Psychology and Body Image: A Review

G. K. Tiwari & Sanjay Kumar *

Present review article endeavors to explicate the major theoretical and methodological issues in the area of psychology of body image. The psychological antecedents and correlates of body image with the consequences of having positive and negative body image have been discussed in detail. The research on the psychology of body image is dominated by correlational method which have focused individual psychological factors, familial and parental processes, socio-economic status, media, body weight, socio-economic status and genetic heritage as some of the most important factors acting as the antecedents of the dynamism of the body image. Overdependence on correlational studies, lack of research on certain populations, insufficient information and low effect size are some of the limitations which have pervaded the previous studies. The major protective measures to check body image dissatisfaction include upholding a healthy weight, maintaining close relationships with others, improving well-being, and reducing tendency to compare oneself to others. The researches indicate that exercise-based interventions and psychotherapeutic interventions are effective at improving body image of the individuals. The review also comes up with some policy implications of the psychology of body image. The negative feelings associated with body image and its impacts on the well-being, self-esteem, physical and mental health of the individuals constitute the core concerns for the psychologists. The policy makers should make efforts to help the people to recognize the emotional qualities, character and individuality as key components of beauty. The educational, social and cultural forces are to be identified and reshaped to make compatible with good body image.

Key terms: Body Image, Body satisfaction, eating disorders.

Introduction: The Term 'body image' was coined by the Austrian neurologist and psychoanalyst Paul Schilder in his book 'The Image and Appearance of the Human Body' (1935). The human society has always placed great worth to the beauty of the human body. The individuals differ in their perceptions of their own body and their perceptions may not fit to the societal standards and expectations. The knowledge of the facts and dynamics of their personal attributes significantly affect their psychological functioning and well-being. The term body image refers to the extent to which individuals perceive the facts pertaining to their body. This perception of the individuals may result either in satisfaction and dissatisfaction and comprised of two components. Body perception constitutes the first component which incorporates subjective knowledge of one's physical attributes. The nature and accuracy of one's perception of real and ideal bodily attributes determine the strategies to fill this gap. Body satisfaction entails the second aspect which refers to the degree to which one is satisfied with one's present body attributes. The level of body satisfaction determines the degree of one's body confidence, body esteem, and body dissatisfaction. Owing to significant consequences of body perception and body satisfaction, there has been a sudden upsurge in the efforts of researchers worldwide to uncover the intricacies involved in body perceptions and body satisfaction of the individuals and consequences thereof.

Major correlates of body image: The literature on body image is flooded with correlational researches which have been comprised of relationship between body satisfaction and related factors and do not establish cause-effect relationship. Body weight, media, individual

^{*} Assistant Professor, Department of Psychology, School of Humanities & Social Sciences, Dr. H. S. Gour Central University, Sagar, M. P.

psychological factors, socio-economic status, genetic links, cosmetic surgery, health behaviours and suicide are some of such factors which have been attended by researchers in their studies (Burroes, 2013). It has been reported that the obese individuals are more prone to have lowered body satisfaction than those who are normal. There is uniformity in the findings of the studies that explored the relationship between body image and body weight. Body weight has been reported to be the most reliable factor predicting body image regardless of gender or ethnicity (Goldfield et al., 2010; Xanthopoulos et al., 2011). These studies have failed to show that increased body weight always causes decreased body satisfaction or vice versa. For some, an increase in body weight may result in increased social pressure to drop body weight which leads to a reduction in body satisfaction (Cafri et al., 2005) or low body satisfaction may lead to ineffective or unhealthy dieting behaviours resulting into increased weight (Goldfield et al., 2011).

The role of media in the development of body image of the individuals has also been explored extensively. The amount and nature of contents of media, prior level of body satisfaction, gender, age and intelligence of the individuals have been found to be responsible for accruing the impacts of media on body image. Use of Commercials/advertisements, ideal body shapes, duration of media exposure and assessing the pressure of the media to have a perfect body shape are some of the major techniques to assess the impacts of media on the body image of the individuals. Most of such studies have come up with the conclusion that the exposure to ideal body images contributes from mild to moderate degree of decrement in the body satisfaction and body perception of both males and females (Barlett, Vowels, & Saucier, 2008; Grabe, Ward, & Hyde, 2008). Contrary to these conclusions, some studies have found no support of the impacts of media on body image (Holmstrom, 2004). Perceived similarity with ideal body image has sometimes enhances body satisfaction of the female participants, as exposure to slim images may act as a motivational factor to help maintain lower body weight (Barlett et al., 2008; Holstrom, 2004). Presence of prior low level of body satisfaction has also been reported to affect one's body satisfaction (Blond, 2008; Want, 2009).

The body image of the individuals has implications for their psychological functioning. Low self-esteem (Tiwari, 2014) and depression are some of the most studied consequences of low body image. Beliefs regarding some sort of perfect body images, tendency to compare themselves to others and sense of insecurity are some of the major psychological correlates of body satisfaction. An association between negative body image and depression has been found for both male (Cohane et al., 2001) and female (Pesa et al., 2000) adolescents with the females experiencing depression more than their male counterparts (Sujoldzić, et al., 2007). Individuals having a prior history of social phobia (Izgiç, Akyüz, Dogcaron & Kugcaron, 2004), internalization of thin body image (Cafri, Yamamiya, Brannick & Thompso, 2005) and extreme social comparisons (Myers & Crowther, 2009) were more prone to experience lower body image satisfaction.

The parental and familial factors also exert strong influence on the positive or negative body satisfaction of the children. Increased sense of general social pressure to have an ideal body, frequent teasing by parents and peers, parental values and quality of relationship are some of the factors which contribute to the level of body satisfaction. Holsen et al. (2012) found good quality relationships with parents and peers to be associated with higher body satisfaction whereas poor quality relationships with parents and peers resulted in decreased body satisfaction as well as quality and course ensuing adulthood. The role of parents in any attempts to enhance body image of young people is very critical (Rodgers et al., 2009) befitting girls more (Crespo et al., 2010; van den Berg et al., 2010). Parents' concerns about their own body image have negative impact on body image of their children. It has been found that the mothers who were concerned about their

weight were more likely to have their daughters dissatisfied with their bodies and more likely to have both daughters and sons who try to control their weight. An imagined societal pressure to have an 'ideal' body shape is also associated with the body image satisfaction of the individuals. The studies have come to the conclusion that the individuals having higher feelings of social pressure to achieve an ideal body reported lower body satisfaction than those who do not feel such pressures (Cafri et al., 2005). There are gender differences in the feeling of social pressure and the females are more likely to feel pressurized to have an ideal body than boys (Esnaola et al., 2010) and easily internalize this pressure which works unaffected by the outer perceived social pressure. The individuals who have low body satisfaction are also more likely to report that they have been teased about their bodies. Children and females are more likely to say they have been teased than adults and males, respectively. However, it is not clear whether children and females experience more teasing than others, or whether they are more affected by the teasing they experience (Lunde et al., 2007; Menzel et al., 2010).

Body image is also affected by the social strata to which the individuals belong. The studies report that the children of lower socio-economic status are more likely to be overweight and to perceive themselves as weighing less than they actually do as compared to the children belonging to higher socio-economic status. The girls from middle to upper socio-economic status groups are likely to have lower body satisfaction. Children with lower socio-economic status are more likely to be overweight than children from middle to higher socio-economic status groups but are also more likely to perceive themselves as weighing less than they actually do (O'Dea et al., 2001). This suggests that children of lower socio-economic status groups may be more likely to misperceive their body image in a way that encourages them to remain over-weight.

The genetic heritage of the individuals seems to be an important predictor of some aspects of body satisfaction for females in comparison to males. The ability to accurately estimate body size is associated with a genetic link. Choice of ideal body size appears to be more influenced by environmental factors than genetic factors. Twin studies comparing data from monozygotic twins and dizygotic twins identified the impact of genetic match over environmental factors such as parenting styles. These studies indicate whether a trait is associated with 'nature' or 'nurture'.

Eating disorders, body dysmorphic disorders, unhealthy weight control behaviours and risky sexual practices may be associated with negative body image. Low satisfaction may act as an obstruction to quit smoking and other addictive habits in females who develop wrong perception of their actual body shape or size, and estimate themselves to be heavier than their actual weight consequently may use unhealthy weight control strategies (Liechty, 2010). In case of adolescents, lower body satisfaction may increase the likelihood of using unhealthy weight control behaviours such as dieting that may result in enhanced weight and poorer health (Neumark-Sztainer et al., 2006). Thus, body image may have a key role in risk of developing eating disorders. Further, sexual health of women with lower body satisfaction may also result in incoherent sex practices and inclination to have multiple sex partners in comparison to the females with higher body satisfaction (Littleton, Radecki, Britkopf, & Berenson, 2005). Addicts such as smokers have higher preoccupation with their weight than non-smokers. Fear of weight gain may prevent people from trying to quit smoking therefore body image (both body perception and body satisfaction) may play a role behind sustained smoking (Clark et al., 2005).

Suicide also has a positive correlation with low body satisfaction. The individuals with low body satisfaction are more likely to report the frequent occurrence of suicidal thoughts or attempts. The relationship between body image and suicide depends upon age and physical development of the individuals. There are contradictions regarding this as some researchers have found no relationship between body satisfaction and suicide (Crow, Eisenberg, Story, & Neumark

Sztainer, 2008) while others have reported a close link between the two (Crow, Eisenberg, Story, & Neumark-Sztainer, 2008; Rodríguez-Cano, BeatoFernández, & Llario, 2006).

The males and females differ in their levels of body satisfaction with females reporting lower body satisfaction as compared to males (Barlett, Vowels & Saucier, 2008; Blond, 2008). The females want to lose weight whereas males desire to increase muscle mass (Petrie, Greenleaf, and Martin, 2010). Consequently, very lean males are much less satisfied with their bodies than very lean females (Frederick et al., 2007). Most of the studies of body image have been confined to children and adolescents. Bun et al. (2012) found that 8% of boys and 14% of girls aged 9-10 had a negative image of their body with 3% of normal weight boys and 7% of normal weight girls rating themselves as 'too fat'. The study on preadolescents indicated these figures to increase with age by 9% of normal weight boys and 28% of normal weight girls rating themselves as 'too fat' (Burroes, 2013). The body satisfaction also gradually increases with the increase in age during adolescence and get stabilized by adulthood (Holsen et al., 2012). For males, faster physical development is associated with feeling of overweight, lower body satisfaction, and an increase in teasing (Barlett, Vowels, & Saucier, 2008; Nishina, Ammon, Bellmore, & Graham, 2006). Older adults also show body image dissatisfaction in a different form. McLaren and Kuh (2004) found that 80% of the women reported weight dissatisfaction with their bodies in comparison to their younger years which affected their daily life activities.

Body satisfaction in different ethnic groups has also been attended by researchers. It has been found that White and Asian populations tend to have lower body satisfaction than Black-African populations. They also differ in their conceptions of ideal body image along with similarities across different ethnic groups (Holmqvist, Lunde, & Frisén, 2007; Thatcher & Rhea, 2003). Such differences are small, and they generally indicate that White (Nishina, Ammon, Bellmore, & Graham, 2006; van den Berg et al., 2010) or Asian (Kennedy, Templeton, Gandhi, & Gorzalka, 2004; Wardle, Haase, & Steptoe, 2006; Xanthopoulos et al., 2011; Xie, et al., 2010) people are less satisfied with their bodies than other ethnic groups. People from Black African descent tend to be most satisfied with their bodies (Breitkopf, Littleton, & Berenson, 2007). Sexual orientations of the individuals have related with body image satisfaction. It has been found that heterosexual men have higher body satisfaction than homosexual men, homosexual women, and heterosexual women (Filiault et al., 2009; Morrison, Morrison & Sager, 2004; Peplau et al., 2009). They are also less preoccupied with their weight and are more comfortable with their private wearing in public, and are more willing to reveal aspects of their body to their partner during sexual activity (Peplau et al., 2009).

A number of measures can be adopted to maintain satisfactory body image. The individuals may be protected from negative body image by increasing their individual resilience. These are heterosexual men (Peplau et al., 2009), and individuals from non-White or non-Asian ethnic groups (van den Berg et al., 2010; Xanthopoulos et. al., 2011). For age differences, it is suggested that body satisfaction improves with passing of individuals from adolescents to adulthood (Holsen et al., 2012). Efforts to increase individual resilience would benefit from a better understanding of why some people are less likely to experience negative body image in comparison to others. Maintaining normal weight is likely to reduce the likelihood of low body satisfaction regardless of whether low body satisfaction is the result of having increased weight, or other factors such as teasing (Menzel et al., 2010).

Decreasing social comparisons and avoiding feelings pressurized by the other individuals to have a perfect body (Cafri et al., 2005); enhanced well-being (Fenton, Brooks, Spencer, and Morgan, 2010) and non-adopting the dominant culture if one belongs to an ethnic minority group (Xie et al., 2010) are effective measures to prevent negative body image. Identification of women

with feminism also decreases the chances of low body image satisfaction (Murnen & Smolak, 2009). Practicing mindfulness and other similar health practices increases the chance of not having body dissatisfaction. Negative body image may be prevented by working with some sort of societal or environmental causes. Certain media images are associated with reduced body satisfaction for some individuals. Changing the types of images that are portrayed in the media may help to prevent negative body image. Improving relationships with family and peers (Holsen et al., 2012) and increasing social engagement enhance body image satisfaction. Exercise-based interventions appear to be successful at improving body image. Psychotherapeutic interventions may also be effective at improving body image. Health-based educational interventions do not appear to be effective at improving body image. Exercise based interventions have been found to be effective in improving body image (Campbell & Hausenblas, 2009; Hausenblas & Fallon, 2006; Reel et al., 2007). A combination of aerobic and anaerobic exercise produces the greatest improvements in body image. Moderate to strenuous exercise appears to have a greater impact than mild levels of exercise. Exercise-alone interventions appear to exert more impact than exercise-with-other-therapy interventions. Researchers have also explored the impact of psychotherapeutically-based interventions to improve body image with positive outcomes. Jarry and Berardi (2004) found that stand-alone body image therapy based on cognitive-behaviour technique is also effective at improving body image. Geraghty, Wood, and Hyland (2010) reported the use of gratitude diaries and thought-monitoring and restructuring techniques effective at improving body satisfaction.

Generally, three techniques have been used to assess body image. The most popular method to assess body image is self-report questionnaires. These scales include the Body Shape Questionnaire (Cooper, Taylor, Cooper & Fairbum, (1987), Body Esteem Scale (Franzoi & Shields, 1984) and the Body Shape Satisfaction Scale (Slade, Dewey, Newton, Brodie & Kiemle, 1990). These scales are generally well standardized with satisfactory estimates of the indices of reliability and validity. In figure drawings technique, a series of drawings of body shape are presented and the participants are asked to identify their 'ideal' body shape or the body shape that they feel best reflects their actual body shape. A low score using this measure would indicate inaccurate body perception or low levels of body satisfaction (Gardner, Jappe & Gardner, 2009). The other method of studying body image is measuring actual body weight and shape. It involves the collection of accurate body shape and weight measurements for each participant. Some research studies use physical examinations by trained medical professionals to gain accurate body weight and shape data whereas others rely on participant self-report on their weight and height.

The review of the current status of the research of the nature and dynamics of the psychology of body image demonstrates that there are various conceptual, methodological, protective, preventive and practical issues which need immediate and concerted research efforts on the part of psychologists, educationalists, policy makers and adherents of other disciplines of science. The body image and its negative consequences are prevalent worldwide which is directly affecting the well-being and self-esteem of the people and paving the way for development of eating and other psychological disorders especially for the people of younger generation. Body image satisfaction does not involve only psychological, physical and interpersonal challenges but also financial burden on the part of the individuals. There is an urgent need to give people the tools they need to critically assess the images around them; to encourage people to recognize the emotional qualities, character and individuality of beauty. The causal factors of negative body image are not limited to societal factors, such as the media or peer influence but also to individual factors, such as a lack of individual resilience. Future research may come up with more sophistication in methodology, larger and varied samples, older age groups and cultural conception

as well as effective measures to combat low body image or lowered body satisfaction. The policy makers can initiate body image education aimed at minimizing the cost of having low body satisfaction and negative body image across race, gender and region.

Reference:

- Barlett, C. P., Vowels, C. L., & Saucier, D. A. (2008). Meta-analyses of the effects of media images on men's body-image concerns. *Journal Of Social & Clinical Psychology*, 27(3), 279-310.
- Blond, A. (2008). Impacts of exposure to images of ideal bodies on male body dissatisfaction: a review. *Body Image*, 5(3), 244-250.
- Breitkopf, C., Littleton, H., & Berenson, A. (2007). Body Image: A Study in a Tri-Ethnic Sample of Low Income Women. *Sex Roles*, 56(5/6), 373-380.
- Bun, C. J. E., Schwiebbe, L., Schuetz, F. N., Bijlsma-Schlosser, J., & Hirasing, R. A. (2012). Negative body image and weight loss behaviour in Dutch school children. European Journal of Public Health, 22(1), 130-133
- Burroes, N. (2013). Body image-A rapid evidence assessment of the literature. A project on behalf of the Government Equalities Office.
- Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The influence of sociocultural factors on body image: A meta-analysis. Clinical Psychology: Science and Practice, 12(4), 421-433.
- Campbell, A., & Hausenblas, H. (2009). Effects of exercise interventions on body image: a meta-analysis. *Journal Of Health Psychology*, 14(6), 780-793
- Clark, M., Croghan, I., Reading, S., Schroeder, D., Stoner, S., Patten, C., & Vickers, K. (2005). The relationship of body image dissatisfaction to cigarette smoking in college students. *Body Image*, 2(3), 263-270.
- Cohane, G., & Pope, H. (2001). Body image in boys: a review of the literature. *The International Journal Of Eating Disorders*, 29(4), 373-379.
- Cooper, P., Taylor, M., Cooper, Z., & Fairbum, C. (1987). The development and validation of the body shape questionnaire, International Journal of Eating Disorders, 6(4), 485-494.
- Crespo, C., Kielpikowski, M., Jose, P., & Pryor, J. (2010). Relationships Between Family Connectedness and Body Satisfaction: A Longitudinal Study of Adolescent Girls and Boys. *Journal Of Youth & Adolescence*, 39(12), 1392-1401
- Crow, S., Eisenberg, M., Story, M., & Neumark-Sztainer, D. (20081). Are body dissatisfaction, eating disturbance, and body mass index predictors of suicidal behavior in adolescents? A longitudinal study. *Journal Of Consulting And Clinical Psychology*, 76(5), 887-892.
- England. Peplau, L., Frederick, D., Yee, C., Maisel, N., Lever, J., & Ghavami, N. (2009). Body image satisfaction in heterosexual, gay, and lesbian adults. *Archives Of Sexual Behavior*, 38(5), 713-725
- Esnaola, I., Rodríguez, A., & Goñi, A. (2010). Body dissatisfaction and perceived sociocultural pressures: Gender and age differences. *Salud Mental*, 33(1), 21-29
- Fenton, C., Brooks, F., Spencer, N., & Morgan, A. (2010). Sustaining a positive body image in adolescence: an assets-based analysis. *Health & Social Care In The Community*, 18(2), 189-198
- Filiault, S. M., & Drummond, M. J. N. (2009). Methods and methodologies: Investigating gay mens body image in westernized cultures. *Critical Public Health*, 19(3-4), 307-323.

- Franzoi, S. & Shields, S. (1984). The body esteem scale: Multidimensional structure and sex differences in a college population, Journal of Personality Development, 48(2), 173-178.
- Frederick, D. A., Forbes, G. B., Grigorian, K. E., & Jarcho, J. M. (2007). The UCLA Body Project I: Gender and Ethnic Differences in Self-Objectification and Body Satisfaction Among 2,206 Undergraduates. *Sex Roles*, 57(5/6), 317-327.
- Gardner, R., Jappe, L., & Gardner, L. (2009). Development and validation of a new figural drawing scale for body image assessment: the BIAS-BD. Journal of Clinical Psychology, 65(1), 113-122.
- Geraghty, A. A., Wood, A. M., & Hyland, M. E. (2010). Attrition from self-directed interventions: Investigating the relationship between psychological predictors, intervention content and dropout from a body dissatisfaction intervention. *Social Science & Medicine*, 71(1), 30-37
- Goldfield, G. S., Moore, C., Henderson, K., Buchholz, A., Obeid, N., & Flament, M. F. (2010). Body Dissatisfaction, Dietary Restraint, Depression, and Weight Status in Adolescents. *Journal Of School Health*, 80(4), 186-192.
- Grabe, S., Ward, L., & Hyde, J. (2008). The role of the media in body image concerns among women: a meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 134(3), 460-476
- Hausenblas, H. A., & Fallon, E. A. (2006). Exercise and body image: A meta-analysis. *Psychology & Health*, 21(1), 33-47.
- Holmqvist, K., Lunde, C., & Frisén, A. (2007). Dieting behaviors, body shape perceptions, and body satisfaction: cross-cultural differences in Argentinean and Swedish 13-year-olds. *Body Image*, 4(2), 191-200.
- Holmstrom, A. J. (2004). The Effects of the Media on Body Image: A Meta-Analysis. *Journal Of Broadcasting & Electronic Media*, 48(2), 196-217.
- Holsen, I., Carlson Jones, D., & Skogbrott Birkeland, M. (2012). Body image satisfaction among Norwegian adolescents and young adults: a longitudinal study of the influence of interpersonal relationships and BMI. *Body Image*, 9(2), 201-208.
- Izgiç, F., Akyüz, G., Do&gcaron;n, O., & Ku&gcaron;u, N. (2004). Social Phobia Among University Students and Its Relation to Self-Esteem and Body Image. *Canadian Journal of Psychiatry*, 49(9), 630-634.
- Jarry, J., & Berardi, K. (2004). Characteristics and effectiveness of stand-alone body image treatments: a review of the empirical literature. *Body Image*, 1(4), 319-333.
- Kennedy, M., Templeton, L., Gandhi, A., & Gorzalka, B. B. (2004). Asian Body Image Satisfaction: Ethnic and Gender Differences across Chinese, Indo-Asian, and European-Descent Students. *Eating Disorders*, 12(4), 321-336.
- Liechty, J. (2010). Body image distortion and three types of weight loss behaviors among nonoverweight girls in the United States. *The Journal Of Adolescent Health: Official Publication Of The Society For Adolescent Medicine*, 47(2), 176-182.
- Littleton, H., Radecki Breitkopf, C., & Berenson, A. (2005). Body image and risky sexual behaviors: an investigation in a tri-ethnic sample. *Body Image*, 2(2), 193-198.
- Lunde, C., Frisén, A., & Hwang, C. (2007). Ten-year-old girls' and boys' body composition and peer victimization experiences: prospective associations with body satisfaction. *Body Image*, 4(1), 11-28.
- McLaren, L., & Kuh, D. (2004). Body Dissatisfaction in Midlife Women. *Journal Of Women & Aging*, 16(1/2), 35-54.

- Menzel, J., Schaefer, L., Burke, N., Mayhew, L., Brannick, M., & Thompson, J. (2010).
 Appearance-related teasing, body dissatisfaction, and disordered eating: A meta-analysis. *Body Image*, 7(4), 261-270.
- Morrison, M., Morrison, T., & Sager, C. (2004). Does body satisfaction differ between gay men and lesbian women and heterosexual men and women? A meta-analytic review. *Body Image*, 1(2), 127-138
- Murnen, S., & Smolak, L. (2009). Are Feminist Women Protected from Body Image Problems? A Meta-analytic Review of Relevant Research. *Sex Roles*, 60(3/4), 186-197
- Myers, T., & Crowther, J. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal Of Abnormal Psychology*, 118(4), 683-698.
- Neumark-Sztainer, D., Paxton, S. J., Hannan, P. J., Haines, J., & Story, M. (2006). Does Body Satisfaction Matter? Five-year Longitudinal Associations between Body Satisfaction and Health Behaviors in Adolescent Females and Males. *Journal of Adolescent Health*, 39(2), 244-251.
- Nishina, A., Ammon, N. Y., Bellmore, A. D., & Graham, S. (2006). Body Dissatisfaction and Physical Development Among Ethnic Minority Adolescents. *Journal Of Youth & Adolescence*, 35(2), 179-191
- O'Dea, J., & Caputi, P. (2001). Association between socioeconomic status, weight, age and gender, and the body image and weight control practices of 6- to 19-year-old children and adolescents. *Health Education Research*, 16(5), 521-532.
- Pesa, J., Syre, T., & Jones, E. (2000). Psychosocial differences associated with body weight among female adolescents: the importance of body image. The *Journal Of Adolescent Health: Official Publication Of The Society For Adolescent Medicine*, 26(5), 330-337.
- Petrie, T., Greenleaf, C., & Martin, S. (2010). Biopsychosocial and Physical Correlates of Middle School Boys' and Girls' Body Satisfaction. *Sex Roles*, 63(9/10), 631-644
- Reel, J., Greenleaf, C., Baker, W., Aragon, S., Bishop, D., Cachaper, C., & Hattie, J. (2007). Relations of body concerns and exercise behavior: a meta-analysis. *Psychological Reports*, 101(3 Pt 1), 927-942
- Rodgers, R., & Chabrol, H. (2009). Parental attitudes, body image disturbance and disordered eating amongst adolescents and young adults: a review. *European Eating Disorders Review: The Journal Of The Eating Disorders Association*, 17(2), 137-151.
- Rodríguez-Cano, T., Beato-Fernández, L., & Llario, A. (2006). Body dissatisfaction as a
 predictor of self-reported suicide attempts in adolescents: a Spanish community prospective
 study. The Journal Of Adolescent Health: Official Publication Of The Society For Adolescent
 Medicine, 38(6), 684-688.
- Schilder, P. (1935) The Image and Appearance of the Human Body. Oxford:
- Slade, P., Dewey, M., Newton, T., Brodie, D., & Kiemle, G. (1990). Development and preliminary validation of the body satisfaction scale (BSS), Psychology and Health, 4(3), 213-220.
- Sujoldzić, A., & De Lucia, A. (2007). A cross-cultural study of adolescents--BMI, body image and psychological well-being. *Collegium Antropologicum*, 31(1), 123-130.
- Thatcher, W. W., & Rhea, D. D. (2003). Influences on body image and disordered eating among secondary school students. *American Journal Of Health Education*, 34(6), 343-350.
- Tiwari, G. K. (2014). Body image satisfaction enhances self-esteem. Vaichariki IV(4), 7-11.
- Van den Berg, P., Mond, J., Eisenberg, M., Ackard, D., & Neumark-Sztainer, D. (2010). The link between body dissatisfaction and self-esteem in adolescents: similarities across gender,

- age, weight status, race/ethnicity, and socioeconomic status. *The Journal of Adolescent Health: Official Publication Of The Society For Adolescent Medicine*, 47(3), 290-296.
- Want, S. (2009). Meta-analytic moderators of experimental exposure to media portrayals of women on female appearance satisfaction: Social comparisons as automatic processes. *Body Image*, 6(4), 257-269.
- Wardle, J., Haase, A. M., & Steptoe, A. (2006). Body image and weight control in young adults: International comparisons in university students from 22 countries. *International Journal of Obesity*, 30(4), 644-651
- Xanthopoulos, M., Borradaile, K., Hayes, S., Sherman, S., Vander Veur, S., Grundy, K., & Foster, G. (2011). The impact of weight, sex, and race/ethnicity on body dissatisfaction among urban children. *Body Image*, 8(4), 385-389.
- Xie, B., Unger, J. B., Gallaher, P., Johnson, C. A., Wu, Q., & Chou, C. (2010). Overweight, body image, and depression in asian and hispanic adolescents. *American Journal of Health Behavior*, 34(4), 476-488.

 \mapsto