

Adaptability in Crisis

A Psychological Perspective



Dr. Dharmeshwari Lourembam

Dr. Kakali Goswami

Dr. Sandeep Panchal

Dr. Satchit Prasun Mandal

This book is a compilation of empirical research and review papers, which focuses on pertinent issues of the current situation. The articles have been contributed by different researchers and experienced academicians from all over the country. The articles are thoroughly based on their original research work presented during the Two Day National Conference titled "**Adaptability In Crisis: Psychology, Education And Society**" organized by the Department of Psychology, Rajiv Gandhi University (A Central University), Arunachal Pradesh, India on the 17th & 18th of August 2021 through virtual mode.

The objective of the book is to highlight various issues related to the present COVID-19 pandemic to foster better preparedness and adaptability in crisis. The chapters delve on the themes of Physical & Mental Health, Health Care System, Work-Life Balance, Resilience, Coping Skills and Effects of COVID-19 on Mental Health. It consists of selected unpublished articles of diverse aspects of psychological and overall mental health highly relevant on both individual and community levels in every sphere of life. The findings will also contribute to public welfare and policy documentation for the Government.



Dr. Dharmeshwari Lourembam is working as an Assistant Professor in Department of Psychology, Rajiv Gandhi University (A Central University), Arunachal Pradesh. She is currently the Head in-charge of the Department. She has specialized in Clinical Psychology, Positive Psychology and Counseling. She has obtained her U.G., P.G. and Ph.D. Degree in Psychology from Panjab University, Chandigarh. She was a UGC-JRF and SRF after which she joined Sikkim University (A Central University) as a Guest Faculty in Department of Psychology. She is currently part of a research project sponsored by National Commission for Women and has published research articles in journals and book chapters in the field of psychology. Her area of research includes Health Psychology and Positive Psychology.



Dr. Kakali Goswami is working as an Assistant Professor in Department of Psychology, Rajiv Gandhi University (A Central University), Arunachal Pradesh. She was former Head in-charge of the Department. She has specialized in Organizational Psychology and Positive Psychology. She has obtained her PG from Jamia Milia Islamia, New Delhi and Ph.D. Degree in Psychology from Gauhati University, Assam. Her area of research is positive psychology and organizational psychology. She has published numerous research papers and book chapters in the field of psychology. She is currently carrying out research project sponsored by National Commission for Women.



Dr. Sandeep Panchal is an Assistant Professor in Dept. of Psychology, Rajiv Gandhi University (A Central University), Arunachal Pradesh. He has Specialization in Clinical Psychology, Health Psychology and Sports Psychology. He has obtained Ph.D. Degree in Psychology from Kurukshetra University, Kurukshetra, Haryana, India. Previously, he worked as Senior Research Fellow (SRF) in DIPR, DR&DO, DELHI & Sports Psychologist in Sports Authority of India, Delhi, & Assistant Professor (Guest) at Central University of Haryana & Teaching Faculty at Indira Gandhi University (State University), Meerpur Rewari, Haryana. He has published more than 26 publications in National and International Journal of repute.



Dr. Satchit Prasun Mandal is presently working as an assistant professor in the Department of Psychology, Rajiv Gandhi University, Arunachal Pradesh. Prior to his present occupation, he was employed as a Scientist in the Defence Research and Development Organization (DRDO). He obtained his Ph.D. and Master's degree in Psychology from Banaras Hindu University (BHU). He completed his graduation from University of Calcutta. His area of research includes Personality Psychology, Health and Well-being, Positive Psychology.



KUMUD PUBLICATIONS

K-129, 3-1/2 Pusta Main Road, Gautam Vihar,
Delhi-110053, Ph. 09811281638, 9953918120

E-mail: kumudbooks@gmail.com

Website: www.kumudpublications.com

Rs. 1295/-

ISBN 978-93-92023-13-2



9 789392 023132

15. Student's Perception of Remote Teacher Learning
Amidst Lockdown
Neethu Sara Joseph 170
16. Mental Health and Coping Strategies among Health
Professionals during Covid-19 Pandemic
Oyin Mibang & Kakali Goswami 184
17. Perception of Physical Self and Self-Esteem During
Covid-19 Pandemic Among Female Students
Pranaya Rai & Dharmeshwari Lourembam 195
18. To Study the Effect of Dance Therapy on Well Being
Preeti P. Masih 209
19. Academic Procrastination in Online Learning among
Students
Rashmi Rekha Gohain & Sampreety Gogoi 220
20. A Comparative Study of Post-Partum Depression and
Its Impact on Well-being of Mother in Pre and Post
Pandemic
Ruchi Joshi & Abhilash Kasi 229
21. Mental Health Problems and Associated Factors among
Female Working Professionals
Sandeep Panchal 240
22. Career Preferences of The Secondary School Students:
A Meta-Analysis
Samiran Kalita, Nandita Chitrakar & Nisanth P.M. 248
23. Teachers in Online Education and Children with
Special Needs (CWSN): Bridging the Gap
Sushmita Borah & Sampreety Gogoi 259
24. Hope, Resilience and Subjective Well Being among
Recovered Covid-19 Patients in Assam
*Tanzuma Zaman¹, Janet Ngailianniang, Nida Nafees
& Manas Pratim Kashyap* 270

Perception of Physical Self and Self-Esteem During Covid-19 Pandemic Among Female Students

Pranaya Rai¹ and Dharmeshwari Lourembam²

Abstract

Covid-19 pandemic has imposed certain restrictions and the lockdown implemented have immense impact on eating pattern, fitness behavior and overall well-being of an individual. Restricted outdoor activities and online classes have resulted in a sedentary lifestyle for the youth. This may result in higher body dissatisfaction which is a main cause of distress, negative attitudes towards self, behavior issues and lower self-esteem especially among the young girls. The present research thus aims to explore the relationship between body dissatisfaction, self-criticism, self-reassurance and self-esteem of female adolescents during the pandemic. The sample was exclusively collected through Google Form on female higher secondary students from Itanagar. The sample consisted of 68 female students, age ranging from 15 to 19 years, who were administered standardized questionnaires on the study variables. The results indicate that body dissatisfaction and self-criticism were negatively related to self-esteem and self-reassurance showed significantly positive correlation with self-esteem. Implications of the study are also discussed.

Keywords: Well-being, Body Dissatisfaction, Distress, Self-criticism, Self-reassurance, Self-esteem.

¹Ph.D. Scholar, ²Assistant Professor, Department of Psychology, Rajiv Gandhi University, Arunachal Pradesh

Introduction

The Coronavirus (COVID-19) pandemic has affected every individual and its rapid spread all around the world led to implementation of lockdown including travel, public gathering, social gatherings and events (Bank & Zu, 2020). Such strict implementations might be efficacious against infection and in controlling the disease (Tian et al., 2020) but such prolonged restriction of movement and self-isolation may lead to various negative effects on the psychological health of an individual (Galea et al., 2020). One of the major consequences of restricted movement and sedentary lifestyle is the eating pattern and weight issues which in turn influence the body image or perception of one's physical body. The pressure caused by the Covid 19 pandemic may develop intimidation to body image possibly due to such routine or lifestyle that intensify maladaptive coping, increase worry of its body mass or weight changes and occurrence of negative body cogitation (Swami, 2021). A study done by Zhou and Wade (2021) revealed the significant growth in weight issues and eating disorders among female university students during Covid-19 pandemic as compared to pre Covid-19. Another research noted that stress related with Covid-19 was linked with more negative body image (Swami et al., 2021).

Adolescent's body dissatisfaction can be influenced by numerous factors like age, family, religion and economic income (Monterio et al., 2014). Development factors (formation of late body image disruption of childhood, pubertal timing, being mocked about physical looks, childhood obesity and early sexual molestation) and sociocultural factors (social norms, impact of mass media and gender role social construct) are emphasized in the theories on development of body image dissatisfaction (Heinberg, 1996). Social media is flooded with information related to exercise and proper diet depicting perfect bodies which are aimed to serve as inspiration but sometimes it may also lead to reverse unanticipated consequences mainly for the young females to set too high target for themselves. Previous literature had found high level of body dissatisfaction during Covid-19 pandemic (Akhtar et al., 2020; Ahuja et al., 2021). Body dissatisfaction is a main cause or source of distress among all ages

of women (Albertso et al., 2014) and it develops negative attitudes towards their body image and makes negative assessments towards their own physical appearance. Development of unhealthy eating habits and inappropriate dieting due to body dissatisfaction also may progress to eating psychopathology (Stice et al., 2011). It contributes to low self-esteem, depression and behavior issues (Griffiths et al., 2010). Another important area related to body dissatisfaction usually seen among young females is self-criticism. When an individual is unhappy with the body image, they tend to criticize and dislike their real self as they think their physical appearance is not up to their ideal image. Self-criticism is associated with negative feelings about individual's weight and appearance; however, being self-assuring is another very related characteristics which buffer the negative thoughts towards oneself and is linked to positive feelings about self. Gilbert (2006) highlighted that people use self-criticism as a defensive approach to enhance a sense of belonging to the community and evading from denial or rejection. An individual's sense of oneself as inferior or flawed is related to negative feelings of one's body image and body-dissatisfaction (Ferreira et al., 2014).

There is no doubt that the younger generation, especially females, tend to be susceptible to get drawn away by the beauty standards portrayed by the media or society at large. This leads to high expectation to achieve those standards of physical appearance. The frequent comparisons led to self-criticism and body dissatisfaction which in turn affect their mental health. One of the domains of mental health which have significant relation with one's perception of physical self is self-esteem as Krishen (2011) also noted it and body dissatisfaction to be the source of many research investigations. Self-esteem is described as a person's self-assessment of oneself which indicates how they feel and believe about their significance and potential (Rosenberg, 1965). Having high body dissatisfaction is known to be associated with low self-esteem (Fingeret & Gleaves, 2004; Paxton et al., 2006). There are numerous studies indicating self-esteem having a large effect on mental health (Gilbert, 2004) revealing that self-esteem is linked with shame, emotions and a

negative sense of self, which has a negative association with eating behavior (Duarte et al., 2017). Cheng's (2006) study found that the Body Mass Index and internalization of thinness ideals were significant risk elements for body image dissatisfaction and associated with lower levels of self-esteem. After the lockdown, there is an immense decrease in our movement and more indulgence in social media which might have a great impact on the relationship of body image and mental health. Research conducted in Spain found that the increased usage of social media constitutes to an increased level of drive for thinness, low level of body dissatisfaction and self-esteem among young women during pandemic (Vall-Roque et al., 2021).

In the state of Arunachal Pradesh, the major traditional cuisine is mainly boiled food and as it is evident that the type of food habit contributes greatly to the development of the physical body, hence, understanding the relation of body dissatisfaction, self-criticism and self-esteem in the state is worth exploring. The present study thus aims to explore the level of body dissatisfaction, self-criticism, self-reassurance and its relationship with self-esteem among female students in Arunachal Pradesh during the Covid-19 pandemic.

Aim

To explore the relationship between body dissatisfaction, self-criticism (inadequate-self and hated-self), self-reassurance and self-esteem of the female students during Covid-19 pandemic.

Hypotheses

- There will be a negative relation between body dissatisfaction and self-esteem among the female students.
- There will be a negative relation between self-criticism (inadequate-self and hated-self) and self-esteem among the female students.
- There will be a positive relation between self-reassurance and self-esteem among the female students.

Methodology

Sample: The sample consists of 68 female higher secondary students studying in XIth and XIIth standard and age ranging from 15 to 19 years (Mean age = 17.13, S.D. = 2.29). 74 responses were received of which 6 have been excluded due to incomplete response of the questionnaire. The sample was taken from 3 schools in Itanagar complex of Papum Pare district, Arunachal Pradesh and 31% of them belonged to science stream, 5.6% to commerce, 61% to humanities and 1.9% to other streams. The questionnaires were first converted into Google form and higher secondary school teachers were contacted. Due to the pandemic, the teachers were requested to share the Google form link through the WhatsApp platform. Snowball sampling was thus employed for the study.

Tools

The following tools were employed along with the consent form and collection of the demographic profile which included their age, class, stream and family annual income.

Body Shape Questionnaire-Short Form (BSQ): This scale was developed by Evan & Dolan in 1993 and is a 6 point Likert scale (never=1, rarely=2, sometimes=3, often=4, very often=5 and always=6). Higher score indicates a higher level of body dissatisfaction. The scale has good reliability with Cronbach alpha of 0.93 for students (Silva et al., 2014).

Forms of Self- Criticizing and Reassurance scale (FSCRS): This 22 item scale was developed by Gilbert et al. in 2004 which has 3 dimensions – Inadequate-self (a sense of personal inadequacy), Hated-self (desire to hurt) and Self-reassurance (individual's comfort intended to make them less worried). The items are scored in a 5 point Likert scale ranging from 0 = "not at all" to 4= "extremely like me". The scale has good reliability with Cronbach alpha of 0.90 and 0.86 for the Inadequate Self and Hated Self respectively which are dimensions of self-criticism and 0.86 for Self-reassurance (Gilbert et al., 2004).

Rosenberg Self-Esteem Scales: This scale was developed by Rosenberg in 1965. It has 10 items which measures the positive and negative feelings about the self. The items were scored on a 4 point Likert scale (strongly agree=4, agree=3, disagree=2, strongly disagree=1). Item number 2, 5, 6, 8 and 9 are to be reverse scored. A higher score indicates a higher level of self-esteem. The scale has good reliability with Cronbach alpha of 0.86 for adolescents (Ciarrochi et al., 2007).

Self-constructed Questionnaire: It consisted of three questions to know their food habit and physical activity. The questions are given below: 1) How frequently you take junk food/street food? 2) How often do you engage in physical activities? 3) Type of food mostly prepared at home. The first two questions have five options - never, rarely, sometimes, often and always while the third question has three options, namely, boil food, fried food and mixed (both boil and fried) food.

Result and Discussion

Table 1: Table showing Mean, S.D., Cornbach alpha and Pearson correlation of the study variables.

	Body Dissatisfaction	Inadequate Self	Hated-Self	Self-Criticism	Self-Reassurance	Self-Esteem
N	68	68	68	68	68	68
Mean	47.02	19.61	7.19	26.80	17.58	15.07
S.D.	20.35	7.89	4.71	10.75	7.19	4.08
Cronbach Alpha	.934	.782	.637	.795	.799	.725
Body Dissatisfaction	1					
Inadequate Self	.513**	1				

	Body Dissatisfaction	Inadequate Self	Hated-Self	Self-Criticism	Self-Reassurance	Self-Esteem
Hated Self	.359**	.419**	1			
Criticism	.534**	.918**	.745**	1		
Reassurance	-.362**	-.247*	-.299*	-.312*	1	
Self-Esteem	-.526**	-.560**	-.548**	-.650**	.403**	1

**Correlation is significant at 0.01 (2-tailed)

*Correlation is significant at 0.05 (2-tailed)

Table 2: Table showing the percentage of responses on the self-constructed questions.

Theme of the question	Response	Percentage (N)
Intake of junk food	Never & Rarely	2.9% (2)
	Sometimes	55.7% (37)
	Often & Always	32.9% (29)
Physical activities	Never & Rarely	4.3% (3)
	Sometimes	74.3% (50)
	Often & Always	21.5% (15)
Type of Food prepared at home	Boiled food	7% (5)
	Fried food	31% (6)
	Both Boiled and fried	53.5% (57)

The current pandemic situation has created a lot of restriction which impact each and every person's thoughts and life style. The present study focused on exploring the relationship between body dissatisfaction, self-criticism (inadequate-self and hated-self), self-reassurance and self-esteem of young females during the pandemic. Table 1 showed the mean score of body dissatisfaction which was 17.02 indicated mild concern with their body shape among the participants. It can be said that negative perception of physical

self is quite prevalent during the ongoing pandemic because of the sedentary and restricted lifestyle as studies have highlighted an increase in weight issues and eating disorders among females during the pandemic (Zhou & Wade, 2021). A similar pattern can be seen among the female participants of the study as the mean score highlighted that the participants have some concern about their body. Further, the mean score of the dimensions of self-criticism, that is, inadequate-self, hated-self was 19.61 and 7.19 respectively indicating average level on the dimensions and the mean of total self-criticism was 26.80 which also indicated average level of self-criticism among the participants. For the positive dimension of the above scale, namely, self-reassurance, the mean score came out to be 17.58 indicating average level. This showed that although the students were not completely happy or satisfied with their physical body yet they do not criticize or hate themselves and reassure themselves that they can do improve it. On the other hand, the mean of self-esteem was 15.07 indicating that the participants were slightly low on self-esteem.

Table 1 also highlighted the result of the correlational analysis which showed that body dissatisfaction, inadequate self, hated self and self-criticism has a significantly negative correlation with self-esteem. This indicated that a young female who is not happy with her physical appearance, criticize herself on the basis of her appearance and who has a negative perception of her own physical self will have lower self-esteem. On the other hand, self-reassurance showed significantly positive correlation with self-esteem indicating that a young female who is high on self-reassurance or who believes in herself will also experience high self-esteem and vice versa. Hence, both the hypotheses have been proved as body dissatisfaction, inadequate self, hated self and self-criticism were negatively related to self-esteem while self-reassurance was positively related to self-esteem. Many researches have highlighted the positive outcome of high self-esteem on mental health and well-being, so it is important to know the factors which are related to one's self-esteem. Female are more sensitive towards their body image and physical appearance,

especially, the young girls. The information available in media and exposure to the constant judgment of female's physical attributes by the society hugely influence the young girls to aspire for too high beauty standards leaving them dissatisfied with their actual physical self. As noted earlier, Albertso and his colleagues (2014) highlighted that body dissatisfaction is a main cause of distress among women.

The responses on the self-constructed questions related to the participant's eating habit and physical activity has been highlighted in Table 2. On the question of frequency of intake of junk food, 2.9% of the participants responded never and rarely, 55.7% responded sometimes and 32.9% responded frequently and always. This showed that majority of the participants enjoy eating junk food. The average consumption of junk food may also be due to the restriction of public movement and curfew, which makes it unmanageable to have street food during that situation. Hence, the frequency of indulging in junk foods may increase as the restrictions due to pandemic are over and it is easily available. In terms of indulgence in physical activity, 4.3% of the participants responded never and rarely, 74% responded sometimes and 21.5% responded frequently and always. A positive picture can be seen as majority of the female students were physically active even during the pandemic. A survey research done by Robertson et al. (2021) in United Kingdom also reported that the women, both old and young, were doing physical exercise as well as thought about exercise during the lockdown. Finally, in the question on the type of food usually consumed or prepared at home, 7% of the participants responded boiled food, 31% responded fried food and 53.5% responded both boiled and fried food. This showed that almost half of participants said they usually eat boiled as well as fried food at home. Culturally, most of the traditional cuisines of Arunachal Pradesh are boiled, but in the present scenario, due to acculturation with Assam and other mainland states, the Arunachalis have adapted to consuming both fried and boiled food at home.

Thus, it can be said that the participants of the study are slightly dissatisfied with their body or physical self; however, they do not hate or criticize themselves and even if they are not fully satisfied

with their body, they do reassure themselves that they can do better. Although they were slightly high on body dissatisfaction, they do not have very low self-esteem as they do not criticize or hate themselves and have a feeling of reassurance. Further, the participants also engage in moderate physical activity which might work as a buffer from negative thoughts and boost their self-esteem. As previous studies have reported that physical activity improve well-being, body image and self-esteem (Hausenblas & Fallon, 2006; Nordin-Bates et al., 2011), the engagement in moderate physical activities might work as a positive resource for the participants for not having very low self-esteem despite the stress due to pandemic. Life exposure or experiences influenced an individual to develop an opinion of a perfect body or an ideal body which keeps changing throughout life (Forney & Ward, 2013) and so proper intervention at such stage of life may help them to inculcate positive attitude towards their physical body and develop positive body image which in turn will promote various positive outcomes.

Conclusion

The study highlighted that the female students in the study who were high on body dissatisfaction, inadequate-self, hated-self and self-criticism have lower self-esteem. On the other hand, those who had high self-reassurance experienced higher self-esteem. It was also seen that overall the participants have mild concern about body. So, the youth, especially the females need to be made aware that having negative perception of their physical self or body image may lead to poor mental health. The social standards of beauty and portrayal of unattainable physical attributes as attractive often lead the young females to criticize themselves leading to self-hate. Hence, various awareness and counseling programmes must be organized for the students to inculcate positive attitude towards their physical body and develop positive body image which in turn will promote various positive outcomes. Teachers and parents must also be made conscious about the ill effects of body dissatisfaction as they can influence the youth for better outlook and also work as strong support system for them.

References

- Ahuja, K.K., Khandelwal, A., & Banerjee, D. (2021). Weighty woes: Impact of fat talk and social influences on body dissatisfaction among Indian women during pandemic. *International Journal of Social Psychiatry*. doi: 10.1177/0020764021992814
- Akhtar, M. B., Ahsan, M., & Ahsan, M. (2020). Mental health, Self-esteem, and life Satisfaction among Ethiopian Population during Covid-19 Pandemic: A surveybased study. *European Journal of Molecular and Clinical Medicine*, 7(9), 2572-2585.
- Albertson, E. R., Neff, K. D., & Dill-Shackleford, K. E. (2014). Self-Compassion and Body Dissatisfaction in Women. *Springer science*. doi: 10.1007/s12671-014-0277-3
- Arima, M., Takamiya, Y., Furuta, A., Siriratsivawong, K., Tsuchiya, S., & Izumi, M. (2020). Factors associated with the mental health status of medical students during the COVID-19 pandemic: a cross-sectional study in Japan. *BMJ open*. doi:10.1136/bmjopen-2020-043728.
- Bank, J., & Xu, X. (2020). The mental health effects of the first two months of lockdown. *Institute for fiscal studies*, 1-28. doi:10.1920/wp.ifs.2020.1620.
- Cheng, H. (2006). Body image dissatisfaction of college women: Potential risk and protective factors. [Doctoral dissertation, University of Missouri-Columbia]. doi:https://doi.org/10.32469/10355/4493.
- Ciarrochi, J., Heaven, Patrick., P & Davies, F. (2007). The impact of hope, self-esteem and attribution style on adolescent school grades and emotional wellbeing: A longitudinal study. *Journal Research in Psychology*, 41, 1161-1178. doi:10.1016/j.rp.2007.02.001
- Duarte, C., Matos, M., Stubbs, R. J., Gale, C., Morris, L., Gouveia, J. P., & Gilbert, P. (2017). The Impact of Shame, Self-Criticism and Social Rank on Eating Behaviours in Overweight and Obese Women Participating in a Weight Management Programme. *Plosone*, 12(1), 1-14. doi:10.1371/journal.pone.0167571
- Hausenblas, H. A., & Fallon, E. A. (2006). Exercise and body image: A meta-analysis. *Psychology & Health*, 21(1), 33-47. doi:https://doi.org/10.1080/14768320500105270
- Heinberg, L. & Borchert, J. (1996). Gender schema and gender role discrepancy as correlates of body image. *The Journal of Psychology*, 130 (5), 547-559. doi: org/10.1080/00223980.1996.9915021

- Evans, C., & Dolan, B. (1993). Body Shape Questionnaire: derivation of shortened "alternate forms". *The International Journal of Eating Disorders*, 13(8), 315-321. doi:315-321. [https://doi.org/10.1002/1098-108x\(199304\)13:3<315::aid-eat2260130310>3.0.co;2-3](https://doi.org/10.1002/1098-108x(199304)13:3<315::aid-eat2260130310>3.0.co;2-3)
- Ferreria, C., Pinto-Gouveia, J. A., & Duarte, C. (2014). Self-criticism, perfectionism and eating disorders: The effect of depression and body dissatisfaction. *International Journal of Psychology and Psychological Therapy*, 14(3), 377-396
- Fingeret, M.C., & Gleaves, D.H. (2004). Sociocultural feminist and psychological influences on women body satisfaction and disordered eating in college students. *Psychology of Women Quarterly*, 28, 370-380. doi: 10.1016/j.eat.2012.10.017
- Forney, K. J., & Ward, R. M. (2013). Examining the moderating role of social norms between body dissatisfaction and disordered eating in college students. *Eating Behaviors*, 14(1), 8-73. doi: 10.1016/j.eatbeh.2012.10.017
- Galea, S., Merchant, R. M., & Lurie, N. (2020). The Mental Health Consequences of COVID-19 and Physical Distancing: The Need for Prevention and Early Intervention. *JAMA Intern Med*, 180(6), 817-818. doi:10.1001/jamainternmed.2020.1562
- Gilbert, P., Clarke, M., & Hempel, S. (2004). Criticizing and reassuring oneself: An exploration of forms, styles and reasons in female students. *British Journal of Clinical Psychology*, 43(1), 31-50. doi:10.1348/014466504772812959
- Gilbert, P., Durrant, R., & Mcewan, K. (2006). Investigating relationships between perfectionism, forms and functions of self-criticism, and sensitivity to put-down. *Personality and Individual Differences*, 41(7), 1299-1308. doi: 10.1016/j.paid.2006.05.004
- Griffiths, L. J., Parsons, T. J., & Hill, A. (2010). Self-esteem and quality of life in obese children and adolescents: a systematic review. *International journal of pediatric obesity*, 5(4), 282-304. doi:<https://doi.org/10.3109/17477160903473697>
- Krishen, A., & Worthen, D. (2011). Body image dissatisfaction and self-esteem: A consumer-centric exploration and a proposed research agenda. *The Journal of Consumer Satisfaction, Dissatisfaction & Complaining Behaviour*. 24, 90.

- Monteiro, L. A., Novaes, J. S., Santos, M. L., & Fernandes, H. M. (2014). Body Dissatisfaction and Self-Esteem in Female Students Aged 9-15: The Effects of Age, Family Income, Body Mass Index Levels and Dance Practice. *Journal of Human Kinetics*, 43, 25-32. doi:DOI: 10.2478/hukin-2014-0086
- Nordin-Bates, S., Walker, I. J., Baker, J., Garner, J., Hardy, C., Irvine, S., Blevins, P. (2011). Injury, Imagery, and Self-esteem in Dance Healthy Minds in Injured Bodies? *Journal of Dance Medicine & Science*, 15(2), 76-85.
- Patton, SJ, Neumark-Sztainer D, Hannan PJ, Eisenberg ME. (2006). Body dissatisfaction prospectively predicts depressive mood and low self-esteem in adolescent girls and boys. *J Clinical Child Adolescent Psychology* 35-49. doi: 10.1207/s15374424jccp3504_5
- Robertson, M., Duffy, F., Newman, E., Bravo, C. P., Ates, H. H., & Sharpe, H. (2021). Exploring changes in body image, eating and exercise during the COVID-19. *Appetite*, 1-6. doi:https://doi.org/10.1016/j.appet.2020.105062
- Rosenberg, M. (1965). Society and the adolescent self-image. 338. doi:http://www.jstor.org/stable/j.ctt183pjhh
- Silva, W.R.D., Dias, J.C.R., Maroco, J., & Campos, J.A.D. (2004). Confirmatory factor analysis of different version of the body shape questionnaire applied to Brazilian university students. *Body Image*, 11, 384-390. doi: https://doi.org/10.1016/j.bodyimage.2014.06.001
- Stice, E., Rohde, P., Shaw, H., & Gau, J. (2011). An Effectiveness Trial of a Selected Dissonance-Based Eating Disorder Prevention Program for Female High School Students. *J Consult Clin Psycho*, 79(4), 500-508. doi:10.1037/a0024351.
- Swami, V., Horne, G., & Furnham, A. (2021). COVID-19-related stress and anxiety are associated with negative body image in adults from the United Kingdom. *Personality and Individual Differences*, doi:http://dx.doi.org/10.1016/j.paid.2020.110426
- Tian,H.,Liu, Y., Li,Y Wu, C.H., Chen, B., Kraemer,M.U., Pybus, O.G. (2020). An investigation of transmission control measures. *American Association for the Advancement of Science*, 368 (6491), 638-642. doi: https://doi.org/10.1126/science.abb6105
- University, A. R. (2020). COVID-19 anxiety linked to body image issues: Study finds association between stress and anxiety, and

negative body image." *ScienceDaily*. doi:www.sciencedaily.com/releases/2020/10/201022201407.htm>.

Vall-Rouque, H., Andres, A., & Saldana, C. (2021). The impact of Covid-19 lockdown on social network sites use, body image disturbance and self-esteem among adolescent and young women. *Progress Neuro Psychopharmacology Biol Psychiatry*. 110, 110293 doi: 10.1016/j.pnpbp.2021.110293

Zhou, Y., & Wade, T. D. (2021). The impact of COVID-19 on body-dissatisfied female university students. *International journal of eating disorder*, 54(7), 283-1288. doi:https://doi.org/10.1002/eat.23521