



Perceptions of Men's Height and Self-Objectification: Critical Social Perspectives Across Gender and Age Groups

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Abstract

Body image depends equally on how individuals perceive themselves and how society sees them. There is however a void of research about self-objectification and the impact of height on men's body image. Thus, this study examines the social perceptions of male body image and how they are impacted by men's height among sexes and age groups. In addition to an extensive literature review on related topics, a total of 364 usable surveys, including 173 women and 131 men of different ages, were collected as part of this study. Our findings support the extant literature stance that physical stature is an important criterion in the selection of male dating partners. More importantly, however, this study demonstrated that height becomes less significant in shaping male body perceptions if other physical attributes are considered. The study also revealed that women and young people are generally more concerned with body weight, physical attractiveness, and sex appeal than height. Lastly, the study found no statistically significant differences between genders (age groups) in terms of their perceptions of male physical attractiveness and level of income in relation to their height. The exception was the perception of men's dating advantage. Surprisingly, older participants were more concerned about physical stature than their younger counterparts. Lastly, the study reveals that the prejudice of "heightism" toward shorter men continues to exist and permeate modern day society.

Keywords Gender · Age · Physical stature · Self-objectification · Social perceptions · Heightism

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Introduction

The term body image has been defined in many ways by scholars. It has been described as a mental picture or representation of one's body that is linked to physiological, psychological, and social aspects (Schilder, 2014). These body images can be perceived positively or negatively depending on an individual's feelings, expectations, and social perceptions or external pressures from sociocultural norms. Thus, body image or physical appearance does not merely depend on how individuals see themselves in objectified terms but also on how other people view them. Research on men's body image has made significant progress over recent years. For example, a considerable amount of research has investigated the correlation between men's height and their success in political careers (McCann, 2001), professional leadership advancement (Murray & Schmitz, 2011), income level (Judge & Cable, 2004), health and fitness (Perelman, 2014), and reproductive advantages (Herpin, 2005). However, most of these studies were conducted in the USA and relied on non-dedicated aggregated data such as national censuses or historical datasets, to examine themes such as income inequality, national health, and presidential election outcomes in connection to human height (see Table 1). In contrast to these studies, our research employed a purpose-built cross-sectional survey to investigate how people perceive men's height and self-objectification through the demographic lenses of sex and age. The overarching objective of this study was to uncover the perceptual differences among individuals (men and women, young and old people) about men's height. As well, the study examined the internalization of social perceptions about men's height by male-identified individuals who exhibit a short physical stature.

Body image has been conceptualized as an individual's "collective attitudes, feelings, and fantasies" based on their bodies (Fisher, 1966). Body image has also been defined as "the internal, subjective representations of physical appearance and bodily experience" (pp. xi–xv) (Cash & Pruzinsky, 2002). Indeed, anecdotal evidence and empirical literature (Sindicich & Black, 2011; Sini, 2019) support the notion that physical attributes such as body shape and height are used to judge and determine the value of a person in many societies. Although many studies about men's body image have been undertaken over the last few decades, the topic of how height impacts social and self-body image has received relatively less attention. In contrast, the influence of weight, body shape, and apparel sizes on men's body image has been explored (albeit in a limited manner) in extant literature. With this gap in the literature, it would seem imperative and meaningful to further investigate male body image, in general, and how it is impacted by physical stature, in particular.

For its study, physical appearance can be categorized into static/stable features (e.g., height and foot size) and fluctuating/changeable features (e.g., hair-style and muscle mass). For male-identified individuals, height is an important static appearance feature. According to the extant literature and anecdotal experience, taller men tend to receive higher salaries, achieve greater dating success, possess a leadership advantage, and are perceived as more competent than their

Table 1 Prior research studies of the relationship between height and attractiveness, salary, or dating advantage

Author	Year	Country	Attractiveness	Salary	Dating advantage
Graziano et al	1978	USA	✓		✓
Feingold	1982	USA	✓		✓
Lynn and Shurgot	1984	USA			✓
Koestner and Wheeler	1988	USA			✓
Sheppard and Strathman	1989	USA	✓		✓
Frieze et al	1990	USA		✓	
Jackson and Ervin	1992	USA	✓		
Hensley	1994	USA			✓
Nettle	2002	UK			✓
Judge and Cable	2004	USA and UK		✓	
Herpin	2005	France		✓	
Salka et al	2008	USA	✓		
Meyer and Selmer	2009	Norway		✓	
Stulp et al	2013	USA	✓		
Yamamura et al	2015	China		✓	
Bogin et al	2017	169 countries		✓	
Griffiths et al	2017	Australia and New Zealand		✓	✓

not-so-tall counterparts. For example, studies conducted in France (Herpin, 2005) and the USA (Judge & Cable, 2004) found that shorter men receive lower salaries than equally skilled average height or tall colleagues. Other studies indicated that shorter men are perceived as less attractive (Jackson & Ervin, 1992), less competent (Blaker et al., 2013), and less intelligent (Case & Paxson, 2008) than their taller counterparts.

Indeed, height seems to serve as a heuristic indicator of a person's character and social value. Tall and muscular men are often perceived as or associated with good health and greater physical strength (Blaker et al., 2013). As Judge and Cable (2004) have pointed out "people expect a positive relationship between an entity's size and its value or benefit" (p. 429). For example, a larger apartment is generally perceived to be more expensive than a studio apartment in the same building, a bigger diamond is expected to be more valuable than a smaller one, or products with a longer lifespan are viewed as more favorable than similar products with a shorter lifespan. Based on the aforementioned, it would be reasonable to conclude that a similar relationship between a person's height and their perceived social value or benefit to society is at play.

Sex and Height Perceptions

As some researchers (Franko et al., 2015; Olivardia et al., 2004; Rusticus & Hubley, 2006) have pointed out in their studies, the body images of men and women are different constructs, to which different physical qualities correspond to different body ideals. In Western societies, the ideal of the tall man is prevalent and as a result, men are relatively more concerned with their height than women. In general, the thin ideal of beauty is often associated with women while the tall and muscular ideal is associated with men and masculinity. Subsequently, men and women are socially conditioned to hold different attitudes and perceptions, not only in viewing and judging their bodies but also in viewing and judging the bodies of others. For example, in terms of romantic partner selection, women rate taller men as more attractive and desirable (Stulp et al., 2013) and a study on mate selection and height (Salska et al., 2008) reported that all female participants preferred their ideal partner to be taller than themselves. By contrast, in the same study, almost all male participants preferred their ideal partner to be of shorter physical stature than themselves. These findings corroborate anecdotal evidence that height, physical attractiveness, and partner selection are correlated. However, like other extant research informing the present paper, this study (Salska et al., 2008) did not examine how male individuals perceive other men based on their height. Thus, the present study aims to bring a more complete understanding of social perceptions about men's height.

In addition to being perceived as more physically attractive and possessing a dating advantage, in their study Judge and Cable (2004) found that taller individuals are expected to earn higher salaries than shorter ones regardless of their sex. Other studies (Böckerman & Vainiomäki, 2013; Yamamura et al., 2015) arrived at similar conclusions, that height indirectly influences the hourly wages for both male and female employees, with taller individuals receiving higher hourly wages. To further

illuminate the complex relationships between height and social perceptions across sexes, the following research question with multiple items was proposed:

RQ1: Do women and men differ in their perceptions of the impact of men's height on (a) dating advantages, (b) physical attractiveness, and (c) salary?

Age and Height Perceptions

According to Feingold and Mazzella (1998), younger women tend to be more concerned with their bodies than older women. Thus, based on the extant literature, age appears to exert a significant influence on how an individual perceives body image. For example, body type has been identified as one important determinant of physical attractiveness among young adults. Other studies (Blaker et al., 2013) of male consumers reported similar findings, concluding that young men are more involved in fashion consumption and pay more attention to their physical appearance than older males. As people age, however, they do not only lose height but may also respond differently to dominant ideal body norms (Rahman & Yu, 2018) because as Judge and Cable (2004) (p. 437) point out in their study, "height does not appear to be an ephemeral advantage that matters only early in life and then dissipates." Although older people are generally shorter than younger generations (Gawley et al., 2009), they experience relatively less motivation and social pressure to conform to dominant body ideals in attracting or impressing significant others. Based on this, it is reasonable to suggest that older people do not perceive a strong correlation between taller stature and higher salary. Based on the above discussion, it would seem logical to propose that older people are likely to perceive short stature differently than younger individuals. Therefore, the following question was posed within the current research:

RQ2: Do younger and older people differ in their perceptions in terms of the impact of men's height on (a) dating advantages, (b) physical attractiveness, and (c) salary?

Self-Objectification

According to Fredrickson and Roberts (1997), self-objectification is the internalization of a viewer's perspective, whereby a person comes to view himself/herself in objectified terms. Although the self-objectification theory has been widely used for female studies, some researchers (Strelan & Hargreaves, 2005) suggest that the basic tenets of self-objectification theory can be sensibly applied to men as well. To understand the relative importance of body-related characteristics in self-objectification among individuals, Noll and Fredrickson's (1998) Trait Self-objectification Questionnaire (TSOQ) and a combined gender sample were used for the present study. The current agreement among scholars is that men tend to perceive their bodies "as a dynamic process where function is of greater consequence than beauty" (p.

417) (Franzoi, 1995), while women tend to be more concerned about their appearance and body image (Feingold & Mazzella, 1998). For example, another study on self-objectification among women (Strelan & Hargreaves, 2005) also provides a similar conclusion that self-objectification is positively related to appearance-based attributes encompassing sex appeal, body measurements, weight, physical attractiveness, and muscle tone. Thus, the western beauty ideal for men is often associated with a lean, tall, and muscular body type that projects physical strength, fitness, and solidity, whereas the beauty ideal for women is often associated with a thin, toned, and shapely body (Oehlhof et al., 2009) that projects femininity. Based on the preceding discussion, it would seem useful to further investigate how the physical self is self-objectified, and how body characteristics are perceived and interiorized by men and women. Thus, the following question was posed:

RQ3: Do women and men differ in how they perceive appearance-based and competence-based characteristics?

Gender Differences

As discussed earlier, anecdotal evidence and several empirical studies (Franko et al., 2015; Rusticus & Hubley, 2006) suggest that women with a shorter physical stature are less stigmatized than shorter men. Moreover, men are less likely to perceive themselves as overweight (Gregory et al., 2008) as compared to women. For example, in many cases, men are not aware that they are overweight. Therefore, height seems to play a more significant role in men's social and private self than in women. With such an understanding, it is reasonable to believe that men are more concerned about their height than their weight. However, little research on men's perception of their height has been undertaken (Rahman & Navarro, 2017, 2022), and the empirical evidence on this topic is still scarce and inconclusive. To investigate the relative significance of physical stature among other body-related attributes, two measuring items were added to Noll and Fredrickson's (1998) TSOQ—"height" (appearance-based) and "long lifespan" (competence-based) attributes.

RQ4: Do men and women differ in how they perceive the significance of (a) height and (b) weight in relation to other physical characteristics?

Age Differences

According to the findings of previous studies (Olivardia et al., 2004; Tod et al., 2012), body dissatisfaction, eating disorders, and unhealthy exercising behaviors are more commonly linked to young people (adolescents and young adults) than their older counterparts. In a similar vein, other extant studies (Banister & Hogg, 2004; Feingold & Mazzella, 1998) also revealed that younger people tended to be more concerned about their body image, appearance, and social identity than older people. In terms of physical stature, a study (Jiang et al., 1999) conducted in Sweden indicates that young men exhibiting a shorter height have a greater risk of attempted

suicide. According to McPherson (2012), early adulthood is a critical stage for appearance management and body image formation. Previous findings (Kling et al., 2016) also revealed that male participants at the age of 21 were concerned about their physical attractiveness and leanness, and at the age of 24 more time was given to muscular fitness. Nevertheless, research on age differences in body image (particularly physical stature) is inadequate and inconclusive. With this perspective, it would seem reasonable to suggest that people from different age groups may perceive appearance-based and competence-based attributes differently. Thus, the following questions were posed:

RQ5: Do younger and older people differ in how they perceive appearance-based and competence-based characteristics?

RQ6: Do younger and older people differ in how they perceive the significance of (a) height and (b) weight in relation to other physical characteristics?

Research Method

For this study, quantitative data were collected from the public in Canada to investigate different aspects related to social and self-perceptions of men's height. A self-administered online survey consisted of the following three sections. In the first section, a series of measuring items were included. The goal was to gauge participants' perceptions of men's height. These items were adapted from previous research (Hensley, 1994; Jackson & Ervin, 1992; Judge & Cable, 2004) examining the relationships between body height and various social perceptions such as physical attractiveness, dating advantages, and salary level. These three attributes were chosen for empirical testing because they are interrelated and relevant to most individuals. Moreover, they were frequently investigated in prior studies (see Table 1). In this section, all survey items were measured on a 5-point scale from 1 as strongly disagree to 5 as strongly agree.

In section two, 12 measuring items were used to uncover the relative importance of observable and non-observable body attributes. Ten items were adapted from Noll and Fredrickson's (1998) TSOQ—five appearance-based observable items (sex appeal, body measurements, weight, physical attractiveness, and muscle tone) and five competence-based non-observable items (strength, health, stamina/energy level, physical fitness, and coordination). In addition to these 10 items, "height" and "longer lifespan" were added to the appearance-based and competence-based subscales, respectively. According to Zaccardi et al. (2019), physical function is positively associated with lifespan. For example, people with good cardiorespiratory fitness have a longer life expectancy. On the contrary, the short lifespan of an individual is often associated with frailty, physical weakness, and loss of muscle mass (Zaccardi et al., 2019). Participants were asked to rank these twelve items from "0" (the least importance) to "11" (the greatest importance) on their physical self-concept. The ranking scores for appearance-based items and competence-based items were summed separately and then subtracted from the sum of ranks for competence items from the sum of ranks for appearance items. In this case, the summed scores

on the TSOQ physical self-concept may range from -36 to 36 , with the highest scores indicating relatively greater importance of appearance-based attributes.

In section three, the body measurements and demographic information of the participants were collected. These included the participants' height, weight, age, sex, employment, and educational attainment. This data allowed us to correlate participants' perceptions about male height with their demographic characteristics.

An online social networking site, Facebook, was used to recruit potential participants. According to Roberts (2014; p. 3), "Of the many social networking sites that exist, Facebook is a social network which has proven to have features that are particularly suitable for research purposes." In addition, snowball sampling method was utilized during the subject recruitment process. For the current study, participants were recruited from a convenience sample. In terms of participant selection, the criteria were limited to Canadians adults aged 18 years or older. Regarding sexual orientation, participants were provided with the option to select "other" or choose not to respond to the question. For instance, individuals who identify as non-binary can opt for "other" or choose to skip/not respond to the question. Given the research scope and focus, other demographic information such as nationality, race, ethnicity, and marital status was not collected for the current study.

Results

As part of this study, a total of 364 usable surveys were collected from anonymous Internet users. The sample size of this study deems to be sufficient as compared with previous literature on self-objectification; for example, Strelan and Hargreaves (2005) collected 153 useable data from 82 men and 71 women, and Oehlhof et al. (2009) researched 183 first-year college students including 111 women and 72 men. The current sample for our study consists of 173 female participants and 131 male participants, with ages ranging from 18 to 57 years old. Thus, the sample size is comparable to Strelan and Hargreaves's (2005) and Oehlhof et al.'s (2009) studies. To further validate the adequacy of our sample size, we considered the Canadian population in 2022 ($N=39,292,355$). By using a sample size calculator (Calculator.net, 2023) with a 95% confidence level and a 5% margin of error, the recommended sample size was determined to be 385. Based on this calculation, our sample size ($N=364$) is sufficient and falls within the acceptance range. Our sample size ($N=364$) is good and falls into the acceptable norm.

The mean age of the participants was 33, with half ($n=189$, 51%) of them fell within the age range of 18 to 37 years old. Furthermore, approximately one-third (33.0%, $n=120$) of the participants were employed full time, while 26.1% ($n=95$) were students, with many of them having obtained at least a bachelor's degree.

Sex Differences—Perceptions of Physical Stature

According to the t -test results from the online survey, there were no significant differences between sexes on physical attractiveness, salary, and dating advantage

except for one item “tall men have dating advantages over short men” ($t=3.212$, $df=301$, $p=0.001$, $d=0.369$), and small effect size (Cohen, 1988) was found for this analysis. As shown in Table 2, the mean score of female participants was significantly higher than males ($\bar{x}_{\text{female}}=4.28$, $\bar{x}_{\text{male}}=3.98$) on this item, which means more females agreed with the statement “tall men have dating advantages over short men.”

In terms of height and perception of physical attractiveness, both sexes perceived shorter men as less attractive than males of average height or taller. The measuring item “short men are perceived as less physically attractive than men who are either tall or of average height” ($\bar{x}_{\text{female}}=3.81$, $\bar{x}_{\text{male}}=3.89$) scored significantly higher than “short men are perceived as more physically attractive than men who are either tall or of average height” ($\bar{x}_{\text{female}}=2.07$, $\bar{x}_{\text{male}}=2.05$) on a 5-point scale.

Likewise, more participants agreed with the statement “tall men usually receive a higher salary” ($\bar{x}_{\text{female}}=2.83$, $\bar{x}_{\text{male}}=2.93$) than with the statement “short men usually receive a higher salary” ($\bar{x}_{\text{female}}=2.45$, $\bar{x}_{\text{male}}=2.31$), as well as many of the participants agreed more with the statement “tall men have dating advantages over short men” ($\bar{x}_{\text{female}}=4.28$, $\bar{x}_{\text{male}}=3.98$) than with the statement “short men have dating advantages over tall men” ($\bar{x}_{\text{female}}=1.86$, $\bar{x}_{\text{male}}=1.97$). In addition to these observations, a series of paired samples *t*-tests were conducted and the results indicated that both female and male participants perceived taller men as more attractive, more desirable dating partners, and more likely to receive a higher salary than short men. These findings are in line with past studies (Griffiths et al., 2017; Stulp et al., 2013; Yamamura et al., 2015). Based on the above analysis, the results are summarized as follows:

RQ1a. Dating advantages: In general, female participants perceived taller men to have more dating advantages than short men as compared to their male counterparts.

RQ1b. Physical attractiveness and RQ1c. salary: There were no significant differences between sexes in terms of the impact of men’s height on these two attributes.

Age Differences—Perceptions of Physical Stature

The results of the *t*-test indicated that there were significant differences between age groups on all three measuring items of dating advantages (RQ2a) in relation to the perception of physical stature, as shown in Table 3. For example, most young participants perceived that “tall men have dating advantages over short men” as compared to their older counterparts ($t=5.533$, $df=292$, $p=0.000$, $d=0.654$), and medium effect size was found for this analysis. However, no significant differences in physical attractiveness (RQ3b) and salary (RQ3c) related to physical stature were found, except “short men usually receive a higher salary” ($t=2.084$, $df=291$, $p=0.037$, $d=0.254$). Based on these findings, the results can be summarized as follows:

Table 2 The significant differences between men and women in height perceptions

	Female (<i>n</i> = 173)			Male (<i>n</i> = 131)			<i>t</i>	df	<i>p</i>	
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>				95% CI for mean difference
1. Short men are perceived as less physically attractive than men who are either tall or of average height	3.81	0.833	172	3.89	0.925	131	-0.277, 0.122	-0.763	301	0.446
2. Short men are perceived as more physically attractive than men who are either tall or of average height	2.07	0.596	173	2.05	0.624	131	-0.123, 0.155	0.226	302	0.821
3. There is no association between men's height and how their physical attractiveness is perceived	2.40	1.067	173	2.31	1.102	131	-0.147, 0.346	0.792	302	0.429
4. Short men usually receive a higher salary	2.46	0.678	173	2.33	0.752	129	-0.026, 0.299	1.656	300	0.099
5. Men of average height usually receive a higher salary	2.72	0.775	172	2.71	0.785	129	-0.163, 0.194	0.171	299	0.864
6. Tall men usually receive a higher salary	2.83	0.850	173	2.93	0.933	130	-0.301, 0.104	-0.956	301	0.340
7. There is no association between men's height and salary	3.57	0.992	172	3.46	1.208	130	-0.141, 0.358	0.854	300	0.394
8. Tall men have dating advantages over short men	4.28	0.736	173	3.98	0.880	130	0.116, 0.482	3.212	301	0.001
9. Short men have dating advantages over tall men	1.86	0.584	173	1.97	0.690	131	-0.252, 0.036	-1.479	302	0.140
10. There is no association between men's height and dating success	2.22	0.932	171	2.27	0.959	131	-0.261, 0.171	-0.410	300	0.682

p < 0.05 (indicated in bold typeface)

Table 3 The significant differences between age groups in height perceptions

Men's height perception	18–37 age group (<i>n</i> = 189)		38–57 age group (<i>n</i> = 106)		95% CI for mean difference	<i>t</i>	df	<i>p</i>		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>					<i>SD</i>	<i>N</i>
1. Short men are perceived as less physically attractive than men who are either tall or of average height	3.92	0.852	188	3.74	0.908	106	-0.024, 0.393	1.739	292	0.083
2. Short men are perceived as more physically attractive than men who are either tall or of average height	2.05	0.595	189	2.08	0.643	106	-0.174, 0.118	-0.375	293	0.708
3. There is no association between men's height and how their physical attractiveness is perceived	2.25	1.031	189	2.51	1.148	106	-0.512, 0.001	-1.959	293	0.051
4. Short men usually receive a higher salary	2.47	0.674	187	2.29	0.743	106	0.011, 0.346	2.084	291	0.037
5. Men of average height usually receive a higher salary	2.73	0.724	186	2.70	0.818	106	-0.154, 0.210	0.300	290	0.765
6. Tall men usually receive a higher salary	2.92	0.846	188	2.84	0.927	106	-0.129, 0.290	0.757	292	0.449
7. There is no association between men's height and salary	3.52	1.059	187	3.51	1.140	106	-0.251, 0.270	0.070	291	0.944
8. Tall men have dating advantages over short men	4.35	0.712	188	3.84	0.841	106	0.330, 0.693	5.533	292	0.000
9. Short men have dating advantages over tall men	1.82	0.618	189	2.08	0.628	106	-0.404, -0.107	-3.384	293	0.001
10. There is no association between men's height and dating success	2.04	0.815	187	2.53	1.007	106	-0.698, -0.273	-4.491	291	0.000

p < 0.05 (indicated in bold typeface)

RQ2a. Dating advantages: Many young participants of both sexes agreed that taller men have dating advantages over short men, and not the other way round.
 RQ2b. Physical attractiveness and RQ2c. salary: There were no significant differences between age groups in terms of the impact of men's height on these two attributes, except for salary.

In this analysis, the scores of self-objectification ranged from -36 to 36 for both women ($\bar{x} = -5.33$, S.D. = 17.65) and men ($\bar{x} = -5.73$, S.D. = 20.45). Regarding RQ3, there were no significant differences between women and men in terms of the relative importance of appearance-based and competence-based attributes. In order to find out how women and men perceive the significance of (RQ4a) height and (QR4b) weight among other physical characteristics, a series of independent samples *t*-tests were performed. As shown in Table 4, both women and men ranked three competence-based attributes (health, stamina/energy level, and physical fitness) higher than most of the appearance-based attributes including body weight and height. According to the results, there were no significant differences between women and men in all items except body weight ($t = 3.250$, $df = 252$, $p = 0.001$, $d = 0.412$), and small effect size was found for this analysis. With regard to the RQ4, the finding clearly revealed that women ($\bar{x} = 5.64$, S.D. = 3.197) are more concerned with their body weight than men ($\bar{x} = 4.35$, S.D. = 3.054), but not their height. Although there was no significant difference in physical stature, men were relatively more concerned with their height ($\bar{x}_{\text{female}} = 4.96$, $\bar{x}_{\text{male}} = 5.55$) than women.

The self-objectification scores for RQ5 revealed that there were no significant differences between age groups in terms of the importance of appearance-based

Table 4 The significant differences between men and women in physical characteristics

	Female ($n = 173$)			Male ($n = 131$)			<i>t</i>	df	<i>p</i>
	<i>M</i>	SD	<i>N</i>	<i>M</i>	SD	<i>N</i>			
<i>Appearance-based items</i>									
Physical attractiveness	6.02	3.897	140	5.98	3.490	113	0.084	251	0.934
Weight	5.64	3.197	140	4.35	3.054	114	3.250	252	0.001
Height	4.96	3.298	140	5.55	3.415	113	-1.396	251	0.164
Sex appeal	4.73	3.462	140	5.44	3.677	113	-1.586	251	0.114
Muscle tone	4.76	3.123	140	4.94	2.820	113	-0.478	251	0.633
Measurement	4.17	3.086	140	3.95	3.417	113	0.548	251	0.584
<i>Competence-based items</i>									
Health	6.66	3.663	140	6.85	4.049	114	-0.385	252	0.701
Stamina/energy level	6.52	2.959	140	6.20	3.094	113	0.832	251	0.406
Physical fitness	6.42	3.183	140	6.51	3.295	114	-0.214	252	0.831
Physical coordination	5.59	3.198	140	5.34	3.122	114	0.628	252	0.530
Strength	5.48	2.855	140	5.61	2.630	113	-0.379	251	0.705
Longer lifespan	5.06	4.347	141	5.23	4.239	114	-0.316	253	0.752

$p < 0.05$ (indicated in bold typeface)

Table 5 The significant differences between age groups in physical characteristics

	18–37 age group (<i>n</i> = 167)			38–57 age group (<i>n</i> = 81)			<i>t</i>	df	<i>p</i>
	<i>M</i>	SD	<i>N</i>	<i>M</i>	SD	<i>N</i>			
<i>Appearance-based items</i>									
Physical attractiveness	6.10	3.777	167	5.73	3.633	79	0.710	244	0.479
Weight	4.92	3.243	167	5.09	2.990	80	-0.384	245	0.701
Height	4.90	3.179	167	5.81	3.599	79	-2.012	244	0.045
Sex appeal	5.54	3.503	167	4.06	3.589	79	3.073	244	0.002
Muscle tone	5.06	2.912	167	4.39	3.053	79	1.653	244	0.100
Measurement	3.98	3.191	167	4.32	3.311	79	-0.772	244	0.441
<i>Competence-based items</i>									
Health	6.39	3.807	167	7.54	3.758	80	-2.227	245	0.027
Stamina/energy level	6.41	3.105	167	6.41	2.880	79	0.255	244	0.984
Physical fitness	6.73	3.041	167	6.00	3.561	80	1.670	245	0.096
Physical coordination	5.29	3.259	167	5.85	2.981	80	-1.291	245	0.198
Strength	5.69	2.824	167	5.25	2.483	79	1.173	244	0.242
Longer lifespan	4.99	4.351	167	5.46	4.246	81	-0.792	246	0.429

p < 0.05 (indicated in bold typeface)

and competence-based attributes. As indicated in Table 5, both younger and older adults perceived health, stamina/energy level, and physical fitness are relatively more important than body weight and height. Overall, participants were more concerned about their health and fitness than their physical appearance regardless of their sex and age. According to the *t*-test results, young participants were more concerned with their sex appeal ($\bar{x}_{18-37} = 5.54$, $\bar{x}_{38-57} = 4.06$) ($t = 3.073$, $df = 244$, $p = 0.002$, $d = 0.471$), whereas older participants were more concerned with their health ($\bar{x}_{18-37} = 6.39$, $\bar{x}_{38-57} = 7.54$) ($t = -2.227$, $df = 245$, $p = 0.027$, $d = 0.304$). The effect size of these two analyses is considered small.

However, the result also presents an unexpected finding, older people perceived height ($\bar{x}_{18-37} = 4.90$, $\bar{x}_{38-57} = 5.81$) ($t = -2.012$, $df = 244$, $p = 0.045$, $d = 0.268$) as more important than younger participants, and small effect size was found for this analysis. Although young participants paid relatively less attention to height as compared to their older counterparts, they ranked physical attractiveness, sex appeal, and muscle tone higher than older participants. Apart from height, young participants were more concerned about their physical appearance. For example, many young people ranked sex appeal a lot higher than the participants of the older age group ($t = 3.073$, $df = 244$, $p = 0.002$). Thus, it would seem reasonable to suggest that although physical stature is an important body characteristic, it plays a relatively less important role to young adults if other physical attributes exist in the same study for empirical testing.

Discussion

According to the *t*-test results, social perception of men's physical attractiveness, level of income, and dating advantages is positively correlated to physical height. These findings are consistent with previous research (Judge et al., 2004; Yamamura et al., 2015). In terms of social perceptions of physical attractiveness and level of income in relation to men's height, there were no statistically significant differences between men and women (and also between age groups), except for dating advantages. Overall, younger adults and women are more likely to perceive that "tall men have dating advantages over short men" as compared to the older age group and male participants. In a similar vein, the analysis of self-objectification also indicated that younger participants are relatively more concerned about their physical attractiveness, sex appeal, and muscle tone than older participants. These findings are consistent with previous research (Banister & Hogg, 2004; Vogels, 2020). For example, according to the results of a recent survey conducted by the Pew Research Center (2019), more young American adults (45% aged 18–29) used online dating sites and apps (e.g., Tinder, Bumble) to seek dating opportunities than members of older demographic groups (38% aged 30–49, 19% aged 50–64, and 13% aged 65+) (Vogels, 2020).

Based on the extant literature as well as the findings from our study, it is reasonable to believe that young adults are more likely to use appearance management strategies to enhance their physical appearance to improve dating opportunities as well as to impress potential partners. From this perspective, it is not difficult to understand why younger adults are overall more concerned about their body image than their older counterparts (Rahman & Yu, 2019). One possible explanation is that for old people, seeking a sex partner may not be a priority. As people age, they assume new social roles and responsibilities (e.g., single, husband/wife, parent, grandparent, retiree). Over the life course, people often re-evaluate their priorities and adjust their life goals to cope with different life-changing events. Therefore, further investigation into the relationship between social perception of men's height and life-stage events would deem valuable and meaningful.

As mentioned earlier, how older adults perceived men's height in this study was somewhat unexpected or contradictory. The finding from previous research (Carrieri & De Paola, 2012) is not consistent with the current study. Our finding revealed that older people were more concerned about their height than their younger counterparts. There are several plausible explanations for this surprising outcome. Firstly, height becomes less important for young adults if other physical attributes are used in the same study for testing. Secondly, young people are more concerned about their physical attractiveness, body weight, and sex appeal because these physical attributes can be altered to conform to the body ideals. However, height could not be changed so easily. Thirdly, older people seem to have negative feelings about losing height due to aging—"you shrink as you age." In other words, for older individuals, height is viewed as a sign or indicator of a person's health and fitness (Case & Paxson, 2008). Therefore, it is not too difficult to understand why older people are more concerned about their height than young adults.

In terms of the self-objectification, there were no significant differences between women and men in terms of the relative importance of appearance-based and competence-based attributes. Our findings are not in line with some previous studies (Oehlhof et al., 2009).

To conclude, although contemporary research studies have focused on men's body weight and sizes, very few have examined the relationship between social perceptions and physical stature. Furthermore, as far as the researchers are aware, no research exists on the self-objectification of shorter men. As a consequence, the findings of the present study underscore at least two significant implications with regard to how social perceptions of men's height are internalized by shorter men. The first implication is that since many study participants perceived short men as less attractive, less capable, and less successful in dating, then heightism is still pervasive in today's society. Such negative social perceptions in the form of prejudices translate into actual socio-economic inequalities. Those social perceptions of others based on their height can potentially influence the internalization of self-body image. Such external influence can further negatively impact the well-being and mental health of individuals and groups who do not conform to dominant ideal body norms.

Limitations and Future Research Implications

The present study was valuable in allowing us to assess and understand the perceptions of men's height and the relative importance of different body attributes through demographic lenses. However, there are several shortcomings or limitations of the current study. For example, age is slightly skewed toward the younger age group. There is a possibility that the results may be different if the age groups are evenly distributed. Moreover, expanding the present research to include a longitudinal study could be useful to investigate people's perceptions of men's physical stature at different life stages. We believe that social perceptions might change if a specific age cohort or life stage was included in a study. To test the generalizability of the current findings and enrich our understanding of body image and men's height, it is necessary to expand the research scope to other cultures as well as other sexual orientations and gender identities (LGBTQ+). In addition, caution should be applied since the findings of this study cannot be generalized. Furthermore, it could be interesting and worthwhile to conduct a study to investigate how shorter men employ dating services and apps. Lastly, we believe that the findings from a single study cannot form the basis for generalizations of social perceptions; additional replication is needed to strengthen the validity and reliability.

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Author Contribution All authors contributed to the study conception and design. Material preparation, data collection, and analysis were performed by Osmud Rahman and Henry Delgado Navarro. The first draft of the manuscript was written by Osmud Rahman and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Data Availability The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Code Availability Not applicable.

Declarations

Ethics Approval and Consent to Participate The ethics protocol of this study was approved by the Ethics Board of Toronto Metropolitan University, and the project identification code is 2018–376. Informed consent was obtained from all subjects involved in the study prior to their participation. The participation in this study is voluntary. The participants may withdraw at any time and choose not to answer any questions for any reason without any negative consequences.

Consent to Participate Informed consent was obtained from all individual participants included in the study prior to their participation.

Conflict of Interest The authors declare no competing interests.

References

- Bakewell, C., & Mitchell, V.-W. (2006). Male versus female consumer decision-making styles. *Journal of Business Research*, *59*(12), 1297–1300.
- Banister, E. N., & Hogg, M. K. (2004). Negative symbolic consumption and consumers' drive for self-esteem: The case of the fashion industry. *European Journal of Marketing*, *38*(7), 850–868.
- Blaker, N. M., Rompa, I., Dessing, I. H., Vriend, A. F., Herschberg, C., & van Vugt, M. (2013). The height leadership advantage in men and women: Testing evolutionary psychology predictions about the perceptions of tall leaders. *Group Processes & Intergroup Relations*, *16*(1), 17–27.
- Bogin, B., Scheffler, C., & Hermanussen, M. (2016). Global effects of income and income inequality on adult height and sexual dimorphism in height. *American Journal of Human Biology*, *29*(2), 1–11.
- Böckerman, P., & Vainiomäki, J. (2013). Stature and life-time labor market outcomes: Accounting for unobserved differences. *Labour Economics*, *24*, 86–96.
- Calculator.net (2023). Sample size calculator. *Calculator.net*. Available at: <https://www.calculator.net/sample-size-calculator.html?type=1&cl=95&ci=5&pp=50&ps=39292355&x=62&y=21>
- Carrieri, V., & De Paola, M. (2012). Height and subjective well-being in Italy. *Economics & Human Biology*, *10*(3), 289–298.
- Case, A., & Paxson, C. (2008). Stature and status: Height, ability, and labor market outcomes. *Journal of Political Economy*, *116*(3), 499–532.
- Cash, T., & Pruzinsky, T. (2002). *Body image: A handbook of theory, research, and clinical practice*, (eds.). New York, NY: Guilford Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Feingold, A. (1982). Do taller men have prettier girlfriends. *Psychological Report*, *50*(3), 810.
- Feingold, A., & Mazzella, R. (1998). Gender differences in body image are increasing. *Psychological Science*, *9*(3), 190–195.
- Fisher, S. (1966). Body image. In D. Sills (Ed.), *International encyclopedia of the social sciences* (pp. 113–116). Free Press/Macmillan.
- Franko, D. L., Fuller-Tyszkiewicz, M., Rodgers, R., Holmqvist Gattario, K., Frisen, A., Diedrichs, P.C., ... & Shingleton, R. (2015). Internalization as a mediator of the relationship between conformity to masculine norms and body image attitudes and behaviours among young men in Sweden, US, UK, and Australia. *Body Image*, *15*, 54–60.
- Franzoi, S. L. (1995). The body-as-object versus the body-as-process: Gender differences and gender considerations. *Sex Roles*, *33*(5/6), 417–437.
- Fredrickson, B. L., & Roberts, T. (1997). Objectification theory. *Psychology of Women Quarterly*, *21*(2), 173–206.

- Frieze, I. H., Olson, J. E., & Good, D. C. (1990). Perceived and actual discrimination in the salaries of male and female managers. *Journal of Applied Social Psychology, 20*(1), 46–67.
- Gateway, T., Perks, T., & Curtis, J. (2009). Height, gender, and authority status at work: Analyses for a national sample of Canadian workers. *Sex Roles, 60*, 208–222.
- Graziano, W., Brothen, T., & Berscheid, E. (1978). Height and attraction: Do men and women see eye-to-eye? *Journal of Personality, 46*(1), 128–145.
- Gregory, C. O., Blanck, H. M., Gillespie, C., Maynard, L. M., & Serdula, M. K. (2008). Health perceptions and demographic characteristics associated with under-assessment of body weight. *Obesity, 16*(5), 979–989.
- Griffiths, S., Murray, S. B., Medeiros, A., & Blashill, A. J. (2017). The tall and the short of it: An investigation of height ideals, height preferences, height dissatisfaction, heightism, and height related quality of life impairment among sexual minority men. *Body Image, 23*, 146–154.
- Hensley, W. E. (1994). Height as a basis for interpersonal attraction. *Adolescence, 29*(114), 469–474.
- Herpin, N. (2005). Love, careers, and heights in France, 2001. *Economics and Human Biology, 3*(3), 420–449.
- Jackson, L. A., & Ervin, K. S. (1992). Height stereotypes of women and men: The liabilities of shortness for both sexes. *The Journal of Social Psychology, 132*(4), 433–445.
- Jiang, G.-X., Rasmussen, F., & Wasserman, D. (1999). Short stature and poor psychological performance: Risk factors for attempted suicide among Swedish male conscripts. *Acta Psychiatrica Scandinavica, 100*(6), 433–440.
- Judge, T. A., & Cable, D. M. (2004). The effect of physical height on workplace success and income: Preliminary test of a theoretical model. *The Journal of Applied Psychology, 89*(3), 428–441.
- Kling, J., Rodgers, R. F., & Frisén, A. (2016). Young men's endorsement and pursuit of appearance ideals: The prospective role of appearance investment. *Body Image, 16*, 10–16.
- Koestner, R., & Wheeler, L. (1988). Self-presentation in personal advertisements: The influence of implicit notions of attraction and role expectations. *Journal of Social and Personal Relationships, 5*(2), 149–160.
- Lynn, M., & Shurgot, B. A. (1984). Responses to lonely hearts advertisements: Effects of reported physical attractiveness, physique and coloration. *Personality and Social Psychology Bulletin, 10*(3), 349–357.
- McCann, S. J. H. (2001). Height, social threat, and victory margin in presidential elections (1894–1992). *Psychological Reports, 88*(3), 741–742.
- McPherson, K. E. (2012). Physical appearance changes across adulthood: Men. In T.F. Cash (Ed.), *Encyclopedia of body image and human appearance* (Vol. 2) (pp. 595–601). San Diego, CA: Elsevier Academic Press.
- Meyer, H., & Selmer, R. (2009). Income, educational level and body height. *Annals of Human Biology, 26*(3), 219–277.
- Murray, G. R., & Schmitz, J. D. (2011). Caveman politics: Evolutionary leadership preferences and physical stature. *Social Science Quarterly, 92*(5), 1215–1235.
- Nettle, D. (2002). Height and reproductive success in a cohort of British men. *Human Nature, 13*, 473–491.
- Noll, S. N., & Fredrickson, B. L. (1998). A mediational model of linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly, 22*(4), 623–636.
- Oehlhof, M. E. W., Musher-Eizenman, D. R., Neufeld, J. M., & Hauser, J. C. (2009). Self-objectification and ideal body shape for men and women. *Body Image, 6*, 308–310.
- Olivardia, R., Pope, H. G., Borowiecki, J. J., & Cohane, G. H. (2004). Biceps and body image: The relationship between muscularity and self-esteem, depression, and eating disorder symptoms. *Psychology of Men and Masculinity, 5*(2), 112–120.
- Perelman, J. (2014). Are chronic diseases related to height? Results from the Portuguese National Health Interview Survey. *Economics & Human Biology, 15*, 56–66.
- Rahman, O., & Navarro, H. (2017). Fashion design for short male consumers. *The Design Journal: An International Journal for All Aspects of Design, 20*(Supplement 1), S2679–S2688.
- Rahman, O., & Navarro, H. (2022). Men's physical stature: Tackling heightism and challenges in fashion consumption. *Behavioral Sciences, 12*(270), 1–14.
- Rahman, O., & Yu, H. (2018). A study of Canadian female baby boomers: Physiological and psychological needs, clothing choice and shopping motives. *Journal of Fashion Marketing and Management, 22*(4), 509–526.

- Rahman, O., & Yu, H. (2019). Key antecedents to the shopping behaviours and preferences of aging consumers: A qualitative study. *Journal of Fashion Marketing and Management*, 23(2), 193–208.
- Roberts, K. (2014). Convenience sampling through Facebook. *SAGE Research Methods Cases*, pp. 1–13. Available at: Convenience_Sampling_through_Facebook-libre.pdf (d1wqtxts1xzle7.cloudfront.net)
- Rusticus, S. A., & Hubley, A. M. (2006). Measurement invariance of the Multidimensional Body-Self Relations Questionnaire: Can we compare across age and gender? *Sex Roles*, 55, 827–842.
- Salska, I., Frederick, D. A., Pawlowski, B., Reilly, A. H., Laird, K. T., & Rudd, N. A. (2008). Conditional mate preferences: Factors influencing preferences for height. *Personality and Individual Differences*, 44(1), 203–215.
- Schilder, P. (2014). *The image and appearance of the human body*. Routledge.
- Sheppard, J. A., & Strathman, A. J. (1989). Attractiveness and height: The role of stature in dating preference, frequency of dating, and perceptions of attractiveness. *Personality and Social Psychology Bulletin*, 15(4), 617–627.
- Sindicich, D., & Black, C. (2011). An assessment of fit and sizing of men's business clothing. *Journal of Fashion Marketing and Management*, 15(4), 446–463.
- Sini, R. (2019). Is height important on dating sites? BBC News.
- Strelan, P., & Hargreaves, D. (2005). Reasons for exercise and body esteem: Men's responses to self-objectification. *Sex Role*, 53(7/8), 495–503.
- Stulp, G., Buunk, A. P., & Pollet, T. V. (2013). Women want taller men more than men want shorter women. *Personality and Individual Differences*, 54(8), 877–883.
- Tod, D., Hall, G., & Edwards, C. (2012). Gender invariance and correlates of the drive for leanness scale. *Body Image*, 9(4), 555–558.
- Vogels, E. A. (2020). 10 facts about Americans and online dating. Pew Research Center. From <https://www.pewresearch.org/>
- Yamamura, E., Smyth, R., & Zhang, Y. (2015). Decomposing the effect of height on income in China: The role of market and political channels. *Economics and Human Biological*, 19, 62–74.
- Zaccardi, F., Davies, M. J., Khunti, K., & Yates, T. (2019). Comparative relevance of physical fitness and adiposity on life expectancy: A UK Biobank observational study. *Mayo Clinic Proceedings*, 94(6), 985–994.

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