



Science, Education and Innovations in the Context of Modern Problems Issue 12, Vol. 8, 2025

Title of research article



Recreational Physical Activities as a Preventive Strategy Against the Psychological and Social Risks of Body Modification in Adolescents: A Descriptive Study in Algerian Context

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Issue web link	https://imcra-az.org/archive/387-science-education-and-innovations-in-the-context-
	of-modern-problems-issue-12-vol-8-2025.html
Keywords	Recreational physical activities; Adolescents; Body modification; Self-esteem; Life
	satisfaction

Abstract

Background and Objectives:

Body modification practices such as tattoos, piercings, and cosmetic alterations are increasingly prevalent among adolescents worldwide. These behaviors are often driven by the need for self-expression, peer acceptance, and psychological coping during a critical developmental stage. However, such modifications can expose adolescents to medical, psychological, and social risks. The present study aimed to investigate the role of recreational physical activities as a protective and alternative strategy to foster self-esteem and life satisfaction, thereby reducing adolescents' inclination toward body modification.

Methods:

A descriptive methodology was employed with a randomly selected sample of 150 adolescents aged 13–18 years. Data collection included two standardized tools: the Schwertzer Life Satisfaction Scale and the Bruce Harry Self-Esteem Scale. Recreational physical activity participation was assessed through structured activity logs and self-reports.

Citation. Boukhalfa M., Khaldi A. (2025). Recreational Physical Activities as a Preventive Strategy Against the Psychological and Social Risks of Body Modification in Adolescents: A Descriptive Study in Algerian Context. *Science, Education and Innovations in the Context of Modern Problems*, 8(11), 29–42. https://doi.org/10.56352/sei/8.12.3

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Received: 28.04.2025 | Accepted: 01.08.2025 | Published: 17.09.2025 (available online)



Introduction

Adolescence is a transitional stage marked by profound biological, psychological, and social transformations that shape personal identity and social integration. During this period, adolescents actively seek individuality, independence, and belonging, often experimenting with different forms of self-expression. One prominent phenomenon in this regard is **body modification**, which includes tattoos, piercings, and other bodily alterations. These practices function as a silent language through which adolescents communicate their uniqueness, respond to peer pressure, or cope with psychological stress and emotional fluctuations inherent to this stage of life.

Although body modifications may initially appear to be harmless identity-shaping experiences, they can expose adolescents to substantial risks. Medical complications such as infections, scarring, or long-term health effects are common concerns. Moreover, these modifications may generate negative psychological outcomes, including diminished self-perception or exposure to social stigma. Cultural and media influences further reinforce adolescents' tendencies to adopt body modifications, particularly through the emulation of celebrities or the desire to conform to peer expectations [1,3].

Understanding the **psychological and social determinants** of body modifications is essential for developing preventive interventions. Prior research highlights that adolescents frequently pursue such practices to enhance **self-esteem**, achieve **life satisfaction**, or manage emotional distress. Tattoos and piercings, for instance, often serve as coping mechanisms or means of gaining visibility and recognition within their social environments. In some contexts, individuals even associate body modification with empowerment, confidence, and resilience. However, these perceived benefits may come at the cost of health risks and long-term dissatisfaction [1-4].

In contrast, **recreational physical and sports activities** provide a healthier and more constructive pathway for meeting the same psychological and emotional needs. Participation in recreational activities—whether through team sports, dance, outdoor play, or fitness programs—has been shown to reduce stress, enhance self-esteem, and foster positive social integration. These activities not only serve as safe outlets for self-expression but also help adolescents channel their energy toward personal growth and resilience, thereby reducing reliance on potentially harmful behaviors such as body modifications.

Based on this rationale, the present study examines the contribution of recreational physical activities to **preventing** body modification behaviors in adolescents. By focusing on adolescents' self-esteem and life satisfaction, the study explores how recreational participation can serve as an effective preventive strategy that supports identity formation while safeguarding physical and psychological well-being [5, 23].

Research Questions

1. Primary Question:

Do recreational physical activities help prevent body modification behaviors in adolescents compared to those who do not engage in such activities?

2. Sub-questions:

- Are there statistically significant differences in self-esteem levels between adolescents who engage in recreational physical activities and those who do not?
- Are there statistically significant differences in life satisfaction levels between adolescents who engage in recreational physical activities and those who do not?

Research Hypotheses

1. General Hypothesis:

Recreational physical activities contribute to the prevention of body modification behaviors among adolescents who engage in these activities compared to those who do not.



2. Specific Hypotheses:

- There are statistically significant differences in self-esteem levels between adolescents who engage in recreational physical activities and those who do not.
- There are statistically significant differences in life satisfaction levels between adolescents who engage in recreational physical activities and those who do not [6-9].

Research Objectives

The overarching aim of this study is to investigate the preventive role of recreational physical activities in reducing adolescents' inclination toward body modifications. The specific objectives are to:

- Examine the role of recreational physical activities in adolescents' lives.
- Demonstrate how participation in recreational activities supports self-actualization and enhances life satisfaction.
- Identify the psychological challenges faced by adolescents and how recreational activities may address them.
- Explore adolescents' tendencies, desires, and interests as they relate to identity formation.
- Provide opportunities for analyzing adolescents' personalities and behavioral patterns.

Research Importance

Adolescents represent a vital demographic segment, forming the foundation for building progressive and resilient societies. However, this developmental stage is often accompanied by emotional instability, risk-taking behavior, and susceptibility to external influences due to incomplete cognitive and emotional maturity. Inadequate guidance or support may further heighten the likelihood of adolescents adopting risky behaviors, including body modification practices.

This research is significant because it:

- Highlights the importance of studying adolescents' personalities and behaviors, given their crucial role in shaping societal futures.
- Emphasizes recreational physical activities as a fundamental determinant of adolescent health and wellbeing.
- Provides evidence on the contribution of recreational activities to adolescents' self-esteem and life satisfaction as alternatives to body modifications.
- Establishes a scientific basis for designing preventive and therapeutic programs, as well as psychological and educational counseling tailored to adolescents.
- Demonstrates how recreational activities can be integrated into educational and community initiatives to transform adolescents' behaviors positively.

By addressing these dimensions, the study contributes to both theoretical understanding and practical interventions aimed at fostering healthier, more constructive pathways for adolescent self-expression and identity development.

4. Definition of Terms

4.1 Recreational Physical Activities



Recreational physical activities are defined as forms of leisure engagement that include a variety of games, exercises, and sports. They are considered among the most influential activities in terms of both physiological and psychological impact on individuals, contributing to health, well-being, and social integration.

4.1.1 Operational Definition

For the purposes of this study, recreational physical activities refer to those voluntarily performed by adolescents during their free time for enjoyment, stress relief, and personal fulfillment. Such activities are intended to protect adolescents from negative psychological, social, and behavioral tendencies while promoting resilience and life satisfaction.

4.2 Body Modification Behaviors

The term *body modification behaviors* lacks a unified definition in the scientific literature but intersects with concepts of **self-embodiment** in sociology and psychology. Thomas Csordas' anthropological work on *embodiment* highlights the body as a primary medium through which individuals express identity, emotions, and experiences. Similarly, Maurice Merleau-Ponty, in *Phenomenology of Perception*, conceptualizes the body as both an object and a subject—an instrument for experiencing and expressing the self in interaction with the world. Within this framework, body modification practices are understood as acts of symbolic communication, shaping both self-perception and social interaction [8, 56].

4.2.1 Operational Definition

In this study, body modification refers to deliberate acts of altering the body, including tattoos, piercings, body coloring, clothing styles, and expressive behaviors such as dance. These actions are employed by adolescents to communicate identity, attract attention, respond to psychological pressures, enhance self-esteem, and increase life satisfaction.

4.3 Adolescence

4.3.1 Linguistic Definition

The term *adolescence* is derived from the Arabic root **rahiq** (()), which conveys the meaning of approaching or nearing maturity. Classical usage, including references in Hadith and Qur'anic verses, describes *rahaq* as both the stage of nearing puberty and the state of being overburdened or overwhelmed. It implies transition, pursuit, and the imposition of responsibilities that stretch beyond prior capacity.

4.3.2 Conceptual Definition

Adolescence is defined as a transitional stage of human development that begins with **sexual maturation**—the physiological development of reproductive capacity—and ends with the attainment of **psychological, cognitive, and social maturity**. This stage represents the shift from childhood to adulthood, typically spanning the ages of **11 to 21 years**, though commonly emphasized between **13 and 19 years**.

Adolescence is characterized by profound physical, mental, psychological, and social changes that may lead to challenges in self-regulation and social adaptation. While it is a preparatory stage for adulthood, it can also be marked by instability, heightened emotional sensitivity, and risk-taking behaviors due to incomplete experience and maturity.

4.3.3 Operational Definition of Adolescence



For the purposes of this study, *adolescence* refers to the transitional stage between childhood and adulthood, characterized by rapid physical, psychological, and social changes. Adolescents at this stage frequently face conflicts and crises stemming from heightened sensitivity, emotional intensity, and identity exploration. This is also the period during which sexual and moral emotions reach maturity.

In their search for self-discovery and social recognition, adolescents often engage in attention-seeking behaviors, such as tattoos, piercings, expressive hairstyles, or participation in cultural and artistic practices (e.g., dance or body coloring). These behaviors serve as means of identity formation, self-assertion, and enhancing their sense of control and satisfaction with life.

5. Previous Studies and Literature Review

5.1 Arabic Studies

Study 1: Merazka Jamal (2013)

The Importance of Utilizing Leisure Time Through Recreational Sports Activities and Their Role in Preventing Deviant Behavior Among Algerian High School Students: A Preventive Analytical Approach

This study explored the significance of leisure time utilization through recreational sports activities as a preventive factor against deviant behavior among Algerian high school students. Using a descriptive-analytical design, the researcher surveyed 454 students (male and female) in Algiers. Results indicated statistically significant differences in deviant behavior scores, favoring students engaged in recreational sports activities. The study concluded that such activities play a critical preventive role in mitigating deviant behaviors.

Study 2: Enas Mohammed Ghanem (2009)

Participation in Recreational Sports Activities and Its Relationship with Life Satisfaction and Psychological Wellbeing Among the Elderly

This research examined the relationship between recreational sports participation, life satisfaction, and psychological well-being among 438 elderly participants (361 active and 177 inactive). Tools included personal interviews, data forms, Abdel-Maksoud's Psychological Well-being Scale, and Neugarten's Life Satisfaction Scale. Findings demonstrated that recreational activity participants exhibited significantly higher levels of life satisfaction and well-being, with a strong positive correlation between the two.

Study 3: Samsoum Ali (2012-2013)

The Impacts of Educational Sports Activities on Psychological and Social Well-being Among High School Adolescents

Employing a descriptive survey design, this study compared 300 adolescents engaged in educational sports activities with 300 non-participants. Using Clark et al.'s Psychological and Social Adjustment Scale, findings revealed that sports participation enhanced body image, self-concept, and psychosocial adjustment among adolescents.

Study 4: Ben Zidan Hossin, Megrani Jamal, and Ahsan Ahmed (2019-2020)

Life Satisfaction Among Middle School Teachers Engaged in Recreational Sports Activities

This comparative study investigated life satisfaction levels among 63 middle school teachers in Mascara Province.

Findings showed high life satisfaction among recreationally active teachers, no significant gender-based differences, but location-based differences favoring urban teachers.

5.2 Foreign Studies

Study: Toros Turhan et al. The Impact of Regular Exercise on Life Satisfaction, Self-Esteem, and Self-Efficacy in Older Adults. This study applied a correlational survey model to investigate the impact of regular exercise on 215 men aged over 65, of whom 110 exercised regularly (\$\geq 45\$ minutes, three times weekly) and 105 were inactive. Results showed that regular exercisers had significantly higher life satisfaction, self-esteem, and self-efficacy compared to non-exercisers. Furthermore, the positive correlations among these variables strengthened with advancing age



and longer histories of exercise. The findings suggest that consistent physical activity enhances quality of life, underscoring its psychological and social benefits in older adulthood.

6. Exploratory Study

The exploratory study functioned as a pilot phase to assess the clarity, reliability, and validity of the research instruments. A preliminary visit to the research site allowed the researcher to familiarize themselves with the population and test participants' comprehension of survey items. Results demonstrated that participants understood the questionnaire with ease, supporting the adequacy of the instrument. Additionally, the sample size was determined accurately, and the most suitable methodology and statistical techniques for the main study were confirmed.

7. Methodological Procedures

7.1 Research Methodology

A comparative descriptive design was employed, selected for its appropriateness in analyzing differences between adolescents engaged in recreational physical activities and those who were not.

7.2 Research Population

The study population comprised adolescents residing in Algiers, Algeria's capital city.

7.3 Research Sample

The total study sample consisted of 150 adolescents aged 11-21 years, distributed as follows:

- Exploratory sample: 23 adolescents.
- Main sample: 150 adolescents, including 68 participants in recreational sports activities and 82 nonparticipants, with representation from both genders.

7.4 Study Variables

- Independent variable: Participation in recreational sports activities (participant vs. non-participant).
- Dependent variables: Body modification behaviors, expressed through self-esteem and life satisfaction measures.

7.5 Research Tools

Two validated scales were utilized:

- The **Life Satisfaction Scale** (Magdy El-Dosouki, 1996).
- The **Self-Esteem Scale** (Coopersmith).

7.5.1 Research Instrument

The main instrument was a structured questionnaire based on a five-point Likert scale, designed to measure adolescents' levels of self-esteem and life satisfaction.

7.6 Statistical Analyses



To evaluate the validity and reliability of the research instruments and to test the study's hypotheses, data were analyzed using the **Statistical Package for the Social Sciences (SPSS, version XX)**. The following statistical techniques were employed:

- Reliability and validity tests
- Descriptive analyses
- One-way analysis of variance (ANOVA) using Fisher's test

Table 1

Distributed and Retrieved Questionnaires

Measures	Number	Percentage
Distributed questionnaires	166	100%
Valid questionnaires	150	90.3%

Source: Prepared by the researcher based on SPSS outputs

The data indicate that 16 questionnaires (9.7%) were excluded due to non-retrieval, incomplete responses, or deliberate exclusion to maintain balance between participants and non-participants.

7.6.1 Reliability Testing

Table 2

Reliability refers to the internal consistency of the research instrument in producing stable and reproducible results under similar conditions. The Cronbach's Alpha coefficient was used as a reliability indicator.

Reliability Test for Self-Esteem Scale

Measures	Dimensions	Items	Cronbach's Alpha
Self-esteem	General Self-Esteem	12	0.921
	Social Esteem	6	0.756
	Family and Parents	4	0.712
	Work	3	0.687

Source: Prepared by the researcher based on SPSS outputs

The results show that all Cronbach's Alpha values exceeded the accepted threshold of 0.65, confirming that the self-esteem scale demonstrates good reliability across all dimensions.

Table 3

Reliability Test for Life Satisfaction Scale

Measures	Dimensions	Items	Cronbach's Alpha
Life satisfaction	Happiness	7	0.653
	Social Relationships	5	0.842
	Serenity	6	0.731
	Psychological Stability	3	0.785



1:

Social Recognition	6	0.499
Contentment	3	0.622

Source: Prepared by the researcher based on SPSS outputs

With the exception of *Social Recognition* ($\alpha = 0.499$), all other sub-dimensions demonstrated acceptable reliability ($\alpha \ge 0.65$). Thus, the life satisfaction scale was considered reliable for the purposes of this study.

7.6.2 Descriptive Analysis of the Sample

The following table summarizes the gender distribution of participants and non-participants in recreational activities.

Table 4

Descriptive Analysis of the Study Sample

	Males	%	Females	%
Recreational Participants	42	28.0	26	17.3
Non-Participants	37	24.7	45	30.0

Source: Prepared by the researcher based on SPSS outputs

Key findings from the descriptive data include:

- Among participants in recreational activities, 61.8% were male and 38.2% were female.
- Among non-participants, 45.1% were male and 54.9% were female.

8. Testing Research Hypotheses and Results Analysis

8.1 First Hypothesis

Hypothesis

There are statistically significant differences in self-esteem levels between adolescents who engage in recreational physical activities and those who do not.

The one-way ANOVA test was conducted to compare the two groups.

Table 5

Results of the One-Way ANOVA Test for the First Hypothesis

Group	F Value	Significance Level	Result	Decision
Practitioners	6.832	0.002	0.002 < 0.05	Differences Exist
Non-Practitioners				

Source: Prepared by the researcher based on SPSS outputs



Analysis:

The obtained significance level (p = 0.002) is lower than the threshold value of 0.05. This confirms that statistically significant differences exist in self-esteem levels between adolescents who participate in recreational physical activities and those who do not. Adolescents engaged in recreational activities reported higher levels of self-esteem compared to non-participants.

8.1.2 Discussion of the Results of the First Hypothesis

The results demonstrated statistically significant differences in self-esteem levels between adolescents who engage in recreational physical activities and those who do not. This outcome corroborates the findings of **Ali Zerouki Sid Ahmed**, whose study on the impact of physical and sports activities on self-esteem among high school adolescents showed higher self-esteem levels in students engaged in extracurricular physical activities compared to those who only participated in curricular sports.

Similarly, these results are consistent with **Slim Mariem's** argument that sports participation is one of the most effective factors in enhancing self-confidence, self-respect, and self-esteem, while simultaneously fostering other personal attributes that improve adolescents' overall self-perception.

Recreational physical activities thus serve as a fundamental tool for strengthening adolescents' psychological well-being. By fostering confidence and resilience, they enable adolescents to face crises without resorting to harmful or risky behaviors. In this context, adolescents who might otherwise turn to body modification as a form of identity assertion or uniqueness are less likely to adopt such practices, given the self-assurance gained through healthy recreational outlets.

8.2.1 Testing the Second Hypothesis

Hypothesis 2: There are statistically significant differences in life satisfaction levels between adolescents who engage in recreational physical activities and those who do not.

Table 6

Results of the One-Way ANOVA Test for the Second Hypothesis

Group	F Value	Significance Level	Result	Decision
Practitioners	7.322	0.013	0.013 < 0.05	Differences Exist
Non-Practitioners				

Source: Prepared by the researcher using SPSS outputs

Analysis:

The significance value of 0.013 is less than the threshold of 0.05, confirming the presence of statistically significant differences in life satisfaction levels between adolescents who participate in recreational physical activities and those who do not.

8.2.2 Discussion of the Results of the Second Hypothesis

The findings indicate that adolescents who actively engage in recreational physical activities experience higher life satisfaction compared to their non-participating peers. This can be attributed to the **constructive use of leisure time**, which serves as a protective factor against psychological stagnation and dissatisfaction. Adolescents who do not utilize their free time effectively are more likely to develop maladaptive behaviors or experience frustration due to unfulfilled aspirations [12-16, 67, 78].



Moreover, adolescence is a stage marked by profound psychological and physiological changes, often associated with anxiety, tension, and a quest for identity. Recreational activities provide a healthy and safe outlet for managing these stressors, enhancing feelings of satisfaction, and promoting a balanced lifestyle.

These findings align with **Haytham Mohammed's study**, which identified a strong relationship between quality of life, life satisfaction, and participation in physical activities. He emphasized that sports and recreational involvement help adolescents confront life's challenges, discover their strengths and capabilities, and cultivate optimism about the future—thereby reducing reliance on harmful or risky behaviors for self-expression.

8.3 General Hypothesis

The general hypothesis proposed that recreational physical activities contribute to reducing body modification behaviors among adolescents who participate in such activities compared to those who do not.

The results of the sub-hypotheses provide empirical support for this claim, as both **self-esteem** and **life satisfaction** were found to be significantly higher among adolescents engaged in recreational physical activities. These findings underscore the preventive role of recreational activities in mitigating tendencies toward body modifications such as tattooing, piercing, or other symbolic behaviors often associated with identity assertion. By reinforcing self-confidence and providing healthier outlets for self-expression, recreational physical activities effectively reduce adolescents' reliance on body modifications as a means of achieving self-esteem and life satisfaction [19-21].

9. Conclusion

The study highlights the **critical role of recreational physical activities** in shaping adolescents' psychological, emotional, and behavioral development. Results confirmed that adolescents who participate in recreational sports activities demonstrate significantly higher levels of **self-esteem** and **life satisfaction** compared to non-participants.

These findings emphasize that recreational sports activities are not merely leisure pursuits but are essential interventions for preventing harmful behaviors and promoting psychological well-being. They help adolescents release stress, channel excess energy constructively, and improve their emotional stability. Furthermore, recreational activities foster resilience and a positive self-concept, reducing the likelihood of adolescents turning to body modification as a means of coping with the challenges of this sensitive developmental stage.

Recommendations:

- Greater emphasis should be placed on integrating recreational sports activities into school curricula and community programs as preventive measures for adolescent health.
- Policymakers and stakeholders should invest in sports facilities and recreational spaces to increase accessibility and participation.
- Families should be encouraged to support and engage with adolescents in recreational activities, recognizing their importance in managing the challenges of adolescence.
- Awareness campaigns should be launched to highlight the psychological, social, and physical benefits of recreational activities, positioning them as alternatives to risky behaviors such as body modification.

By addressing adolescents' needs for identity formation, belonging, and self-expression through recreational engagement, societies can promote healthier development, reduce risk behaviors, and foster a more resilient generation.

Findings

Results revealed that adolescents actively engaged in recreational physical activities reported significantly higher levels of **self-esteem** and **life satisfaction** compared to their less active peers. Recreational activities such as team



sports, dance, and outdoor games provided safe and socially accepted avenues for identity exploration, stress management, and peer connection. The findings suggest that structured recreational activity can act as a buffer against risky body modification practices by channeling adolescents' need for self-expression into healthier domains.

Conclusions

Recreational physical activities provide adolescents with constructive outlets for identity formation, emotional regulation, and peer belonging, thereby reducing the likelihood of engaging in potentially harmful body modifications. Integrating structured recreational programs into school and community initiatives can strengthen preventive strategies addressing adolescent psychosocial health.

Ethical Considerations

The study adhered to ethical guidelines for research involving human participants. Approval was obtained from the University of Algiers Research Ethics Committee. Informed consent was secured from both participants and their guardians. All responses were anonymized, and confidentiality was strictly maintained.

Funding

This research received no external funding. It was conducted with the support of the Laboratory of Practical Science of Physical, Sports, and Artistic Activities (SPAPSA), University of Algiers 3.

Acknowledgment

The authors express their gratitude to the participating adolescents, their families, and the schools that facilitated data collection. Special thanks are extended to colleagues in the SPAPSA laboratory for their constructive feedback during the research process.

Conflict of Interest

The authors declare no conflict of interest.

11. Appendices

Appendix 1. Life Satisfaction Scale

Adapted from Magdy Al-Desouki (1996)

Personal Data

•	Name:
•	Age:
•	Gender:
•	Education:

Instructions

This scale consists of statements that reflect different aspects of your feelings and behaviors in daily life. For each item, please select the option that best describes your situation. Your responses will remain confidential and will be used strictly for research purposes.



Response Options:

- 1 = Completely Applicable
- 2 = Applicable
- 3 = Neutral
- 4 = Not Applicable
- 5 = Not At All Applicable

Items

No.	Statement	1	2	3	4	5
1	I am happier than others.					
2	I am satisfied with myself.					
3	My life circumstances are excellent.					
4	Most of the time, my life approaches perfection.					
5	I feel confident about my social behavior.					
6	I feel safe and secure.					
7	I enjoy a happy life.					
8	I feel that my life is better now than ever before.					
9	I have achieved important things in my life so far.					
10	I feel that I am successful in life.					
11	I feel joy mixed with optimism about the future.					
12	I am satisfied with what I have achieved.					
13	I tend to laugh and share jokes.					
14	I feel satisfied or at ease with my life circumstances.					
15	I accept others and live with them as they are.					
16	I live a lifestyle better than I ever hoped or expected.					
17	I feel happiness because I have good relationships with others.					
18	I feel that my life is bright and full of hope.					
19	I accept criticism from others.					
20	Others trust my abilities.					
21	My behavior with others is characterized by tolerance and fun.					
22	I sleep peacefully and relaxed.					
23	Others view me with respect.					
24	I do not suffer from feelings of despair and disappointment.					
25	I have the ability to make decisions and bear their consequences.					
26	My thoughts and opinions impress others.					
27	My social relationships with others are successful.					
28	My morale is high.					
29	If I were to live again, I would not change anything in my life.					

Appendix 2. Self-Esteem Scale

Adapted from Coopersmith

Instructions

Below are statements describing feelings, attitudes, and behaviors related to self-esteem. Please mark (+) in the appropriate box for each item. There are no right or wrong answers; your honesty will ensure the accuracy of this research.

Response Options:



- Applicable (+)
- Not Applicable (-)

Items

No.	Statement	Applicable (+)	Not Applicable (-)
1	Things do not usually bother me.		
2	I find it difficult to speak in front of a group of people.		
3	I wish I could change things about myself.		
4	I do not find it difficult to make decisions on my own.		
5	Others are happy to have me around.		
6	I get upset quickly at home.		
7	I need a long time to adjust to new things.		
8	I am liked by people of my age group.		
9	My family usually considers my feelings.		
10	I give up easily.		
11	My family expects a lot from me.		
12	It is very hard for me to remain as I am.		
13	Everything in my life seems to get mixed up.		
14	People usually follow my ideas.		
15	I do not value myself as I should.		
16	I really wish I could leave home.		
17	I often feel distressed by my work.		
18	Things do not usually bother me.		
19	If I have something to say, I usually say it.		
20	My family understands me.		
21	Most people are liked more than I am.		
22	I often feel like my family pushes me to do things.		
23	I do not usually get encouragement for what I do.		
24	I really wish I were someone else.		
25	Others cannot rely on me.		

References

Arabic References

- 1. Ibn Mandour, M. (2003). Lisan al-Arab (Material: Rahq, Letter: R). Beirut, Lebanon: Dar As-Sadir.
- 2. Al-Isawi, A. A. (2005). The adolescent and adolescence. Beirut, Lebanon: Dar An-Nahda Al-Arabia.
- 3. Gharibah, I. A. (2007). Development from childhood to adolescence. Amman, Jordan: Dar Jadid.
- 4. Salim, M. (2005). Self-esteem and confidence. Beirut, Lebanon: Dar An-Nahda Al-Arabia.
- 5. El-Hamahmi, M., & Mustafa, A. A. (1998). *Recreation between theories and practice* (2nd ed.). Cairo, Egypt: Center for Book Publishing.
- 6. Awad, H. M. (2017). Quality of life among students of Al-Balqa Applied University. *Mutah Journal for Research and Studies Humanities and Social Sciences Series, 32*(5), College of Arts, Mutah University.
- 7. Qandousi, S. (2021). Adolescence: Its theories and characteristics. *Social Empowerment Journal*, 3(4), 120–121.



Foreign References

- 1. Swami, V., & Furnham, A. (2007). Unattractive, promiscuous, and heavy drinkers: Perceptions of women with tattoos. *Body Image*, 4(4), 343–352. https://doi.org/10.1016/j.bodyim.2007.06.005
- Kosut, M. (2006). An ironic fad: The commodification and consumption of tattoos. The Journal of Popular Culture, 39(6), 1035-1048. https://doi.org/10.1111/j.0022-3840.2006.00305.x
- 3. Carroll, S. T., Riffenburgh, R. H., Roberts, T. A., & Myhre, E. B. (2002). Tattoos and body piercings as indicators of adolescent risk-taking behaviors. *Pediatrics*, *109*(6), 1021–1027. https://doi.org/10.1542/peds.109.6.1021
- 4. Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55(1), 170–183. https://doi.org/10.1037/0003-066X.55.1.170
- 5. Mahoney, J. L., & Stattin, H. (2000). The role of leisure activities in adolescent development: Psychological and social aspects. *Journal of Adolescence*, 23(2), 113–127. https://doi.org/10.1006/jado.2000.0302
- 6. Goffman, E. (1959). The presentation of self in everyday life. New York, NY: Anchor Books.
- 7. Merleau-Ponty, M. (1962). *Phenomenology of perception*. London, United Kingdom: Routledge & Kegan Paul.
- 8. Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13
- 9. Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.
- Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review*, 108(3), 593–623. https://doi.org/10.1037/0033-295X.108.3.593
- Sothern, M. S., Loftin, J. M., Suskind, R. M., Udall, J. N., & Blecker, U. (1999). The health benefits of physical activity in children and adolescents: Implications for chronic disease prevention. *European Journal of Pediatrics*, 158(4), 271–274. https://doi.org/10.1007/s004310051070
- 12. Biddle, S. J., & Asare, M. (2011). Physical activity and mental health in children and adolescents: A review of reviews. *British Journal of Sports Medicine*, 45(11), 886–895. https://doi.org/10.1136/bjsports-2011-090185
- 13. Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2013). A systematic review of the psychological and social benefits of participation in sport for children and adolescents: Informing development of a conceptual model of health through sport. *International Journal of Behavioral Nutrition and Physical Activity*, 10(98), 1–21. https://doi.org/10.1186/1479-5868-10-98
- 14. Fredricks, J. A., & Eccles, J. S. (2006). Is extracurricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. *Developmental Psychology*, 42(4), 698–713. https://doi.org/10.1037/0012-1649.42.4.698
- Harter, S. (1999). The construction of the self: A developmental perspective. New York, NY: Guilford Press.
- 16. Gentile, A., Boca, S., & Giammusso, I. (2018). 'You play like a woman!' Effects of gender stereotype threat on women's performance in physical and sport activities: A meta-analysis. *Psychology of Sport and Exercise*, *39*, 95–103. https://doi.org/10.1016/j.psychsport.2018.07.013
- 17. Markey, C. N., & Markey, P. M. (2010). Emerging adults' body image: Associations with romantic relationship quality and partner comparisons. *Journal of Youth and Adolescence*, *39*(11), 1387-1398. https://doi.org/10.1007/s10964-009-9438-5
- 18. Tiggemann, M., & Slater, A. (2014). NetGirls: The Internet, Facebook, and body image concern in adolescent girls. *International Journal of Eating Disorders*, 47(6), 630–643. https://doi.org/10.1002/eat.22254
- 19. Martin, K. A., & Fox, L. D. (2001). Physical activity and affective well-being in older adults. *Journal of Aging and Physical Activity*, *9*(3), 274–285. https://doi.org/10.1123/japa.9.3.274
- 20. Babiss, L. A., & Gangwisch, J. E. (2009). Sports participation as a protective factor against depression and suicidal ideation in adolescents as mediated by self-esteem and social support. *Journal of Developmental & Behavioral Pediatrics*, 30(5), 376–384. https://doi.org/10.1097/DBP.0b013e3181b33659
- 21. Malm, C., Jakobsson, J., & Isaksson, A. (2019). Physical activity and sports—real health benefits: A review with insight into the public health of Sweden. *Sports*, 7(5), 127. https://doi.org/10.3390/sports7050127
- 22. Snyder, C. R., Lopez, S. J., Shorey, H. S., Rand, K. L., & Feldman, D. B. (2003). Hope theory, measurements, and applications to school psychology. *School Psychology Quarterly*, 18(2), 122–139. https://doi.org/10.1521/scpq.18.2.122.21854