

Media exposure and self-esteem of young Indian adults: The mediating role of body dissatisfaction

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ABSTRACT. Lo studio mira a indagare il ruolo di mediazione dell'insoddisfazione corporea nella relazione tra l'esposizione ai media e l'autostima dei giovani adulti indiani. Un totale di 217 partecipanti ha preso parte volontariamente a questo studio. L'esposizione mediatica alla rappresentazione dell'immagine corporea ideale è stata valutata utilizzando la scala Thin Ideal Media Exposure (TIME); il questionario Body Shape Questionnaire (BSQ-16-B) è stato utilizzato per valutare le preoccupazioni dei partecipanti relative al proprio corpo, mentre il questionario Rosenberg Self-Esteem è stato impiegato per misurare l'autostima dei partecipanti. I risultati hanno dimostrato un effetto indiretto significativo di $b = -.041$; $t = 5.85$; CI, LB = $-.057$; UB = $-.027$; $p = .001$, a sostegno dell'ipotesi che l'immagine corporea media la relazione tra l'esposizione ai media e l'autostima. Inoltre, i risultati hanno anche mostrato che l'effetto diretto dell'esposizione ai media sull'autostima in presenza dell'immagine corporea è significativo ($b = -.032$; $t = 2.66$; CI, LB = $-.056$; UB = $-.010$; $p = .006$). I programmi di alfabetizzazione mediatica possono essere fondamentali per promuovere le capacità di pensiero critico e ridurre l'impatto negativo delle rappresentazioni dei media sull'immagine corporea nei paesi non occidentali come l'India.

SUMMARY. Diverse media platforms exert significant influence in ubiquitously promoting standardized beauty norms across individuals from diverse cultures, delineating the criteria for an ideal body norm. Consequently, they play a pivotal role in shaping body image and exerting an impact on an individual's self-esteem. The study aims to investigate the mediating role of body dissatisfaction in the relationship of media exposure and self-esteem of young Indian adults. A total of 217 participants voluntarily participated in this study. Media exposure to ideal body image portrayal was assessed using the Thin Ideal Media Exposure (TIME) scale. Body Shape Questionnaire (BSQ-16-B) was used to assess the body preoccupations of the participants, and Rosenberg Self-Esteem questionnaire was employed to measure the self-esteem of the participants. The results demonstrated a significant indirect effect of $b = -.041$; $t = 5.85$; CI, LB = $-.057$; UB = $-.027$; $p = .001$, hence supporting the hypothesis that body image mediates the relationship between media exposure and self-esteem. Furthermore, the results also showed that the direct effect of media exposure on self-esteem in the presence of body image is significant ($b = -.032$; $t = 2.66$; CI, LB = $-.056$; UB = $-.010$; $p = .006$). Body dissatisfaction partially mediates the relationship between media exposure and self-esteem of young Indian adults. Media literacy programs can be instrumental in fostering critical thinking skills and reducing the negative impact of media portrayals on body image in non-Western countries like India.

Keywords: Body dissatisfaction, Body image, Self-esteem, Media exposure

INTRODUCTION

The concept of beauty is subjective in nature. Its perception depends on how one constructs, experiences, and appreciates it. Among many other factors, for example, past experiences, education, current circumstances, aesthetics dictated by fashion mandates of that age (Dimitrov & Kroumpouzou, 2023), and culture have a significant impact on one's perception of beauty (Madan, Basu, Ng & Ching Lim, 2018). Culture establishes standards for what is beautiful, and self-perceptions of beauty and attractiveness are heavily influenced by those standards (Kaziga, Muchunguzi, Achen & Kools, 2021). Every culture fosters idealized images for its males and females to classify them as worthy members of their respective genders. For example, the American beauty standard is to maintain youth, while the European standard is to promote and appreciate naturally flawless skin. In Africa, a larger and fuller form of body is appealing, whereas in China, upper-class ladies would have their feet tied tightly and painfully, so that their growth could be restricted to a paltry 3 or 4 inches, which were thought attractive and elegant. The Padaung ladies (Burmese migrants to Thailand) have a tradition of wearing rings around their necks, which causes their necks to elongate. This is viewed as highly attractive in their culture. The Indian beauty ideal has always regarded a body with gentle contours as attractive.

There are explanations available in the current literature about why people strive to maintain an ideal body shape. For example, the evolutionary perspective asserts that people consider an idealized body shape an important attribute for attracting a reproductively potential future mate (Bovet, 2019). Physical body cues that restore this potential are portrayed as important determinants of attractiveness, and deliberate attempts are made to fit in this 'idealised body model', more so by both genders, but mainly by females, to look and maintain attractiveness in order to fulfil those societal expectations (Baghel, Parthasarathy & Gupta, 2014; Wade, Shanley & Imm, 2004). The perceived ideal images constitute a crucial component of our body image. Body image refers to the way we think, feel, and behave with regard to our physical traits (Grogan, 2016). In today's technology-centric era, mass media have served as an important channel for propagating ideal body image representations among the common people. It promotes the message that an ideal body signifies health and success (Chatterjee & Rastogi, 2021; Grabe, Ward & Hyde, 2008;

Hesse-Biber, Leavy, Quinn & Zoino, 2006). For females, it promotes a thin-ideal body shape, and for males, it promotes a muscular body shape. Due to the advent of many social networking sites over the past one and a half decades, the pressure to conform to these ideal body standards has increased manifold. Consistent representation of the ideal body image in the media makes people identify it as normative. Most of the time, the media influencers promote such unrealistic body shapes that are difficult to achieve. Utilising various software applications and image editing methods, they portray a certain body shape and attribute that to specific exercise regimens, dietary plans, or gym products that they are paid to endorse (Abbas & Dodeen, 2021; Harriger, Evans, Thompson & Tylka, 2022).

The sociocultural perspective of body image (Tiggemann, 2012) indicates that exposure to media may cause body dissatisfaction through two pathways: (a) internalization of the ideal body shapes portrayed through different media, and (b) social comparison – comparing one's body shape with the ideal body shapes (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). In the context of body image, internalization is said to have occurred when an individual starts to endorse, believe in, and take actions in order to achieve that socially approved body shape (Thompson & Stice, 2001). In this connection, Stice (2002) reported that people do not internalize ideal body standards at the same level. The more the internalization of the ideal standards, the greater is the risk for developing body dissatisfaction, which in extreme cases, leads to eating disorders (Stice, 2002). According to Social Comparison Theory (Festinger, 1954), the second pathway through which media exposure causes body dissatisfaction, people have an innate tendency to compare themselves with others so that they can determine their progress in different spheres of their lives (in this case, their physical attractiveness). There could be upward comparisons, where the comparison is made with people who are better off than oneself, or downward comparisons, where the comparison is made with people who are worse off than oneself. Upward comparison would lead to negative consequences, whereas downward comparison would lead to positive consequences. Leahey and Crowther (2008) reported that during upward comparison, if people feel they are not close to the ideal body shape, they would be highly dissatisfied with their own body shape. Negative body image in both males and females can lead to a wide range of self-destructive behaviours such as fad dieting, disordered eating

patterns, over consumption of steroids and overindulgence in physical exercises (Schaefer et al., 2015).

The standardisation of an aesthetic ideal and the marketing of homogeneous beauty standards can indeed be a sufficient explanation for the recent finding of increased prevalence of body dissatisfaction and its correlates penetrating deep into non-Western cultures in the last few decades, thus making it a global phenomenon. Research studies have also identified the process of acculturation, which is marked by cultural change subsequent to the recognition of a peripheral culture with a more central and dominant one, to be at the core of finding body image issues in non-Western cultures, especially in the Low- and Middle-Income countries (LMICs) (Hannerz, 1989).

Body dissatisfaction or the negative perception and evaluation of one's physical body play an important role in decelerating our mental health outcomes like self-esteem (Shang, Xie & Yang, 2021; Tiggemann & Slater, 2013). According to a study, self-esteem is higher when it is based on more abstract factors such as values and distinguishing traits of one's personality rather than on tangible attributes such as physical appearance (Stapleton, Crighton, Carter & Pidgeon, 2017). The Tripartite Influence Model (TIM) holds a three-way mediational mechanism, postulating that the societal, interpersonal and intrapersonal factors collectively influence an individual's body image and self-esteem (Thompson, Coovert & Stormer, 1999). The interrelationship between these components is complex and dynamic. Individuals with low self-esteem may be more susceptible to the negative effects of societal and interpersonal influences, while heightened body dissatisfaction can further erode self-esteem. Longitudinal

studies have supported the TIM framework by demonstrating how these factors interact over time, reinforcing the idea that societal, interpersonal and intrapersonal elements are intricately linked in shaping body image and self-esteem (Bearman, Presnell, Martinez & Stice, 2006).

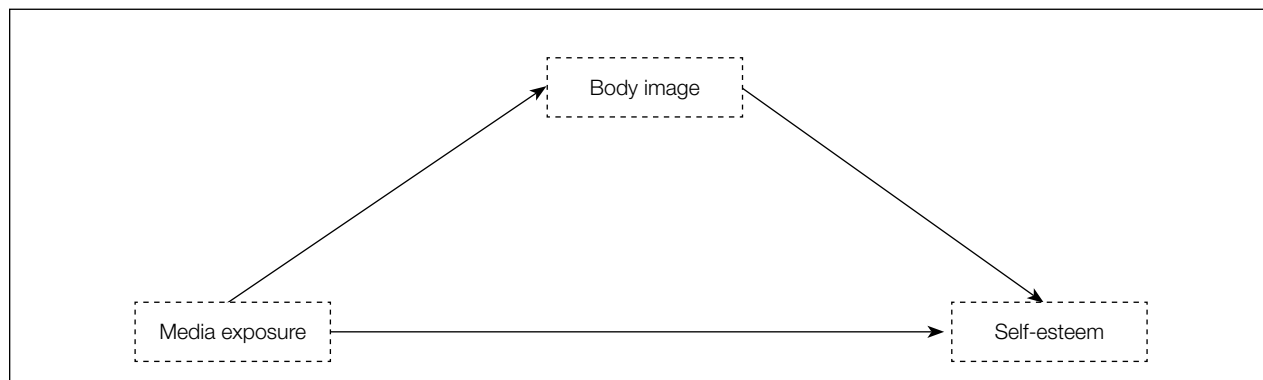
Studies have explored how the portrayal of idealized body standards in the media can lead to negative body image perceptions among viewers (Castellanos Silva & Steins, 2023; Fardouly & Vartanian, 2016; Jiotsa, Naccache, Duval. Rocher & Grall-Bronnec, 2021). Other studies have investigated the relationship between heightened body dissatisfaction and lowered self-esteem. In the current study, it is hypothesized that prolonged exposure to ideal body shapes through different channels of media would lead to heightened dissatisfaction with one's body, which would eventually result in lowered self-esteem among the young Indian adults. In other words, the relationship between media exposure and self-esteem would be mediated by one's body image. The hypothetical mediational model is represented in Figure 1.

METHOD

Participants

All the students enrolled in various Master's and PhD programs of the University were informed through official emails about the data collection process of this research study and were requested to voluntarily participate in the study. A total of 217 participants voluntarily turned up to participate

Figure 1 – Hypothetical mediational model



in this study. Out of 217 participants, 120 were males whose age range was 20-32 years ($M = 24.45$; $SD = 2.32$), and the remaining 97 were female participants whose age ranged between 21-33 years ($M = 24.26$; $SD = 2.65$). The data was collected by employing a convenience sampling technique.

Sample size

For determining the sample size, an a priori power analysis using G*Power 3.1 (Faul, Erdfelder, Lang & Buchner, 2007) was done. In order to achieve a power of .95 at an alpha level of .05, it is recommended a sample size of 209 for an effect size of $f^2 = .075$ (which lies between small and medium effect sizes), using a linear multiple regression, fixed model, R^2 deviation from zero. Thus, the sample size of 217 was found to be more than adequate for achieving the objectives of this study.

Measures

Media exposure. To assess the degree of media exposure of the participants to thin/muscular ideal media (in terms of number of hours in an average week), Thin Ideal Media Exposure (TIME) scale by Stice and colleagues (Stice, Schupak-Neuberg, Shaw & Stein, 1994) was used. It measures the number of hours participants spent – reading fashion and fitness magazines (for example: ‘how many hours do you spend reading fashion magazines in an average week?’; ‘how many hours do you spend on social media sites in an average week?’) As per their exposure to different types of media in an average week, the participants indicate their respective number of hours which ranges from 0 to 168 hours. With the advent of social media and the popularity of reality shows, two more items were added to the original scale by Davis LA (2015) (for example: ‘how many hours do you spend on social media sites in an average week?’). TIME scale demonstrated a test-retest reliability of .76 in the original study by Stice et al. (1994). However, the internal consistency for this measure in the Davis LA study was relatively low, with a Cronbach’s alpha of .41. An updated version of the scale, which included two additional items, produced a slightly higher alpha coefficient of .46. Given the low internal consistency observed in both versions, Davis conducted principal components factor analysis on the modified 8-item version of the measure. Items with eigenvalues ≥ 1.0 and factor loadings $\geq .60$ were retained,

while those not meeting these criteria were excluded, as they did not meaningfully contribute to the construct. The refined version demonstrated improved internal consistency, yielding a Cronbach’s alpha of .72.

Self-esteem. The Rosenberg Self-Esteem scale developed by Rosenberg (1965) was used to assess the global self-esteem of the participants. It is a Likert-type 10-item scale where responses could be given on a 4-point scale ranging from ‘strongly agree’ to ‘strongly disagree’. Sample items include ‘On the whole, I am satisfied with myself’ and ‘I feel that I have a number of good qualities’. Some of the items on the scale are reverse scored. A high score on this scale indicates high self-esteem, and a low score indicates low self-esteem. The scale has demonstrated a good reliability ($\alpha = .88$) (Tylka & Sabik, 2010).

Body image. In order to assess the body preoccupations of the participants, the *Body Shape Questionnaire (BSQ-16-B)* (Evans & Dolan, 1993) was used. It is a self-report measure that includes 16 items and assesses negative self-appraisal of body image. The questionnaire includes items like: ‘Have you ever been afraid that you might become fat?’ and ‘Have you felt excessively large and rounded?’. The score of each item ranges from 1 to 6, with Never = 1, Rarely = 2, Sometimes = 3, Often = 4, Very often = 5, Always = 6, in which a sum score of all items indicates the body image concerns of the participants. A sum score of 66 or more indicates marked body shape concern, while a score below 38 indicates no body shape concern. The alpha value of the questionnaire lies in the range of .93 to .96, and test-retest reliability is .88, and internal consistency is .95.

Procedure

An email invitation requesting voluntary participation in the study was sent to all the students enrolled in different Master’s and PhD programs of the selected University. Prior to the engagement of the participants, the investigators presented the research proposal of this study to the research progress committee that monitors the flow of research for ethical and standard compliance. The participants were also given a brief introduction about the purpose of the study. The above-mentioned questionnaires were administered to the participants on a one-to-one basis in an offline mode. Data were collected from 244 students in total, but because of outliers, data from 27 participants were not included in the

final analysis. At the end of data collection, all the responses were re-coded and scored according to the scoring manuals given for each questionnaire. Statistical analysis of the data was performed by using SPSS Statistics 26.0 and SPSS AMOS 23.0 software programs.

RESULTS

To test the hypothesized mediation model, the researchers performed a Structural Equation Modelling (SEM) with the maximum likelihood method by using AMOS 23.0. The direct and indirect effects were tested in a path analysis of SEM. The bootstrapping estimate was used to assess the significance of the indirect effect. After that, multi-group SEM was used to examine whether the proposed mediation model showed a significant difference between male and female participants. The path-by-path comparisons were determined using critical ratios for differences (CRD) to examine whether significant differences existed in each structural path across the two groups.

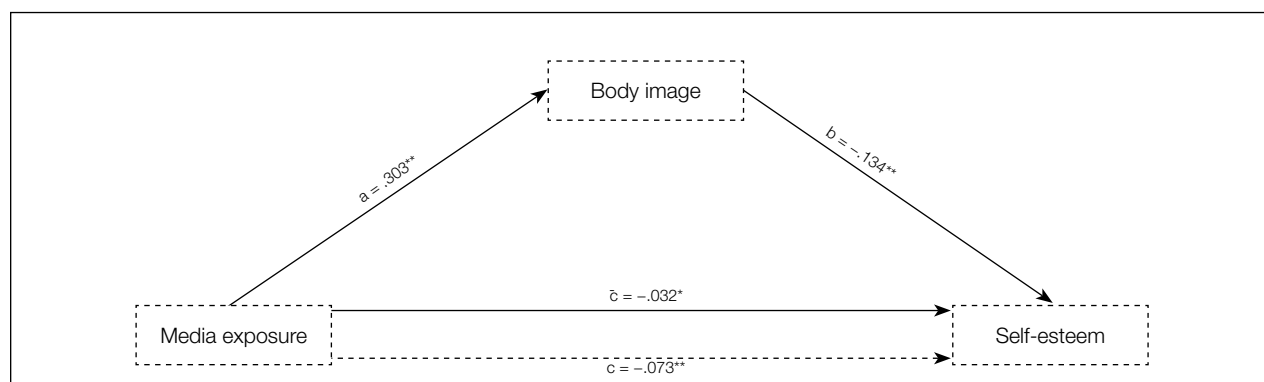
Path analysis of SEM

Path analysis was used to examine the direct effect (C-path) between the independent variable (IV), i.e., media exposure and dependent variable (DV), i.e., self-esteem in the

absence of the mediating variable (MV), i.e., body image; the indirect effect of the IV over DV via MV, referred to as $a*b$ -path; and the total effect of the IV over DV in the presence of MV. In other words, the total effect is the effect of an IV on the DV through the direct path, i.e., C-path and an indirect path, i.e., $a*b$ -path (see Figure 2). For assessing the significance of mediation, recommendations by Collier (2020) with respect to the unstandardized bootstrap confidence intervals (CIs) were followed. The bootstraps CIs in the present study, are based on 5,000 samples. Mediation is deemed to be present if 95 % lower bound (LB) and upper bound (UB) CI do not include zero, and the p-value is less than .05 (Collier, 2020).

The total number of distinct sample moments in the current path model is six, and the number of distinct parameters to be estimated is also six. Hence, the model has zero degrees of freedom. Such a model is often called as a saturated or just-identified model. After performing SEM with the maximum likelihood method, the result of χ^2 goodness of fit is also zero (i.e., $\chi^2 = .000$, $df = 0$). Just-identified models do not test a theory because the circumstance determines their fit, which means that there are just enough degrees of freedom to estimate all free parameters (Hair et al., 2010). Thus, traditional fit indices such as χ^2/df , CFI and RMSEA are not reported, as they are not informative in this case (i.e., $\chi^2/df = 0$, CFI = 1.000, RMSEA = .446). In the case of a just-identified model, for a good model fit, if the value of χ^2 is zero, the model perfectly fits the data (Collier, 2020; Kline, 2016).

Figure 2 – Results of the mediation model



Legenda. The path values represent unstandardized Beta coefficients.

* $p < .05$, ** $p < .01$

Test for mediation

The results revealed that when body image is not included in the analysis as a mediating variable, the value of the direct effect (C-path) is $b = -.073$; $t = 6.63$; CI, LB = $-.096$; UB = $-.051$; $p = .001$, indicating that media exposure has a significant negative effect on self-esteem (see Figure 2). Path a of Figure 2 shows that media exposure has a significant positive effect on body image, $b = .303$, which indicates that as media exposure of young Indian adults increases, their body dissatisfaction also increases. Further, path b of Figure 2 shows that body dissatisfaction has a negative effect on self-esteem $b = -.134$, which indicates that as body dissatisfaction of young Indian adults increases, their self-esteem decreases. The results demonstrated a significant indirect effect of $b = -.041$; $t = 5.85$; CI, LB = $-.057$; UB = $-.027$; $p = .001$, thereby supporting our hypothesis that body image mediates the relationship between media exposure and self-esteem. Furthermore, the results also showed that the direct effect of media exposure on self-esteem in the presence of body image is significant ($b = -.032$; $t = 2.66$; CI, LB = $-.056$; UB = $-.010$; $p = .006$). This indicates that when body image is included as a mediating variable in the analysis, the value of the direct path, now C-path changes from $-.073$ to $-.032$, hence, body image partially mediates the relationship between media image and self-esteem among young Indian adults. A summary analysis of the mediation is also presented in Table 1. Overall, the full sample model accounted for 23.8% of the variance in body image and 28.7% of the variance in self-esteem.

Test of group differences

Group differences by gender were determined using multi-group analysis in SEM (see Table 2). The CRD test reveals no significant differences between males and females for the structural path from media exposure to body image ($\Delta\chi^2/1df = 1.165$, $p = .280$). Thus, the two groups are very similar in this relationship. In addition, no significant group differences were found in other structural paths from body shape to self-esteem ($\Delta\chi^2/1df = 1.221$, $p = .269$) and media exposure to self-esteem ($\Delta\chi^2/1df = 2.904$, $p = .088$).

DISCUSSION

This study was conceptualized to investigate the mediating role of body dissatisfaction in the relationship between media exposure and the self-esteem of young Indian adults. With respect to the direct path, i.e., C-path as shown in the observed model (see Figure 2), the results of the present study indicate a substantial negative impact of media exposure on self-esteem, emphasizing the potential harm that extensive media exposure can inflict on the self-esteem of young Indian adults. Available empirical research, spanning across various media forms such as social media, traditional advertising, and online platforms, has also consistently demonstrated the detrimental effect of media exposure on self-esteem, particularly among young adults (Fardouly, Diedrichs, Vartanian & Halliwell, 2015; Nagar & Virk, 2017; Perloff, 2014; Tiggemann & Slater, 2014;).

Table 1 – Summary of mediation analysis

Relationship	Direct effect	Confidence interval		p-value	Indirect effect	Confidence interval		p-value	Conclusion
		Lower	Upper			Lower	Upper		
ME → BI → SE	-.032	-.056	-.010	.006	-.041	-.057	-.027	.001	Partial mediation

Legenda. ME = media exposure; BI = body image; SE = self-esteem.

Table 2 – Summary of group differences by gender

Path	Male			Female			$\Delta\chi^2/1df$
	β	SE	CR	β	SE	CR	
ME to BS	.269***	.035	7.598	.269***	.035	7.598	1.165
BS to SE*	-.129***	.023	-5.636	-.176***	.035	-5.061	1.221
ME to SE	-.019	.012	-1.505	-.063***	.024	-2.680	2.904

Legenda. ME = media exposure; BS = body shape; SE* = self-esteem; β = standardised regression weight; SE = standard error; CR = critical ratio; df = degree of freedom; $\Delta\chi^2/1df$ = group differences.

*** $p < .001$

With respect to the indirect path, i.e., a*b-path, the first component (a-path) revealed a significant effect of media exposure on body dissatisfaction, which indicates that increased media exposure corresponds with heightened body dissatisfaction among the participants. The available scientific literature has also indicated that media portrayals, especially those promoting unrealistic body standards, can contribute to negative body image perceptions. This aligns with the findings of Tiggemann and McGill (2004), who documented that exposure to idealized body images in the media is associated with an increased sense of body dissatisfaction among women. Similarly, many other studies have asserted that exposure to thin-ideal media content exacerbates the cultivation of unrealistic body standards, especially among women. This exposure contributes substantially to the formation of negative body image perceptions and even mood disturbances, thereby fostering the development of psychopathologies within this demographic. The findings collectively substantiate the pervasive negative consequences of media exposure on body image, emphasizing the reinforcing nature of such exposure in perpetuating adverse outcomes (Fardouly et al., 2015;

Fredrickson & Roberts, 1997; Grabe et al., 2008; Huang, Peng & Ahn, 2020).

The second component of the indirect path, i.e., the b-path of the observed model, reveals that body dissatisfaction has a negative effect on self-esteem. This suggests that as young Indian adults experience heightened body dissatisfaction, their self-esteem diminishes. The negative beta-coefficient and its significance underscore the mediating role of body image in the relationship between media exposure and self-esteem, providing valuable insights into the psychological processes through which media exposure impacts individuals. This finding of the study aligns with an extensive body of research that elucidates the negative impact of body dissatisfaction on self-esteem, particularly among young adults (Cash, Morrow, Hrabosky & Perry, 2004; Stice, Hayward, Cameron, Killen & Taylor, 2000; Tiggemann & Lynch, 2001).

Furthermore, the multi-group analysis in SEM reveals that there are no significant differences in these relationships between male and female young adults. This suggests that the mediation model operates similarly across genders, implying that both males and females are equally influenced by media exposure in shaping their body image and subsequent self-

esteem. The absence of gender difference highlights that contemporary media is increasingly affecting both genders equally, unlike earlier research that often emphasised female vulnerability to media exposure (Grabe et al., 2008; Tiggemann & McGill, 2004).

The underlying factor responsible for the results of the current study could be that the young adults use media for a variety of reasons, including browsing celebrity images, online shopping, fashion magazines, and accessing social networking sites. All such media have a very high potential of containing, promoting and propagating ideal body images. After repeated exposure to such content, they internalize the ideal body standards (Roberts, Maheux, Hunt, Ladd & Choukas-Bradley, 2022) and engage in comparison processes in which they tend to compare their own physical appearance with idealised body shapes (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). Media portrayals of idealised body shapes serve as the reference point with which people compare their own body shapes. During comparison, if one feels there is a wide gap between their own body shape and the ideal body shape, then they are susceptible to body dissatisfaction (McComb & Mills, 2021). As people begin to compare themselves to idealized, advertised, attractive beauty standards, satisfaction towards their own attractiveness decreases (Richins, 1991). Another line of thought is from the perspective of social media, one of the most popular mediums of media of the current times. In an attempt to boost their self-esteem, people seek validation and reassurance from others by posting updates about themselves, which are most often accompanied by their photos. They expect to get likes and positive feedback (comments) from the virtual social world. In case they don't get a sufficient number of likes and positive comments, their self-esteem is lessened (Valkenburg, Peter & Schouten, 2006). The results of the current study also align with the Tripartite Influence Model (Thompson et al., 1999), which states that the media plays a major role in shaping the body image perceptions of people. The findings of the current study support the model's proposition that exposure to media, portraying ideal body shapes, has a direct impact on individuals, influencing their internalization of societal beauty standards and, consequently, impacting the perception of their body image. Moreover, the study's identification of body image as a partial mediator in the relationship between media exposure and self-esteem adds depth to our understanding of these complex dynamics. This mediation suggests that the influence of media exposure on

self-esteem is, in part, channelled through its impact on body shape dissatisfaction. As individuals compare themselves to idealized bodies in the media, the resultant dissatisfaction with their own bodies becomes a pathway through which self-esteem is negatively affected.

Mitigating the impact of media exposure on body image, particularly in non-Western countries like India, necessitates multifaceted interventions informed by empirical evidence. Media literacy programs can be instrumental in fostering critical thinking skills and reducing the negative impact of media portrayals on body image. Perloff (2014) argues that promoting media literacy can enhance individuals' ability to critically evaluate and challenge unrealistic beauty standards depicted in the media, thereby mitigating the adverse effects on body image. Advocacy for the implementation of body image resilience programs that focus on enhancing individuals' capacity to resist societal pressures and promote positive body image can also be an effective intervention (Becker, Diedrichs, Jankowski & Werchan, 2013).

CONCLUSION AND FUTURE DIRECTIONS

Exposure to ideal body shapes through various media channels leads to heightened body dissatisfaction, thus resulting in lower self-esteem among young Indian people. Further, body dissatisfaction partially mediates the relationship between media exposure and self-esteem. Future research could clinically categorise body dissatisfaction within the sample and see the relation with media exposure and self-esteem. Additionally, other mediators and moderators, such as individual differences in susceptibility to media influence, can be explored. Furthermore, longitudinal studies can provide a more nuanced understanding of the temporal dynamics of these relationships across different life stages and also enhance our understanding of the directionality among media exposure, body dissatisfaction, and self-esteem. This will further help determine whether media exposure leads to increased body dissatisfaction and reduced self-esteem, or whether individuals with pre-existing body dissatisfaction and low self-esteem are more likely to engage with idealized media content. Establishing causal pathways will enhance our understanding and inform more targeted interventions. The present study utilised a convenience sample drawn from a single university. Although the diversity of students

from different regions provides a foundational basis for understanding trends among young Indian adults in higher education, future research should aim to include participants from rural areas, varied socio-economic backgrounds, and lower educational levels to achieve a more comprehensive and representative overview of media influence and body image across India.

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Informed consent - Informed consent was obtained from all individual participants included in the study.

References

- ABBAS, L., & DODEEN, H. (2022). Body dysmorphic features among Snapchat users of 'Beauty-retouching of selfies' and its relationship with quality of life. *Media Asia*, 49 (3), 196-212. doi.org/10.1080/01296612.2021.2013065
- BAGHEL, D., PARTHASARATHY, D., & GUPTA, M. (2014). Will you walk into my parlor? Spaces and practices of beauty in Mumbai. *South Asian Popular Culture*, 12 (3), 163-179. doi.org/10.1080/14746689.2014.983709
- BEARMAN, S.K., PRESNELL, K., MARTINEZ, E., & STICE, E. (2006). The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. *Journal of Youth and Adolescence*, 35 (2), 217-229. doi.org/10.1007/s10964-005-9010-9
- BECKER, C.B., DIEDRICHS, P.C., JANKOWSKI, G., & WERCHAN, C. (2013). "I'm not just fat, I'm old": Has the study of body image overlooked "Old talk"? *Journal of Eating Disorders*, 1 (1). doi.org/10.1186/2050-2974-1-6
- BOVET, J. (2019). Evolutionary theories and men's preferences for women's waist-to-hip ratio: Which hypotheses remain? A systematic review. *Frontiers in Psychology*, 10 (4). doi.org/10.3389/fpsyg.2019.01221
- CASH, T.F., MORROW, J.A., HRABOSKY, J.I., & PERRY, A.A. (2004). How has body image changed? A cross-sectional investigation of college women and men from 1983 to 2001. *Journal of Consulting and Clinical Psychology*, 72 (6), 1081-1089. doi.org/10.1037/0022-006X.72.6.1081
- CASTELLANOS SILVA, R. & STEINS, G. (2003). Social media and body dissatisfaction in young adults: An experimental investigation of the effects of different image content and influencing constructs. *Frontiers in Psychology*, 14. doi.org/10.3389/fpsyg.2023.1037932
- CHATTERJEE, S., & RASTOGI, S. (2021). Television culture and the beauty bias problem: An analysis of India's postmillennial television serials. *Media Asia*, 49 (3), 213-234. doi.org/10.1080/01296612.2021.2010939
- COLLIER, J.E. (2020). *Applied structural equation modeling using AMOS*. Routledge
- DIMITROV, D., & KROUMPOUZOS, G. (2023). Beauty perception: A historic and contemporary review. *Clinics in Dermatology*, 41 (1). doi.org/10.1016/j.clindermatol.2023.02.006
- EVANS, C., & DOLAN, B. (1993). Body Shape Questionnaire: Derivation of shortened 'alternate forms'. *International Journal of Eating Disorders*, 13 (3), 315-321. doi: 10.1002/1098-108x(199304)13:3<315::aid-eat2260130310>3.0.co;2-3
- FARDOULY, J., DIEDRICHS, P.C., VARTANIAN, L.R., & HALLIWELL, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. *Body Image*, 13 (1), 38-45. doi.org/10.1016/j.bodyim.2014.12.002

- FARDOULY, J., & VARTANIAN, L.R. (2016). Social media and body image concerns: Current research and future directions. *Current Opinion in Psychology*, 9 (9). doi.org/10.1016/j.copsyc.2015.09.005
- FAUL, F., ERDFELDER, E., LANG, A.G., & BUCHNER, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39 (2), 175-191. doi.org/10.3758/BF03193146
- FESTINGER, L. (1954). A theory of social comparison processes. *Human Relations*, 7 (2), 117-140. doi.org/10.1177/001872675400700202
- FREDRICKSON, B.L., & ROBERTS, T.A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, 21 (2), 173-206. doi.org/10.1111/j.1471-6402.1997.tb00108.x
- GRABE, S., WARD, L.M., & HYDE, J.S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 134 (3), 460. doi.org/10.1037/0033-2909.134.3.460
- GROGAN, S. (2016). *Body image: Understanding body dissatisfaction in men, women and children (3rd ed.)*. Routledge. doi.org/10.4324/9781315681528
- HANNERZ, U. (1989). Culture between center and periphery: Toward a macroanthropology. *Ethnos*, 54 (3-4), 200-216. doi.org/10.1080/00141844.1989.9981392
- HARRIGER, J.A., EVANS, J.A., THOMPSON, J.K., & TYLKA, T.L. (2022). The dangers of the rabbit hole: Reflections on social media as a portal into a distorted world of edited bodies and eating disorder risk and the role of algorithms. *Body Image*, 41 (1), 292-297. doi.org/10.1016/j.bodyim.2022.03.007
- HESSE-BIBER, S., LEAVY, P., QUINN, C.E., & ZOINO, J. (2006). The mass marketing of disordered eating and eating disorders: The social psychology of women, thinness and culture. *Women's Studies International Forum*, 29 (2), 208-224. doi.org/10.1016/j.wsif.2006.03.007
- HUANG, Q., PENG, W., & AHN, S. (2020). When media become the mirror: A meta-analysis on media and body image. *Media Psychology*, 24 (4), 1-53. doi.org/10.1080/15213269.2020.1737545
- JLOTS, B., NACCACHE, B., DUVAL, M., ROCHER, B., & GRALL-BRONNEC, M. (2021). Social media use and body image disorders: Association between frequency of comparing one's own physical appearance to that of people being followed on social media and body dissatisfaction and drive for thinness. *International Journal of Environmental Research and Public Health*, 18 (6). doi.org/10.3390/ijerph18062880
- KAZIGA, R., MUCHUNGUZI, C., ACHEN, D., & KOOLS, S. (2021). Beauty is skin deep; The self-perception of adolescents and young women in construction of body image within the Ankole society. *International Journal of Environmental Research and Public Health*, 18 (15), 7840. doi.org/10.3390/ijerph18157840
- LEAHEY, T.M., & CROWTHER, J.H. (2008). An ecological momentary assessment of comparison target as a moderator of the effects of appearance-focused social comparisons. *Body Image*, 5 (3), 307-311. doi.org/10.1016/j.bodyim.2008.03.002
- MADAN, S., BASU, S., NG, S., & CHING LIM, E.A. (2018). Impact of culture on the pursuit of beauty: Evidence from five countries. *Journal of International Marketing*, 26 (4), 54-68. doi.org/10.1177/1069031X18805493
- McCOMB, S.E., & MILLS, J.S. (2021). Young women's body image following upwards comparison to Instagram models: The role of physical appearance perfectionism and cognitive emotion regulation. *Body Image*, 38, 49-62. doi.org/10.1016/j.bodyim.2021.03.012
- NAGAR, I., & VIRK, R. (2017). The struggle between the real and ideal: Impact of acute media exposure on body image of young Indian women. *Sage Open*, 7 (1). doi.org/10.1177/2158244017691327
- PERLOFF, R.M. (2014). Social media effects on young women's body image concerns: Theoretical perspectives and an agenda for research. *Sex Roles*, 71, 363-377. doi.org/10.1007/s11199-014-0384-6
- RICHINS, M.L. (1991). Social comparison and the idealized images of advertising. *Journal of Consumer Research*, 18 (1), 71-83. doi.org/10.1086/209242
- ROBERTS, S.R., MAHEUX, A.J., HUNT, R.A., LADD, B.A., & CHOUKAS-BRADLEY, S. (2022). Incorporating social media and muscular ideal internalization into the tripartite influence model of body image: Towards a modern understanding of adolescent girls' body dissatisfaction. *Body Image*, 41, 239-247. doi.org/10.1016/j.bodyim.2022.03.002
- ROSENBERG, M. (1965). *Society and the adolescent self-image*. Princeton University Press.
- SCHAEFER, L.M., THIBODAUX, L.K., KRENIK, D., ARNOLD, E., & THOMPSON, K. (2015). Physical appearance comparisons in ethnically diverse college women. *Body Image*, 15, 153-157. doi.org/10.1016/j.bodyim.2015.09.002
- SHANG, Y., XIE, H-D., & YANG, S-Y. (2021). The relationship between physical exercise and subjective well-being in college students: The mediating effect of body image and self-esteem. *Frontiers in Psychology*, 12. doi.org/10.3389/fpsyg.2021.658935
- STAPLETON, P., CRIGHTON, G.J., CARTER, B., & PIDGEON, A. (2017). Self-esteem and body image in females: The mediating role of self-compassion and appearance contingent self-worth.

- The Humanistic Psychologist*, 45 (3), 238-257. doi.org/10.1037/hum0000059
- STICE, E., HAYWARD, C., CAMERON, R.P., KILLEN, J.D., & TAYLOR, C.B. (2000). Body-image and eating disturbances predict onset of depression among female adolescents: A longitudinal study. *Journal of Abnormal Psychology*, 109 (3), 438-444. doi.org/10.1037/0021-843X.109.3.438
- STICE, E., SCHUPAK-NEUBERG, E., SHAW, H.E., & STEIN, R.I. (1994). Relation of media exposure to eating disorder symptomatology: An examination of mediating mechanisms. *Journal of Abnormal Psychology*, 103 (4), 836-840. doi.org/10.1037//0021-843X.103.4.836
- STICE, E. (2002). Sociocultural influences on body image and eating disturbance. *Eating Disorders and Obesity: A Comprehensive Handbook*, 2, 103-107.
- THOMPSON, J.K., COOVERT, M.D., & STORMER, S.M. (1999). Body image, social comparison, and eating disturbance: A covariance structure modeling investigation. *The International Journal of Eating Disorders*, 26 (1), 43-51. doi.org/10.1002/(sici)1098-108x(199907)26:1<43::aid-eat6>3.0.co;2-r
- THOMPSON, J.K., HEINBERG, L.J., ALTABE, M., & TANTLEFF-DUNN, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. American Psychological Association. doi.org/10.1037/10312-000
- THOMPSON, J.K., & STICE, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions in Psychological Science*, 10 (5), 181-183. doi.org/10.1111/1467-8721.00144
- TIGGEMANN, M. (2012). Sociocultural perspectives on body image. *Encyclopedia of Body Image and Human Appearance*, 2, 758-765. doi.org/10.1016/b978-0-12-384925-0.00120-6
- TIGGEMANN, M., & LYNCH, J.E. (2001). Body image across the life span in adult women: the role of self-objectification. *Developmental Psychology*, 37 (2), 243-253. doi.org/10.1037/0012-1649.37.2.243
- TIGGEMANN, M., & MCGILL, B. (2004). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal of Social and Clinical Psychology*, 23 (1), 23-44. doi.org/10.1521/jscp.23.1.23.26991
- TIGGEMANN, M., & SLATER, A. (2013). NetGirls: The internet, Facebook, and body image concern in adolescent girls. *International Journal of Eating Disorders*, 46 (6), 630-633. doi.org/10.1002/eat.22141
- TIGGEMANN, M., & SLATER, A. (2014). NetTweens: The internet and body image concerns in pre-teenage girls. *The Journal of Early Adolescence*, 34 (5), 606-620. doi.org/10.1177/0272431613501083
- TYLKA, T.L., & SABIK, N.J. (2010). Integrating social comparison theory and self-esteem within objectification theory to predict women's disordered eating. *Sex Roles*, 63, 18-31. doi.org/10.1007/s11199-010-9785-3
- VALKENBURG, P.M., PETER, J., & SCHOUTEN, A.P. (2006). Friend networking sites and their relationship to adolescents' well-being and social self-esteem. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 9 (5), 584-590. doi.org/10.1089/cpb.2006.9.584
- WADE, T.J., SHANLEY, A., & IMM, M. (2004). Second to fourth digit ratios and individual differences in women's self-perceived attractiveness, self-esteem, and body-esteem. *Personality and Individual Differences*, 37 (4), 799-804. doi.org/10.1016/j.paid.2003.11.005