

Effect of Gyming and Gender on Body Shape Apprehensions among Undergraduate Students

***Nida Anwar & Dr. Saima Masoom Ali**

Department of Psychology, University of Karachi, Pakistan

The study was meant to compare body shape apprehension based on gyming and gender among undergraduate students of Karachi. Therefore, it was anticipated that university students who go to the gym would have a high level of body shape apprehension than those who do not go to the gym. Female students would have a high level of body shape apprehension as compared to male students. The participants of this study comprised of 400 university students (Male $n=200$ & Female $n=200$) in the age range of 19 to 25 years ($M=22.55$; $SD =1.81$) from Karachi, Pakistan. After taking consent from the authorities of universities, research participants were approached through purposive convenient sampling. They were then requested to fill the demographic form and Body Shape Questionnaire (BSQ-16; Evans & Dolan, 1993). Results showed that students who go to the gym have a highly significant level of body shape apprehension than those students who do not go to the gym. Furthermore, female university students reported significantly high levels of body shape apprehension than male students. Therefore it is important for academic institutions to promote health, well-being, self-acceptance, physique satisfaction and positive use of gym for students to deter the maturing extensiveness of body shape worries among them.

Keywords: Body shape apprehension, Gymming, Gender

Without a doubt, opinions on physical appearance are extremely idiosyncratic. Whatever, is striking to someone can be obnoxious to others. People's view or approach towards their

* Correspondence concerning this article should be addressed to Nida Anwar, Department of Psychology, University of Karachi, Pakistan. Email: nidabhatti_ibs@hotmail.com

physique is the chief part of whatever they practice to assess themselves, but these acuties and approaches often play a vital role for self-evaluation. A person's external build is the part of their selves that is directly noticeable by others. Whereas, person's inner worlds like nature, choices, standards, point of views and emotional states are less directly observable than how an individual is evaluating oneself, person's exterior bodily frame also plays a part in self-assessment. Body shapes are one of those exclusive features that can effortlessly be symbolized and scrutinized (Wardle & Johnson, 2002). Showers and Larson (2001) also concluded in their investigation that people often perceive their external body form on the basis of others' exterior outlook.

In the frame of context related to cultural concerns, apprehensions for one's body shape in non-Western cultures was not an issue until the 19th century. The attractive and healthy figure for both males and females was considered to be full-bodied, round, and plump; and was also linked with the heightened perception of one's self-worth (Swami, Gray, & Furnham, 2007). For example, a comparative study between British Caucasian and Asian undergraduate students observed that Asian students were more happy and satisfied with their round and plump body than British Caucasians (Wardle, Haase, & Steptoe, 2006). A study in United Kingdom found higher level of dissatisfaction with body shape, and calories concern in undergraduate students in England as compared to the Indian and Pakistani undergraduate students living in the same state (Ogden & Elder, 2008). Investigation of Chinese, Indian and European female students living in Canada found that Indian students were more positive about their body shape in comparison to Chinese and European students (Kennedy, Templeton, Gandhi, & Gorzalka, 2004).

By the 20th century, thinness became an alternative word for feminine beauty and attraction; while the muscular body was the byword for an attractive male. This has become an international phenomenon which is now more or less uniform across all cultures (Silberstein, Striegel-Moore, Timko & Rodin, 2001). Several states of Asia such as the Philippines, Malaysia,

Indonesia, China, Vietnam, Cambodia and Myanmar reported the increasing struggle of getting an attractive body shape in their youth population (Wan, Faber & Fung, 2003; Ung, 2003). An investigation in Singapore has discovered the severities of concerns related to body shapes and level of body discontent as higher than those testified in the Western states (Kayano, Yoshiuchi, Al-Adawi, Viernes & Dorvlo, 2008). Whereas, a research in Korea demonstrated that the desire for a thin body was found in 91.3% women and muscular body in 89.7% males (Ung, 2003). Likewise, in an investigation, Indian university going adults acknowledged high distress related to their body shape (Srinivasan, Suresh, Jayaram & Fernandez, 2016). Analyses headed in Taiwan, indicated high scores on BSQ (Body Satisfaction Questionnaire) marked by college going males and females at 77.1%; and similar body shape related worries were observed in the youthful population of Japan (Yeh, Tzeng, Chu, Chou & Lu, 2009). Literature further highlighted that, as these are technologically advanced republics, distance is reducing among the numerous states of Asia and West in respect of technology, fashion, clinical pathologies and culture (Hoek & Hoeken, 2003).

In addition to that Pakistani people traditionally used to be more concerned and associated with their families, and society with little or no concern related to their body shapes. This is not correct anymore. Now in their view the ideal body shape such as thin and muscular is better and healthier than the traditional one (Jaffari, et al., 2011). For example in a study on university students of Lahore, Pakistan, high desires for ideal body shape, and dissatisfaction with current body shapes was found (Mahmud & Crittenden, 2007). Similarly high frequency of body-displeasure and distress with current body shape was found in the undergraduates of Multan (Saleem, Sattar, Zafar & Ismail, 2014). In a comparative study on medical students of Khyber Pakhtunkhwa and Karachi, it was found that both groups believed that to achieve ideal body shape starving, self-induced vomiting and use of water capsules are important remedies (Syed, et al., 2017). In another study, on undergraduate students of Rawalpindi a

significant correlation was found between media and body shape worries (Shah & Bilal, 2009). Whereas, 78.8 % of undergraduates of Sargodha verified certain degree of disappointment with their body shapes eg. *being bulky*. More examination in Multan exhibited that gym going female undergraduates were noticeably more worried about being fat than male undergraduates whereas they were more anxious about being lean (Sirang, et al., 2013).

According to McCourt and Waller (1995) most of the cross-cultural researches commonly take western culture as a major reason for body shape concerns and apprehensions. However the adaptation of western culture by the natives of non-western societies, and poor hold on their own culture is the possible reason of body shape apprehensions in non-western cultures.

The utmost causes that play significant part in developing apprehensions related to body shape include: age, body weight, ethnicity, issues during growing age especially during puberty; feelings of disappointment, determination for ideal body, media and dietetic control (Esnaola, Rodríguez & Goñi, 2010). Students in their academic atmosphere can conveniently share a lot of these causative features with each other (Klemchuk, Helen, Hutchinson, Cheryl & Frank, 1990).

On the other hand, being physically active is essentially vital for keeping life functional and having a healthy lifestyle, as it is evident in a defensive role against the spread of cardiac disease, metabolic disorders, skeletal disorders, and even mental illness. But in Pakistan, the concept of healthy physical activity is confused with gyms and slimming clinics, lifestyle transformation experts, and beautifying surgical procedure clinics for stomach, face, intestinal lessening all over the country (Hadiya & Naima, 2010). At the same time, thin models are more visible in print and electronic media in Pakistan. They play an important role in motivating females to get a slim and fit body, and males to get a muscular body which gives rapid rise to gym and slimming centers (Safdar, 2006). Khan, Khalid, Khan and Jabeen (2011) observed a

high percentage of young females in gyms to get slim and lean body. Najma and Ashfaq (2012) found body dissatisfaction in both males and females in the gyms. Therefore, keeping in mind the apprehensions related to body shape and stress for *thin and fit*, present research meant to study body shape apprehension based on gyming and gender among undergraduate students of Karachi, Pakistan. For this it was hypothesized that university students who go to the gym would have a high level of body shape apprehension than those who do not go to the gym and female university students would have a high level of body shape apprehension as compared to male university students.

The investigation aimed to compare the means of body shape apprehensions and gym going activity among male and female undergraduates of Karachi. This research attempts to explore and achieve an enhanced knowledge about body shape worries and gym going activities of undergraduates in Karachi and to understand which of the gender is more apprehensive about their body shapes or preoccupied with their bodies.

Method

Research Design

Quantitative comparative survey research design was used for the research. Two groups of undergraduate students were compared i.e. who go to the gym and those who do not go to the gym. Additionally, body shape apprehensions of undergraduate students were compared based on their gender.

Participants

The research participants comprised of total 400 undergraduate university students (Female $n=200$; Male $n=200$). They were approached through the purposive convenient sampling technique. Their age ranged from 19 to 25 years ($M=22.55$; $SD=1.81$). All participants were approached from different

universities of Karachi, Pakistan. The details of the participants are given below in table 1.

Table 1

Demographic variables of the research participants (N=400)

Demographic Variables	<i>f</i>	%
Socio-economic Status		
Upper	095	23.8
Middle	300	75.0
Lower	05	01.2
Gender		
Male	200	50
Female	200	50
Gym going activity		
Yes	110	27.5
No	290	72.5
Birth order		
First	133	33.2
Middle	133	33.2
Last	134	33.6
Relationship status		
Single	366	91.5
Engaged	026	06.5

Table 1 showed frequencies and percentages of demographic variables of participants.

Measures

For the current study a demographic information sheet was used. It included items regarding age, gender, financial status, gym, relationship status and birth order among siblings. Moreover, the Body Shape Questionnaire was also used to collect data about body shape apprehensions of the participants.

Body Shape Questionnaire (BSQ-16). Body Shape Questionnaire is a sixteen item, self-assessment non-diagnostic test. It was prepared to ascertain a person's preoccupation toward his body shape. The test usually takes a smaller amount of time to complete. It is established predominantly for teenagers and adults. It has a 6-point response set (6=*always*, 5=*very often*, 4=*often*, 3=*sometimes*, 2=*rarely* & 1=*never*). The score varies from 0 to 66.

Scores above 66 are considered as high scores, 52 to 66 as moderate scores, 38 to 51 as mild scores and less than 38 as no susceptibility with body shape. Furthermore, its Cronbach's alpha was 0.95, split-half reliability was 0.93 and test-retest reliability was 0.82 (Evans & Dolan, 1993).

Procedure

Initially, permission to carry out the present research was taken from the concerned universities. After the approval from the participants they were gathered through purposive convenient sampling technique. After that they were briefed about the study and ethical considerations. Then they were asked to respond on the demographic form in order to collect their bio-data. To understand one's apprehensions about his body shape BSQ-16 was applied. Evaluation of data was done according to the directed instruction of questionnaire. The data of research was statistically analysed on SPSS with mainly consideration of t-test.

Results

To compare the body shape apprehensions of the undergraduate university students based on gymming and gender independent sample t-test used.

Table 2

Independent Sample t-test to compare the body shape apprehension of university students based on gymming (N=400)

Variable	Gym going Students (n=110)		Gym not Going (n=290)		df	t	r
	M	SD	M	SD			
Body Shape Apprehension	41.05	18.06	34.69	16.12	398	3.40*	0.37

** $p < 0.001$

The findings of the above mentioned table show that those undergraduate university students who go to gym have high levels of body shape apprehension than those who do not pursue gym.

Table 3

Independent Sample t-test to compare the body shape apprehension between male and female university students (N=400)

Variable	Male (n=200)		Female (n=200)		df	t	r
	M	SD	M	SD			
Body Shape Apprehension	34. 96	15.13	38. 92	17.5 4	39 8	- 1.756 *	0. 24

* $p < 0.05$

The findings of the above mentioned table show that female undergraduate university students have higher levels of apprehension towards their body shape than males.

Discussion

Traditionally, in Pakistani culture a thin or lean body used to be perceived as unhealthy and being little heavy (not obese) was considered as healthy and a sign of prosperity. But at present preoccupation towards ideal body shape has increased at significant level in the Pakistan as well. Body shape and its associated behaviors a person can learn from many resources among them student population, in particular learn most of the concerns related to their body shape from their education institutions, where they are exposed to the environment that may keep up or limit the concerns of their body shape and its deviations. Therefore, the current research was designed to inspect body shape apprehensions in the light of gyming and gender of undergraduates university of Karachi, Pakistan.

With reference to the first hypothesis it was postulated that gym going university students would be having high body shape

apprehension. The results were found to be significant. The possible explanation of such findings could be that the youthful population in the urge to get the perfect body shape mostly prefers easy ways like: joining slimming or fitness centers and gym, using steroids, dieting, surgeries, and so on with no proper knowledge; despite putting efforts to tone their bodies in a healthier way (Schulte & Thomas, 2013). Similarly, Shaikh, Shahid and Khan (2008) also found that elevated preoccupation towards slimming centers is associated with the desire of perfect body shape. Another study conducted in Islamabad found that 40% of undergrads carrying body related worries were highly involved in strenuous gym activities (Sardar & Amjad, 1996). One more previous research carried out in the city of Punjab highlighted the reason about undergraduates' extreme involvement in gym and a fitness center was associated with dissatisfaction with current body shape (Muhammad, 2005). There is a significant relationship between body shape apprehension and strenuous exercise among undergraduate students of Argentina and Sweden (Hohnqvista, Lunde & Frisén, 2007). Similar findings appeared in the undergraduate students of Iran, Turkey and Saudi Arabia (Akdemir, Harris, Saodoval & Cortese, 2009; Gargari, Khadem-Haghighian, Taklifi, Hamed-Behzad, & Sharaki, 2010).

In addition, previous literature highlighted the second most important reason of undergraduates' involvement in strenuous activities is media exposure that portrays being extremely slender as a striking and fashionable image for ladies, while being muscular, and toned as a macho image for males which plays a role in directly encouraging females and males to pursue strenuous exercises in order to achieve the ideal body shape (Blowers, Loxton, Grady-Flessner, Occhipinti & Dawe, 2003). On the same track it was found in one study that female and male undergraduates began to perceive their body shapes as more unpleasant and increased motivation towards gym after constant exposure of pictures of models on media (Grabe, Ward & Hyde, 2008). Likewise another research observed in the students of Pakistan that those who were mainly exposed to ideal body shape

by every form of media, including weekly magazines, television shows, advertisements, and films were more likely to prefer going to fitness centers (Kaiser, Syed & Qazi, 2007). The ultimate perfect looking images of models on big screen, small screen, weekly periodicals and web made youth especially college and university going adults to consider it as an essential aspect of self-acceptance. Makeup techniques; coloring, blending, technical modifications, and beauty enhancing surgical procedures, additionally make the impracticable images of models on media for both genders as a core condition for self-assessment and self worth (Nelson & Pack, 2005). Anschutz, Engels, Leeuwe and Strien (2009) consider that many impractical images of models on media annoy most of the women and men, resulting in worsening their contentment with their body.

An increased level of body shape apprehension in female undergraduates as compared to male undergraduates in the present study is possibly attributed to social pressure. People with high concerns of body shape adopt a number of idealistic knowledge about body shapes from their society, which motivates them to strive for the perfect body shape (Di Pietro & Silveira, 2009), as a result of which the display of an unnecessary fixation with body shape occurs (Kjaerbye-Thygesen, Munk, Ottesen & KrügerKjaer, 2004). Among those people, females are the group to be affected most quickly (Khor, et al., 2009). Therefore this group is observed to be more apprehensive and concerned about their body shapes and their acceptance in their surroundings.

Another possible reason of body shape apprehension in females is displeasure and dissatisfaction with their present body shape which creates a significant inconsistency between current and perfect physiques (Liao, et al., 2010). A study carried out by Furnham, Badmin and Sneade (2002) observed in 900 female undergraduates a high concern for body shape, dissatisfaction with existing body shapes and a perception that they had no perfect physique. Another research explored that the similar aspects for body shape in 51% of Korean undergraduate female students (Ro & Hyun, 2012). Likewise one more investigation showed a great

proportion of worries related to physique and weight loss in female students of Karachi (Bashir, Kidwai, Ahmed & Ramzan, 2012).

Moreover an inaccurate perception about the current body shape has been defined as another cause of developing worries about body shape, predominantly in females where the stress to pursue the ideal body shape is high (Connor-Greene, Striegel-Moore & Cronan, 2007) as a result of which unhealthy approaches are adopted to get the perfect body shape such as: dieting, fasting, excessive exercises, usage of diet pills and many other harmful activities that affect females negatively (Rolls, Fedoroff & Guthrie, 2011). In a study on 112 female undergraduates, frustration for body curves were observed due to the incorrect perception about their bodies and managing approaches (Cachelin, Striegel-Moore & Wendy, 2007; Morry & Staska, 2001). Another research in Faisalabad inspected a strong relationship between body shape apprehension and inaccurate body perception in female students (Ansari, Qazi & Sarmad, 2011). Similarly, a study carried out by Wong and Huang (2015) also reported unhappiness and misjudgment as an element that plays a role in the development of body shape distress.

Conclusion

Present observations revealed significant differences in the mean scores of body shape apprehension based on gyming and gender among undergraduate students of Karachi. Those undergraduate students who go to the gym and female students tend to be more apprehensive towards their body shape as compared to those students who are male and do not go to gym. Furthermore, present research determined that in emerging states like Karachi, Pakistan, concerns and anxieties towards body and its shape are rapidly becoming prevalent in the youth population.

Implications of the study

In this regard it is crucial for academic institutions to be mindful about, and struggle for safety precautions for

apprehensions related to body shapes among students. Besides that it is also essential for institutions to identify which gender is affected, along with the realization of features, stressors, and surroundings in which they are raised. Without that one's concerns towards his physique and body cannot be comprehended.

Moreover, the results of the present study can facilitate the educational institutions to emphasize on accepting existing body shapes, reliable food intakes, workouts and wellbeing in students through campaigns and awareness programs. Likewise results also assist the media industry which can play a vital role in showing realistic images of physiques more than idealistic ones. Further, individual and family counseling at the community and academic level can also play a role in reducing its severity. Medical practitioners through seminars and workshops can guide in healthier ways of living and shaping bodies. Besides that before implementing any safety measure, consideration of hazardous characteristics is also imperative. Also, the safety measures should be operational and focused on the facets that are expanding apprehensions related to body shapes specifically in student population.

Limitations of the study and future recommendations

As the results of the current probe could not be generalized for all university students of Pakistan, an identical study can possibly be more helpful in different states of Pakistan. Measures of the study were based on a self report inventory; hence a semi-structured interview will facilitate the future researchers for an in-depth understanding of body shape apprehensions. As the present research was limited to the student population, a varied population can be considered in future.

References

- Ansari, W., Qazi, S., & Sarmad, S. (2011). Does the association between unhappiness, misjudgment and body shape distress in undergraduates exist? A survey on undergraduates of

- Faisalabad, Pakistan. *International Journal of Environmental Research & Public Health*, 8(2), 281-99.
- Anschutz, D., Engels, R., Leeuwe, J. V., & Strien, T. (2009). Watching your weight? The relations between watching soaps, television and body dissatisfaction in women. *Psychology Health*, 24(9), 1035-1050.
- Bashir, N., Kidwai, K., Ahmed, R., & Ramzan, Z. (2012). The association between weight perception and BMI among undergraduates. *Obesity Research*, 12(11), 1866-1874.
- Blowers, L. C., Loxton, N. J., Grady-Flessner, M., Occhipinti, S., & Dawe, S. (2003). The relationship between media, sociocultural pressure to be thin and body dissatisfaction in males and females. *Eating Behaviors*, 4(3), 229-244.
- Connor-Greene, P.A., Striegel-Moore, R. H., & Cronan, S. (2007). Perceived social climate and weight preoccupation in college women. *The Journal of Treatment & Prevention*, 2(2), 126-129.
- Di Pietro, M., & Silveira, D. X. D. (2009). Role of idealistic knowledge about body shapes from society in a group of Brazilian college students. *Revista Brasileira de Psiquiatria*, 31(1), 21-24.
- Esnaola, I., Rodríguez, A., & Goñi, A. (2010). Body dissatisfaction and perceived sociocultural pressures: Gender and age differences. *Salud Mental*, 33(1), 21-29.
- Evans, C., & Dolan, B. (1993). Body shape questionnaire: Derivation of shortened "alternate forms". *International Journal of Eating Disorders*, 13(3), 315-321.
- Cachelin, F. M., Striegel-Moore, R., & Wendy, B. P. (2007) Comparison of women with various levels of dietary restraint on body image, personality, and family environment. *The Journal of Treatment & Prevention*, 5(3), 205-209.
- Furnham, A., Badmin, N., & Sneade, I. (2002). Body image dissatisfaction, self-esteem, and reasons for exercise. *Journal of Psychology*, 136(6), 581-584.
- Gargari, B. P., Khadem-Haghighiao, M., Taklifi, E., Hamed-Behzad, M., & Sharaki, M. (2010). Body shape worries,

- self-esteem, and social physique anxiety among Iranian females who participated in physical fitness programs. *Journal of Sports Medicine & Physical Fitness*, 50(1), 79-84.
- Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 13(3), 460-476.
- Hadiya, S., & Naima, S. (2010). Prevalence of eating disorders among university students in Pakistan. *International Journal of Social Sciences*, 6(3), 49- 51.
- Hoek, H. W., & Van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders*, 34(4), 383-396.
- Hohnqvista, K., Lunde, C., & Frisé, 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.
- Jaffari, A. S., Waseem, M., Zaman, H. M. F., Hayat, Q., Munir, M. H., Saleem, S., & Zain-Ul-Abideen. (2011). Do body shape develop eating disorders: A study with reference to young females of Pakistan. *European Journal of Scientific Research*, 57(1), 29-46.
- Kaiser, F., Syed, A., & Qazi, A. (2007). Association of gym activities, anorexia nervosa and bodydismorphia. *Rawal Medical Journal*, 32(1), 76-78.
- Kayano, M., Yoshiuchi, K., Al-Adawi, S., Viernes, N., & Dorvlo, A. (2008). Eating attitudes and body dissatisfaction in adolescents: Cross-cultural study. *Psychiatry and Clinical Neurosciences*, 62(1), 17-25.
- Kennedy, M. A., 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.
- Khan, A. N., Khalid, S., Khan, H. I., & Jabeen, M. (2011). Impact of today's media on university student's body image in Pakistan: A conservative, developing country's perspective. *BMC Public Health*, 11(1), 379.

- Khor, G. L., Zalilah, M. S., Phan, Y. Y., Ang, M., Maznah, B., & Norimah, A. K. (2009). Perceptions of body image among Singaporean males and females. *Singapore Medical Journal*, 50(3), 303-307.
- Kjaerbye-Thygesen, A., Munk, C., Ottesen, B., & KrügerKjaer, S. (2004). Why do slim women consider themselves too heavy? A characterization of adult women considering their body weight as too heavy. *International Journal of Eating Disorder*, 35(3), 275-279.
- Klemchuk, H. P., Hutchinson, C. B., & Frank, R. I. (1990). Body dissatisfaction and eating-related problems on the college campus: Usefulness of the eating disorder inventory with a nonclinical population. *Journal of Counseling Psychology*, 37(3), 297.
- Liao, Y., Knoesen, N. P., Castle, D. J., Tang, J., Deng, Y., & Bookun, R. (2010). Symptoms of body dissatisfaction, and mood concerns in male and female Chinese medical students. *The Journal of Treatment & Prevention*, 51(5), 516-519.
- Mahmud, N., & Crittenden, N. (2007). A study on body image of young females of Lahore, Pakistan. *British Journal of Psychology*, 98(2), 187-197.
- McCourt, J., & Waller, G. (1995). Developmental role of perceived parental control in the eating psychopathology of Asian and Caucasian females. *International Journal of Eating Disorders*, 17(3), 277-282.
- Morry, M. M., & Staska, S. L. (2001). Magazine exposure, self-objectification, and body dissatisfaction in male and female university students. *Canadian Journal of Behavioral Science*, 33(4), 269-277.
- Muhammad, L. (2005). The male body ideal: Perspectives of readers and non-readers of fitness magazines. *Journal of Men's Health & Gender*, 2(2), 223-229.
- Najam, N., & Ashfaq, H. (2012). Gender differences in physical fitness, body shape satisfaction, and body figure preferences. *Pakistan Journal of Psychological Research*, 27(2), 187-200.

- Nelson, M. R., & Pack, H. (2005). Cross cultural differences in advertising content in a transnational women's magazines. *Sex Roles*, 53(5), 371-383.
- Ogden, J., & Elder, C. (2008). The role of family status and ethnic group on body shape and eating behavior. *International Journal of Eating Disorders*, 23(3), 309-315.
- Ro, Y., & Hyun, W. (2012). Body shape satisfaction and body weight control in Korean females. *Nutrition Research & Practice*, 6(4), 334-337.
- Rolls, B. J., Fedoroff, I. C., & Guthrie, J. F. (2011). Gender differences in eating behavior and body weight regulation. *Health Psychology*, 10(2), 133-137.
- Safdar, N. F. (2006). Thinness: A woman's conflict or Eating Disorders: Facts and the search for solutions. *Journal of Pakistan Medical Association*, 56(8), 345. Retrieved from: https://researchgate.net/profile/Nilofer_Safdar/publication/6822771_Thinness_A_woman's_conflict_or_eating_disorders_Facts_and_the_search_for_solutions/links/0a85e52f34d ff7ff100000000.pdf
- Saleem, M., Sattar, S., Zafar, M., & Bin Ismail, R. (2014). Link between body shape and depression. *Pakistan Journal of Commerce and Social Sciences*, 8(3), 925-937.
- Sardar, A., & Amjad, H. (1996). The relationship between body shape satisfaction and physical activities: An investigation of gender and class differences. *Journal of Youth & Adolescents*, 25(5), 691-703.
- Schulte, S. J., & Thomas, J. (2013). Relationship between physical activity, body dissatisfaction and depressive symptoms among male and female. *Eating Behavior*, 14(2), 157-60.
- Shah, A. H., & Bilal, R. (2009). Body composition, its significance and models for assessment in Rawalpindi students. *Pakistan Journal of Nutrition*, 8(2), 198-202.
- Shaikh, M., Shahid, F., & Khan, A. (2008). Body shape concerns and extreme use of physical activities: Gender differences and prevalence in a Pakistani medical student population. *BMC Psychiatry*, 8(20), 116-119.
- Showers, C. J., & Larson, B. E. (1999). Looking at body image: The organization of self-knowledge about physical

- appearance and its relation to disordered eating. *Journal of Personality*, 67(4), 659-700.
- Silberstein, L. R., Striegel-Moore, R. H., Timko, C., & Rodin, J. (2001). Behavioral and psychological implications of body dissatisfaction: Do men and women differ? *Sex Roles*, 19(4), 219-232.
- Sirang, Z., Bashir, H. H., Jalil, B., Khan, S. H., Hussain, S. A., Baig, A., et al. (2013). Weight patterns and perceptions among female university students of Multan: A cross sectional study. *BMC Public Health*, 13(1), 230. <https://doi.org/10.1186/1471-2458-13-230>
- Srinivasan, T. N., Suresh, T. R., Jayaram, V., & Fernandez, M. P. (2016). Eating disorder in India. *Indian Journal of Psychiatry*, 37(1), 26-30.
- Swami, F., Gray, T., & Furnham, U. (2007). Dieting, body weight, body image and self-esteem in young women: doctors' dilemmas. *Medical Journal of Australia*, 178(12), 607-611.
- Syed, A., Din, Z., Zeb, F., Ghaffar, F., Khan, S., Iqbal, M., & Ali Khan, B. (2017). Body shape concerns related to the nutritional status of university females in Khyber Pakhtunkhwa and Karachi, Pakistan. *Journal of Clinical Nutrition & Dietetics*, 3(1), 1-8.
- Ung, E. K. (2003). Body shape worries in Korean undergraduates: A review. *Annals of the Academy of Medicine*, 32(1), 19–24.
- Wan, F., Faber, R. J., & Fung, A. (2003). Perceived impact of thin female models in advertising: A cross-cultural examination of third person perception and its impact on behaviors. *Asia Pacific Journal of Marketing & Logistics*, 15(2), 51-73.
- Wardle, J., & Johnson, F. (2002). Weight and dieting: examining levels of weight concern in British adults. *International Journal of Obesity*, 26(8), 1144-1149.
- Wardle, J., Haase, A. M., & Steptoe, A. (2006). Body shape and weight control in young adults: International comparisons in university students from 2 countries. *International Journal of Obesity*, 30(4), 644-651.

- Wong, Y., & Huang, Y. (2015). Body concerns, weight dissatisfaction and characteristics of female dieters: A study on female college students. *Journal of American College of Nutrition, 18*(2), 194-200.
- Yeh, H. W., Tzeng, N. S., Chu, H., Chou, Y. H., & Lu, R. (2009). The risk of eating disorders among female undergraduates in Taiwan. *Achieves of Psychiatric Nursing, 23*(6), 430–440.