in a study performed by Brosky et al. A study conducted in the UK concluded that CEO's with blonde hair are underrepresented possibly due to negative stereotyping of blondes.

Tattoos, piercings, and other physical forms of individuality are becoming more commonplace in our society today as options for personal expression. Whether it is in general society or in the professional world, appearances always leave a lasting first impression about an individual.

References


6. In non-technical language, describe the study procedures.

Physical therapists and physical therapist students will administer a survey to assess patient preference in the professional image for physical therapists in order to evoke confidence. Respondents will complete a written survey (see attached document).
The subjects will include patients in five physical therapy setting types: hospital, skilled nursing facility, home health, outpatient clinic, and rehab hospital. Demographic information will be collected regarding respondent gender, race, age, city/state, payor, education, and previous history of physical therapy services. The survey will be administered to a sample of convenience which will include 250 volunteer subjects receiving physical therapy.

7. Where will the research be conducted?

The surveys will be completed within five physical therapy setting types in the Grand Forks area: hospital, skilled nursing facility, home health, outpatient clinic, and rehab hospital.

8. Describe what data will be recorded?

This study will utilize a survey instrument which was modified from the original version generated by Ingram et al. The original Ingram survey displayed six photos of one male model and six photos of one female model each wearing six differing clothing styles. Hairstyle, physical appearance, facial expressions, and jewelry were the same in each picture. Therefore, the style of clothing was the only altered factor in each picture.

In this proposed study, clothing style stayed the same in each of the six photos for men and women. The photos varied based on physical appearance and accessories worn, while wearing the same black polo shirt in each photo. The photos, taken by the authors, were headshots so the focus was on hairstyle, body art, and jewelry in order to avoid being distracted by the clothing worn by the models.

The photos are displayed in Figure 1 and Figure 2 for men and women, respectively. The first photo for each gender presents a control, with the remainder of the photos exhibiting different personal choices of expression. In comparison to photo 1 which was the control, only one factor was changed within pictures 2-6, with those alterations including: visible tattoos, piercings, make-up, hairstyle, facial hair (men), and jewelry (women). Along with each photo is a question addressing the patient's confidence in the model as a physical therapist. A 4 point Likert scale was utilized to determine levels of confidence with 4 representing very confident and 1 representing no confidence.

Another question addresses the patient's comfort level with allowing the model to come into the patient’s home for home health physical therapy. A 4 point Likert scale was utilized to determine levels of comfort with 4 representing very comfortable and 1 representing uncomfortable. At the conclusion of the survey, the patient was asked to choose one male and one female model they would most prefer and one male and one female model they would least prefer to be their physical therapist.
To establish validity and reliability of the instrument, the survey instrument was electronically sent to a panel of experts who recently presented on this subject at a national meeting of the American Physical Therapy Association. The panel included four professors, a consultant/business owner, a PT student, and a clinician. Survey modifications were made based on the received feedback from the panel of experts. In addition to the professional feedback, the survey was administered to three volunteer clients who have previously received physical therapy. Their ages ranged from 62 to 64 years (2 males and 1 female; 2 Caucasian and 1 African American).

9. How will data be recorded and stored?

Participants will complete the written survey (hard copy). Individual identifications will not be requested or recorded.

The surveys and data will be stored in a locked file cabinet within the Department of Physical Therapy for a minimum of 3 years after the study is complete. Only faculty and students conducting the research will have access to the survey and data.

10. Describe procedures you will implement to protect confidentiality of data collected from participants and privacy of participant when participating in research activities.

Completion of the survey implies Informed Consent. The survey will NOT request identifying information. The respondent will NOT be providing a name, birth date, SSN, or any other identifying information. All data files and statistical analyses will be stored in a locked file cabinet and a password protected computer respectively. All results will be reported in aggregate.

11. Describe the nature of the subject population and the estimated number of subjects.

The study population will consist of a total of 250 patients from a variety of clinical settings to include outpatient clinics, skilled nursing facilities, hospitals, rehab hospital, and home health.
INVESTIGATOR LETTER OF ASSURANCE OF COMPLIANCE
WITH ALL APPLICABLE FEDERAL REGULATIONS FOR THE
PROTECTION OF THE RIGHTS OF HUMAN SUBJECTS

1. Cindy Flom-Meland
   (Name of Investigator)

agree that, in conducting research under the approval of the University of North Dakota Institutional Review Board, I will fully comply and assume responsibility for the enforcement of compliance with all applicable federal regulations and University policies for the protection of the rights of human subjects engaged in research. Specific regulations include the Federal Common Rule for Protection of the Rights of Human Subjects 45 CFR 46. I will also assure compliance to the ethical principles set forth in the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research document, The Belmont Report.

I understand the University’s policies concerning research involving human subjects and agree to the following:

1. Should I wish to make changes in the approved protocol for this project, I will submit them for review PRIOR to initiating the changes. (A proposal may be changed without prior IRB approval where necessary to eliminate apparent immediate hazards to the subjects or others. However, the IRB must be notified in writing within 72 hours of any change, and IRB review is required at the next regularly scheduled meeting of the full IRB.)

2. If any problems involving human subjects occur, I will immediately notify the Chair of the IRB, or the IRB Coordinator.

3. I will cooperate with the UND IRB by submitting Research Project Review and Progress Reports in a timely manner.

I understand the failure to do so may result in the suspension or termination of proposed research and possible reporting to federal agencies.

Cindy Flom-Meland
Investigator Signature

5-24-14
Date

32
STUDENT RESEARCHERS: As of June 4, 1997 (based on the recommendation of UND Legal Counsel) the University of North Dakota IRB is unable to approve your project unless the following "Student Consent to Release of Educational Record" is signed and included with your IRB application.

STUDENT CONSENT TO RELEASE OF EDUCATIONAL RECORD

Pursuant to the Family Educational Rights and Privacy Act of 1974, I hereby consent to the Institutional Review Board's access to those portions of my educational record which involve research that I wish to conduct under the Board's auspices. I understand that the Board may need to review my study data based on a question from a participant or under a random audit. The title of the study to which this release pertains is ____________________________

Physical Therapist Professional Appearance - a Patient's Perspective

I understand that such information concerning my educational record will not be released except on the condition that the Institutional Review Board will not permit any other party to have access to such information without my written consent. I also understand that this policy will be explained to those persons requesting any educational information and that this release will be kept with the study documentation.

ID #       Printed Name
5777147    Brook Clements
Date       Signature of Student Researcher
5/26/96

1Consent required by 20 U.S.C. 1232g.
STUDENT RESEARCHERS: As of June 4, 1997 (based on the recommendation of UND Legal Counsel) the University of North Dakota IRB is unable to approve your project unless the following "Student Consent to Release of Educational Record" is signed and included with your IRB application.

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08879999
ID #

Kelsey DeCamp
Printed Name

5-25-16
Date

Kelsey DeCamp
Signature of Student Researcher

1 Consent required by 20 U.S.C. 1232g.
### UNIVERSITY OF NORTH DAKOTA
### INSTITUTIONAL REVIEW BOARD
### KEY PERSONNEL LISTING

<table>
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<th>Names of Research Personnel</th>
<th>Position (select from drop-down menu)</th>
<th>Highest Academic Degree</th>
<th>Licenses/Certifications <em>(if applicable)</em></th>
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<td>Flan-Meade</td>
<td>Faculty</td>
<td>PhD</td>
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<td>Brook</td>
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<td>3</td>
<td>Kelsey</td>
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<td>high school</td>
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* Attach proof of education in human subjects research for all non-UND personnel
Appendix B
Dear Participant,

We are conducting a study to determine patient preference regarding physical therapist professional image. Your participation is voluntary and completion of the survey indicates your informed consent. You may withdraw from the study at any time without penalty. The University of North Dakota and Altru Health System IRB Committees have approved this research. If you have any questions, please call Cindy Flom-Meland at 701-777-4130 or email at cindy.flom.meland@med.und.edu, UND IRB at 701-777-4279 or michelle.bowles@research.UND.edu and Altru Health System IRB at 701-780-6161.

Cindy Flom-Meland, PT, PhD, NCS, Associate Professor
Brook Clements, Student Physical Therapist
Kelsey DeCamp, Student Physical Therapist

**Participant General Information:** (Circle responses)

| Gender: | M or F |
| Race: | Caucasian | African American | Hispanic | Asian/Pacific Islander | Other: |
| Age: | | City, State: | |
| Highest Education/Degree Earned: | Less than High School | High School | Bachelor's Degree | Graduate Degree |
| Do you have any of the following: | long hair | pierced ears | facial piercings | facial hair | tattoos | unnatural hair color |
| Physical Therapy Setting Type: | Hospital | Nursing Home | Outpatient Clinic | Home Health | Rehab Hospital |
| Have you received physical therapy in the past? Yes or No |
| If yes, how many visits? | 1-5 | 6-10 | More than 10 |
| Primary Payor: | Medicare | Medicaid | Private Insurance | Self Pay | Other: |

Please read the following statement from the Guide to Physical Therapy Practice:

*Physical therapists provide services to patients who have impairments, functional limitations, disabilities, or changes in physical function and health status resulting from injury, disease, or other causes.*
Refer to photos A-F when answering the following questions; please circle your answer:

1. How confident would you be in this individual as a physical therapist?

<table>
<thead>
<tr>
<th>Photo</th>
<th>Very Confident</th>
<th>No Confidence</th>
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<tr>
<td>A</td>
<td>4</td>
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<tr>
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<tr>
<td>F</td>
<td>4</td>
<td>1</td>
</tr>
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</table>

2. How comfortable would you be allowing this individual into your home if you were receiving home health physical therapy?

<table>
<thead>
<tr>
<th>Photo</th>
<th>Very Comfortable</th>
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<tr>
<td>F</td>
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<td>1</td>
</tr>
</tbody>
</table>

Which individual would you MOST prefer to be your physical therapist? A B C D E F
Which individual would you LEAST prefer to be your physical therapist? A B C D E F
Refer to photos A-F when answering the following questions: please circle your answer.

1. How confident would you be in this individual as a physical therapist?

<table>
<thead>
<tr>
<th></th>
<th>Photo A</th>
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2. How comfortable would you be allowing this individual into your home if you were receiving home health physical therapy?

<table>
<thead>
<tr>
<th></th>
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Which individual would you MOST prefer to be your physical therapist? A B C D E F
Which individual would you LEAST prefer to be your physical therapist? A B C D E F