



The Effectiveness of a Positive Youth Development Education Program with an Islamic Approach on Social Health and Rumination of Male Adolescents at Risk of Methadone Addiction

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ABSTRACT: The aim of this study was to evaluate the effectiveness of the positive youth development education program with an Islamic approach on social health and rumination of male adolescents at risk of methadone addiction in Bushehr city, Iran in 2022. This quasi-experimental study was conducted with a pretest-posttest control group design. The statistical population of the study was male adolescents at risk of methadone addiction in Bushehr. Thirty male adolescents at risk of methadone addiction who had the highest scores in problems of social health and rumination were purposefully selected and randomly assigned into experimental and control groups. After performing the pre-test, the experimental group was exposed to the positive youth development education program with an Islamic approach based on Kiani study, for 9 sessions of 60 minutes (one session per week). The Keyes Social Health Questionnaire and the Hoeksema and Morrow Ruminative Response Scale were used to collect data. The results indicated that the positive youth development education program with an Islamic approach improved social health and its components including social cohesion, social adaptation, social participation, social prosperity and social acceptance in the experimental group compared to the control group. The intervention also reduced rumination in the experimental group compared to the control group.

Keywords: Adolescent, Positive Youth Development Education Program Based on an Islamic Approach, Social Health, Rumination, Risk of Methadone Addiction.

Introduction

Methadone, like many drugs, is addictive and over time, the rate of intoxication and dependence becomes stronger after use, causing the addict to increase the dose of the drug. As a result, even a single methadone overdose will almost result in death ([Welsh et al., 2022](#)). The horrendous effects of methadone use and death await all addicts. But the causes of death from methadone addiction are not limited to overdose. The action of the drug on the central nervous system and smooth muscles often leads to the elimination of cough and vomiting reflex, which are the protective mechanisms. People who use methadone lose this reflex ability to stimulate the removal of pathogens and toxins from the respiratory tract and stomach. As a result, death from sudden pneumonia, respiratory failure, or methadone intoxication is common in individuals ([Rostam-Abadi et al., 2022](#)). Methadone, when taken orally, is absorbed through the walls of the gastrointestinal tract and enters the bloodstream rapidly. In oral consumption, the effect of the drug begins after 30 minutes, deeply affects the nervous and

cardiovascular systems and diminishes the smooth muscles of the body ([Srivastava et al., 2008](#)). The use of an addictive drug in which the user consumes the substance in an amount or manner that is harmful to himself or others is called abuse. Different definitions are used for drug abuse in the areas of public health, medicine and law. Sometimes, when a person is under the influence of drugs, he or she commits crimes or antisocial behaviors, and long-term personality changes may occur ([Marolf et al., 2022](#)). Methadone is a very powerful and addictive drug that is harder to quit than opium and heroin. Because its effect (half-life) is longer than other drugs and is difficult to remove from the body and due to the high power of the drug, it causes more severe withdrawal symptoms ([Roodbari et al., 2019](#)).

On the other hand, the positive youth development education program with an Islamic approach is one of the treatment methods that can affect the social health and reduce rumination of adolescents at risk of methadone addiction. Students are one of the groups whose mental health is at risk and educational factors have an effective role in promoting their mental health ([Parpanji et al., 2019](#)). In order to flourish the potential capabilities of adolescents and provide a platform for their optimal growth, positive youth development education programs were designed and implemented from the earliest years of this approach, and many studies have confirmed the effectiveness of these programs ([Sznitman et al., 2022](#)). Community-based and school-based positive youth development education program has been effective on the prevention of high-risk addictive and sexual behaviors, drug and tobacco use, socializing behaviors, academic achievement, peer coordination, effective communication with school and family, emotional and moral adequacy and indicators of self (self-regulation, self-concept, self-control, self-efficacy). As research shows, positive psychological interventions have a positive effect on well-being in different samples ([Anderson et al., 2022](#)). However, the effect of positive youth development education program on psychological well-being and self-efficacy has received less attention in some societies ([Murry et al., 2014](#)). Development in adolescence is important because of its impact on later life and its role in adulthood in individual and social life. From the beginning of the twentieth century, when the study of this stage of evolution began, the dominant approach in theories and research was the deficient approach, which considered adolescence as a period of storm and stress, failure, at risk, developmental disorder and crisis. From the 1960s onwards, when psychologists, under the influence of positive psychology, paid attention to social, cognitive and moral development at this stage, the positive youth development education program was formed ([Arslan & Genç, 2022](#)). This approach is the result of collaboration between researchers in the field of adolescent studies and human development studies. The aim of this new approach was to prevent the onset of high-risk behaviors in adolescents ([Lerner & Lerner, 2013](#)).

On the other hand, the positive youth development education program with an Islamic approach is one of the appropriate methods to increase social health. [Keyes and Shapiro \(2004\)](#) believe that social health is an individual's assessment and knowledge of how he or she functions in society and the quality of his or her relationships with other people, relatives, and social groups of which he or she considers himself or herself a member. In other words, it is the ability of an individual to interact effectively with others and the community in order to build satisfying personal relationships and accomplish social roles ([Keyes](#)

[& Shapiro, 2004](#)). Health has different dimensions that emphasize more on its individual dimensions, but what determines the health of a society are the indicators that are known as social health. Social health has various psychological, physical, economic and political dimensions and is influenced by several factors. Social health includes the indicators of health in a community that resides in a geographical area. Social factors are effective in social health and social dimensions are considered more than individual dimensions ([Keyes, 2006](#)). Daily statistics on divorce rates, unemployment, corruption, and other social ills or growths all provide some form of community health information ([Walker, 2021](#)). Ruminant, on the other hand, introduces a set of conscious thoughts that revolve around an important topic. The external environment may lead to the preservation of these thoughts by presenting signs, but at the same time the preservation of these thoughts and their continuation does not depend on the environmental signs. Ruminants are defined as resilient and recurrent thoughts that revolve around a common theme, enter into consciousness involuntarily, and divert attention from current themes and goals ([Watkins & Roberts, 2020](#)). In the researches of [Shaban et al. \(2015\)](#), [Majd Ara et al. \(2017\)](#), [Seah et al. \(2020\)](#) and [Armstead et al. \(2019\)](#) the relationship of these variables has been indirectly confirmed. In recent years, the study of maladaptive thought patterns in emotional disorders and its role in the persistence of these disorders has been considered by experts and clinical researchers. One of the types of these maladaptive patterns in emotional disorders is rumination ([Fang et al., 2020](#)).

Examining the researches, it was found that in Iran, no related research has been done on the effectiveness of the positive youth development education program with Islamic approach on increasing social health and reducing adolescent rumination, and in some researches, it has been implicitly mentioned and in some studies discrepancy results are obtained. For example, [Sadat et al. \(2020\)](#) in a study on the effect of teaching positive thinking skills on students' mental well-being showed that positive thinking training has a positive effect on students' mental well-being. [Hosseinabad et al. \(2019\)](#) in a study on the effectiveness of positive youth development education program on life satisfaction and self-efficacy in adolescents. The results showed that in the short and long term, the positive youth development education program is effective on adolescent life satisfaction and self-efficacy. [Babaei et al. \(2018\)](#) in a study on the psychometric properties of the Adolescent Positive Development Scale in students showed that positive adolescent development has a positive relationship with discipline and academic achievement and a negative and significant relationship with bullying. [Jiang et al. \(2021\)](#) in a study examined the effect of the positive youth development education program on psychological well-being and mental health among Chinese adolescents. The results showed that the characteristics of positive change affect the psychological well-being of homeless youth. [Wong \(2012\)](#) in a study examined the effect of the negative versus positive thinking development program on the psychological well-being and intellectual maladaptation of Singaporean students. The results showed that the evolution of negative thinking leads to a decrease in psychological well-being and an increase in psychological maladaptation in Singaporean students. [Rew et al. \(2019\)](#) in a study examined the effect of positive youth development education program on the mental health and psychological well-being of homeless youth. The results showed that the characteristics of positive change affect the mental health of homeless

youth. Based on the findings of previous studies, the purpose of this study was to investigate the effectiveness of positive youth development education program with Islamic approach on increasing social health and reducing rumination of male adolescents at risk of methadone addiction.

research method

In this study, a quasi-experimental method with a pre-test-post-test design was used. The statistical population of this study included all male adolescents at risk of methadone addiction in Bushehr, Iran in 2021. The sample was selected by voluntary sampling from the statistical population. In this way, after obtaining the necessary permission and coordination with the relevant clinics, the researchers, observing the ethical principles of the research and obtaining satisfaction with the selected samples, explained the research design for male adolescents at risk of methadone addiction; Then, among them, 30 people with lower social health and higher mental rumination were assigned through random replacement, 15 in the experimental group and 15 in the control group. Inclusion criteria included: 1- No acute mental and personality disorders (based on personality test) 2- No physical or psychological illness 3- Having only methadone addiction; and the exclusion criteria included: 1- Absence from attending more than two consecutive sessions 2- Request for non-cooperation by the participant 3- Lack of motivation to perform activities. The following questionnaires were used to collect data.

Keyes Social Well-being Questionnaire (1998): The 33-item Social Health Questionnaire was designed by [Keyes \(1998\)](#) based on his theoretical model of the social welfare structure, which is usually used as a general scale in social health psychology to determine health and social well-being. This questionnaire is a pencil-paper and self-report type and includes 33 items and 5 subscales of social integration, social coherence, social contribution, social actualization and social acceptance. Keyes (1998) reported the reliability of the questionnaire based on Cronbach's alpha of 0.80 and its validity using structural analysis of .82. In the present study, the reliability of the questionnaire was obtained by calculating the Cronbach's alpha coefficient equal to .86.

Nolen-Hoeksema Rumination Questionnaire: The Nolen-Hoeksema Rumination Questionnaire was developed by [Treyner et al. \(2003\)](#) to measure rumination. This questionnaire has 22 questions and is based on Likert's four-choice spectrum that measures rumination. Scores below 33 indicate low rumination and scores higher than 33 indicate high rumination. [Treyner et al. \(2003\)](#) reported the reliability of the questionnaire based on Cronbach's alpha of 0.85 and the validity of the questionnaire using structural analysis of 0.87. In this study, reliability was obtained by calculating the Cronbach's alpha coefficient equal to 0.91.

Protocol of the positive youth development education program with an Islamic approach: In this study, the positive youth development education program with an Islamic approach was presented in 9 sessions based on the protocol of the positive youth development education program with an Islamic approach ([Kiani, 2015](#)), which includes:

Session 1: Pre-test, defining adolescence and puberty and types of puberty, expressing the characteristics and behavioral and cognitive changes of adolescence, introducing the theory and programs of positive adolescent development with Islamic approach, introducing positive adolescent development program,

preparing program rules with Islamic approach.

Session 2: Presenting the definition of socialization and its goals and stages, introducing the factors affecting socialization, explaining the mutual role of family and educational systems and peer groups and the media in socialization, presenting the definition of citizen and citizenship rights and duties.

Session 3: Dimensions of human existence with the approach of Islam and the components of each dimension, teaching spiritual self-awareness in the form of practical activities, the concept of spirituality, religion, and the overlap of these two concepts, identifying religious-spiritual learning in the form of practical activities, familiarity with features Spiritual human beings, the relationship between spirituality and self-esteem, the relationship between spirituality and human values, familiarity with the meaning of life in the form of practical activities, identifying the meaning of life in the form of practical activities, teaching ways to give meaning to life in the form of practical activities, cultivation strategies Spiritual-religious dimension, teaching spiritual-religious confrontations, teaching problem-solving skills in the form of practical activities.

Session 4: The concept of empathy, its application and common mistakes in expressing empathy, the factors affecting the expression of empathy, teaching the stages of empathy, teaching the difference between empathy and sympathy and compassion.

Session 5: Defining transactional analysis, roles of child, adult and parent in transactional analysis, types of transactional analysis, definition of caress and its types, explaining the concept of caress benefit and its role in intimate relationships, the concept of caressing economy and creating balance in giving and receiving caress, the concept of artificial caress and its effect on intimacy, transactional analysis practice and types of caress.

Session 6: Defining communication, importance, goals, levels, methods and components of communication, teaching communication barriers in the form of communication games and practical activities, six-point principles of communication, methods of dealing with differences in communication, teaching win-win techniques in resolving disputes, teaching active listening, all kinds of privacy in the real and virtual world, the language of behavior and its signs, teaching decisive behavior in anger situations.

Session 7: Defining self-esteem and expressing its difference with self-confidence, sources of self-esteem, factors affecting self-esteem, results of self-esteem up and down, practical strategies to increase self-esteem.

Session 8: Definition of self-regulation, aspects of self-regulation, training to find internal and external motivations to behave with Islamic approach, practical training to achieve self-regulation, definition of emotion and its function, types of emotion, concept of emotional self-regulation, emotion regulation strategies.

Session 9: Definition of self-efficacy, sources of self-efficacy, types of self-efficacy, factors affecting self-efficacy, high self-efficacy results, techniques to increase the types of self-efficacy, post-test implementation.

Results

In Table 1, the descriptive findings of the research variables, including the mean and standard deviation in the experimental and control groups in post-test are presented.

Table 1. Descriptive findings social health components and mental rumination in experimental and control groups in the post-test stage

Variables	Experimental group		Control group	
	Mean	Std. error	Mean	Std. error
Social integration	40.22	.32	36.84	.32
Social coherence	32.99	.38	28.67	.38
Social contribution	30.34	1.24	26.55	1.24
Social actualization	23.15	.48	19.97	.48
Social acceptance	21.15	.48	18.34	.48
Rumination	6.96	.35	9.17	.35

According to Table 1, the mean of social health components, i.e. social integration, social coherence, social contribution, social actualization and social acceptance in the subjects in the experimental group in the post-test stage is higher than the subjects in the control group. To examine the observed differences, multivariate analysis of covariance was performed on post-test scores of social health components. The results of this test are shown in Table 2.

Table 2. The results of multivariate analysis of covariance on post-test scores of social health components

Effect	Test	Value	F	Hypnosis DF	Error DF	P	Eta
Group	Pillai's trace	.802	21.26	5	54	.0001	.802
	Wilks' lambda	.198	21.26	5	54	.0001	.802
	Hotelling's trace	4.05	21.26	5	54	.0001	.802
	Rohrer's F	4.05	21.26	5	54	.0001	.802

According to Table 2, there is a significant difference between the experimental and control groups in terms of at least one of the components of social health at the level .001. To examine the difference in more detail, one-way analysis of covariance embedded in MANCOVA was performed on social health components. The results are presented in Table 3.

Table 3. Results of one-way analysis of covariance on post-test scores of social health components

Source	Variables	SS	DF	MS	F	P	Eta
Group	Social integration	72.64	1	72.64	49.53	.001	.67
	Social coherence	118.95	1	118.95	58.7	.001	.71
	Social contribution	86.33	1	86.33	4.06	.001	.14
	Social actualization	64.37	1	64.37	19.59	.001	.45
	Social acceptance	60.37	1	60.37	18.25	.001	.45

According to Table 3, there is a significant difference between experimental and control groups in beliefs of social integration ($F = 49.53$ and $P = 0.001$), social coherence ($F = 58.7$ and $P = 0.001$), social contribution ($F = 4.06$ and $P = 0.001$), social actualization ($F = 19.59$ and $P = 0.001$) and social acceptance ($F = 18.25$ and $P = 0.001$).

= 18.25 and $P = 0.0001$). In other words, the positive youth development education program with an Islamic approach increased the components of social health in the experimental group compared to the control group.

Also, according to Table 1, the mean of rumination scores in the subjects of the experimental group in the post-test stage is less than the control group. Table 4 shows the results of univariate analysis of covariance on the post-test score by controlling the ruminant pre-test score. According to Table 4, there is a significant difference between the experimental and control groups in rumination at the level .001.

Table 4. Results of one-way analysis of covariance on post-test score of rumination

Source	Variables	SS	DF	MS	F	P	Eta
Group	Rumination	42.76	1	42.76	19.6	.001	.45

Discussion

The aim of this study was the investigate the effectiveness of the positive youth development education program with an Islamic approach on increasing social health and reducing rumination of male adolescents at risk of methadone addiction. Findings of the study showed that there is a significant difference between two groups in the components of social health and based on this, the program has improved the components of social health in the subjects in the experimental group. Also, according to the findings, there is a significant difference between the experimental and control groups in rumination. In other words, the program reduced rumination in the experimental group compared to the control group. The findings of the present study are consistent with the findings of earlier studies ([Babaei et al., 2018](#); [Hosseiniabad et al., 2019](#); [Jiang et al., 2021](#); [Rew et al., 2019](#); [Sadat et al., 2020](#); [Wong, 2012](#)).

Each person's future depends to a large extent on his attitude, and positive thinking can provide the basis for success and achievement for the person. One of the positive feedback is having a healthy mind. One of the positive characteristics of human beings, which plays an important role in their own growth and development and is the basis of social relations, is positive thinking. Positive thinking helps people cope better with life. Positive thinking is not just about having specific thoughts; it is about taking a holistic approach to life. Positive thinking helps adolescents feel more empowered and more confident. Also, the evolution of positivity is not just a motivating issue, but has a constructive and measurable effect on adolescents' personality, health, energy and creativity.

The key to finding a way to live a better life is to believe that it is never too late for humans to change for the better. It is important to know that change can be made. Therefore, flexibility is the first condition of variability and a sign of a superior mind. Undoubtedly, increasing vitality and hope in adolescent relationships is one of the important social effects of positivism. Positivism increases social health, reduces rumination, peace of mind and overcomes anxiety, and presents a very bright future for the individual. Therefore, in the light of Islamic teachings, we can grow and flourish more and more steadily in the direction of growth. On the other hand, negative and destructive thoughts, suspicions and anxiety are among the issues that disturb peace. In this regard, the positive youth development education

program with an Islamic approach can help increase social health and reduce the rumination of adolescents at risk of methadone addiction.

Therefore, it is recommended that counseling centers provide counseling to adolescents at risk of methadone addiction based on this approach. The findings of this study can also help families to use the positive youth development education program with an Islamic approach for adolescents at risk of methadone addiction to improving social health and reducing mental rumination.

In addition to the findings, the present study has been associated with limitations that the study on male adolescents and the use of self-report questionnaires to collect data are most important ones. It is suggested that in future research, female adolescents be studied and the findings be compared with the findings of the present study. Also, to increase the accuracy and validity of the data, more in-depth data collection methods such as interviews should be used.

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References

- Anderson, D. L., Graham, A. P., Simmons, C., & Thomas, N. P. (2022). Positive links between student participation, recognition and wellbeing at school. *International Journal of Educational Research*, 111, 101896.
- Armstead, E. A., Votta, C. M., & Deldin, P. J. (2019). Examining rumination and sleep: A transdiagnostic approach to depression and social anxiety. *Neurology, Psychiatry and Brain Research*, 32, 99-103.
- Arslan, G., & Genç, E. (2022). Psychological Maltreatment and College Student Mental Wellbeing: A Uni and Multi-Dimensional Effect of Positive Perception. *Children and Youth Services Review*, 106371.
- Babaei, J., Najafi, M., & Rezaei, A. (2018). The Psychometric Properties of Positive Youth Development Scale in Students [Research]. *The Journal Of Psychological Science*, 16(64), 540-553. <http://psychologicalscience.ir/article-1-101-fa.html>
- Fang, J., Wang, X., Wen, Z., & Huang, J. (2020). Cybervictimization and loneliness among Chinese college students: A moderated mediation model of rumination and online social support. *Children and Youth Services Review*, 115, 105085.
- Hosseiniabad, N., Najafi, M., & Rezaei, A. M. (2019). The effectiveness of training program of positive youth development on life satisfaction and self-efficacy in adolescents [Research]. *The Journal Of Psychological Science*, 17(72), 927-936. <http://psychologicalscience.ir/article-1-327-fa.html>
- Jiang, S., Jiang, C., Ren, Q., & Wang, L. (2021). Cyber victimization and psychological well-being among Chinese adolescents: Mediating role of basic psychological needs satisfaction and moderating role of positive parenting. *Children and Youth Services Review*, 130, 106248.
- Keyes, C. L. (2006). Mental health in adolescence: is America's youth flourishing? *American journal of orthopsychiatry*, 76(3), 395-402.

- Keyes, C. L., & Shapiro, A. D. (2004). Social well-being in the United States: A descriptive epidemiology. *How healthy are we*, 15(3), 350-372.
- Keyes, C. L. M. (1998). Social well-being. *Social psychology quarterly*, 121-140.
- Kiani, M. (2015). *Designing a youth positive transformation education program and its effectiveness on adolescents' self-regulation, identity and social competence* [Tehran University]. Tehran.
- Lerner, R. M., & Lerner, J. V. (2013). The positive development of youth: Comprehensive findings from the 4-H study of positive youth development. *Washington, DC: National*, 4.
- Majd Ara, E., Makvand Hoseini, S., Arab Ghaeni, M., & Asbaghi, E. (2017). Mediating Role of Rumination in the Relationship between Social Anxiety and Depression and Early Maladaptive Schemas. *Journal of Modern Psychological Researches*, 12(47), 181-203. https://psychologyj.tabrizu.ac.ir/article_7011_968e9a894d80bf92cab0d00ea7979906.pdf
- Marolf, V., Selz, J., Picavet, P., Spadavecchia, C., Tutunaru, A., & Sandersen, C. (2022). Effects of perineural dexmedetomidine combined with ropivacaine on postoperative methadone requirements in dogs after tibial plateau levelling osteotomy: a two-centre study. *Veterinary Anaesthesia and Analgesia*.
- Murry, V. M., Berkel, C., Simons, R. L., Simons, L. G., & Gibbons, F. X. (2014). A twelve-year longitudinal analysis of positive youth development among rural African American males. *Journal of Research on Adolescence*, 24(3), 512-525.
- Parpanji, M., Delavar, A., & Farrokhi, N. (2019). Comprehensive mental health promotion model in girls' schools in tehran. *Clinical Psychology Studies*, 9(34), 65-87. <https://doi.org/10.22054/jcps.2019.40198.2087>
- Rew, L., Slesnick, N., Johnson, K., Aguilar, R., & Cengiz, A. (2019). Positive attributes and life satisfaction in homeless youth. *Children and Youth Services Review*, 100, 1-8.
- Roodbari, O., Agha Yousefi, A., Alipour, A., & Oraki, M. (2019). The Comparison between the Effect of the Cognitive-Behavior Combinatory Therapy with MMT (Methadone Maintenance Therapy) on Uncompromising Cognitive Emotion Regulation Strategies of Addicts Volunteer for Quitting in Jiroft City. *Report of Health Care*, 5(4), 18-26.
- Rostam-Abadi, Y., Gholami, J., Noroozi, A., Ansari, M., Baheshmat, S., Hamzehzadeh, M., Ghadirzadeh, M. R., Vahdani, B., Ekhtiari, H., & Mojtabai, R. (2022). Public health risks associated with methadone in Iran: A systematic review and meta-analysis. *International Journal of Drug Policy*, 100, 103529.
- Sadat, S., Vahedi, S., Fathiazar, E., & Badri gargari, r. (2020). Designing a School_Based Positive Education Package and Evaluating it's Effectiveness on Social Well-Being levels of Sixth Grade Male Students in District One of Tehran. *Biquarterly Journal of Cognitive Strategies in Learning*, 12(1), -. <https://doi.org/10.22084/j.psychogy.2020.21141.2113>
- Seah, T. S., Aurora, P., & Coifman, K. G. (2020). Emotion differentiation as a protective factor against the behavioral consequences of rumination: A conceptual replication and extension in the context of social anxiety. *Behavior Therapy*, 51(1), 135-148.
- Shaban, N., Bagheri, Z., & Hemmatirad, G., , , Tehran. (2015). *The mediating role of cognitive avoidance in the relationship between early maladaptive schemas and social anxiety in students* Fourth National Conference on New Approaches in the Humanities, Challenges and Solutions, Tehran.
- Srivastava, A., Kahan, M., & Ross, S. (2008). The effect of methadone maintenance treatment on alcohol consumption: a systematic review. *Journal of substance abuse treatment*, 34(2), 215-223.
- Sznitman, S. R., van Rijswijk, L., & Cousijn, J. (2022). Cannabis use as a predictor and outcome of positive and negative affect in college students: An ecological momentary assessment study. *Addictive Behaviors*, 107221.
- Treynor, W., Gonzalez, R., & Nolen-Hoeksema, S. (2003). Rumination reconsidered: A psychometric analysis. *Cognitive therapy and research*, 27(3), 247-259.

- Walker, D. K. (2021). Parenting and social determinants of health. *Archives of psychiatric nursing*, 35(1), 134-136.
- Watkins, E. R., & Roberts, H. (2020). Reflecting on rumination: Consequences, causes, mechanisms and treatment of rumination. *Behaviour Research and Therapy*, 127, 103573.
- Welsh, C., Doyon, S., & Hart, K. (2022). Methadone Exposures Reported to Poison Control Centers in the United States Following the COVID-19-Related Loosening of Federal Methadone Regulations. *International Journal of Drug Policy*, 103591.
- Wong, S. S. (2012). Negative thinking versus positive thinking in a Singaporean student sample: Relationships with psychological well-being and psychological maladjustment. *Learning and Individual Differences*, 22(1), 76-82.



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