

Adolescent Body Image in the United States & Guyana: A Socio-cultural Comparison

Winetta A. Oloo, Ph.D., LMFT

Loma Linda University
11065 Campus Street
Loma Linda, CA 92350, USA.

Isa A. Ribadu, Ph.D., LMFT

Brandman University
649 S County Center Drive
Visalia, CA 93277, USA

Nichola Ribadu, DMFT, LMFT

Northcentral University
10000 East University Drive
Prescott Valley, AZ 86314, USA.

Abstract

Studies conducted in developing countries and the United States has contributed significantly to our knowledge of body image in adolescents within different cultures. However, comparisons of adolescent body image between developing countries and Westernized countries through the use of the same standardized measure have been lacking. This study attempts to address this limitation by comparing body image ratings within two groups of adolescents; one from the United States and the other from Guyana, a third-world, developing country in South America through examination of scores on the body image subscale of the Offer Self-Image Questionnaire. Contrary to expectation, body image ratings were lower for older adolescents than younger adolescents in both countries. Education of both parents was a significant predictor of adolescent body image in the USA while education of mothers had an effect in Guyana. Gender and race/ethnicity also had contrasting results between the two countries. Further study is indicated.

Keywords: body image, adolescent, Guyana, culture, gender, race

Introduction

Many teenagers worry about how they look – “Am I too fat? Am I handsome? Too skinny? Ugly?” In fact, for several decades, adolescents as a group have consistently been associated with body image dissatisfaction (Bearman, Presnell, Martinez & Stice, 2006). This is especially troubling as it has been suggested that the developmental stage of adolescence – identity versus identity confusion – represents a very important life transition that has significant implications for present and later psychosocial adjustment. Psychosocial adjustment that is then predictive of present and future success in life, work, relationships and society (Erikson, 1968). Body image satisfaction has received attention in the research literature because of its significant role in the decrease of self-esteem. It has also been shown to be a significant risk factor in the intensification of mental illnesses such as depression and eating disorders both in the United States and other countries (Eaton, Lowry, Brener, Galuska & Crosby, 2006; Schneider, Frieler, Pfeiffer, Lehmkuhl & Salbach-Andrae, 2009).

In Germany, Schneider, et al. (2009) conducted a study in which 129 female inpatient and outpatient adolescents with eating disorders were compared to 354 control participants, also adolescents. Differences in attitudes about their bodies were found between groups of adolescents with anorexia nervosa (both types) and bulimia nervosa but all of these groups recorded body image distortions. Participants diagnosed with an eating disorder overestimated certain body parts by thirty percent.

Control participants – those not diagnosed with an eating disorder - overestimated the same body parts but by far less. In 2001, Stice and Bearman examined 231 adolescent girls between the ages of thirteen and seventeen years from two private schools in California. A significant finding in this study showed that increases in depressive symptoms were predicted by thin-ideal internalization and body dissatisfaction. These studies help to illustrate the culturally overarching effects of poor body image on adolescents. In addition to its negative effects on adolescents mentioned above, dissatisfaction with body image has also been found to be associated with marked emotional distress, appearance rumination, and in more recent studies, unnecessary cosmetic surgery (Ohring, Graber, & Brooks-Gunn, 2002; Frederick, Lever, Peplau, 2007).

While several studies have linked satisfaction with one's body during the stage of adolescence to individual factors such as age and gender (Littleton & Ollendick, 2003), a focus on the socio-cultural context as predictive in the development of positive body image among adolescents has moved to the forefront with examinations of socioeconomic status (Nasser, 1988; Neumark-Sztainer, Story, Falkner, Teuhring & Resnick, 1999), family relationships (Byely, Archibald, Graber & Brooks-Gunn, 2000, Gowers & Shore, 2001), ethnicity (Neumark-Sztainer, et al., 1999), and media influences (Groesz, Levine & Murnen, 2002). Most studies within this new focus have been conducted in more industrialized countries such as the United States of America and indicate a strong, influential, and predictive relationship between socio-cultural aspects of life and body image dissatisfaction (Littleton & Ollendick, 2003; Mousa, Mashal, Al-Domi & Jibril, 2010). Mussell, Binford, and Fulkerson (2000) demonstrate how the internalization of societal pressures by use of media outlets enforced the concept of thinness as attractiveness and how that concept influenced body image dissatisfaction within western cultures. Moreover, Mousa, et al., (2010) reported a clear association between familial and individual variables and body image dissatisfaction to include parental pressure, family structure, individual eating patterns and pubertal changes as mentioned earlier.

Studies examining the role of socioeconomic status on body image have produced contrasting results. Shuriquie (1999) found that individuals on the higher end of the socio-economic spectrum were more dissatisfied with their body image than their counterparts on the lower end of the spectrum. In 2006 however, Paxton, Eisenberg and Neumark-Sztainer reported on a longitudinal study of early and middle adolescents which showed that belonging to a lower socioeconomic group predicted more body dissatisfaction than belonging to a higher socioeconomic group. Ethnicity has also been shown to have a relationship with body image dissatisfaction. Many studies have found that Caucasian adolescents fare worse in the development of poor body image and African American adolescents report less body dissatisfaction when compared to adolescents of other ethnicities (Barry & Grilo, 2002; Paxton, et al., 2006).

Studies examining body image in adolescents in non-Western and developing countries have varied in their overall findings. In China, Chen and Jackson (2009) conducted an eighteen-month longitudinal study with an initial sample of 799 adolescents between the ages of twelve and seventeen. In this study, positive body ideals increased as the adolescents aged and female adolescents as a whole reported lower weight esteem than males. These gender-related findings mirror those generally found in the United States as well as in a study of adolescent males and females in Fiji, Tonga and Australia (McCabe, Ricciardelli, Waqa, Goundar & Fotu, 2009). In each of these three countries, female adolescents reported more dissatisfaction with their bodies, both weight and shape, than males. These findings have been linked to increased exposure to Westernized ideals of male and female body shapes. Using parental education and occupational status as indicators of socioeconomic status in Saudi Arabia, Al-Subaie (2000) found results similar to that of Shuriquie's (1999) study in the US. Saudi girls whose parents were highly educated and employed reported a higher drive for thinness.

In the Caribbean, there have been few studies that examine the role of socio-cultural factors in adolescent development. There are fewer still that have examined factors that affect adolescent body image in particular. One study in Trinidad examined 1090 adolescents between the ages of fourteen and seventeen and of either South Asian, African or Mixed ethnic descent. A self-administered questionnaire was used to measure perceived body size, the most attractive body size (of the opposite sex), whether they were satisfied with their current size, whether they would like to change it, and the body sizes that they associated with health, wealth and happiness. In this developing island, it was noted that thin South Asian participants were more likely to be satisfied with their size than other thin adolescents. Overweight Africans in Trinidad were more likely to be satisfied than other overweight persons. African girls were also less likely to want to lose weight than girls of other ethnicities in the study (Simeon, Rattan, Panchoo, Kungeesingh, Ali and Abdool, 2003).

Guyana, a country whose culture closely mirrors that of Trinidad and other Caribbean nations is located on the northern tip of South America, bordering the North Atlantic Ocean between Surinam and Venezuela. Currently, East Indians represent approximately one-half of the Guyanese population. They are followed by Afro-Guyanese who comprise approximately 36% of the population, Amerindians (7%) and Others (7%) (CIA- The World Factbook, 2011). Once a colony, Guyana gained independence from Great Britain in 1966. Despite changes made in response to gaining independence, researchers in the late 1980s and early 1990s have suggested that colonialism, along with poverty and racism, has negatively impacted the ability of families to foster healthy childhood development including positive body-image (Haskins, 1989; Hess, 1987; Ogbu, 1991; Rafferty & Shinn, 1991).

Although studies such as those conducted in the developing countries mentioned above and those conducted in the United States have offered a significant contribution to our knowledge of body image in adolescents within different cultures, there is one major limitation. That is, no studies within our exhaustive search of the literature compared body image ratings of adolescents between a developing country and a Westernized country through the use of the same standardized measure. This paper attempts to address this limitation by comparing body image ratings within two groups of adolescents; one from the United States and the other from Guyana, a third-world, developing country in South America through examination of scores on the body image subscale of the Offer Self-Image Questionnaire (OSIQ) (Offer, Ostrov, Howard, & Dolan, 1989). It will report on significant similarities and differences between the body image ratings of these groups and consider treatment and research implications of these findings.

2. Materials and Methods

2.1 Participants

2.1.1 United States Participants

Participants in the U.S. were adolescents ranging in age from 12-18 years attending multiple public and private schools in San Bernardino County, California. The sample consisted of 230 adolescents, 123 (53.5%) male respondents and 107 (46.5%) female respondents. The ethnic make-up of the participants in this study represented five groups. Caucasian participants were the largest ethnic group (34.3%) followed by Latino participants (28.7%), African American (20%), Asian (12.2%), and the remaining 4.3% of adolescents reported their ethnicity as other. Of the total sample, 46.1% reported living with both parents, 27% with mother only, while 2.6% report living only with their father. Another 1.7% of the sample shared living with a stepmother and biological father, 11.3% lived with a stepfather and biological mother, and 9.6% of the sample lived in a group or foster home. Responses indicated that more mothers of respondents earned a bachelor's degree or higher (33.1%) than fathers (26.6%).

2.1.2 Guyana Participants

Participants in Guyana were adolescents, between the ages of twelve and eighteen, in attendance at nine high schools across the country. Four high schools were located in urban areas and the remaining five were located in rural areas of the country. There were 518 adolescents in this sample, of which 292 (56%) were female. Most participants ranged in age from fourteen to sixteen (77%), followed by those ages twelve to thirteen (12%) and those ages seventeen and eighteen (11%). Afro-Guyanese comprised the majority of this sample (52%). This group was followed by East Indians (30%) and participants of Mixed racial background (18%). There were more college-educated fathers (20%) than mothers (10%) of participants in this sample. Most parents of participants were high-school educated – 76% of fathers and 70% of mothers. In this sample there was an average of between six and seven people living in the participant's household.

2.2 Measures

The OSIQ was used to measure adolescent self-image (Offer, et al., 1989) in this study with a focus on body image. The questionnaire consists of 130 items that are related to feelings and attitudes of adolescents regarding self. The items are scored on a Likert-type scale that ranges in response from describes me very well (1) to does not describe me at all (6). The instrument consists of twelve dimensions of self-image. These dimensions are body image, emotional tone, ethical values, family functioning, idealism, impulse control, mastery, mental health, self-confidence, self-reliance, social functioning, and vocational attitudes. This study focused on the body image subscale, which consists of nine questions measuring the extent to which the adolescent has adjusted to changes in his/her body, e.g. 'the picture I have of myself in the future satisfies me'.

The OSIQ was normed using data from adolescents from 10 countries, including the US. The scale has a mean of 50 and a standard deviation of 10 ($M = 50, SD = 10$). It has a reliability reported at a range from .60 to .79 with a strong three-stage validity check sequence. Higher scores on the scale indicate better adjustment, with scale scores below 40 representing trouble, and those below 30 considered unmanageable. Individual scores above 60 describe well-adjusted teens, while above 70 are deemed unusually well adjusted.

3. Results

All data were analyzed using SPSS statistical package and employing linear regression models where body image was the dependent variable. Independent variables used in analysis were age, gender, race/ethnicity, father's level of education and mother's level of education. Table 1 (Appendix A) summarizes all variables analyzed and their effect on adolescent body image in both Guyana and the United States.

3.1 Age

In order to better understand this relationship, participants were grouped into 3 separate categories. Participants between the ages of 12 and 14 formed the early adolescent category, while those 15 and 16 formed the middle adolescent group, leaving those between the ages of 17 and 18 to form the late adolescent category. Dummy variables of all three age categories were created and the early and middle groups were compared to the results of the late group. Age as a predictor of body image among teenagers in this study was found to have no significant effect across the United States participants. In Guyana, participants in the early adolescent group reported a significant difference in a positive direction when compared to their late adolescent counterparts. There was no significant difference between the middle adolescent age group and the late adolescent age group.

3.2 Gender

To determine differences between genders, males were used as the omitted category. In the United States sample, an inverse relationship was noted but no significant effect was found. In the Guyanese sample, females reported a significantly higher rating of body image than males.

3.3 Ethnicity

Dummy variables were created to compare the responses of the minority ethnic groups to that of the majority ethnic groups in both samples - Caucasians in the United States and Blacks in Guyana. In the United States, the Latino group recorded a significant inverse relationship when compared to the Caucasian group. Both the African American and Asian groups also reported inverse relationships although the difference between the African American group and the Caucasian group was not significant. In Guyana, the East Indian and those of Mixed ethnic backgrounds reported a positive and significant difference between their responses and that of their Afro Guyanese counterparts.

3.4 Father's Education Level

Adolescents were asked to place each of their parents in one of six education categories – elementary school, high school, college – Associate's degree, college – Bachelor's degree, college – Master's degree, and college – beyond Master's degree. Fathers and mothers within the Master's degree group were used for comparison in this analysis. While examining the relationship between father's level of education and adolescent body image in the United States, several significant relationships were noted in the United States sample. Adolescents with fathers that completed elementary school reported significantly lower attribution to body image than their counterparts with fathers that completed a Master's degree, an Associate's degree, or a high school degree. No significant differences were noted for adolescents whose fathers had completed a Bachelor's degree or a degree beyond the Master's level. However, there was an inverse relationship between the reported patterns of participants with fathers who have a Bachelor's degree and those with fathers who have a Master's degree. Conversely, there was a positive relationship between the reported patterns of adolescents with fathers who have a Doctorate degree and those who have a Master's degree. In Guyana, the differences between teenagers with fathers that completed an elementary or high school education, an Associate's degree or a degree beyond a Master's degree and those whose fathers fell in the Master's degree group were not significant. A significant difference was found in the reporting patterns of teens with fathers who had completed a Bachelor's degree.

3.5 Mother's education level

Examination of the United States sample revealed that teenagers of mothers who had completed elementary school reported significantly lower body image than teenagers of mothers who had completed a Master's degree.

A similar pattern of response was noted for teens of mothers who had a high school degree, an Associate's degree or a degree beyond Master's. For adolescents of mothers who had a Bachelor's degree, an inverse relationship was noted and the relationship was not significant. In Guyana, teenagers of mothers who had an elementary education reported a significantly higher body image than teenagers of mothers who had a Master's degree. This pattern of response persisted for teens of mothers who had a high school degree, an Associate's degree and a Bachelor's degree. However, the difference for those whose mothers had a Bachelor's degree was not significant.

4. Discussion

This study examined and compared the impact of age, gender, race/ethnicity, and parents' level of education on body image ratings of adolescents in the United States and Guyana.

4.1 Age

Of all variables examined in this study, age was the only factor that appeared to have the same effect in both the United States and Guyana. That is, younger adolescents reported higher body image ratings than older adolescents. Given that body image has often been combined with and studied as a dimension of self-image (Lawrence & Thelen, 1995; Nassar, et al., 1992; Offer, et al., 1989) and self-image has been shown to increase as adolescents age (Brooks-Gunn, 1991; Damon & Hart, 1988, O'Malley & Bachman, 1983; Rosenberg, 1989), it is especially interesting to note the inverse relationship between body image and age found within both cultures of this study. Despite the common expectation that increases in this area will occur as adolescent's age, consistent findings in this area are limited. In fact, longitudinal studies have found both stability and positive increases in satisfaction with their bodies as adolescent girls and boys age (Attie & Brooks-Gunn, 1989; Carlson Jones, 2004; Roseblum & Lewis, 1999; Stice & Whitenton, 2002). Given the negative impact of media exposure on body image (Mussell, et al., 2000), one possible explanation of this inverse relationship is the tendency of parents to more closely monitor media exposure of younger children. As the adolescent ages, they may have increased freedom in their choices of media entertainment resulting in lower body image ratings. These findings highlight the importance of assessing for the degree of adolescent media usage as well as parental involvement in media censorship within the home. They also emphasize the need for additional longitudinal studies of adolescent body image in both Westernized and developing countries.

4.2 Gender

Unlike their American counterparts and contrary to the findings of most gender-focused research of adolescent body image in the United States, Guyanese girls rated their body image higher than boys. This trend seems to fit the pattern that has been documented in girls from other non-Westernized countries. These girls seem to experience less pressure to be thin than those in the United States (Mwaba & Roman, 2009) and may not experience the large sociocultural emphasis on physical attractiveness that has been noted to result in low body image among adolescent girls in the United States (Smolak, Levine & Thompson, 2001; Stice & Whitenton, 2002). Although the relationship between gender and body image within the US sample was not statistically significant, it is notable that the statistical direction of the relationship does fit similar studies that have been conducted in the United States. That is, adolescent males fare better than adolescent females in adjusting to physical changes in their bodies (Nolen-Hoeksema & Girgus, 1994, Presnell, Bearman, Stice, 2004) and tend to be less affected by societal standards of attractiveness than females (Carlson Jones, 2004; Smolak, et al., 2001).

Findings in the opposite direction among Guyanese male adolescents in this study raise some questions about their body dissatisfaction, in particular, are Guyanese adolescent males less well-adjusted than their female counterparts? One important factor that has emerged in the study of body dissatisfaction among adolescent males in the United States is the desire, and failure, to develop muscularity (Fisher, Dunn & Thompson, 2002; McCreary & Sasse, 2000; Smolak, et al., 2001). While a similar desire and failure would explain the findings in Guyana, the ability to generalize these findings to Guyanese males is tenuous and suggests a need for further study of emotional adjustment and healthy body-image development in Guyanese boys. Given that adolescent girls in Guyana appear to be more comfortable with their bodies than adolescent boys in Guyana, an exploratory or qualitative study of factors that influence this difference is needed. Results of such a study may be especially significant in increasing the information that is available to aid in the treatment of girls with low body image from countries other than Guyana.

4.3 Race/Ethnicity

Caucasian adolescents in the United States reported higher body image than African Americans, Latinos and lower body image than those adolescents in the Asian group. Although not significant for African Americans and Asians, the difference was significant when compared to Latinos. In Guyana, both minority groups (East Indians and Mixed) reported a significantly higher body image appraisal than their Afro-Guyanese group. This result offers support to the idea that although Caucasians (the majority group in the US) were thought to be the main racial group that experiences less positive body image, other ethnicities are comparable. This finding also supports the idea that the view of acceptable body image within a majority group is not always the preferred. In addition, these findings suggest that variation within majority groups should not be ignored. Jones, Fries, and Danish (2007) discussed this phenomenon in their study and remarked on the need to move away from a “one size fits all” approach to understanding obesity across ethnic groups. These researchers and others, for example Yancey, Kumanyika, Ponce, McCarthy, Fielding, Leslie & Akbar (2004) called for the development of measures that fit within the beliefs and ideas of particular groups thereby preventing the superimposing of one standard that all groups have to meet. In essence, the initial clinical goal becomes understanding the adolescent within his/her context and how their body image appraisal fits that context and not a commonly-assumed preferred body image standard.

4.4 Education of Parents

Both fathers' and mothers' education in the United States were significant predictors of body image. Adolescents with parents who earned a Master's degree reported higher body image than adolescents whose parents earned lower degrees. This was the case for those whose parents had Bachelor's and Associate's degrees, high school degrees and elementary level education. Using parents' education as a measure of socioeconomic status in the United States, the findings of this study are inconsistent with some previous studies (Gowers & Shore, 2001; Sobal & Stunkard, 1989) but consistent with other studies in this area (Al-Subaie, 1999; Drewnowski, Kurth & Krahn, 1995). They do, however, seem to lend support to the idea that adolescents in lower socioeconomic groups are less satisfied with their bodies than those in higher socioeconomic groups. Efforts to address this drift, for example school workshops to teens in lower socioeconomic groups, would be beneficial in increasing body image and combating further challenges.

In Guyana, adolescents whose mothers earned a Master's degree reported lower body image than those whose mothers had Bachelor's and Associate's degrees, high school and elementary level education. In other developing countries, there has been evidence that suggests that adolescents of parents with higher education demonstrate higher incidences of dieting behavior (Al-Subaie, 2000). As the presence of dieting behavior can be suggestive of poor body image, this relationship may explain the findings in Guyana. It can also be argued that mothers who are less educated spend more time in the home versus in school and/or at work. Having more access to a mother may have produced a positive impact on adolescent body image in Guyana. In addition, Guyanese adults tend to leave the country to receive higher education in more industrialized countries like the United States. Parents who leave the country may take on the thin-ideal that has been shown to be prevalent in Westernized countries and transfer this ideal onto their children, resulting in lower body image ratings.

The findings of this study which have shown age, gender, and ethnicity to be wavering predictors of adolescent body image across cultures suggests the need for professionals working with teenagers and parents of teenagers to explore the feelings of these teens about their physical appearance regardless of cultural background. Such exploration would cover the teen's (1) battles with weight control or muscle development, (2) their evaluation of how they present to the world, (3) acceptance or rejection of their appearance by peers and how such acceptance or rejection is internalized (happiness, confidence, depression, anxiety, mood changes, withdrawn/isolative behaviors) or externalized (friendly, accepting, involving, bullying, fighting, disobedience, aggressive behaviors). This line of questioning would serve to bring underlying/hidden thought processes that present as symptoms of mental illness to light.

5. Conclusion

This study of adolescents in the US and Guyana presents information that has been lacking in the research literature to date – a comparison of adolescent body image based on the use of the same standardized scale. As detailed above, three of the four sociocultural factors examined generated contrasting results between the United States.

While father's level of education seemed to have more of an impact in the United States, mother's level of education seemed to have more of an impact in Guyana. Knowledge of these differences is especially important in a time when the number of individuals migrating from non-Westernized, developing countries to the US is steadily increasing. While the authors have speculated as to the reasons behind these differences, it is the very existence of the differences that underscore the critical need for more studies of this nature to be conducted. This cultural comparison challenges those who work with teenagers and researchers to refrain from employing a general blueprint when assessing adolescent body image and to utilize an independent evaluation of each adolescent that incorporates the adolescent's unique nuances.

Appendix A

Predictive Variables	United States	Guyana
Age	F = 1.172	F = .558
<i>Early Age (12 – 14)</i>	$\beta = .126^*$	$\beta = .143^*$
<i>Middle Age (15 – 16)</i>	$\beta = .033$	$\beta = .127^*$
Gender	F = .315	F = 3.209*
Race/Ethnicity	F = 2.501*	F = 2.370**
<i>Latino</i>	$\beta = -.187^{**}$	
<i>African American</i>	$\beta = -.106$	
<i>Asian</i>	$\beta = -.013$	
<i>East Indian</i>		$\beta = .085$
<i>Mixed/Other</i>		$\beta = .137^{**}$
Father's level of Education	F = 4.522**	F = 1.677
<i>Elementary</i>	$\beta = -.144^*$	$\beta = -.029$
<i>High School</i>	$\beta = -.299^{**}$	$\beta = -.134$
<i>Associates Degree</i>	$\beta = -.267^{**}$	$\beta = -.076$
<i>Bachelors Degree</i>	$\beta = -.138$	$\beta = -.165^{**}$
<i>Beyond Masters</i>	$\beta = .128$	$\beta = -.004$
Mother's level of Education	F = 6.186***	F = 4.110**
<i>Elementary</i>	$\beta = -.249^{**}$	$\beta = .196^*$
<i>High School</i>	$\beta = -.289^{**}$	$\beta = .436^{**}$
<i>Associates Degree</i>	$\beta = -.266^{**}$	$\beta = .356^{**}$
<i>Bachelors Degree</i>	$\beta = -.101$	$\beta = .057$
<i>Beyond Masters</i>	$\beta = .136^*$	

Table A.1: Variables predictive of BODY IMAGE within each sample
 * $p < .05$ ** $p < .01$ *** $p < .001$

References

- Al-Subaie, A. (2000). Some correlates of dieting behavior in Saudi schoolgirls. *International Journal of Eating Disorders*, 28(2), 242-246.
- Attie, I., & Brooks-Gunn, J. (1989). The development of eating problems in adolescent girls: A longitudinal study. *Developmental Psychology*, 25(1), 70-79.
- Barry, D., & Grilo, C. (2002). Eating and body image disturbances in adolescent psychiatric inpatients: Gender and ethnicity patterns. *International Journal of Eating Disorders*, 32(3), 335-343.

- Bearman, S., 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), 229-241.
- Brooks-Gunn, J. (1991). How stressful is the transition to adolescence for girls?. *Adolescent stress: Causes and consequences* (pp. 131-149). Hawthorne, NY US: Aldine de Gruyter.
- Byely, L., Archibald, A. B., Graber, J., & Brooks-Gunn, J. (2000). A prospective study of familial and social influences on girls' BODY IMAGE and dieting. *International Journal of Eating Disorders*, 28, 155-164.
- Carlson Jones, D. (2004). BODY IMAGE among adolescent girls and boys: A Longitudinal study. *Developmental Psychology*, 40(5), 823-835.
- Chen, H., & Jackson, T. (2009). Predictors of changes in weight esteem among mainland Chinese adolescents: A longitudinal analysis. *Developmental Psychology*, 45(6), 1618-1629.
- Central Intelligence Agency – World Factbook (2011). <https://www.cia.gov/library/publications/the-world-factbook/geos/gy.html>
- Damon, W., & Hart, D. (1988). *Self-understanding in childhood and adolescence*. New York, NY US: Cambridge University Press.
- Drewnowski, A., Kurth, C., & Krahn, D. (1995). Effects of BODY IMAGE on Dieting, Exercise, and Anabolic Steroid Use in Adolescent Males. *International Journal of Eating Disorders*, 17(4), 381-386.
- Eaton DK, Lowry R, Brener ND, Galuska DA, Crosby AE. Associations of body mass index and perceived weight with suicide ideation and suicide attempts among US high school students. *Arch Pediatr Adolesc Med*. 2005;159(6):513-519.doi:10.1001/archpedi.159.6.513.
- Erikson, Erik (1968). *Identity, Youth and Crisis*. New York: W.W. Norton.
- Fisher, E., Dunn, M., & Thompson, J. K. (2002). Social comparison and BODY IMAGE: An investigation of body comparison processes using multidimensional scaling. *Journal of Social and Clinical Psychology*, 21, 566-579.
- Frederick, D. A., Lever, J., & Peplau, L. A. (2007). Interest in Cosmetic Surgery and Body Image: Views of Men and Women across the Lifespan. *Plastic and Reconstructive Surgery*, 120(5), 1407-1415.
- Gowers, S., & Shore, A. (2001). Development of weight and shape concerns in the aetiology of eating disorders. *British Journal of Psychiatry*, 179(3), 236-242.
- Groesz, L., Levine, M., & Murnen, S. (2002). The Effect of Experimental Presentation of Thin Media Images on Body Satisfaction: A Meta-Analytic Review. *International Journal of Eating Disorders*, 31(1), 1-16.
- Haskins, R. (1989). Beyond metaphor: The efficacy of early childhood education. *American Psychologist*, 44, 274-282.
- Hess, G. A. (1987). *Schools for early failure: The elementary years and dropout rates in Chicago*. Chicago: IL: Panel on Public School Finances.
- Jones, J. R., Fries, E., & Danish, S. J., (2007). Gender and ethnic differences in body image and opposite sex figure preference of rural adolescents. *Body Image*, 4, 103-108.
- Ivarsson, T., Svalander, P., Litlere, O., Nevenon, L. (2006). Weight concerns, body image, depression and anxiety in Swedish adolescents. *Eating Behaviors*, 7(2), 161-175.
- Lawrence, C., & Thelen, M. (1995). BODY IMAGE, dieting, and self-concept: Their relation in African-American and Caucasian children. *Journal of Clinical Child Psychology*, 24(1), 41.
- Littleton, H. L., & Ollendick, T. (2003). [Negative body image and disordered eating: What places youth at risk and how can these problems be prevented?](#) *Clinical Child and Family Psychology Review*, 6, 51-66.
- McCabe, M., Ricciardelli, L., Waqa, G., Goundar, R., & Fotu K. (2009). BODY IMAGE and body change strategies among adolescent males and females from Fiji, Tonga and Australia. *BODY IMAGE*, 6, 299-303.
- McCreary, D. R., & Sasse, D. K. (2000). An exploration of the drive for muscularity in adolescent boys and girls. *Journal of American College Health*, 48, 297-304.
- Mousa, T., Mashal, R., Al-Domi, H., & Jibril, M. (2010). BODY IMAGE dissatisfaction among adolescent schoolgirls in Jordan. *BODY IMAGE*, 7, 46-50.
- Mussell, M., Binford, R., & Fulkerson, J. (2000). Eating disorders: Summary of risk factors, prevention programming, and prevention research. *The Counseling Psychologist*, 28(6), 764-796.
- Mwaba, K., & Roman, N. V., (2009). Body image satisfaction among a sample of black females South African students. *Social Behavior and Personality*, 37, 905-909.

- Nassar, C., Hodges, P., & Ollendick, T. (1992). Self-concept, eating attitudes, and dietary patterns in young adolescent girls. *School Counselor*, 39(5), 338.
- Neumark-Sztainer, D., Story, M., Falkner, N. H., Beuhring, T., & Resnick, M. D. (1999). Sociodemographic and personal characteristics of adolescents engaged in weight loss and weight/muscle gain behaviors: Who is doing what? *Preventive Medicine: An International Journal Devoted to Practice and Theory*, 28(1), 40-50.
- Nolen-Hoeksema, S., & Girgus, J. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, 115, 424-443.
- Offer, D., Ostrov, E., Howard, K. L., & Dolan, M. (1989). *The Offer Self-Image Questionnaire: A Manual*. Chicago: Michael Reese Hospital and Medical Center.
- Ogbu, J. U. (1991). *Immigrant and involuntary minorities in comparative perspective*. In M. Gibson & J. U. Ogbu (Eds.), *Minority status and schooling* (pp. 3-33). New York: Garland.
- Ohring, R., Graber, J. A., & Brooks-Gunn, J. (2002). Girls' recurrent and concurrent body dissatisfaction: Correlates and consequences over 8 years. *International Journal of Eating Disorders*, 31, 404-415.
- O'Malley, P., & Bachman, J. (1983). Self-esteem: Change and stability between ages 13 and 23. *Developmental Psychology*, 19(2), 257-268.
- Paxton, S., Eisenberg, M., & 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.
- Presnell, K., Bearman, S. K., & Stice, E. (2004). Risk factors for body dissatisfaction in adolescent boys and girls: A prospective study. *International Journal of Eating Disorders*, 36(4), 389-401.
- Rafferty, Y., & Shinn, M. (1991). The impact of homelessness on children. *American Psychologist*, 46, 1170-1179.
- Rosenberg, M. (1989). *Society and the adolescent self-image* (2nd ed.). Princeton, NJ: Princeton University Press.
- Rosenblum, G. D., & Lewis, M. (1999). The relations among body image, physical attractiveness, and body mass in adolescence. *Child Development*, 70, 50-64.
- Schneider, N., Frieler, K., Pfeiffer, E., Lehmkuhl, U., & Salbach-Andrae, H. (2009). Comparison of body size estimation in adolescents with different types of eating disorders. *European Eating Disorders Review*, 17(6), 468-475.
- Shuriquie, N. (1999). Eating Disorders: A transcultural perspective. *Eastern Mediterranean Health Journal*, 5, 354-360.
- Simeon, D., Rattan, R., Panchoo, K., Kungeesingh, K., Ali, A., & Abdool, P. (2003). BODY IMAGE of adolescents in a multi-ethnic Caribbean population. *European Journal of Clinical Nutrition*, 57(1), 157.
- Smolak, L., Levine, M. P., & Thompson, J. K. (2001). The use of the Sociocultural Attitudes Towards Appearance Questionnaire with middle school boys and girls. *International Journal of Eating Disorders*, 29, 216-233.
- Sobal, J., & Stunkard, A. (1989). Socioeconomic status and obesity: A review of the literature. *Psychological Bulletin*, 105(2), 260-275.
- Stice, E., & Bearman, S. (2001). Body-image and eating disturbances prospectively predict increases in depressive symptoms in adolescent girls: A growth curve analysis. *Developmental Psychology*, 37(5), 597-607.
- Stice, E., & Whitenton, K. (2002). Risk factors for body dissatisfaction in adolescent girls: A longitudinal investigation. *Developmental Psychology*, 38(5), 669-678.
- Yancey, A. K., Kumanyika, S. K., Ponce, N. A., McCarthy, W. J., Fielding, J. E., Leslie, J. P., & Akbar, J. (2004). Population-based interventions engaging communities of color in healthy eating and active living: A review. *Preventing Chronic Disease*, 1 (1). http://www.cdc.gov/pcd/issues/2004/janr/03_0012.htm