



A Quantitative Study on Body Image Anxiety of Contemporary Generation Z College Students

Yangyi Zhang^(✉)

Zhengzhou University, Zhengzhou, China
papillon@stu.zzu.edu.cn

Abstract. Body anxiety is a hot topic with the rise of consumerism and feminism. This paper mainly discusses the main factors causing body image anxiety of contemporary college students, especially the Generation Z. Through the questionnaire survey, 279 valid samples were obtained in this study. After the normality test, correlation analysis and regression analysis of these data samples, this paper found that personal self-awareness had the most significant impact on body image anxiety. The weaker the sense of self-identity, the weaker the sense of belonging, and the more serious the body image anxiety. Previous studies usually emphasized the effects of family, peer pressure, love relationship and social media on physical anxiety, but the results of this study found that their effects on body image anxiety were not very significant. Limited to the sample size of the questionnaire, the conclusions drawn in this paper may have some limitations. However, this conclusion can still provide a new discussion space for the study of body anxiety.

Keywords: Body image anxiety · Generation Z · Data analysis

1 Introduction

Body anxiety is a social phenomenon widely discussed in recent years. Several studies have shown that under the pressure of social development and multiculturalism, most women, regardless of their body mass index, are dissatisfied with their body shape and think that their ideal body is slimmer, which has brought a certain degree of anxiety to individuals, families and society [1]. With the improvement of Internet technology and the wide application of social media, women's anxiety and self-management about their body are more common. Some scholars also pointed out that it is the social discipline brought by social media that further aggravates women's body anxiety. At the same time, women continue to carry out self-management and self liberation in this discipline [2].

However, the existing research results have less discussion on the body anxiety of young groups and college students, particularly those in Generation Z, and lack of more detailed and in-depth research. When studying BM style, Fan Mengyin paid attention to the body anxiety of young women. She believes that BM style has higher requirements for women's figure. The reason why BM style is sought after by young women and set off a slimming boom is related to young women's body anxiety. Through in-depth interviews with 18 young women, she found that under the influence of the aesthetic orientation

of “taking thin as beauty”, young women generally have the problem of imbalance of physical intention, and the popularity of BM style is based on young women’s slimming psychology, which aggravates young women’s physical anxiety. She also believes that the popularity of BM style is the result of the joint action of external promoters such as consumerism, fashion, mass media and marketing and internal drivers such as young women’s desire to get the attention of the opposite sex and seek social identity [3]. Xin Mingjing’s study about young women’s body anxiety stems from the observation of dieting and weight loss among teenagers. She focuses on the main reasons for this phenomenon, including the rise of teenagers’ Physical Aesthetics under the influence of consumer culture, the wrong shaping of the commercial aesthetic standard of taking thin as beauty by the mass media, the immaturity of teenagers’ own physical and mental development, and the lack of physical initiative caused by teenagers’ lack of physical exercise in daily life. Her analysis of adolescent body anxiety is relatively broad, which makes a comprehensive analysis from different levels such as society, consumption and individual [4]. In addition, some articles focus on how to get rid of the problem of body anxiety, and put forward some suggestions from the aspects of social psychology, culture, talent training and so on [5–7].

Based on the above existing research, this paper hopes to focus on the Gen. Z and discuss the body anxiety they are facing. What is Gen. Z? Anyone born between 1981 and 1996 (ages 23 to 38 in 2019) is considered a Millennial, and anyone born from 1997 onward is part of a new generation (Gen. Z) [8]. The previous research findings give a side study on body image anxiety among Gen. Z. This can be studied from the perspectives of identity, family, peers, romantic relationships, social media, and fashion [9]. In addition, in the previous Y2K clothing research, the author of this paper initially realized that millennials and generation Z have body image anxiety, and became interested in the causes of body image anxiety, especially because generation Z is a very special and huge group of contemporary college students. Therefore, this study is particularly necessary.

This study hypothesizes that identity, feeling of identity, and environmental belonging all would influence Gen. Z’s body anxiety. From the perspective of family, family environment usually affects individual growth and self-confidence. From the perspective of peers, peer pressure is also one of the most influential factors of individual growth. On the other hand, social media is full of advertising, opinion leaders and peer pressure under big data, which is obviously a source of social anxiety. Therefore, this paper will study the main factors affecting the physical anxiety of Gen. Z college students and the transmission mode of the influencing factors of physical anxiety through questionnaire survey, and try to explore the relationship between physical anxiety and intergenerational differences.

2 Methods

The questionnaire has been used as the main method, and the questions were set using scale questions with possibilities divided into five levels ranging from never, nearly to always. Instead of individually constructing the variables of body image anxiety and self-perception, family, and peers directly into questions, this study constructed each of our hypothesized contributing factors into numerous questions to perform the study

more precisely. Following the collection of the questionnaires, the data was examined for normality, correlation analysis, and regression analysis in order to study the Influence factors of body image anxiety.

This study mainly designs 12 questions, as follows: Q1. Are you satisfied with your body? Q2. Do you feel uncomfortable when discussing “body image” with people around you? Q3. What do you think your family atmosphere is like? Q4. When you were growing up, how frequently did your family tell you that “inner beauty” was more valuable? Q5. Do your family members or relatives make negative comments about your body directly or indirectly? Q6. Would you be envious or jealous of your peers who are in better shape than you? Q7. See a pair display love you will have this idea? For example: “This guy/girl obviously does not have my body, but he/she can find the other half” Q8. Do you have the idea of disliking your boyfriend/girlfriend’s body image? Q9. You see an advertisement with a product you really like on social media platforms such as TikTok and Weibo, but you’re worried that your body won’t be able to handle it? Have you ever had a similar experience? Q10. Do you feel envious or jealous when you see a blogger with a good body on social media platforms like TikTok and Weibo? Q11. Will you study the methods of some well-built opinion leaders in order to improve your figure? Q12. Have you ever given up on buying items you like because you’re afraid you won’t be able to wear them due of your size?

A total of 317 samples were collected in this survey. After screening, a total of 279 effective samples were detected. This paper mainly uses SPSS for data analysis, and further makes regression analysis and correlation analysis.

3 Results

The data analysis of this paper indicated that, while not absolutely normal, the absolute value of kurtosis was less than 10 and the absolute value of skewness was less than 3, which was basically accepted as normal distribution. So, the study finally chose to test the correlation using Spearman’s coefficient [10]. See Table 1 for details.

The results of relevant analysis are as follows. See Table 2 for details.

1. The correlation coefficients of Q1 and Q2 were -0.602 and -0.431 and showed a significance level of 0.01, indicating a significant correlation.
2. The correlation coefficient for Q3 was -0.097 and had a p-value of $-0.105 > 0.05$, indicating that body image anxiety was unrelated to family atmosphere, whereas the correlation coefficients for Q4 and Q5 were -0.132 and 0.283 , respectively, and showed a significance level of 0.01, indicating that body image anxiety was significantly related to how your family instilled in you to view your body image and your family’s evaluation of your body image. It cannot be claimed here that family is one of the influencing elements of body image anxiety, and we still need to investigate the results of the regression analysis.
3. The correlation coefficient for Q6 was 0.534 and showed a significance level of 0.01, indicating that body image anxiety is significantly correlated with peer pressure.
4. The correlation coefficient of Q7 was 0.165 and showed a significance level of 0.01, while the correlation coefficient of Q8 was -0.029 close to 0 and the p-value was

Table 1. Normality test results

	sample	average	Standard deviation	Coefficient skewness	kurtosis	Kolmogorov-Smirnov test		Shapiro-Wilk test	
						D	<i>p</i>	W	<i>p</i>
B.A.	279	3.254	1.088	-0.300	-0.568	0.205	0.000**	0.908	0.000**
Q1	279	2.792	0.944	0.168	-0.428	0.201	0.000**	0.898	0.000**
Q2	279	3.136	1.037	0.192	-0.366	0.251	0.000**	0.894	0.000**
Q3	279	4.050	1.020	-0.920	0.157	0.243	0.000**	0.820	0.000**
Q4	279	3.842	0.954	-0.556	-0.131	0.229	0.000**	0.869	0.000**
Q5		2.513	1.283	0.394	-1.027	0.211	0.000**	0.879	0.000**
Q6	279	3.312	1.286	-0.343	-0.970	0.209	0.000**	0.895	0.000**
Q7	279	0.459	2.594	-0.259	-1.304	0.260	0.000**	0.839	0.000**
Q8	279	-1.315	2.521	0.953	-0.839	0.425	0.000**	0.658	0.000**
Q9	279	3.416	1.370	-0.494	-1.000	0.231	0.000**	0.867	0.000**
Q10			1.324	-0.286	-1.080	0.209	0.000**	0.893	0.000**
Q11	279	3.315	1.227	-0.421	-0.856	0.246	0.000**	0.889	0.000**
Q12	279	3.312	1.322	-0.458	-0.935	0.233	0.000**	0.878	0.000**

* $p < 0.05$ ** $p < 0.01$

Table 2. Correlation analysis results

	Body image anxiety
Q1	-0.602**
Q2	-0.431**
Q3	-0.097
Q4	-0.132*
Q5	0.283**
Q6	0.534**
Q7	0.165**
Q8	-0.029
Q9	0.546**
Q10	0.438**
Q11	0.324**
Q12	0.533**

* $p < 0.05$ ** $p < 0.01$

0.663 > 0.05, which does not indicate the relationship between romantic relationships and stature anxiety here, and the results of the regression analysis need to be studied.

- The correlation coefficients for Q9 and Q10 were 0.546 and 0.438, respectively, and showed a significance level of 0.01, indicating a significant correlation between body image anxiety and social media.

The correlation coefficient for Q11 was 0.324, with a significance level of 0.01, demonstrating a substantial relationship between body image anxiety and opinion leaders.

The results of regression analysis are as follows. See Table 3 for details.

- The regression coefficient value for Q1 was -0.467 ($t = -7.326$, $p = 0.000 < 0.01$), implying a significant negative effect relationship of self-perception on stature anxiety. The regression coefficient value for Q2 was -0.108 ($t = -2.027$, $p = 0.044 < 0.05$), implying a significant negative effect relationship of environmental attribution.
- The regression coefficient value of 0.031 for Q3 ($t = 0.624$, $p = 0.533 > 0.05$) implies that family atmosphere does not have an influential relationship on body

Table 3. Regression analysis results

	Unstandardized Coefficients		Standardized coefficient	<i>t</i>	<i>p</i>	VIF	<i>R</i> ²
	<i>B</i>	Standard error	<i>Beta</i>				
	3.850	0.388	-	9.922	0.000**	-	0.549
Q1	-0.467	0.064	-0.406	-7.326	0.000**	1.794	
Q2	-0.108	0.053	-0.103	-2.027	0.044*	1.505	
Q3	0.031	0.049	0.029	0.624	0.533	1.260	
Q4	-0.055	0.055	-0.048	-0.994	0.321	1.381	
Q5	0.020	0.039	0.024	0.518	0.605	1.262	
Q6	0.153	0.053	0.181	2.894	0.004**	2.288	
Q7	0.040	0.043	0.096	0.940	0.348	6.100	
Q8	0.023	0.044	0.054	0.527	0.598	6.070	
Q9	0.098	0.059	0.124	1.671	0.096	3.217	
Q10	-0.021	0.052	-0.025	-0.395	0.693	2.355	
Q11	0.054	0.047	0.061	1.136	0.257	1.665	
Q12	0.032	0.059	0.039	0.545	0.586	2.961	

Dependent variable: body image anxiety

D-W value: 1.831

$F(14,264) = 22.926$, $p = 0.000$ Adjustment $R^2 = 0.525$

* $p < 0.05$ ** $p < 0.01$

image anxiety. The regression coefficient value of -0.055 for Q4 ($t = -0.994$, $p = 0.321 > 0.05$) and 0.020 for Q5 ($t = 0.518$, $p = 0.605 > 0.05$) implying that neither the family's evaluation of your body size nor the concept of body size instilled in you while growing up were factors influencing body anxiety.

3. The regression coefficient value for Q6 was 0.153 ($t = 2.894$, $p = 0.004 < 0.01$), implying a significant positive relationship of peer pressure on stature anxiety.
4. The regression coefficient values of 0.040 ($t = 0.940$, $p = 0.348 > 0.05$) for Q7 and 0.023 ($t = 0.527$, $p = 0.598 > 0.05$) for Q8 imply that romantic relationships is not actually an influencing factor for body image anxiety.
5. The regression coefficient value for Q9 was 0.098 ($t = 1.671$, $p = 0.096 > 0.05$) and Q10 was -0.021 ($t = -0.395$, $p = 0.693 > 0.05$), implying that social media does not have a significant effect relationship on body image anxiety.

The regression coefficient value for Q11 was 0.054 ($t = 1.136$, $p = 0.257 > 0.05$), implying that opinion leaders have an influential relationship on body image anxiety.

4 Discussion

From the data of Q1 and Q2, self-identity and environmental belonging are one of the reasons affecting body image anxiety, and in line with common sense, the weaker the sense of self-identity and the weaker the sense of belonging, the more severe the body image anxiety. And the results of the correlation analysis of Q3 and Q4 differ from the results of the regression analysis. From the regression analysis, family is not one of the influencing factors of body image anxiety, but unlike common sense, a person would feel uncomfortable when his family members often belittle his body image. The current level of research does not determine whether family is one of the influencing factors, and more in-depth and scientific research is needed, which may involve theories and studies from other fields such as psychology.

Q6 corresponds to peer pressure, and the data shows that indeed the pressure brought by peers is one of the factors affecting body image anxiety, and compounded with the attempt that people tend to envy their peers who are better than themselves, and body image is just one of them. The analysis of Q7 and Q8 data illustrates that romantic relationship is not one of the influencing factors of body image anxiety.

Social media is always an inescapable issue. Q9 and Q10 show from the data that social media advertising is not an influencing factor of body image anxiety, but we can say from common sense that the advertising of bm style clothes does cause some girls' body image anxiety problems, probably because the research method and the way of survey are not precise enough. From the data of Q11, opinion leaders are one of the influencing factors of body anxiety, and this influence is positive, the more opinion leaders lead people to work towards a healthy body, the more the group's body anxiety can be relieved, combined with the very hot TikTok Liu Keng Hong [11], driving national fitness, as a reference, we can learn from this social media to push national fitness, with the influence of opinion leaders to drive national fitness and relieve body anxiety.

5 Conclusion

This study starts from the perspective of body image anxiety and investigates the factors that influence Gen. Z body image anxiety. By adopting the research method of questionnaire survey, this paper makes correlation analysis and regression analysis on 279 data samples to further verify the theoretical hypothesis. This study finally proves that from the perspective of self, self-identity and environmental belonging are both influential factors of body image anxiety; from the perspective of peers, peer pressure is one of the influential factors, and from the perspective of opinion, opinion leaders are an influencing factor. It is worth mentioning that the current society is using the power of public opinion leaders to alleviate body image anxiety and promote national fitness through new media social platforms.

However, because the sample data collected in this study is relatively limited, and this paper lacks the grouping analysis of the basic situation of the sample, the results obtained at present may conflict with the general common sense. This may be caused by the scientificity of data collection and the accuracy of data analysis. This is the main limitation of this study at this stage. Nevertheless, this paper has obvious research value both in theory and reality. This study focuses on the Gen. Z group and provides a reference for research on body image anatomy in a browser group, providing some data base. In this paper, the research on the physical anxiety of young people has not been in-depth on the basis of gender research, which will be the next research direction of this paper. This will undoubtedly provide some references for the future research on physical anxiety of young people.

References

1. Lucretia, C. (2018). Body mass index and body image anxiety in a sample of undergraduate students. *Physical Education of Students*, 22(2), 77–82. <https://doi.org/10.15561/20755279.2018.0204>
2. Liu, Y. (2021). Discipline and struggle: Female body anxiety and self-management in the context of social media. *Audiovisual*, 11, 153–154. <https://doi.org/10.19395/j.cnki.1674-246x.2021.11.066>
3. Fan, M. (2021). Body anxiety of young women: A trial solution to the epidemic phenomenon of BM style. *Journal of Shanxi Youth Vocational College*, 34(03), 23–27.
4. Xin, M. (2021). Puzzle and solution: Body cognition under adolescent body anxiety. *Youth Sports*, 07, 41–42.
5. Liu, B. (2021). How to solve body anxiety? *Beijing Chronicle*, 10, 104–105.
6. Xia, J. (2021). Taking thin as beauty is unhealthy: How should young people get out of body anxiety. *China Youth Daily*, July 20. <https://doi.org/10.38302/n.cnki.nzggq.2021.004732>
7. Li, Z., & Huang, R. (2021). Get rid of “body anxiety.” *Jiangsu Health Care*, 11, 39.
8. Dimock, M. D. (2019). Defining generations: Where Millennials end and Generation Z begins, Pew Research Center. Retrieved March 25, 2022, from <https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/>
9. Markey, C. N. (2010). Invited commentary: Why body image is important to adolescent development. *Journal of Youth and Adolescence*. <https://doi.org/10.1007/s10964-010-9510-0>
10. Hauke, J., & Kossowski, T. (2011). Comparison of values of Pearson’s and Spearman’s correlation coefficients on the same sets of data. *Quaestiones Geographicae*, 30(2), 87–93.
11. Cha, K. (2022). Behind Liu Fuhong’s explosion. *Global times* (06).

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