https://doi.org/10.36570/jduhs.2023.2.1708

JDUHS

ORIGINAL ARTICLE

Evaluation of Social Happiness in Active and Inactive Adolescents in Coronavirus Period

Abdossaleh Zar, Sara Zare Karizak, Hamid Reza Sadeghipour

Department of Sport Science, Persian Gulf University, Boushehr, Iran.

Correspondence to: Abdossaleh Zar, Email: salehzar@gmail.com, ORCID: 0000-0002-8884-6224

ABSTRACT

Objective: The purpose of this study was to evaluate the social happiness in active and inactive adolescents during the coronavirus prevalence period.

Methods: This cross-sectional study was conducted in Shiraz, Iran in 2020. High school students of either gender being physically healthy living in Shiraz were included. The criterion of being active was having at least 3 one-hour sessions of sports activity during the week. A social vitality questionnaire was used to assess social happiness. The minimum score in this test is 37 and the maximum score is 74. A high score indicates the high cheerfulness of the respondent.

Results: Of 350 students participated in this study, the mean age, weight, and height were 16.78 ± 2.59 years, 55.93 ± 11.37 kg, and 162.98 ± 6.21 cm respectively. A significant mean difference in total score of social happiness was observed between active and inactive students (p-value <0.001). Moreover, stratification of gender also showed a significant mean difference in males (p-value <0.001) and females (p-value <0.001).

Conclusion: A higher score of social happiness was observed in students who were physically active during coronavirus period. It seems that exercise and physical activity can be an important factor in increasing students' social happiness, and so their academic progress.

Keywords: Adolescents, COVID-19, Happiness, Pandemic.

INTRODUCTION

Coronavirus Disease-19 (COVID-19) is a problem that has breakout worldwide recently, and it has led to physical, psychological, and social issues.[1-3] Adolescence is a sensitive period of life that the spread of the coronavirus, quarantine, distance from peers and educational spaces, and the cancellation of social events have led to its becoming more difficult and reducing happiness and vitality, and causing psychological problems such as stress, anxiety and increased depression.[4,5] Some studies have indicated that physical activity by providing vitality can play an effective role in reducing physical and mental problems in this era. Studies have reported the positive effect of exercise and physical activity even at home during the outbreak of the coronavirus in preventing anxiety and depression.[1,4]

Social happiness or mental well-being can be considered as one of the positive mental structures that are related to the level of satisfaction with life and refer to the existence of positive experiences and emotions and the absence of negative experiences and emotions.[6] People who are cheerful and consequently have more mental health are more successful in terms of personal and social issues. In fact, adolescence is a transitional period between childhood and adulthood which contain rapid and surprising physical changes. The body requires to move to adapt to these changes.[7] Physical activity is a proper tool to improve life satisfaction and health-related quality of life in adolescents.[8] Furthermore, the benefits of physical activity on mental health are well documented.[6] Despite this, studies have mainly focused on the impacts of physical activity on negative mental aspects and considered the use of physical activity as a preventive or therapeutic approach for mental disorders such as depression and anxiety.[9] In contrast, the relationship between physical activity and positive mental constructs remains largely unknown.

Exercise causes the release of endorphins and therefore brings a feeling of happiness. Health is one of the most important factors that affect people's quality of life. Health has a strong relationship with quality of

life.[7] The individuals feel comfortable and satisfied with their health, but health is not only physical but also mental and social.[7] In addition, considering it has been shown that physical activity is one of the factors that can prevent the occurrence of mental disorders such as anxiety or depression in the coronavirus prevalence period.[4,10] But studies about happiness are lacking in this area, while, adolescence is a critical stage to increase the proper habits and thus a healthy lifestyle.[8] Sports and physical activities should be started during this period of life to become a habit. Because these activities can create a positive attitude, and this habit can increase social happiness in the coronavirus prevalence period.[7] Therefore, the purpose of this study was the evaluation of social happiness in active and inactive adolescents during the coronavirus prevalence period.

METHODS

This cross-sectional study was conducted in high schools in Shiraz, Iran in 2020. This study has been reviewed in the Research Ethic Committee of Sport Science Research Institute and was approved according to compliance with Ethical Standard in Research of the Ministry of Science, Research and Technology, with code IR. SSRI.1401.18.71.

The criteria for entering the study include being a high school student, irrespective of girl or a boy, being physically healthy, living in Shiraz, and consenting to participate in the study. Students with physical disabilities and boarding school students were excluded from the study. A total of 350 students participated in this study. Of them, 175 were physically active students (85 boys & 90 girls) and 175 inactive students (85 boys +90 girls). According to a study the criterion of being active was having at least 3 one-hour sessions of sports activity during the week.[1]

In this study, a social vitality questionnaire was used to collect information. The validity of the questionnaire is 78% based on Cronbach's alpha method. The social vitality questionnaire consists of 37 items and 5 subscales of life satisfaction (8 questions), appearance beauty (9 questions), social interaction (5 questions), individual efficiency (8 questions) and helping others (7 questions) which is used to evaluate different dimensions of happiness and vitality in students.

Two marks are given for answering no to questions 18, 19, 20, 21 and 22, and two marks for answering yes to the rest of the questions. Answers that do not agree with the scoring key are given one score. The minimum score in this test is 37 and the maximum score is 74. A high score indicates the high cheerfulness of the respondent.[11]

Data entry and analysis were done using Statistical Package for Social Sciences (SPSS) version 18.0. Mean± Sd was computed for quantitative variables like, age, height, weight, and social happiness score. Inferential statistics were explored using the Kolmogorov-Smirnov test to check the normality of the data and also independent t-tests was used to compare social vitality score of active and inactive students. The p-value of ≤ 0.05 was considered statistically significant.

RESULTS

Of 350 adolescent's students participated in this study the mean age, Weight, and height were 16.78 ± 2.59 years, 55.93 ± 11.37 kg, and 162.98 ± 6.21 cm respectively. In all scales of social happiness such as life satisfaction (10.83 ± 2.30 vs. 10.57 ± 2.26), appearance beauty (12.48 ± 1.93 vs. 12.16 ± 2.26), social interaction (8.92 ± 1.58 vs. 8.90 ± 1.67), individual efficiency (13.64 ± 2.22 vs. 11.98 ± 2.27), helping others (7.47 ± 1.06 vs. 7.44 ± 1.28) and total score (53.61 ± 6.49 vs. 51.05 ± 6.78), physically active students scored higher than physically inactive students and had better happiness and cheerfulness. However, only individual efficiency (p-value <0.001) and total score (p-value <0.001) were found statically significant. (Table 1)

The results showed that female students in all scales such as life satisfaction (10.84 ± 2.27 vs. 10.69 ± 2.32), appearance beauty (11.53 ± 1.87 vs. 11.27 ± 2.05), social interaction (7.96 ± 1.75 vs. 7.87 ± 1.44), individual efficiency (12.57 ±2.22 vs. 12.37 ± 2.27), helping others (9.48 ±1.15 vs. 9.44 ± 1.07) and total score (52.11 ± 6.36 vs. 51.64 ± 6.79), scored higher than male students. (Table 2)

We observed that the total score and subscales in active boy students are higher than inactive boy students. A significant mean difference of physically active and inactive boys was found with life satisfaction (p-value <0.001), appearance beauty (p-value <0.001), social interaction (p-value <0.001), individual efficiency (p-value <0.001), helping others (p-value <0.001) and the total happiness score (p-value <0.001) of active boy students had a significantly higher score. (Table 3)

The results showed that the total score and subscales in active girl students are higher than inactive girl students. So that in the scales of life satisfaction (p-value <0.001), appearance beauty (p-value <0.001), social interaction (p-value <0.001), individual efficiency (p-value <0.001), helping others (p-value <0.001) and total happiness score (p-value <0.001) of active girl students had a significantly higher score. (Table 4)

Table 1: Mean comparison of social happiness in active and inactive group (n= 350)

Variables	Physically Active (n= 175) (Mean± Sd)	Physically Inactive (n= 175) (Mean± Sd)	p-value
Life Satisfaction	10.83 ± 2.30	10.57 ± 2.26	0.287
Appearance Beauty	12.48 ± 1.93	12.16 ± 2.26	0.155
Social Interaction	8.92 ± 1.58	8.90 ± 1.67	0.860
Individual Efficiency	13.64 ± 2.22	11.98 ± 2.27	<0.001*
Helping Others	7.47 ± 1.06	7.44 ± 1.28	0.760
Total Score	53.61 ± 6.49	51.05 ± 6.78	<0.001*

Independent t-test applied,* p-value ≤ 0.05, Sd: Standard Deviation

Table 2: Mean comparison of social happiness in boys and girls (n= 350)

Variables	Boys (n= 170) (Mean± Sd)	Girls (n= 180) (Mean± Sd)	p-value
Life Satisfaction	10.69 ± 2.32	10.84 ± 2.27	0.415
Appearance Beauty	11.27 ± 2.05	11.53 ± 1.87	0.103
Social Interaction	7.87 ± 1.44	7.96 ± 1.75	0.493
Individual Efficiency	12.37 ± 2.27	12.57 ±2.22	0.271
Helping Others	9.44 ± 1.07	9.48 ±1.15	0.728
Total Score	51.64 ± 6.79	52.11 ± 6.36	0.136

Independent t-test applied,* p-value ≤ 0.05, Sd: Standard Deviation

Table 3: Mean comparison of social happiness in active and inactive boys (n=170)

Variables	Physically Active(n= 85) (Mean± Sd)	Physically Inactive(n= 85) (Mean± Sd)	p-value
Life Satisfaction	14.01 ± 2.38	9.18 ± 2.08	<0.001*
Appearance Beauty	14.55 ± 2.23	9.81 ± 1.78	<0.001*
Social Interaction	8.26 ± 1.61	6.57 ± 1.67	<0.001*
Individual Efficiency	12.40 ± 2.17	9.61 ± 2.31	<0.001*
Helping Others	10.68 ± 1.45	7.22 ± 0.99	<0.001*
Total Score	59.90 ± 7.38	42.30 ± 5.76	<0.001*

Independent t-test applied,* p-value ≤ 0.05, Sd: Standard Deviation

Table 4: Mean comparison of social happiness in active and inactive girls (n= 180)

Variables	Physically Active (n= 90) (Mean± Sd)	Physically Inactive (n= 90) (Mean± Sd)	p-value
Life Satisfaction	12.58 ± 2.30	10.08 ± 2.29	0.001*
Appearance Beauty	10.18 ± 1.98	10.80 ± 1.83	0.001*
Social Interaction	8.75 ± 1.36	7.11 ± 1.77	0.001*
Individual Efficiency	12.36 ± 2.31	10.39 ± 2.08	0.001*
Helping Others	10.37 ± 0.91	7.57 ± 1.19	0.001*
Total Score	56.24 ± 6.56	46.43 ±6.22	0.001*

Independent t-test applied,* p-value ≤ 0.05, SD: Standard Deviation

DISCUSSION

In this research, we investigated the social happiness of active and non-active students during the COVID-19 epidemic. The results showed that the total score of active students was better and they had a better state of happiness and in the both groups of girls and boys, active adolescent had a better state in all sub- Not only learning, but also the behavior of children and adolescents who are in the stages of education and learning, is subject to happiness and the role of exercise and physical activity has been well shown in achieving

this issue.[11] However, the effect of exercise and physical activity and having an active lifestyle has been shown in the development of happiness. In a recent study on Iranian students, it was shown that active students have higher happiness and self-esteem, and this improves mental health which can promote the quality of life in students.[12] Undoubtedly, the importance of this issue is greater during the epidemic of diseases, which brings extensive restrictions, and it can improve the living standards of people especially groups under education, such as students. In a research conducted on more than 7000 Chinese students, more than 44.9% of them had anxiety and decreased social communication due to the concern about the negative impact of the consequences of COVID-19 on their future work.[13] Adibelli and Siimen reported that during the COVID-19 restrictions, more than half of the statistical population had become overweight and tended to sleep more, which can significantly affect their level of happiness due to the disturbance caused by these changes.[14] With these interpretations, during this period people who maintained their activity level in any way and had a good level of physical activity had better conditions. In the research of Atılgan, people who participated in recreational sports activities had a higher score of happiness during the restrictions of COVID-19.[15] Sadeghipour *et al*. showed that during the quarantine caused by COVID-19, active students had a higher quality of life, which can have a significant effect on promote the level of psychic health and, as a result, their educational success.[1] In the present research, although the difference was not significant, female students scored higher than male students in all scales.

In the present research, although the difference was not significant, female students scored higher than male students in all scales. Contrary to the current study, in the research of Sadeghipour *et al*., active male students had a higher quality of life during the COVID-19 quarantine period.[1] In the research of McGuine *et al.* female athletes had mild to intense symptoms of anxiety compared to male athletes during the COVID-19 restrictions.[16] However, female students are more sensitive to weight changes caused by restrictions on physical activity during the covid-19, and perhaps that's why, they have more anxiety and the attention to physical activity and they had a higher score, although it is debatable whether the higher score of female students' happiness is due to their level of physical activity. Greyling *et al*. stated that during the outbreak of COVID-19 and its quarantine, their level of happiness decreases, but surprisingly, with the passage of time, there is a U-shaped relationship between the happiness and number of people involved in COVID-19. In other words, in this research, the level of happiness decreased at the beginning, and with the passage of time, the level of happiness increased.[17] However, the effect of physical activity in improving the mental state of people cannot be denied, and there is no doubt that exercise and physical activity can be effective in promoting mental health and as a result developing happiness. In the study of Greyling *et al.* the effect size was very small and insignificant, but the role of physical activity cannot be denied.[17]

However, happiness plays a main effect in the flourishing of talents, and educational planners should use any tool that can increase the level of happiness and help develop the talents of student groups.[18] Research findings show that there is a significant relationship between the level of students' anxiety and physical activity in both groups and individual sports, and this anxiety is a predictor of academic progress.[19] Since the quarantine and restrictions caused by epidemic diseases such as COVID-19 reduce people's mental health,[20] this issue can also affect the happiness of student groups and become an obstacle for their academic progress. Therefore, considering the role of physical activity on improving the level of happiness, it is recommended that during the epidemic of epidemic diseases, the conditions for participation in sports activities are provided. In this way, not only to help the development of people's health, but also by increasing the level of people's happiness, in groups like students, the quality of their learning can be maintained at an optimal level.

This study was the first research that was conducted following the way of the COVID-19 epidemic on the happiness of female student groups in Iran, which can help health officials in future planning to prevent the occurrence of psychological complications caused by any epidemic. One of the limitations of the present study is the lack of examination of other everyday factors that can contribute to students' happiness. Considering the huge geographical area of Iran, the small number of research samples can be considered as one of the specificities of this research. Future research is recommended to investigate the effects of epidemic diseases such as COVID-19 on the happiness of students in other provincial centers and using a larger number of samples.

CONCLUSION

The findings of this study showed that during the COVID-19 period, active students had a higher score of happiness and female students had a better condition. It seems that exercise and physical activity can be an

important factor in increasing students' social happiness, and since happiness is an important predictive factor in academic success, during the epidemic of viral diseases such as COVID-19 with planning and encouraging students to maintain and develop their physical activity level can help their academic progress.

ETHICAL APPROVAL: This study was approved according to compliance with Ethical Standard in Research of the Ministry of Science, Research and Technology, with code IR. SSRI.1401.18.71.

AUTHORS' CONTRIBUTIONS: AZ: Data collection, research idea, research design and article writing. SZ and HS: Writing- Original draft preparation, writing – editing. All authors approved final version of manuscript.

CONFLICT OF INTEREST: The authors report no relationships that could be construed as a conflict of interest.

FUNDING: None

Received: September 16, 2022
Accepted: April 8, 2023

REFERENCES

1. Sadeghipour HR, Zar A, Pakizeh A, Ramsbottom R. Evaluation of health-related quality of life in physically active and physically inactive students during the COVID-19 pandemic in Iran. Cities 2021; 118:103367. doi:10.1016/j.cities.2021.103367
2. Karizak SZ, Kashef M. Hematologic Disorders of COVID-19 and Appropriate Intensity of Exercise in Coronavirus Prevalence Period. Asian J Sports Med 2021; 12:1-3. doi:10.5812/asjsm.113016
3. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. Int J Environ Res Public Health 2020; 17:1729. doi:10.3390/ijerph17051729
4. Aperribai L, Cortabarria L, Aguirre T, Verche E, Borges Á. Teacher's physical activity and mental health during lockdown due to the COVID-2019 pandemic. Front Psychiatry 2020; 11:577886. doi:10.3389/fpsyg.2020.577886
5. Yunus WM, Badri SK, Panatik SA, Mukhtar F. The unprecedented movement control order (lockdown) and factors associated with the negative emotional symptoms, happiness, and work-life balance of Malaysian University students during the coronavirus disease (COVID-19) pandemic. Front Psychiatry 2021; 11:5 66221. doi:10.3389/fpsyt.2020.566221
6. Zhang Z, Chen W. A systematic review of the relationship between physical activity and happiness. *J Happiness Stud* 2019; 20:1305-22. doi:10.1007/s10902-018-9976-0
7. Perackova J, Peracek P. Sport for the subjective dimensions of quality of life. IntechOpen 2019; e88209. doi:10.5772/intechopen.88209
8. Villafaina S, Tapia-Serrano MÁ, Vaquero-Solís M, León-Llamas JL, Sanchez-Miguel PA. The Role of Physical Activity in the Relationship between Satisfaction with Life and Health-Related Quality of Life in School-Age Adolescents. Behav Sci (Basel) 2021; 11:121. doi:10.3390/bs11090121
9. Rosenbaum S, Tiedemann A, Sherrington C, Curtis J, Ward PB. Physical activity interventions for people with mental illness: a systematic review and meta-analysis. J Clin Psychiatry 2014; 75:14465. doi:10.3390/bs11090121
10. Cosmas G. Psychological support in uplifting university students' happiness in fighting the coronavirus lockdown. Postmodern Openings 2020; 11:31-42. doi:10.18662/po/11.2/155
11. Ali D, Leyla S. The Status of Happiness and Satisfaction with Life among University students during the Corona Crisis new virus COVID-19. Edu Psychol (Persian) 2020; 56: 1-24. doi:10.22054.JEP.2020;3018
12. Noruzi Zamenjani M, Rahzani K, Barati N, Harorani M, Heidari M, Farmahini Farahani M. The effect of exercise on self-esteem and happiness of operating room students. *Complement Med* 2022; 11:372-83. doi:10.32598/cmja.11.4.1139.1
13. Cao W, Fang Z, Hou G, Han M, Xu X, Dong J, et al. The psychological impact of the COVID-19 epidemic on college students in China. Psychiatry Res 2020; 287:112934. doi:10.1016/j.psychres.2020.112934
14. Adıbelli D, Sumen A. The effect of coronavirus (COVID-19) pandemic on health-related quality of life in children. Child Youth Serv Rev 2020; 119:105595. doi:10.1016/j.childyouth.2020.105595
15. Atılgan D. Investigation of happines levels of individuals actively exercising for recreational purposes during the covid-19 outbreak. JERP 2020; 1:8-16. doi:10.53016/jerp.v1i1.1
16. McGuine TA, Biese KM, Petrovska L, Hetzel SJ, Reardon C, Kliethermes S, et al. Mental health, physical activity, and quality of life of US adolescent athletes during COVID-19–related school closures and sport cancellations: a study of 13 000 athletes. J Athl Train 2021; 56:11-9. doi:10.4085/1062-6050-0478.20
17. Greyling T, Rossouw S, Adhikari T. Happiness-lost: Did Governments make the right decisions to combat COVID-19? GLO Discussion Paper 2020; 556.
18. Salehi E, Abedini M. Examine the relationship between

happiness and academic success of students educational spaces Mazandaran province with emphasis on the role of educational planning.JPER 2018; 7:121-45. doi:10.22080/eps.2018.2025

19. Keshavarz L, Farahani A, Ahmadi A. The Effect of sport activities on anxiety and its relationship between boys high school non-athletes educational progress. J Organ Behav 2014; 1:43-54.
20. Wang C, Chudzicka-Czupala A, Grabowski D, Pan R, Adamus K, Wan X, et al. The association between physical and mental health and face mask use during the COVID-19 pandemic: a comparison of two countries with different views and practices. Front Psychol 2020; 11:569981. doi:10.3389/fpsyt.2020.569981