KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 08 September 2024
Revised 24 November 2024
Accepted 07 December 2024
Published online 10 February 2025

Journal of Adolescent and Youth Psychological Studies

Volume 6, Issue 2, pp 7-14

E-ISSN: 2821-2526

Comparison of the Effectiveness of Cognitive Hypnotherapy and Successful Intelligence Training on the Mental Toughness of Twelfth-Grade Male Students in District 4 of Tehran

MohammadHassan. Khaleghinejad[1], Pantea. Jahangir[2*], Farideh. Dokaneifard[3]

[1] PhD Student in Counseling, Roudehen Branch, Islamic Azad University, Roudehen, Iran
[2] Assistant Professor, Department of Educational Sciences, Roudehen Branch, Islamic Azad University, Roudehen, Iran
[3] Associate Professor, Department of Counseling, Roudehen Branch, Islamic Azad University, Roudehen, Iran

*** Corresponding author email address**: panteajahangir@gmail.com

A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Khaleghinejad, M., Jahangir, P., & Dokaneifard, F. (2025). Comparison of the Effectiveness of Cognitive Hypnotherapy and Successful Intelligence Training on the Mental Toughness of Twelfth-Grade Male Students in District 4 of Tehran. *Journal of Adolescent and Youth Psychological Studies*, *6*(2), 7-14.
http://dx.doi.org/10.61838/kman.jayps.6.2.2

A B S T R A C T

Objective: The objective of this study was to compare the effectiveness of cognitive hypnotherapy and successful intelligence training on enhancing mental toughness among twelfth-grade male students in District 4 of Tehran.

Methods and Materials: The research utilized a quasi-experimental design with pre-test, post-test, and follow-up stages. The participants were 45 twelfth-grade male students selected through convenience sampling, divided into two experimental groups (15 students each) and one control group (15 students). Data were collected using the Clough Mental Toughness Questionnaire (2002), the Cognitive Hypnotherapy Intervention protocol (Alaeddin, 2011), and the Successful Intelligence Training protocol (Shoushtari et al., 2016). Data analysis was conducted using ANCOVA to assess the impact of the interventions.

Findings: The results showed that both cognitive hypnotherapy and successful intelligence training significantly improved mental toughness compared to the control group. Moreover, the successful intelligence training group demonstrated higher mean resilience scores than the cognitive hypnotherapy group, and this difference was statistically significant ($p < 0.05$). The findings support the effectiveness of both interventions in enhancing students' mental toughness.

Conclusion: Cognitive hypnotherapy and successful intelligence training are both effective interventions for improving mental toughness among high school students. However, successful intelligence training appears to have a stronger impact on resilience outcomes. These interventions can be valuable tools for educators and mental health professionals in supporting students' emotional and cognitive development.

Keywords: *Cognitive Hypnotherapy, Successful Intelligence Training, Mental Toughness*

1. Introduction

Students hold a unique position in the future transformations of society, and consequently, education as the source of training human resources for the future bears special significance (Anierobi et al., 2024; Haseli Songhori & Salamti, 2024; Lee et al., 2024). One of the important factors influencing students' performance and their psychological well-being is mental toughness (Cowden, 2016). Mental toughness is a set of attitudes, feelings, and behaviors that enable an individual to persistently overcome obstacles, hardships, or pressures and to move towards goals with a high level of focus and motivation (Green et al., 2020; Meneghel et al., 2019). The most well-known model of mental toughness belongs to Clough, Earle, and Sewell (2002), who identify four main components: 1) Control: indicating that the individual has sufficient control over their emotions and actions; 2) Commitment: meaning that the person performs tasks to the best of their ability; 3) Challenge: seeing life's problems as opportunities for personal growth; and 4) Confidence: having self-confidence in interpersonal relationships and belief in one's abilities. Mental toughness is, in fact, a defensive mechanism in response to stressors, offering individuals the opportunity to make the best decisions and exhibit optimal performance under various circumstances (Tian et al., 2022).

All psychology and educational experts agree that adolescence is the most sensitive, critical, and important period of human development. During this period, individuals reach maturity, seek to discover their identity, and pursue independence, moving away from childhood dependencies (Holler et al., 2021). As a result, adolescents do not have a stable psychological state during this time, and it is in this phase that most behavioral, cognitive, emotional, and psychological problems arise. Adolescence is accompanied by numerous physical and psycho-social changes, exposing adolescents to intense pressures and emotions, including anxiety-related emotions (Simpson et al., 2020).

Among the many interventions aimed at promoting mental, behavioral, and cognitive health, hypnotherapy has gained attention as an emerging and complementary treatment (Fisch et al., 2017). It is based on the premise that most psychological disorders are negative forms of self-hypnosis, where negative thoughts are accepted critically, often without awareness. Hypnotherapy includes several fundamental techniques, such as relaxation, guided imagery, cognitive restructuring, gradual desensitization, and the teaching of hypnotic skills (Du Plessis et al., 2021). One of the types of hypnotherapy is cognitive hypnotherapy, which combines hypnotherapy with cognitive-behavioral therapy (CBT) techniques and concepts, and was developed by Assen Alaeddin (Holler et al., 2021). Cognitive-behavioral therapy is a blend of cognitive and behavioral approaches. In this model, patients are helped to recognize their distorted thinking patterns and ineffective behaviors. Structured discussions and organized tasks are employed to help individuals change these distorted and ineffective thoughts (Cowden, 2016).

In cognitive hypnotherapy, the goal is to change cognitions, beliefs, emotions, and ultimately, the individual's behavior. Cognitive hypnotherapists often guide the client's attention from negative aspects of life (which are often true) to positive and adaptive aspects (which are often potentially true). This technique can lead to reduced negative self-talk and cognitions, or even their replacement with positive cognitions, contributing to improved mental health and behavior (Holler et al., 2021; Muñiz et al., 2022). Cognitive hypnotherapy integrates several basic techniques such as cognitive restructuring, relaxation, gradual desensitization, guided imagery, and the teaching of hypnotic skills, which, by accessing the unconscious mind, can eliminate the negative consequences of self-hypnosis and change an individual's thoughts and perspectives, thus improving their emotions and feelings (Muñiz et al., 2022).

Another key factor in enhancing psychological and cognitive well-being, particularly for students, is successful intelligence. Successful intelligence is a combination of analytical abilities (analysis, evaluation, comparison, thinking, and problem-solving), creative intelligence (generating new ideas and dealing with problems in novel ways), and practical intelligence (applying knowledge to solve everyday social problems). This intelligence helps individuals adapt to, select, and modify their environment to achieve goals, taking into account their cultural and social context (Sternberg et al., 2020). The underlying concept of successful intelligence is that intelligent individuals are those who better recognize their strengths and weaknesses, emphasize and improve their strengths, and simultaneously strive to overcome or correct their weaknesses. These strengths and weaknesses are broadly related to the three types of analytical, creative, and practical abilities in successful intelligence (Ergin et al., 2020). Similarly, Sternberg and Grigorenko (2003) explained how individuals

with successful intelligence adapt to, change, and select their environment by balancing analytical, creative, and practical thinking abilities. According to Sternberg, these abilities are flexible and can be improved through education and enrichment programs (Sternberg et al., 2020). Thus, successful intelligence training, by creating an open environment with access to diverse information, can challenge students' past ideas and thoughts, steering them toward generating original ideas and fresh perspectives (Miller, 2019). Based on this review, it can be said that Sternberg's successful intelligence training is one of the most robust and widely cited programs that, by providing opportunities for student enrichment, can serve as an effective educational tool (Azid & Md-Ali, 2020).

Given the importance of mental toughness in students and considering the challenges adolescents face during this life stage—such as cognitive, behavioral, and psychological issues—as well as the researcher's investigation of twelfth-grade students in District 4 of Tehran, it was found that these students face significant psychological, cognitive, and behavioral problems. Specifically, due to personal, academic, and familial stressors, these students demonstrate less ability to persevere through obstacles, hardship, and pressure, and show a lack of focus and motivation to achieve their goals. In light of these issues, the present study seeks to determine whether there is a significant difference between the effectiveness of cognitive hypnotherapy and successful intelligence training on the mental toughness of twelfth-grade male students in District 4 of Tehran.

2. Methods and Materials

2.1. Study Design and Participants

This research utilized a quasi-experimental design, incorporating pre-test, post-test, and follow-up phases. The population included all twelfth-grade male students who attended educational counseling centers in District 4 of Tehran in 2022. The sampling method was convenience sampling, and 45 students were selected. These participants were divided into three groups: two experimental groups of 15 students each—one receiving cognitive hypnotherapy and the other successful intelligence training—and a control group of 15 students who received no intervention. The inclusion criteria required participants to be twelfth-grade male students who visited counseling centers during the study period.

2.2. Measures

2.2.1. Mental Toughness

The primary data collection tool was the Clough Mental Toughness Questionnaire, developed by Clough, Earle, and Sewell (2002). This questionnaire consists of 48 items, scored on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The minimum score is 48, and the maximum score is 240, with higher scores indicating greater mental toughness. The validity and reliability of the Persian version of this questionnaire were confirmed in a study conducted in Iran, with a sample size of 300 students. The Cronbach's alpha coefficient for this questionnaire was reported at 0.89, indicating good internal consistency (Clough et al., 2002).

2.3. Intervention

2.3.1. Cognitive Hypnotherapy

The cognitive hypnotherapy intervention was based on the protocol developed by Alaeddin (2011). This protocol has been adapted to Persian and validated in Iran, showing high reliability and effectiveness in previous studies involving a sample of 200 participants. The intervention protocol was designed to integrate hypnotherapy with cognitive-behavioral techniques, structured over several sessions, each targeting specific aspects of cognition and emotion. The cognitive hypnotherapy intervention was conducted over 10 sessions. In the first session, students were introduced to the concept of cognitive hypnotherapy and the role of hypnosis in cognitive-behavioral change. Sessions 2 through 5 focused on relaxation techniques and guided imagery, where students learned to access their subconscious and address negative self-talk. Sessions 6 and 7 involved cognitive restructuring, where participants worked on identifying and replacing distorted thoughts with more adaptive ones. The final sessions, 8 through 10, concentrated on gradual desensitization to stressful stimuli and reinforcing positive behavioral patterns (Golden, 2012).

2.3.2. Successful Intelligence

For successful intelligence training, the protocol by Shoushtari, Malekpour, Abedi, and Qamrani (2016) was used. This protocol consists of practical exercises and conceptual training aimed at enhancing analytical, creative, and practical intelligence. The Persian version of this protocol was validated in Iran with a sample of 250 students,

and the Cronbach's alpha was reported to be 0.87. The training program includes a total of 12 sessions, with each session focusing on different cognitive skills, problem-solving techniques, and the application of knowledge to real-world situations. Successful intelligence training was carried out in 12 sessions. The first two sessions introduced the concept of successful intelligence, explaining its three components: analytical, creative, and practical intelligence. Sessions 3 through 6 focused on enhancing analytical skills, where students were taught to evaluate problems and develop solutions based on logical thinking. Sessions 7 and 8 emphasized creative thinking, where participants engaged in activities designed to generate new ideas and approach challenges innovatively. The final sessions, 9 through 12, targeted practical intelligence, where students applied their knowledge to real-life situations, fostering adaptability and effective problem-solving in various contexts (Seadatee Shamir, 2024; Seadatee Shamir & Zainab Zahamatkesh, 2022; Sternberg, 2004; Sternberg, 2020).

2.4. Data Analysis

Data analysis was conducted using ANCOVA (Analysis of Covariance) to compare the effectiveness of cognitive hypnotherapy and successful intelligence training on mental toughness. This method was chosen to control for any pre-existing differences between groups while examining post-test and follow-up scores. The significance level was set at 0.05 for all statistical analyses. Adjustments were made for baseline differences in mental toughness scores, and follow-up data were also analyzed to assess the long-term effects of the interventions. Data were processed using SPSS software, and assumptions of normality, linearity, and homogeneity of variance were tested prior to conducting the analysis.

3. Findings and Results

Table 1 shows the mean and standard deviation of the research variables in the control and experimental groups during the pre-test and post-test phases. The table indicates that the mean mental toughness scores in the post-test phase remain relatively constant in the control group. However, a noticeable difference is observed in the experimental groups compared to the pre-test.

Table 1

Descriptive Statistics (Mean, Standard Deviation) for Mental Toughness in the Control and Experimental Groups

Group	Subscale	Phase	Mean	Standard Deviation
Control	Challenge	Pre-test	21.40	5.26
		Post-test	21.69	5.73
	Commitment	Pre-test	26.66	6.53
		Post-test	27.13	6.61
	Emotional Control	Pre-test	18.86	4.71
		Post-test	19.26	4.78
	Life Control	Pre-test	17.73	4.41
		Post-test	18.13	4.48
	Confidence in Abilities	Pre-test	28.26	7.84
		Post-test	28.60	7.78
	Interpersonal Confidence	Pre-test	20.33	4.79
		Post-test	20.66	4.70
Successful Intelligence Training	Challenge	Pre-test	22.53	5.76
		Post-test	23.66	5.51
	Commitment	Pre-test	27.00	6.60
		Post-test	28.46	6.04
	Emotional Control	Pre-test	19.26	4.84
		Post-test	20.20	4.76
	Life Control	Pre-test	18.00	4.47
		Post-test	18.93	4.38
	Confidence in Abilities	Pre-test	28.66	7.89
		Post-test	29.40	8.05
	Interpersonal Confidence	Pre-test	20.66	4.87
		Post-test	21.46	4.94
Cognitive Hypnotherapy	Challenge	Pre-test	22.53	5.76
		Post-test	23.66	5.51
	Commitment	Pre-test	27.00	6.60
		Post-test	28.46	6.04

JAYPS Adolescent and Youth Psychological Studies E-ISSN: 2981-2526

Emotional Control	Pre-test	19.26	4.84
	Post-test	20.20	4.76
Life Control	Pre-test	18.00	4.47
	Post-test	18.93	4.38
Confidence in Abilities	Pre-test	28.66	7.89
	Post-test	29.40	8.05
Interpersonal Confidence	Pre-test	20.66	4.87
	Post-test	21.46	4.94

In Table 1, the challenge subscale shows a mean of 21.40 with a standard deviation of 5.26 in the pre-test and a mean of 21.69 with a standard deviation of 5.73 in the post-test. The K-S test value is 1.12 with a significance level of 0.25, indicating no significant deviation from normality. Other subscales, such as commitment, emotional control, life control, confidence in abilities, and interpersonal confidence, similarly show no significant differences in the control group across pre- and post-test phases.

In the successful intelligence training group, the mean score for the challenge subscale increases from 22.53 (SD = 5.76) in the pre-test to 23.66 (SD = 5.51) in the post-test, with no significant deviation from normality according to the Kolmogorov-Smirnov test. The same pattern of improvement is seen across other subscales, such as commitment, emotional control, life control, confidence in abilities, and interpersonal confidence. Similar trends are also observed in the cognitive hypnotherapy group, where improvements in the post-test scores are evident across all subscales.

Additionally, the normality of the data was confirmed using the Kolmogorov-Smirnov test, as the significance levels for all variables were greater than 0.05, indicating that the data are normally distributed at a 95% confidence level. Moreover, based on the F values obtained from Levene's test, no significant differences in variance were observed, leading to the acceptance of the null hypothesis of homogeneity of variances. The M Box test results for the group variable were also not significant, confirming that the covariance matrix assumption was met appropriately.

Table 2

ANCOVA Results: Effectiveness of Cognitive Hypnotherapy on Mental Toughness

Source of Variance	Dependent Variable	Sum of Squares	df	Mean Square	F	p-value	Eta-squared
Group	Challenge	1.93	1	1.93	4.27	0.051	0.163
	Commitment	8.15	1	8.15	8.92	0.007	0.288
	Emotional Control	2.40	1	2.40	7.12	0.014	0.245
	Life Control	2.50	1	2.50	7.27	0.013	0.248
	Confidence in Abilities	1.19	1	1.19	6.43	0.019	0.226
	Interpersonal Confidence	1.91	1	1.91	7.82	0.010	0.262

Table 2 presents the results of the ANCOVA analysis for the effectiveness of cognitive hypnotherapy on mental toughness. The F values for the challenge, commitment, emotional control, life control, confidence in abilities, and interpersonal confidence subscales are 4.27, 8.92, 7.12, 7.27, 6.43, and 7.82, respectively, with significance levels all below 0.05. These results indicate significant differences in the mean scores of mental toughness between the cognitive hypnotherapy and control groups. Therefore, the experimental group that underwent cognitive hypnotherapy showed significantly better performance on the mental toughness scale compared to the control group ($p < 0.05$).

Table 3

ANCOVA Results: Effectiveness of Successful Intelligence Training on Mental Toughness

Source of Variance	Dependent Variable	Sum of Squares	df	Mean Square	F	p-value	Eta-squared
Group	Challenge	64.47	1	64.47	21.81	0.001	0.498
	Commitment	34.06	1	34.06	19.94	0.001	0.475
	Emotional Control	37.29	1	37.29	19.66	0.001	0.431
	Life Control	33.02	1	33.02	23.96	0.001	0.521
	Confidence in Abilities	55.41	1	55.41	36.10	0.001	0.621
	Interpersonal Confidence	25.94	1	25.94	21.43	0.001	0.493

JAYPS Adolescent and Youth Psychological Studies E-ISSN: 2981-2526

Table 3 presents the ANCOVA results for the effectiveness of successful intelligence training on mental toughness. The F values for the challenge, commitment, emotional control, life control, confidence in abilities, and interpersonal confidence subscales are 21.81, 19.94, 19.66, 23.96, 36.10, and 21.43, respectively, with significance levels all below 0.001. This indicates significant differences in the mean scores of mental toughness between the successful intelligence training group and the control group. The experimental group that underwent successful intelligence training demonstrated significantly better performance in mental toughness compared to the control group ($p < 0.001$).

Based on the results of the ANCOVA, both cognitive hypnotherapy and successful intelligence training resulted in statistically significant improvements in mental toughness compared to the control group. Further analysis was conducted to compare the two experimental groups' effectiveness on mental toughness.

Table 4

Independent T-Test Results: Comparison of Mental Toughness Between Cognitive Hypnotherapy and Successful Intelligence Training Groups

Variable	Group	Mean ± SD	Mean Difference	p-value
Mental Toughness	Cognitive Hypnotherapy	141.66 ± 32.69	22.20	0.048
	Successful Intelligence Training	163.86 ± 25.61		

Table 4 presents the results of the independent t-test comparing the mean mental toughness scores between the cognitive hypnotherapy and successful intelligence training groups. The mean score for mental toughness in the cognitive hypnotherapy group was 141.66 (SD = 32.69), while in the successful intelligence training group, it was 163.86 (SD = 25.61). The mean difference between the two groups was 22.20, with a p-value of 0.048, indicating that the mean mental toughness scores in the two groups are significantly different ($p < 0.05$). As observed, the successful intelligence training group had a higher mean score, which is statistically significant, thus confirming the first research hypothesis.

4. Discussion and Conclusion

The results indicated a significant difference in the mean mental toughness scores between the cognitive hypnotherapy experimental group and the control group. Therefore, the mean scores of the mental toughness scale for the experimental group that underwent cognitive hypnotherapy were significantly different from those of the control group, with the cognitive hypnotherapy group showing better performance. Similarly, there was a significant difference in the mean mental toughness scores between the successful intelligence training group and the control group. The experimental group that received successful intelligence training performed significantly better in mental toughness compared to the control group. According to the ANCOVA results, both cognitive hypnotherapy and successful intelligence training resulted in significantly better performance on the mental toughness scale compared to the control group.

Additionally, the results demonstrated a difference between the cognitive hypnotherapy and successful intelligence training groups in terms of mental toughness, with the successful intelligence training group showing higher mean scores, which was statistically significant. Based on these findings, it can be concluded that mental toughness consists of four main components: 1) Control: representing the individual's ability to have sufficient control over their emotions and actions; 2) Commitment: meaning that the individual fully dedicates themselves to performing tasks to the best of their ability; 3) Challenge: viewing life's problems as opportunities for personal growth; and 4) Confidence: having self-confidence in interpersonal interactions and belief in one's abilities. Mental toughness functions as a defensive mechanism in response to stressors, allowing individuals to actively make the best decisions and exhibit optimal performance in various situations (Clough et al., 2002; Cowden, 2016; Tian et al., 2022).

Cognitive hypnotherapy integrates several key techniques, including cognitive restructuring, relaxation, gradual desensitization, guided imagery, and hypnotic skill training. By accessing the unconscious mind, it is possible to eliminate the negative consequences of self-hypnosis, transforming an individual’s thoughts and perspectives to improve their emotions and feelings. Another key factor in enhancing psychological and cognitive well-being,

JAYPS Adolescent and Youth Psychological Studies E-ISSN: 2981-2526

especially for students, is successful intelligence. The underlying concept of successful intelligence is that intelligent individuals are those who can better recognize their strengths and weaknesses, emphasize and improve their strengths, and at the same time, seek to address or correct their weaknesses. These strengths and weaknesses are broadly associated with three types of abilities in successful intelligence: analytical, creative, and practical (Du Plessis et al., 2021; Fisch et al., 2017; Holler et al., 2021; Muñiz et al., 2022).

Thus, successful intelligence training, by creating an open environment with access to diverse and abundant information, can challenge students' previous ideas and thoughts, encouraging them to generate innovative ideas and new perspectives (Azid & Md-Ali, 2020). Based on the review of the literature, it can be concluded that Sternberg's successful intelligence training is one of the most robust and widely cited programs, providing an effective opportunity for student enrichment and development.

5. Limitations & Suggestions

This study faced several limitations that should be considered when interpreting the results. First, the sample size was relatively small and drawn from a specific geographic location, which may limit the generalizability of the findings to other populations. Additionally, the use of convenience sampling may introduce selection bias. Another limitation is the reliance on self-reported data, which could be influenced by social desirability or inaccurate self-assessment. Furthermore, the study only assessed short-term outcomes of the interventions, and the long-term effects on mental toughness were not evaluated.

Future research should aim to address these limitations by using larger and more diverse samples to increase the generalizability of the findings. It would also be valuable to employ random sampling techniques to minimize selection bias. Longitudinal studies are recommended to investigate the long-term impact of cognitive hypnotherapy and successful intelligence training on mental toughness. Additionally, future research could explore the effectiveness of these interventions in different age groups or educational levels to assess their applicability across diverse populations. Finally, incorporating objective measures alongside self-reports could provide a more comprehensive understanding of the interventions' effects.

The findings of this study suggest that both cognitive hypnotherapy and successful intelligence training can be effective tools for enhancing mental toughness among students. Educational institutions and mental health professionals could consider integrating these interventions into student support programs to help young individuals cope with academic pressures and personal challenges. School counselors and educators may also benefit from training in these techniques to better support students' emotional and cognitive development. Policymakers in the field of education should explore ways to incorporate resilience-building programs into the curriculum, promoting both academic success and mental well-being.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. This research adhered to the ethical requirements of the Alzahra University Research Ethics Committee and was approved under the code IR.ALZAHRA.REC.2022.093.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

This article is derived from the first author's doctoral dissertation. All authors equally contributed to this article.

References

Anierobi, E. I., Nwikpo, M. N., Okeke, N. U., & Ezennaka, A. O. (2024). Students' Academic Engagement in Secondary Schools: Parental Involvement and Academic Resilience as

Predictor Variables. *International Journal of Educational and Psychological Sciences*, *2*(1), 13-26. https://doi.org/10.59890/ijeps.v2i1.1207

Azid, N., & Md-Ali, R. (2020). The effect of the successful intelligence interactive module on University Utara Malaysia students analytical, critical and practical thinking skills. *J Education*, *40*(3), 1-11. https://doi.org/10.15700/saje.v40n3a1743

Clough, P. J., Earle, K., & Sewell, D. (2002). *Mental toughness: the concept and its measurement Solutions in sport psychology*. Thomson. https://www.researchgate.net/publication/313119986_Mental_toughness_The_concept_and_its_measurement

Cowden, R. G. (2016). Competitive performance correlates of mental toughness in tennis: a preliminary analysis. *Percept. Mot. Skills*, *123*, 341-360. https://doi.org/10.1177/0031512516659902

Du Plessis, C., Nel, L., & Taylor, H. (2021). You're going to do what? Patients' myths regarding hypnotherapy as described by South African psychologists. *Integrative Psychological and Behavioural Science*, *55*, 527-540. https://doi.org/10.1007/s12124-021-09604-0

Ergin, A., Karataş, H., & Mutlu, E. (2020). The Relationship between Emotional Intelligence Levels, Problem Solving Skills and Academic Achievements of Engineering Students. https://www.researchgate.net/publication/341207241_The_Relationship_between_Emotional_Intelligence_Levels_Problem_Solving_Skills_and_Academic_Achievements_of_Engineering_Students

Fisch, S., Brinkhaus, B., & Teut, M. (2017). Hypnosis in patients with perceived stress - a systematic review. *BMC Complementary and Alternative Medicine*, *17*(323), 1-12. https://doi.org/10.1186/s12906-017-1806-0

Golden, W. L. (2012). Cognitive Hypnotherapy for Anxiety Disorders. *American Journal of Clinical Hypnosis*, *54*(4), 263-274. https://doi.org/10.1080/00029157.2011.650333

Green, S., Grant, A. M., & Rynsaardt, J. (2020). Evidence-based life coaching for senior high school students: Building hardiness and hope. In *Coaching Researched: A Coaching Psychology Reader* (pp. 257-268). https://doi.org/10.1002/9781119656913.ch13

Haseli Songhori, M., & Salamti, K. (2024). The Linkage Between University Students' Academic Engagement and Academic Support: The Mediating Role of Psychological Capital [Research Article]. *Iranian Journal of Educational Sociology*, *7*(2), 72-84. https://doi.org/10.61838/kman.ijes.7.2.10

Holler, M., Koranyi, S., Strauss, B., & et al. (2021). Efficacy of hypnosis in adults undergoing surgical procedures: a meta-analytic update. *Clinical psychology review*, *85*, 102001. https://doi.org/10.1016/j.cpr.2021.102001

Lee, A., Wong, Y., & Seng Neo, X. (2024). The Role of Educational Institutions in Shaping Student Self-Perception [Research Article]. *Iranian Journal of Educational Sociology*, *7*(2), 57-64. https://doi.org/10.61838/kman.ijes.7.2.8

Meneghel, I., Martínez, I. M., Salanova, M., & de Witte, H. (2019). Promoting academic satisfaction and performance: Building academic resilience through coping strategies. *Psychology in the Schools*, *56*(6), 875-890. https://doi.org/10.1002/pits.22253

Miller, E. M. (2019). Promoting Student Success in Statistics Courses by Tapping Diverse Cognitive Abilities. *Teaching of Psychology*, *46*(2), 140. https://doi.org/10.1177/0098628319834198

Muñiz, V., Snyder, M., & Elkins, G. (2022). Feasibility of the Elkins Hypnotizability scale - Spanish translation. *International Journal of Clinical and Experimental Hypnosis*, *70*(4), 369-373. https://doi.org/10.1080/00207144.2022.2124378

Seadatee Shamir, A. (2024). The Effectiveness of Teaching Math Skills on Increasing the crystallized Intelligence of Secondary School Students of Shahed Schools. *Journal of Psychological Dynamics in Mood Disorders (PDMD)*, *2*(4), 136-152. https://doi.org/10.22034/pdmd.2024.444922.1058

Seadatee Shamir, A., & Zainab Zahamatkesh, Y. (2022). Introducing a test: construction and standardization of the first version of Maher Multifunctional Fluid Intelligence Test (MMFIT) for children age 7 to 9 years old [Research]. *Early Childhood Health And Education*, *3*(2), 57-84. http://jeche.ir/article-1-85-en.html

Simpson, G., Lincoln, C., & Ohannessian, C. (2020). Does Adolescent Anxiety Moderate the Relationship between Adolescent-Parent Communication and Adolescent Coping? *Journal of Child and Family Studies*, *29*(1), 237-249. https://doi.org/10.1007/s10826-019-01572-9

Sternberg, R. J. (2004). Successful intelligence as a basis for entrepreneurship. *Journal of Business Venturing*, *19*(2), 189-201. https://doi.org/10.1016/S0883-9026(03)00006-5

Sternberg, R. J. (2020). 28 The Augmented Theory of Successful Intelligence. In *Cambridge Handbook of Intelligence, 2nd ed.* (pp. 679-708). Cambridge University Press. https://doi.org/10.1017/9781108770422.029

Sternberg, R. J., Todhunter, R. J. E., Litvak, A., & Sternberg, K. (2020). The Relation of Scientific Creativity and Evaluation of Scientific Impact to Scientific Reasoning and General Intelligence. *J. Intell.*, *8*(17). https://doi.org/10.3390/jintelligence8020017

Tian, S., Chen, S., & Cui, Y. (2022). Belief in a Just World and Mental Toughness in Adolescent Athletes: The Mediating Mechanism of Meaning in Life. *Front. Psychol.*, *13*, 901497. https://doi.org/10.3389/fpsyg.2022.901497

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526