

## Preliminary Report

## Ageism and Health in Patients Undergoing Cosmetic Procedures

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## Abstract

**Background:** Ageism is a common form of prejudice that negatively affects the health of older adults. Anti-aging procedures are increasingly popular among patients seeking aesthetic surgery and minimally invasive treatments.

**Objectives:** This study aimed to identify the prevalence of age-based discrimination, and its relationship to health, among patients seeking cosmetic procedures.

**Methods:** Patients from a university-based, single-surgeon, aesthetic plastic surgery clinic completed the Everyday Discrimination Scale, which assesses the frequency with which individuals have experienced “microaggressions” and the main reason(s) for discrimination (including age). Participants also completed: measures of perceived age discrimination across interpersonal, romantic, work, and healthcare contexts and *anticipation of age-based discrimination in the future*; a single-item measure of self-rated health (rated 1–5); and the Rosenberg Self-Esteem Scale.

**Results:** Fifty patients consented to participate in the study (94% women, 78% white, mean age  $49.4 \pm 13.5$  years). More than 30% of participants reported age as the main reason for everyday discrimination. Participants who reported experiencing age-based discrimination, compared with those who did not, had worse self-rated health, lower self-esteem, and greater anticipated age-based discrimination. Participants most frequently endorsed experiencing age-based discrimination in an interpersonal context (36.0%) followed by work settings (20.0%).

**Conclusions:** A significant portion of patients seeking cosmetic procedures may experience age-based discrimination, which could negatively affect their health and well-being. Patients might benefit from expectation management about how their procedure may or may not address their concerns about age-based discrimination. More research is needed to determine whether cosmetic procedures help to mitigate discrimination in aging patients.

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Ageism—or prejudice against individuals due to age—negatively affects older adults,<sup>1,2</sup> particularly women.<sup>3–5</sup> For example, older adults may experience workplace discrimination or social rejection due to their aging appearance.<sup>1,4,6</sup> The stress of experiencing and/or anticipating age-based discrimination and rejection increases risk for psychological distress and physical health problems such as dysregulated cortisol levels and other chronic disease risk factors.<sup>1–3</sup>

Perhaps due to negative societal views about aging and its physical consequences (such as the appearance of aging skin and subcutaneous tissues),<sup>7–9</sup> a significant proportion of cosmetic surgery patients seek anti-aging procedures. In 2017, the American Society of Plastic Surgeons and American Society for Aesthetic Plastic Surgery reported

that eyelid surgery (which addresses the signs of aging eyes) was among the top 5 most common cosmetic surgical procedures.<sup>10,11</sup> Injectable treatments (eg, botulinum toxin type A), which have been largely developed to treat signs of aging, have increased by over 40% in the past 5 years<sup>11</sup> and by over 800% since 2000.<sup>10</sup> In addition, 84% of adults who undergo minimally invasive cosmetic

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procedures, and 81% of adults undergoing any cosmetic procedure, are ages 35 years and older,<sup>11</sup> suggesting that aging is a prominent factor in motivating patients to seek treatment. However, few studies have investigated experiences of ageism and their relationship to health among patients seeking these and other cosmetic procedures.

The current preliminary study explored the prevalence of age-based discrimination among patients undergoing cosmetic procedures and its relationship to health. We aimed to identify predictors of patients who experience age-based discrimination, as well as to examine the relationship between perceived age discrimination and self-rated health, self-esteem, and concerns about future instances of age-based discrimination. We hypothesized that a significant minority of patients would report experiences of age-based discrimination, and perceived age discrimination would be associated with greater anticipated age discrimination and poorer health and self-esteem.

## METHODS

Fifty patients from a single aesthetic plastic surgeon (I.P.) practicing within the University of Pennsylvania Health System were consented consecutively to complete a brief questionnaire during their clinic visit. Participants had to be age 18 years or older and attending a clinic visit to receive cosmetic treatment (surgical or minimally invasive). Data collection occurred from July 2017 through March 2018. This study was determined to be exempt by the institutional review board under category 2 (research using anonymous or no-risk tests, surveys, interviews, or observations), as guided by the ethical principles set forth in the Belmont Report and by the US Department of Health and Human Services regulations.

Participants completed: the 9-item Everyday Discrimination Scale assessing the frequency of “microaggressions” (eg, being treated with less respect than other people) and the main reason(s) for these experiences (eg, gender, age);<sup>12</sup> items adapted from prior research<sup>13</sup> assessing experiences (never, once in life, more than once, multiple times) and anticipation (rated 1 [not at all likely] to 7 [very likely]) of discrimination due to older age across interpersonal, romantic, workplace, and healthcare settings; a single-item measure of self-rated health commonly used in epidemiological research (rated 1-5, higher scores indicating poorer health); and the Rosenberg Self-Esteem Scale (10 items rated 1-4, higher summed scores indicate better self-esteem).<sup>14</sup> Participants also reported demographic information, what procedure they were undergoing, and rated (1-10) the importance of 9 potential reasons in their decision to undergo their procedure that day. A blank copy (Appendix A) of all survey items is available online as Supplementary Material at [www.aestheticsurgeryjournal.com](http://www.aestheticsurgeryjournal.com).

## Statistical Analyses

Descriptive statistics (mean scores and frequencies) were computed for all measures. Analyses of variance and logistic regression were used to test whether participants who did and did not report experiencing age-based discrimination differed in demographic characteristics. Linear regression was used to determine whether demographic characteristics predicted scores on the measure assessing anticipation of future instances of age-based discrimination. Analyses of variance and partial correlations were used to identify the relationships among perceived and anticipated age-based discrimination and self-rated health and self-esteem.

## RESULTS

Table 1 presents participant characteristics. The mean age of participants was  $49.4 \pm 13.5$  years (range, 23-71 years), and most patients were undergoing anti-aging treatments such as injectables, Botox, and fillers (66%). Other procedures included breast implants, brachioplasty, laser resurfacing, and labiaplasty, among others.

Of the 47 participants who completed the Everyday Discrimination Scale, 31.9% ( $n = 15$ ) reported that age was a main reason for everyday instances of discrimination. Among participants who reported age-based discrimination, the most frequent experiences were of being treated with less respect or courtesy than others (Figure 1). Participants who reported age discrimination did not differ from those who did not in age, gender, race, or any other demographic characteristic. Compared with participants who were married or living with a partner, participants who were not married/living with a partner had significantly greater anticipation of age-based discrimination ( $3.2 \pm 1.4$  vs  $2.0 \pm 1.3$  on 1-7 scale,  $P = 0.005$ ).

Participants who reported age-based discrimination, compared with those who did not, had significantly poorer self-rated health ( $2.1 \pm 0.5$  vs  $1.6 \pm 0.8$ ,  $P = 0.047$ ). These participants also had significantly lower self-esteem ( $31.4 \pm 4.6$  vs  $35.1 \pm 4.1$ ,  $P = 0.010$ ) and greater anticipation of age discrimination ( $3.2 \pm 1.3$  vs  $2.2 \pm 1.4$ ,  $P = 0.038$ ). In turn, greater anticipated discrimination (controlling for marital status) was also associated with lower self-esteem ( $r = -0.33$ ,  $P = 0.038$ ). Participants mostly endorsed experiencing age discrimination in an interpersonal context (eg, being ignored or mocked due to age; 36.0%), followed by work settings (20.0%) and romantic (16.0%) or healthcare settings (16%; Figure 2).

Figure 3 displays participants' mean ratings of reasons for undergoing their cosmetic procedure. “To conceal my age” was not highly rated ( $M = 4.4 \pm 3.4$ ), whereas

**Table 1.** Participant Characteristics

Characteristic	% (n) or mean $\pm$ standard deviation
Gender	
Female	94% (47/50)
Male	2% (1/50)
Race	
White	78% (39/50)
Black or African American	4% (2/50)
American Indian or Alaska Native	4% (2/50)
Multiracial	6% (3/50)
Hispanic and/or Latino/a	10% (5/50)
Age	49.4 $\pm$ 13.5 years (range, 23-71)
Sexual orientation	
Heterosexual	92% (46/50)
Gay	4% (2/50)
Geographic location	
Urban	18% (9/50)
Suburban	72% (36/50)
Rural	4% (2/50)
Married or living with a partner	62% (31/50)
4-year college education or more	68% (34/50)
Employed full or part-time	66% (33/50)
Annual household income $\geq$ \$100,000	62% (31/50)

Two consented participants had missing values for all items. Race categories not displayed (due to no participant endorsement) include Asian, Caribbean Islander, and Native Hawaiian/Pacific Islander.

looking younger and “as young as I feel” had average ratings of  $6.5 \pm 3.5$  and  $6.8 \pm 3.5$  out of 10, respectively.

## DISCUSSION

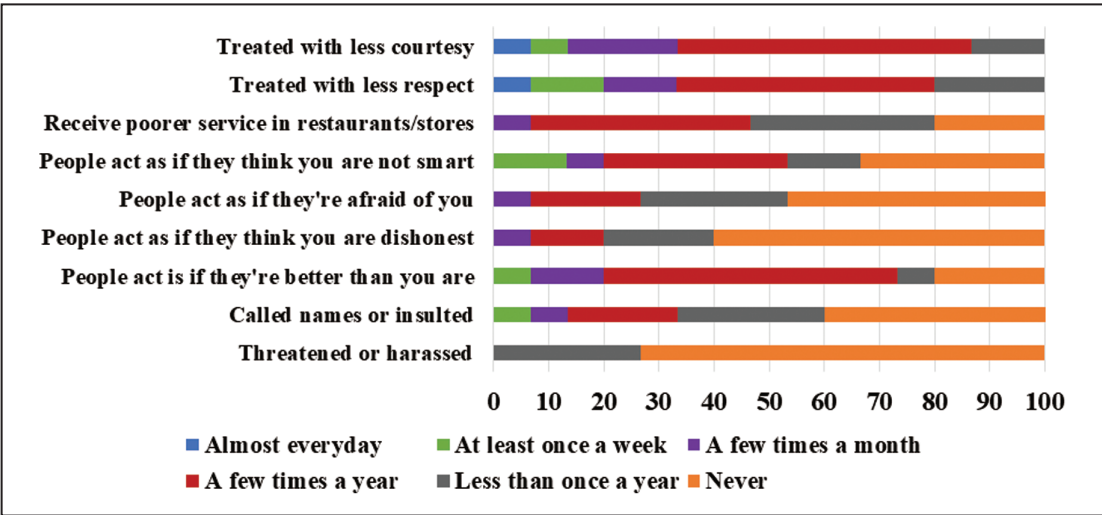
This study provides important preliminary data on the experiences and anticipation of age-based discrimination among patients undergoing cosmetic procedures. Our findings suggest that a substantial minority of patients undergoing cosmetic procedures experience age-based discrimination across a variety of social contexts. In particular, 36% of patients reported feeling excluded by friends/family/coworkers, being teased or mocked, or having negative assumptions made by others about them due to age. Twenty percent of patients also reported being fired or denied a job or promotion due to age. Future

research might compare rates of reported age-based discrimination in patients seeking anti-aging treatments to those of age-matched patients in primary care to determine whether perceived age discrimination is particularly heightened in patients seeking cosmetic treatments. Such elevated rates could suggest that experiences of age-based discrimination may contribute to patients’ motivation to appear younger via aesthetic surgery or minimally invasive treatments.

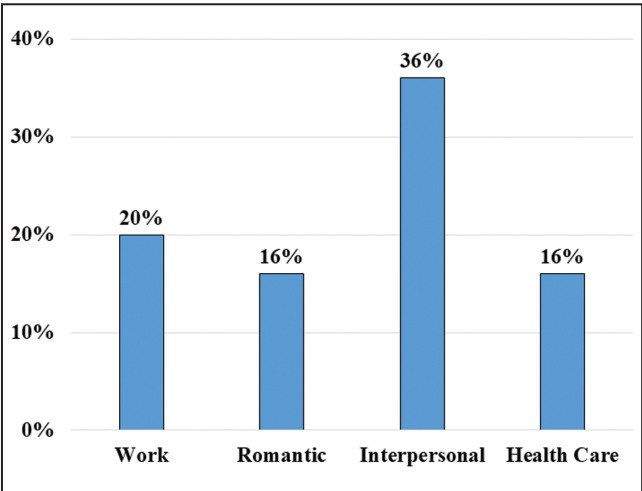
Consistent with prior research,<sup>1-3</sup> our findings also suggest that patients who perceive and anticipate future instances of age-based discrimination may be at risk for poorer mental and physical health. Patients who worry about future instances of discrimination due to their aging appearance may benefit from additional expectation management about how the procedure they are seeking may or may not address their concerns. Surgeons should consider referring patients for mental health consultation or counseling if they report significant distress about ageism.

“Looking younger” and “as young as I feel” were among the main reasons reported by patients for seeking their cosmetic procedure. The coping strategy of changing one’s appearance to match one’s subjective age may be adaptive, as prior research has suggested that dissociating with an “older identity” by identifying instead with a younger identity may have psychological and physical health benefits among aging adults.<sup>15,16</sup> Patients in the current sample did not strongly endorse “concealing my age” as a reason for seeking treatment, which may be a positive indicator of adjustment to aging. On the other hand, refusing to accept one’s age may come with negative consequences, such as neglecting to take appropriate steps to address aging health issues.<sup>17</sup> In addition, older adults who are perceived as attempting to conceal their age are evaluated negatively by younger individuals,<sup>2,18,19</sup> perhaps due to violating prescriptive norms for “acting one’s age.”<sup>20</sup> Thus, for some adults who receive anti-aging procedures, treatment could be counterproductive to the individual’s motivation of improving social perceptions if their treatment were to be known to others. More research is needed to understand how older adults’ use of anti-aging procedures, and the public’s knowledge of these procedures, may or may not affect experiences of age-based discrimination.

This study was novel in its quantitative assessment of concerns about ageism and the relationship to health in a sample of patients undergoing cosmetic procedures. Study limitations included a small sample size at a single plastic surgeon’s aesthetic surgery clinic, the lack of a control group to compare rates of perceived ageism, and reliance on retrospective self-report measures. We cannot know whether patients’ reports of age-based discrimination actually occurred or were merely “perceived,” although evidence of participant distress and poor health in relation



**Figure 1.** Percentage of participants endorsing items on the Everyday Discrimination Scale for age-based discrimination ( $n = 15$ ).

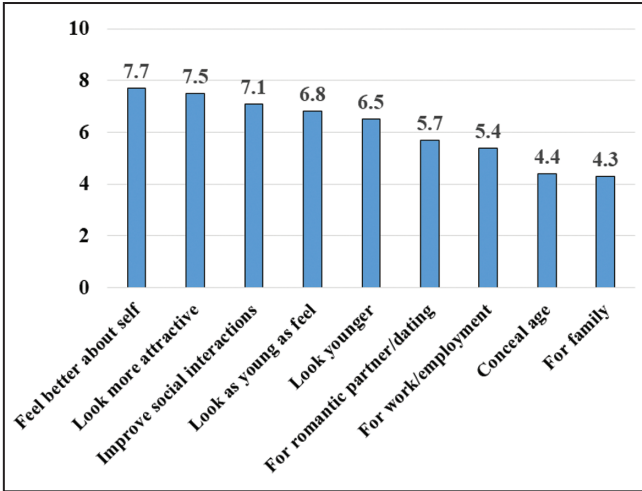


**Figure 2.** Percentage of participants endorsing domains of age-based discrimination.\* The Work domain includes being fired or denied a job or promotion due to age. The Romantic domain includes being rejected by a romantic partner or having trouble getting a date due to age. The Interpersonal domain includes feeling excluded by friends/family/coworkers, being teased or mocked, or having negative assumptions made by others about oneself due to age. The Healthcare domain includes receiving inappropriate comments from doctors due to age.

to these perceived and anticipated experiences warrant attention regardless of whether patient perceptions were accurate.

## CONCLUSIONS

A significant minority of patients seeking cosmetic treatment reported everyday instances of age-based



**Figure 3.** Participants' mean ratings of reasons for seeking cosmetic procedure.\* Items were rated from 1 (not at all important) to 10 (very important).

discrimination. Perceived age discrimination was associated with poorer self-rated health, lower self-esteem, and greater anticipation of age discrimination in the future. Patients reported seeking cosmetic treatment to look younger, but not to “conceal” their age. More research is required to understand the relationship between cosmetic procedures, particularly surgical and minimally invasive anti-aging procedures, and anticipated and perceived age-based discrimination in aging patients to optimize patient outcomes.

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## Disclosures

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