Body Image 51 (2024) 101763

Contents lists available at ScienceDirect

Body Image

journal homepage: www.journals.elsevier.com/body-image

Brief research report

Tackling bisexual erasure: An explorative comparison of bisexual, gay and straight cisgender men's body image

Liam Cahill [*,1], Mohammed Malik [2], Bethany A. Jones [3], A. Treshi-Marie Perera [4], Daragh T. McDermott [5]

NTU Psychology, School of Social Sciences, Nottingham Trent University, England, UK

ARTICLE INFO

Keywords:
Bisexuality
Body Image
Leanness
Muscularity
Body Fat
Body Functionality

ABSTRACT

Previous body image research often grouped both gay and bisexual men into a single category: sexual minoritised men, limiting our understanding of how sexual identity influences body image. However, there is strong reason to believe that bisexual and gay men experience distinct body image concerns. Here, we explored motivations to alter one's leanness and muscularity, as well as (dis)satisfaction with body fat, muscularity, height and penis size, and functionality appreciation across gay, bisexual, and straight cisgender men. We sampled 378 white participants aged 18 to 85 ($n_{bisexual} = 125$, $n_{gay} = 128$, $n_{straight} = 125$). We found that bisexual men were significantly less motivated to be lean and showed lower muscularity dissatisfaction relative to gay men but showed comparable levels to straight men. Our findings demonstrate that despite research perceiving the body image of bisexual and gay men as homogenous, they experience differences in their body image concerning leanness and muscularity dissatisfaction. Future body image research should incorporate this understanding by not artificially grouping bisexual and gay cisgender men and instead acknowledging the potential uniqueness in their experiences.

1. Introduction

Body image is a multidimensional construct comprising perceptual, behavioural, and affective elements, such as a person's thoughts and feelings concerning their appearance, often termed body (dis)satisfaction (Cash, 2004). Body image dissatisfaction is a pervasive public health problem (Griffiths, et al., 2017) associated with a range of adverse outcomes, such as poorer mental health (Rodgers et al., 2023). Although considered to be an issue predominantly affecting women, body image concerns are on the rise among cisgender[6] men, particularly gay and bisexual men (often termed sexual minoritised men), likely due to the increased representation of muscular or hyper-muscular men in the media (Pope et al., 2017).

Societal body image ideals are gendered. Men are encouraged to desire larger body builds and view muscle growth favourably (Kelley et al., 2010). Men are also encouraged to be lean. That is, to have a muscular body with low body fat (Smolak & Murnen, 2008). It is, however, important to distinguish between *motivation* and *dissatisfaction*. Some measures (e.g., the Drive for Leanness/Muscularity Scales) measure a motivation to be lean and muscular, respectively (McCreary & Sasse, 2000; Smolak & Murnen, 2008). Comparatively, other measures (e.g., Male Body Attitudes Scale Revised; MBAS-R) measure dissatisfaction with these elements (Ryan et al., 2011). Arguably, one could be dissatisfied with an aspect of their body (e.g., their leanness) but not be motivated to change this (or vice versa).

There are also broader limitations concerning how body dissatisfaction is measured in men. Griffith et al. (2019) recommended that multiple dimensions of physical satisfaction should be measured to understand men's body image concerns better. That is, there should be a focus on muscularity, body fat, height, and penis size. Generally, men

* Correspondence to: NTU Psychology, Nottingham Trent University, 50 Shakespeare Street, Nottingham NG1 4FQ, UK.
E-mail address: Liam.Cahill@ntu.ac.uk (L. Cahill).
[1] ORCID: 0000-0002-7897-0862.
[2] ORCID: 0000-0003-2474-3899.
[3] ORCID: 0000-0001-8872-5847.
[4] ORCID: 0000-0002-3812-5023.
[5] ORCID: 0000-0001-7005-6446.
[6] Cisgender refers to participants whose current gender identity is congruent with the sex they were assigned at birth (McDermott et al., 2018).

https://doi.org/10.1016/j.bodyim.2024.101763
Received 26 March 2024; Received in revised form 25 June 2024; Accepted 26 June 2024
Available online 5 July 2024

experience pressure to be tall and to have a sufficiently sized (i.e., large) penis. For instance, research has shown men below average height are less satisfied with their appearance (Griffiths, et al., 2017). Similarly, straight (i.e., heterosexual) men report being dissatisfied with their penis size, even if they perceive their penis size to be average-sized (Johnston et al., 2014).

Further, other experiences around one's body also influence satisfaction. For instance, body functionality refers to everything the body is able to do (e.g., physical capabilities like walking; Alleva & Tylka, 2021). Focusing on body functionality is important, as a greater appreciation for one's body functionality is associated with lower negative body image and with higher positive body image (Alleva & Tylka, 2021; Linardon et al., 2023). As such, these elements are vital contributors to a person's body image but are rarely captured simultaneously when evaluating men's body image.

While addressing body image concerns in men generally is important, some societal groups, such as sexual minoritised (e.g., bisexual) people, are at greater risk of body dissatisfaction (He et al., 2020). Over half of sexual minoritised adults report feeling anxious or depressed because of how their bodies look (Mental Health Foundation, 2019). Concerningly, sexual minoritised adults also report stronger drives towards lean-muscular bodies (Yelland & Tiggemann, 2003) and increased incidence of eating disorders compared to straight men (Kamody et al., 2020). While research often focuses on the experiences of gay men, a prevailing issue within the Lesbian, Gay, Bisexual, Trans(gender), Queer, Intersex and Asexual (LGBTQIA+) community is the concerning trend toward ignoring the experiences of bisexual people in a process termed bi(sexual)-erasure (Gonzalez et al., 2017).

This erasure is also inadvertently perpetuated within existing body image research. There is a lack of research that investigates the body image concerns of bisexual men (or women), either by evaluating their levels of dissatisfaction compared to other groups, such as gay men or by exploring the unique concerns bisexual men have about their body image (Morrison et al., 2020). Currently, research addressing body dissatisfaction has combined bisexual and gay men into a single, common category: *sexual minority men* (e.g., Filice et al., 2019). This categorisation assumes the experiences of gay and bisexual men are comparable. These limitations are emphasised in a recent review by Nowicki et al. (2022), who identified only ten studies comparing bisexual and gay men's body dissatisfaction. Most (eight) of these studies found no significant difference, but this could be due to the considerably smaller sample size of bisexual men and inconsistencies in how body image was measured across each study.

There is strong reason to believe gay and bisexual men may experience differences in their body image concerns. Bisexual people often face increased marginalisation and exclusion, even from sources inside the LGBTQIA+ community (Parmenter et al., 2021). Due to this, bisexual men may be subjected to more adverse mental and physical health (including body image concerns). Some (albeit limited) evidence does support this. Austen et al. (2020) showed that bisexual men reported greater instances of weight-based discrimination relative to gay men. However, there remains a lack of emphasis on bisexual men within the research literature, which is, therefore, concerning and needs to be addressed (Morrison et al., 2020).

As such, the present exploratory study compared bisexual, gay and straight cisgender men on a variety of measures relevant to examining men's body image concerns. That is, we explored motivations to alter one's leanness and muscularity, as well as (dis)satisfaction with body fat, muscularity, height and penis size, and appreciation for the functionality of one's body. Due to the limited research exploring body image concerns with a specific focus on bisexual men, our research was exploratory, and we did not present any specific hypotheses. However, this research is guided by two core research questions and purposes: (1) to explore differences between gay and bisexual men (previously combined as one homogenous group) and straight, cisgender men and (2) to explore these differences across a range of measures and concepts relating to men's body image. Identifying observed differences in each of these measures would present important and interesting directions for future research and facilitate a more focused effort to tackle bisexual erasure in body image research.

2. Method

2.1. Participants and design

Participants were sampled using the online crowd-sourcing platform Prolific (https://www.prolific.co/). Participants were compensated £ 2.25. Our inclusion criteria required participants to identify as cisgender men and as straight (heterosexual), bisexual or gay. We imposed several inclusion criteria. First, we recruited cisgender participants to reduce additional confounds, as trans and gender-diverse people (i.e., people whose gender identity differs from their sex assigned at birth) experience distinct and heightened body image concerns (Jones et al., 2016). Second, we also restricted our sample to White participants residing within the United Kingdom, Ireland, the United States, Canada, Australia, or New Zealand. We used these inclusion criteria because previous research illustrates sociocultural factors influence body image ideals and concerns (Hunter et al., 2021; Paxton et al., 2006). While we acknowledge that these nations are not culturally homogenous, men from these countries share certain sociocultural experiences regarding body image that are relevant to our study. Additionally, recruiting from a range of these countries allows us to capture a variety of national backgrounds within this cultural framework. We acknowledge that there is presently a significant lack of research examining body image concerns in non-White and non-Western populations. However, we determined that it was necessary to restrict our sampling approach to avoid potential confounds within the context of our work.

Initially, we recruited 393 participants but excluded fifteen participants: 14 due to a technical issue that caused them to answer a small number of our measures and one participant who failed the attention checks. The final sample comprised 378 participants aged between 18 and 85 ($M_{age} = 38.96$, $SD_{age} = 13.27$). Of the total sample, 128 identified as gay ($M_{age} = 39.14$, $SD_{age} = 13.43$), 125 identified as bisexual ($M_{age} = 36.05$, $SD_{age} = 13.10$) and 125 identified as straight ($M_{age} = 41.68$, $SD_{age} = 12.76$). We observed a significant age difference, which we comment on below. Using the *pwr* R package, we determined our sample size sufficient to identify a small-medium effect size at.80 power. Nottingham Trent University's ethics board provided ethical clearance for this research.

2.2. Measures and procedure

Participants provided informed consent, demographic information, and the following measures in randomised order. We also randomised the order of the questions within each measure. The participants who did not consent or did not fulfil our inclusion criteria were directed to the end of the survey.

We opted not to pre-register this study given the exploratory nature. However, we have made the data and study materials available on the Open Science Framework (OSF;https://osf.io/w7bvt/)for transparency and reproducibility. Researchers are encouraged to use these measures provided that appropriate credit is given to the original authors and the usage complies with the terms of the measure's license.

2.2.1. Demographic measures

We initially asked our participants to report demographic information, such as age in years. Additionally, we collected information about their sex assigned at birth (male, female, prefer not to say) and asked whether their current gender identity was consistent with their sex assigned at birth (yes, no, prefer not to say). Participants were also asked to self-report their sexual identity (straight [i.e., heterosexual], gay [i.e., homosexual], bisexual, other, prefer not to say) and their ethnicity

(White, Asian or Asian British, Black, African, Caribbean, or Black British, Mixed or Multiple Ethnic groups, other ethnic group, prefer not to say). Participants whose responses did not meet our inclusion criteria were directed to a custom end-of-survey message.

2.2.2. Drive for Muscularity (McCreary & Sasse, 2000)

The Drive for Muscularity Scale (DMS) measured participants' motivations to achieve a more muscular body. Participants responded to each of the 15 items (e.g., "*I wish I were more muscular*") on a 6-point rating scale ranging from *never* (1) to *always* (6). Higher scores indicate a greater motivation to have more muscle. In a previous study, the scale was shown to have good construct, convergent, and discriminant validity (McCreary & Sasse, 2000). Internal consistency in the present study was good (ω = .91, 95 % CI:.89,.92).

2.2.3. Drive for Leanness (Smolak & Murnen, 2008)

The Drive for Leanness Scale (DLS) measured a participant's motivations to be leaner (i.e., have lower body fat and be more toned). Participants responded to each of the six items (e.g., "*My goal is to have well-toned muscles*") on a 6-point rating scale ranging from *never* (1) to *always* (6). Higher scores indicate greater motivation to be lean. The scale had good test-retest reliability, construct validity and discriminant validity (Smolak & Murnen, 2008). Internal consistency of the scale was good in the current sample (ω = .89, 95 % CI:.86,.90).

2.2.4. Male Body Attitudes Scale Revised (Ryan et al., 2011)

The Male Body Attitudes Scale Revised (MBAS-R) measures men's attitudes toward their physical appearance. The measure comprised 15 items and three subscales: muscularity (7 items, e.g., "*I think I have too little muscle on my body*"), body fat (5 items, e.g., "*I feel excessively fat*") and height dissatisfaction (3 items, e.g., "*I feel ashamed of my height*"). Participants responded on a 6-point rating scale ranging from *never* (1) to *always* (6). Higher scores reflected greater dissatisfaction, both overall and concerning each subscale. This scale was adapted from the original MBAS (Tylka et al., 2005). The MBAS-R has demonstrated construct validity (Ryan et al., 2011) and showed good internal consistency for the muscularity (ω = .89, 95 % CI:.87,.91), body fat (ω = .92, 95 % CI:.91, .94) and height (ω = .86, 95 % CI:.83,.89) subscales in the present study. We focused on each subscale in this study rather than the overall score to gain a more nuanced understanding of cisgender men's body image.

2.2.5. Penis Size Dissatisfaction (Griffiths et al., 2019)

Penis size dissatisfaction was measured using three items adapted from the MBAS-R height dissatisfaction subscale. These items have been adapted and used previously to measure penis size dissatisfaction and are appropriate given that both height and penis size cannot be easily changed (Griffiths et al., 2019). Participants responded to each item (e.g., "*I wish I had a larger penis*") on a 6-point rating scale ranging from *never* (1) to *always* (7). Higher scores reflected greater dissatisfaction with penis size. Internal consistency of the scale was good in the current sample (ω = .87, 95 % CI:.84,.90).

2.2.6. Functionality Appreciation Scale (Alleva et al., 2017)

The Functionality Appreciation Scale (FAS) measures how much participants appreciate their body's capabilities. The measure comprises seven items (e.g., "*I feel that my body does so much for me*"), which participants rated on a 5-point scale ranging from *strongly disagree* (1) to *strongly agree* (5). Higher scores reflect greater levels of functionality appreciation. The FAS displayed a unidimensional model, construct validity, and test-retest reliability over three weeks (Alleva et al., 2017). The scale's internal consistency within the current study was good (ω = .92, 95 % CI:.90,.94).

2.3. Statistical analyses

We completed our analyses in R. The OSF contains the anonymised data and the analyses supporting our findings. We explored whether it was necessary to control for age because we identified a significant age difference across each identity, $F(2, 375) = 5.80$, $p = .003$. Straight men were significantly older than bisexual men ($p = .002$). We found that age was significantly correlated with several of our outcome measures. Given this, we opted to control for age in our analyses. For transparency, we found no differences in the comparisons reported in Table 2, regardless of whether we controlled for age. No other covariates were included in the analysis.

We began by exploring potential differences across our measures for each of the three identities using an omnibus F-test using the *aov* function in R. We then compared any significant differences by conducting pairwise comparisons using the Holm correction method. We do not provide standardised effect size metrics across the three identities. Rather, we provide effect sizes based on mean differences for any significant pairwise comparisons. We used the standard deviation (σ) produced by the *aov* function within the *eff_size* function from *emmeans* to calculate these effect sizes. This produces an effect size metric that can be approximated to Cohen's *d*.

3. Results

3.1. Preliminary analyses

Univariate normality was confirmed for each outcome measure; skew and kurtosis were within ± 2. We identified the presence of several univariate outliers for each of our measures. We retained all outliers as our measures had defined minimum and maximum scores. This approach recognises that these values represent genuine variability in participant responses rather than errors, aligning with best practice guidelines (Baguley, 2012). Outliers on psychometric measures with pre-defined limits can be valid indicators of the measured constructs rather than errors or anomalies. Visual inspection of the data revealed that each group's variance distribution was homogenous. Table 1 displays the correlation between our study's measures (and age).

3.2. Primary Analyses

Table 2 displays the descriptive statistics and comparisons between bisexual, gay and straight men across each measure. Concerning measures of physical satisfaction, we found significant differences across our three identities for (1) drive for leanness and (2) muscularity dissatisfaction (measured using the MBAS-R).

Bisexual men reported significantly lower *drive for leanness* relative to gay men, $t(374) = -2.79$, $p = .017$, Cohen's $d = -.35$, 95 % CI [− .10, − .60]. There was no evidence for any other significant differences in drive for leanness.

Bisexual men reported significantly lower *muscularity dissatisfaction* than gay men, $t(374) = -3.27$, $p = .004$, Cohen's $d = -.41$, 95 % CI [− .16, − .66], but reported similar levels to straight men ($p = .958$). Gay men reported significantly greater muscularity dissatisfaction than straight men, $t(374) = 3.22$, $p = .004$, Cohen's $d = .41$, 95 % CI [.16,.66].

We found no significant differences between each identity for our other measures. That is, bisexual, gay, and straight men reported similar (1) drive for muscularity, (2) body fat dissatisfaction, (3) height dissatisfaction, (4) penis size dissatisfaction and (5) functionality appreciation.

Bisexual men reported similar *drive for muscularity* relative to both gay men, $t(374) = -.84$, $p = .886$, Cohen's $d = -.11$, 95 % CI [− .36,.14], and straight men, $t(374) = .20$, $p = .886$, Cohen's $d = .03$, 95 % CI [− .23,.28]. Similarly, gay and straight men reported similar drive for muscularity, $t(374) = 1.05$, $p = .886$, Cohen's $d = .13$, 95 % CI [− .12,.38].

Bisexual men reported similar *body fat dissatisfaction* to both gay, $t(374) = -1.42$, $p = .473$, Cohen's $d = -.18$, 95 % CI [− .43,.07], and

Table 1
Correlations between each variable with confidence intervals.

Measure	1	2	3	4	5	6	7	8
1. Age	-	-.26***	-.15***	-.20***	-.01	-.04	-.05	.04
2. DMS	-.35, − .16	-	.65***	.72***	.17***	.28***	.28***	-.09
3. DLS	-.24, − .05	.59,.71	-	.53***	.28***	.21***	.27***	-.04
4. Muscularity	-.30, − .10	.67,.77	.45,.60	-	.40***	.39***	.44***	-.24***
5. Body Fat	-.11,.09	.07,.27	.18,.37	.32,.49	-	.22***	.40***	-.33***
6. Height	-.14,.07	.19,.37	.11,.31	.30,.47	.12,.31	-	.34***	-.19***
7. Penis Size	-.15,.05	.19,.37	.17,.36	.35,.52	.31,.48	.25,.43	-	-.32***
9. FAS	-.06,.14	-.19,.01	-.14,.06	-.34, − .15	-.42, − .24	-.29, − .10	-.41, − .23	-

Notes. Pearson's *r* above the diagonal, 95 % CIs below the diagonal. *** $p < .001$, * $p < .05$. DMS = Drive for Muscularity scale. DLS = Drive for Leanness scale. Muscularity, Body Fat and Height are the Male Body Attitudes Scale Revised (MBAS-R) subscales. FAS = Functionality Appreciation Scale.

Table 2
Descriptive statistics and comparisons across each sexual identity for each measure.

Measure	Total		Bisexual Men		Gay Men		Straight Men			
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*p*
DMS	38.24	14.18	38.66	15.09	39.27	14.07	36.77	13.31	1.14	.322
DLS	22.94	6.27	22.14	6.66	24.08	6.19	22.58	5.82	**3.46**	**.032**
Muscularity	23.28	8.24	22.52	7.85	25.41	8.93	21.86	7.48	**7.19**	**<.001**
Body Fat	17.20	7.17	16.71	7.17	17.97	7.54	16.91	6.75	1.12	.326
Height	6.69	3.65	6.43	3.29	6.90	3.82	6.74	3.82	.53	.589
Penis Size	7.72	4.05	7.60	3.63	8.23	4.28	7.33	4.19	1.65	.194
FAS	28.26	5.40	28.48	4.97	27.99	5.98	28.33	5.21	.27	.764

Notes. **Bold** indicates significant differences across the three identities at $p < .05$. *M* = mean, *SD* = standard deviation. We controlled for age across each comparison. DMS = Drive for Muscularity scale. DLS = Drive for Leanness scale. Muscularity, Body Fat and Height are the Male Body Attitudes Scale Revised (MBAS-R) subscales. FAS = Functionality Appreciation Scale.

straight men, $t(374) = -.27$, $p = .787$, Cohen's $d = -.03$, 95 % CI [− .29,.22]. Gay and straight men likewise reported similar body fat dissatisfaction, $t(374) = 1.14$, $p = .508$, Cohen's $d = .14$, 95 % CI [− .10,.39].

For *height dissatisfaction*, bisexual men reported similar levels to both gay, $t(374) = -1.09$, $p = .830$, Cohen's $d = -.14$, 95 % CI [− .39,.11], and straight men, $t(374) = -.79$, $p = .861$, Cohen's $d = -.10$, 95 % CI [− .35,.15]. Likewise, gay and straight men reported similar height dissatisfaction, $t(374) = .29$, $p = .861$, Cohen's $d = .04$, 95 % CI [− .21,.28].

Bisexual men also reported similar *penis size dissatisfaction* to both gay, $t(374) = -1.32$, $p = .377$, Cohen's $d = -.17$, 95 % CI [− .42,.08], and straight men, $t(374) = .36$, $p = .720$, Cohen's $d = -.05$, 95 % CI [− .21,.30]. Similarly, gay and straight men reported similar penis size dissatisfaction, $t(374) = 1.69$, $p = .278$, Cohen's $d = .21$, 95 % CI [− .04,.46].

Finally, bisexual men also reported similar *functionality appreciation* to both gay, $t(374) = .79$, $p = .999$, Cohen's $d = .10$, 95 % CI [− .15,.35], and straight men, $t(374) = .35$, $p = .999$, Cohen's $d = -05$, 95 % CI [− .21,.30]. Gay and straight men likewise reported similar functionality appreciation, $t(374) = -.43$, $p = .999$, Cohen's $d = -.05$, 95 % CI [− .30,.19].

4. Discussion

This exploratory study compared bisexual, gay and straight men on a variety of measures examining men's body image concerns. Previous research has measured men's body image concerns from a limited perspective (Griffiths et al., 2019). We overcame this limitation by measuring various constructs relevant to men's body image concerns, including motivations to change, (dis)satisfaction with one's body and functionality appreciation. Previous research has also not included a sufficient sample of bisexual men or has combined bisexual and gay men into a single category (i.e., sexual minoritised men), thereby considering their experience to be similar. In our study, which contained a sufficient sample of bisexual men, we showed that self-identifying bisexual men reported significantly lower motivation for leanness and muscularity dissatisfaction relative to gay men but similar levels to straight men. Our findings have important implications for existing body image literature that explores the experiences of bisexual men.

The experiences of bisexual men are often overlooked in research. Bisexual people experience greater stigma, marginalisation and prejudice than other sexual minoritised identities (Gonzalez et al., 2017; Parmenter et al., 2021). Bi(sexual) erasure is a pervasive societal issue and one which also persists in body image research. As of the most recent review of this issue, only a small number of studies have explored bisexual and gay men's body image differences (Nowicki et al., 2022). Fortunately, other quantitative (e.g., Austen et al., 2020) and qualitative (e.g., Tran et al., 2020) research have explored the body image concerns and experiences of bisexual men, emphasising the importance of this direction of research.

Our findings contradict the view that bisexual and gay men experience similar body image concerns concerning their drive for leanness and muscularity dissatisfaction. Bisexual men reported significantly lower body image concerns both motivation for leanness and muscularity dissatisfaction than gay men, with a small-medium effect size. Conversely, bisexual and straight men experienced similarities in each measure. Our findings contrast some of the limited research demonstrating no significant differences between bisexual and gay men on certain measures, such as measures of overall body dissatisfaction (Whitfield et al., 2018).

One possible explanation for these findings may stem from evidence suggesting that gay men report a stronger physical attraction to more attractive and muscular partners (Cordes et al., 2021). Leanness is often central to attractiveness within the gay (men) community (Smith et al., 2011) which could lead to a stronger desire to change one's appearance to align with these ideals (Frederick et al., 2007). This drive for leanness and muscularity can consequently result in poorer body image, manifesting as muscularity dissatisfaction. The pressures of attracting individuals from different genders experienced by bisexual men might indeed be different to those experienced by heterosexual and gay men, resulting in different body image concerns. For example, it is possible

that bisexual men experience these pressures primarily when they are actively seeking attraction and/or behaviours from other men. Therefore, they might not consistently face the same body image pressures as gay men. Future research should consider capturing these aspects of attraction and/or behaviour.

Conversely, we found no significant differences in some of our measures (e.g., drive for muscularity), which was consistent with previous research (Levitan et al., 2019). One explanation for this finding is men generally are exposed to the same media portrayals and cultural standards that emphasise a muscular, lean body as attractive, regardless of their sexual identity (Tylka, 2011). As such, while bisexual and gay men may exhibit differences in their dissatisfaction with their muscularity, both may experience similar motivations to achieve a muscular physique. However, as we mentioned above, gay men may still experience heightened dissatisfaction with their muscularity due to the additional pressures of their likely greater integration with the gay (men) community.

We also did not find any significant differences in dissatisfaction with body fat, height, or penis size. It may be that each of these concepts varies little between bisexual and gay men because men face common experiences regardless of their sexual identity. For instance, the consistent exposure to societal messages promoting the ideal man as someone with lower body fat, who is tall and has a sufficient (i.e., large) penis, may affect all men, regardless of sexual identity (Griffiths, et al., 2017; Johnston et al., 2014). Both cisgender men and women are consistently encouraged to have bodies defined by low body fat. While men seem to prefer larger bodies overall, they still experience these pressures. For example, men are often encouraged to have a low body fat percentage alongside a muscular body (Tylka, 2011).

We likewise found no significant differences concerning functionality appreciation. Functionality appreciation may not be affected as significantly by one's sexual identity as other aspects of body image (i.e., muscularity dissatisfaction). Other factors like age may be more significantly predictive of functionality appreciation (Alleva et al., 2017). However, we note that there was no correlation between age and functionality appreciation for our sample. Other factors rather than sexual identity, such as physical activity and body appreciation, may be greater predictors of functionality appreciation (Alleva & Tylka, 2021).

We can draw broad implications from our findings. Whilst we observed similarities across bisexual and gay men on some body image measures, we also found that bisexual men experienced more similar motivation for leanness and muscularity body dissatisfaction relative to straight, rather than gay men. Although, some previous research has considered the experiences of bisexual and gay men consistent and "*that there are more similarities than differences between bisexual and gay men*" (He et al., 2020, p. 11) our findings emphasise needing more care and attention when artificially grouping participants based on perceived similarities. Future research should hence be conscious of the potential differences between sexual minoritised groups, and it may be time to avoid using this term in body image research, instead including a sufficient sample of different sexual identities to capture their experiences meaningfully.

Our research has limitations. We restricted our sample to white, cisgender participants. While this was done to avoid potential confounds, we acknowledge that there is a significant dearth of literature on non-white, trans, and gender-diverse participants. We acknowledge that our sample was limited to individuals residing in predominantly English-speaking Western countries. We also did not account for cultural differences among the included nations in our analyses, which could have influenced our findings. Future research should aim to encompass the cultural diversity of various national backgrounds to explore these factors more comprehensively while also controlling for the potential influence of these cultural differences. Based on our compelling findings, we suggest that more research is needed in the future to investigate the body image experiences of bisexual men. By emphasising this diversity, targeted and effective interventions and support can be developed to address body image concerns for specific populations.

Funding declarations

The authors received internal funding from Nottingham Trent University, United Kingdom to support this research.

CRediT authorship contribution statement

A. Treshi-Marie Perera: Writing – review & editing, Methodology, Funding acquisition, Conceptualization. **Daragh T. McDermott:** Writing – review & editing, Supervision, Methodology, Conceptualization. **Mohammed Malik:** Writing – review & editing, Methodology, Funding acquisition, Conceptualization. **Bethany A. Jones:** Writing – review & editing, Supervision, Methodology, Funding acquisition, Conceptualization. **Liam Cahill:** Writing – original draft, Visualization, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The data and R script that support this study's findings are openly available in the Open Science Framework (OSF) at https://osf.io/w7bvt/.

References

Alleva, J. M., & Tylka, T. L. (2021). Body functionality: A review of the literature. *Body Image, 36*, 149–171. https://doi.org/10.1016/j.bodyim.2020.11.006

Alleva, J. M., Tylka, T. L., & Kroon Van Diest, A. M. (2017). The Functionality Appreciation Scale (FAS): Development and psychometric evaluation in U.S. community women and men. *Body Image, 23*, 28–44. https://doi.org/10.1016/j.bodyim.2017.07.008

Austen, E., Greenaway, K. H., & Griffiths, S. (2020). Differences in weight stigma between gay, bisexual, and heterosexual men. *Body Image, 35*, 30–40. https://doi.org/10.1016/j.bodyim.2020.08.002

Baguley, T. (2012). *Serious stats: A guide to advanced statistics for the behavioral sciences*. Palgrave Macmillan.

Cash, T. F. (2004). Body image: Past, present, and future. *Body Image, 1*(1), 1–5. https://doi.org/10.1016/S1740-1445(03)00011-1

Cordes, M., Vocks, S., & Hartmann, A. S. (2021). Appearance-related partner preferences and body image in a German sample of homosexual and heterosexual women and men. *Archives of Sexual Behavior, 50*(8), 3575–3586. https://doi.org/10.1007/s10508-021-02087-5

Filice, E., Raffoul, A., Meyer, S. B., & Neiterman, E. (2019). The influence of Grindr, a geosocial networking application, on body image in gay, bisexual and other men who have sex with men: An exploratory study. *Body Image, 31*, 59–70. https://doi.org/10.1016/j.bodyim.2019.08.007

Frederick, D. A., Buchanan, G. M., Sadehgi-Azar, L., Peplau, L. A., Haselton, M. G., Berezovskaya, A., & Lipinski, R. E. (2007). Desiring the muscular ideal: Men's body satisfaction in the United States, Ukraine, and Ghana. *Psychology of Men & Masculinity, 8*(2), 103–117. https://doi.org/10.1037/1524-9220.8.2.103

Gonzalez, K. A., Ramirez, J. L., & Galupo, M. P. (2017). I was and still am": Narratives of bisexual marking in the #StillBisexual campaign. *Sexuality & Culture, 21*(2), 493–515. https://doi.org/10.1007/s12119-016-9401-y

Griffiths, S., Murray, S. B., Bentley, C., Gratwick-Sarll, K., Harrison, C., & Mond, J. M. (2017). Sex differences in quality of life impairment associated with body dissatisfaction in adolescents. *Journal of Adolescent Health, 61*(1), 77–82. https://doi.org/10.1016/j.jadohealth.2017.01.016

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. https://doi.org/10.1016/j.bodyim.2017.10.001

Griffiths, S., Murray, S. B., Mitchison, D., Castle, D., & Mond, J. M. (2019). Relative strength of the associations of body fat, muscularity, height, and penis size dissatisfaction with psychological quality of life impairment among sexual minority men. *Psychology of Men & Masculinities, 20*(1), 55–60. https://doi.org/10.1037/men0000149

He, J., Sun, S., Lin, Z., & Fan, X. (2020). Body dissatisfaction and sexual orientations: A quantitative synthesis of 30 years research findings. *Clinical Psychology Review, 81*, Article 101896. https://doi.org/10.1016/j.cpr.2020.101896

Hunter, E. A., Kluck, A. S., Ramon, A. E., Ruff, E., & Dario, J. (2021). The Curvy Ideal Silhouette Scale: Measuring cultural differences in the body shape ideals of young U. S. women. *Sex Roles, 84*(3), 238–251. https://doi.org/10.1007/s11199-020-01161-x

Johnston, L., McLellan, T., & McKinlay, A. (2014). Perceived) size really does matter: Male dissatisfaction with penis size. *Psychology of Men & Masculinity, 15*(2), 225–228. https://doi.org/10.1037/a0033264

Jones, B. A., Haycraft, E., Murjan, S., & Arcelus, J. (2016). Body dissatisfaction and disordered eating in trans people: A systematic review of the literature. *International Review of Psychiatry, 28*(1), 81–94. https://doi.org/10.3109/09540261.2015.1089217

Kamody, R. C., Grilo, C. M., & Udo, T. (2020). Disparities in DSM-5 defined eating disorders by sexual orientation among U.S. adults. *The International Journal of Eating Disorders, 53*(2), 278–287. https://doi.org/10.1002/eat.23193

Kelley, C. C. (Galliger, Neufeld, J. M., & Musher-Eizenman, D. R. (2010). Drive for thinness and drive for muscularity: Opposite ends of the continuum or separate constructs? *Body Image, 7*(1), 74–77. https://doi.org/10.1016/j.bodyim.2009.09.008

Levitan, J., Quinn-Nilas, C., Milhausen, R., & Breuer, R. (2019). The relationship between body image and sexual functioning among gay and bisexual men. *Journal of Homosexuality, 66*(13), 1856–1881. https://doi.org/10.1080/00918369.2018.1519301

Linardon, J., Messer, M., & Tylka, T. L. (2023). Functionality appreciation and its correlates: Systematic review and meta-analysis. *Body Image, 45*, 65–72. https://doi.org/10.1016/j.bodyim.2023.02.002

McCreary, D. R., & Sasse, D. K. (2000). An exploration of the drive for muscularity in adolescent boys and girls. *Journal of American College Health: J of ACH, 48*(6), 297–304. https://doi.org/10.1080/07448480009596271

Mental Health Foundation. (2019). Body image: How we think and feel about our bodies. ⟨https://www.mentalhealth.org.uk/our-work/research/body-image-how-we-think-and-feel-about-our-bodies⟩.

McDermott, D. T., Brooks, A. S., Rohleder, P., Blair, K., Hoskin, R. A., & McDonagh, L. K. (2018). Ameliorating transnegativity: Assessing the immediate and extended efficacy of a pedagogic prejudice reduction intervention. *Psychology & Sexuality, 9*(1), 69–85. https://doi.org/10.1080/19419899.2018.1429487

Morrison, T. G., Katz, J. W., Mirzaei, Y., & Zare, S. (2020). Body image and eating disorders among sexual and gender minority populations. In E. D. Rothblum (Ed.), *The Oxford handbook of sexual and gender minority mental health* (pp. 71–85). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190067991.013.8.

Nowicki, G. P., Marchwinski, B. R., O'Flynn, J. L., Griffths, S., & Rodgers, R. F. (2022). Body image and associated factors among sexual minority men: A systematic review. *Body Image, 43*, 154–169. https://doi.org/10.1016/j.bodyim.2022.08.006

Parmenter, J. G., Galliher, R. V., & Maughan, A. D. A. (2021). LGBTQ+ emerging adults perceptions of discrimination and exclusion within the LGBTQ+ community. *Psychology & Sexuality, 12*(4), 289–304. https://doi.org/10.1080/19419899.2020.1716056

Paxton, S. J., Eisenberg, M. E., & Neumark-Sztainer, D. (2006). Prospective predictors of body dissatisfaction in adolescent girls and boys: A five-year longitudinal study. *Developmental Psychology, 42*(5), 888–899. https://doi.org/10.1037/0012-1649.42.5.888

Pope, H. G., Khalsa, J. H., & Bhasin, S. (2017). Body image disorders and abuse of anabolic-androgenic steroids among men. *JAMA, 317*(1), 23. https://doi.org/10.1001/jama.2016.17441

Rodgers, R. F., Laveway, K., Campos, P., & Carvalho, P. H. B. de (2023). Body image as a global mental health concern. *Cambridge Prisms: Global Mental Health, 10*, Article e9. https://doi.org/10.1017/gmh.2023.2

Ryan, T. A., Morrison, T. G., Roddy, S., & McCutcheon, J. (2011). Psychometric properties of the Revised Male Body Attitudes Scale among Irish men. *Body Image, 8*(1), 64–69. https://doi.org/10.1016/j.bodyim.2010.10.004

Smith, A. R., Hawkeswood, S. E., Bodell, L. P., & Joiner, T. E. (2011). Muscularity versus leanness: An examination of body ideals and predictors of disordered eating in heterosexual and gay college students. *Body Image, 8*(3), 232–236. https://doi.org/10.1016/j.bodyim.2011.03.005

Smolak, L., & Murnen, S. K. (2008). Drive for leanness: Assessment and relationship to gender, gender role and objectification. *Body Image, 5*(3), 251–260. https://doi.org/10.1016/j.bodyim.2008.03.004

Tran, A., Kaplan, J. A., Austin, S. B., Davison, K., Lopez, G., & Agénor, M. (2020). It's all outward appearance-based attractions": A qualitative study of body image among a sample of young gay and bisexual men. *Journal of Gay & Lesbian Mental Health, 24*(3), 281–307. https://doi.org/10.1080/19359705.2019.1706683

Tylka, T. L. (2011). Refinement of the Tripartite Influence Model for men: Dual body image pathways to body change behaviors. *Body Image, 8*(3), 199–207. https://doi.org/10.1016/j.bodyim.2011.04.008

Tylka, T. L., Bergeron, D., & Schwartz, J. P. (2005). Development and psychometric evaluation of the Male Body Attitudes Scale (MBAS). *Body Image, 2*(2), 161–175. https://doi.org/10.1016/j.bodyim.2005.03.001

Whitfield, T. H. F., Rendina, H. J., Grov, C., & Parsons, J. T. (2018). Viewing sexually explicit media and its association with mental health among gay and bisexual men across the U.S. *Archives of Sexual Behavior, 47*(4), 1163–1172. https://doi.org/10.1007/s10508-017-1045-y

Yelland, C., & Tiggemann, M. (2003). Muscularity and the gay ideal: Body dissatisfaction and disordered eating in homosexual men. *Eating Behaviors, 4*(2), 107–116. https://doi.org/10.1016/S1471-0153(03)00014-X