DOI: http://dx.doi.org/10.22122/ijbmc.v11i3.618 Published by Vesnu Publications

International Journal of Body, Mind and Culture

The Effectiveness of Schema Therapy on Self-Compassion, Body Shame, and Uncertainty Intolerance in Women Applying for Cosmetic Surgery

Fatemeh Khajeh-Hasani-Rabari[1], Elham Sadat Hosseini[2], Elham Hemmati[2], Fatemeh Mirzai[3], Erfan Abdollahi-Chirani[3]

1 MA Student, Department of Psychology, Islamic Azad University, Neyshabour Branch, Neyshabour, Iran
2 MA, Department of Psychology, Islamic Azad University, Science and Research Branch, Shiraz, Iran
3 MA in General Psychology, Department of Psychology, Bu-Ali Sina University, Hamedan, Iran

Corresponding Author: Fatemeh Mirzai; ***MA, Department of Psychology, Bu-Ali Sina University, Hamadan, Iran***

Quantitative Stud

Abstract

Background: In the past, cosmetic surgery was performed to return the function and normal shape of a body part. But today, cosmetic surgery has lost its main function. The present research aimed to investigate the effectiveness of schema therapy on self-compassion, body shame, and intolerance of uncertainty in women applying for cosmetic surgery.

Methods: The current research was applied and semi-experimental with a pretest-posttest design with a control group. The statistical population of this research was all women who were referred to cosmetic clinics for cosmetic surgery in Tehran City, Iran, in ***2023***, and 30 people were selected by the convenience sampling method and randomly divided into an intervention group and a control group. Data were collected using the Self-Compassion Scale (SCS), Objectified Body Consciousness Scale (OBC), and Intolerance of Uncertainty Scale (IUS). Schema therapy intervention was performed during 8 sessions of 120 minutes once a week for the experimental group and the data were analyzed by multivariate analysis of covariance (MANCOVA) in SPSS software.

Results: A statistically significant increase in self-compassion ($F = 239.454$) and reductions in body shame ($F = 555.477$) and uncertainty intolerance ($F = 301.050$) were observed in the experimental group after schema therapy ($P < 0.001$).

Conclusion: It can be concluded that schema therapy increases self-compassion and reduces body shame and intolerance of uncertainty in women applying for cosmetic surgery.

Keywords: Body shame; Intolerance of uncertainty; Schema therapy; Self-compassion

Citation: Khajeh Hasani-Rabari F, Hosseini ES, Hemmati E, Mirzai F, Abdollahi-Chirani E. **The Effectiveness of Schema Therapy on Self-Compassion, Body Shame, and Uncertainty Intolerance in Women Applying for Cosmetic Surgery.** Int J Body Mind Culture 2024; 11(3): 201-10.

Received: 27 Dec. 2023
Accepted: 03 Mar. 2024

Introduction

A person's appearance is an important part of his self-perception and can affect social interactions with others (Yilmaz, Gottfredson, Zerwas, Bulik, & Micali, 2019). The most important motivation for cosmetic surgery is the hope of achieving a satisfying appearance and enhancing social status (Di Gesto, Nerini, Policardo, & Matera, 2022). Beauty is often perceived as a feminine characteristic, while the preoccupation with the mind is one of the elements of female stereotypes in many cultural contexts (Khabbaz Sabet, Poladi Rishehri, Keykhosrovani, & Bahrani, 2023). In the past, the purpose of cosmetic surgery was to restore the natural form and function of a body part (Sarwer, 2019). However, in recent decades, cosmetic surgery has become one of the most common surgical procedures worldwide, with its prevalence steadily increasing (Wang, Qiao, Yang, Geng, & Fu, 2023).

Today, due to the excessive emphasis on beauty, women's attention to the point where the general culture equates beauty with feeling likable and attention-worthy has become so prevalent that it is not specific to particular social classes, educational levels, or demographics (Morgan, 1991, Morgan, 2020). To illustrate, the American Society of Plastic Surgeons estimated that the number of cosmetic surgeries, especially in women, reached 1.12 million in 2022, significantly higher than that in previous years (Oveisi, Monirpour, & Zargham Hajebi, 2023). About 25000 to 30000 cosmetic surgeries are performed in Iran every year, with a higher prevalence among women than men (Darajati & Rezaee, 2023). Studies show that many cosmetic surgeries are caused by psychological factors in individuals, and improving these factors could reduce unnecessary cosmetic surgeries (Eftekhar, Hajibabaei, Deldar, Rahnama, & Montazeri, 2019). Self-compassion is one of the most effective psychological factors in cosmetic surgery. Self-compassion is defined as having a sense of love and kindness towards oneself (Aghasi & Tizdast, 2021).

Self-compassion involves three components: kindness to oneself versus judgment, human commonality versus isolation, and mindfulness versus extreme assimilation. These three components together form an individual's self-compassion profile (Jones, Brown, Houston, & Bryant, 2021). The impact of self-compassion enhances individuals' ability to appreciate their bodies, fostering body acceptance and respect without focusing on perceived flaws (Yakin, Gencoz, Steenbergen, & Arntz, 2019). Studies have shown that self-compassion can improve individuals' levels of hope, self-esteem, mental health, and positive emotions and reduce their negative emotions (Pullmer, Chung, Samson, Balanji, & Zaitsoff, 2019; Rabeei, Mashayekh, Hatami, Zam, & Shabani, 2023).

Women applying for cosmetic surgery often feel ashamed and embarrassed due to a negative attitude towards their body image, which increases their desire to undergo cosmetic surgery (Hashemian, Aflakseir, Goudarzi, & Rahimi, 2021). Body shame involves various forms of criticism, such as appearance, weight, or body shape, leading to feelings of shame and guilt, low self-esteem, and negative effects on mental health (Walker, Krumhuber, Dayan, & Furnham, 2021). Ghadampour et al. (2022) have shown that schema therapy effectively reduces body image evaluation and concerns about acceptance in women applying for cosmetic surgery.

Another variable related to the demand for cosmetic surgery is the fear of intolerance of uncertainty (Coffman, Dean, & Zwiebel, 2023). Intolerance of uncertainty is closely related to anxiety and has four characteristics distinguishing individuals with anxiety disorders: low tolerance for ambiguous situations, positive beliefs about worry, cognitive avoidance, and a negative orientation towards problems (Wu, Alleva,

Broers, & Mulkens, 2022). People with intolerance of uncertainty believe that uncertainty is disturbing and existence of doubts about the future is unbearable, which causes unexpected negative events and their avoidance (Lowe-Calverley & Grieve, 2021).

Given the limited knowledge about the psychological aspects of cosmetic surgery and the lack of research, the increasing number of individuals seeking these procedures may have significant psychological consequences. Therefore, conducting further studies on the psychological problems of individuals seeking cosmetic surgery and the recurrence of these procedures can help improve the mental and psychological well-being of these individuals in this context. Consequently, the present research aimed to investigate the effectiveness of schema therapy on self-compassion, body shame, and intolerance of uncertainty in women applying for cosmetic surgery.

Methods

The current study was an applied and semi-experimental research with a pretest-posttest design and a control group**.** The statistical population of the study consisted of women visiting a beauty clinic in Tehran City, Iran, in the year 2023. Through preliminary interviews with volunteer women eligible for cosmetic surgery, 30 participants were selected using a convenience sampling method with random assignment to the experimental and control groups (15 participants in each group). It should be noted that a written consent form was obtained from the participating women, ensuring the confidentiality of the information gathered.

Inclusion criteria for participants in the research were willingness to undergo cosmetic surgery, having a minimum diploma education, falling within the age range of 20 to 30 years, and having a history of at least one cosmetic surgery. Exclusion criteria included having psychological disorders, absence of participants during the intervention period, and receiving any type of medication or psychotherapy during the intervention period.

Tools

Self-Compassion Scale (SCS): The SCS is a 26-item scale that was created and validated by Neff et al. (2003). This scale has 6 subscales of self-kindness, self-judgment, common human feelings, isolation, mindfulness, and magnification in 5-point Likert scales (scores 1 to 5). The range of scores on the questionnaire is between 26 (the least self-compassion) and 130 (the most self-compassion). The results of the research conducted by Neff et al. (2003) have shown high reliability and validity for it. The internal consistency of the scale was obtained through Cronbach's alpha of 0.92 for the whole scale and 0.78, 0.77, 0.80, 0.79, 0.75, and 0.81 for each of the subscales, respectively. It has been standardized in Iran by Khosravi et al., 2013, validity and reliability were confirmed by professors and experts using the exploratory factor analysis (EFA) method of the six-factor structure of the questionnaire, and the validity of the total scale was obtained using the Cronbach's alpha method of 0.86. In this study, the Cronbach's alpha value was 0.81.

Objectified Body Consciousness Scale (OBC): To measure body shame, the body shame subscale of the OBC scale of McKinley and Hyde (1996) was used. The 8-item body shame subscale evaluates how people feel about their bodies ($\alpha = 0.670$). The body shame subscale of items 9 to 11 measures the degree of internalization of body cultural standards about oneself and the experience of shame in response to not meeting these externalized norms. The subscales are graded on a 7-point Likert

spectrum from strongly disagree to strongly agree. After the reverse scoring of the related items, the average scores are calculated. The range of scores on the questionnaire is between 7 and 21. A person who gets a high score believes that if he cannot fulfill the cultural expectations about his body, he will be guilty and blameworthy. In Iran, Salimi et al. (2014) reported that the internal consistency of the body shame subscale was 0.75 using Cronbach's alpha method. Nowrozi et al.'s research (2017) used Cronbach's alpha to measure reliability, and the value of this coefficient for body image dimensions, i.e., body shame, was 0.90. In this study, the Cronbach's alpha value was 0.78.

Intolerance of Uncertainty Scale (IUS): This questionnaire has 27 items and was developed by Freeston et al. (1994) to evaluate the emotional, cognitive, and behavioral reactions of people to uncertain situations. This scale is scored on a 5-point Likert scale from completely true (5) to completely false (1). The range of scores of the questionnaire is between 27 and 54 (lowest intolerance of uncertainty) and above 81 is the highest tolerance of uncertainty. The reliability of this test was reported as satisfactory by Freeston et al. (1994). Bohr and Dagas (2002) reported the Cronbach's alpha coefficient obtained for this scale to be 0.94 (Bohr et al., 2002). Its English version has been adapted by Christian et al. (2006). The correlation coefficient of this scale with the worry questionnaire (r = 0.60), depression scale one (r = 0.59), and anxiety scale one (r = 0.55) has been obtained at a significant level (Birel et al., 2011). In Iran, the construct validity of convergent and diagnostic (differential) IUS was calculated through the simultaneous implementation of the Beck Anxiety Inventory (BAI) (Beck et al., 1993), the Penn State Worry Questionnaire (PSWQ) (Meiber et al., 1990), the Positive and Negative Affect Schedule (PANAS) (Watson et al., 1988), and Mental Health Inventory (MHI-28) by Basharat (2008)**.** Pearson's correlation results showed that between the participants' scores on the IUS with anxiety, negative emotions, and psychological helplessness, there was a significant positive correlation from 0.43 to 0.62 ($P < 0.001$) and a significant negative correlation between positive emotions and psychological well-being from -0.41 to 0.57. ($P > 0.001$). These results confirm the convergent and diagnostic validity of the IUS. Preliminary results of confirmatory factor analysis Moreover, the two factors of acceptance and avoidance of uncertainty confirmed action-inhibiting uncertainty for the IUS (cited by Besharat et al., 2014). In addition, Besharat (2018) Cronbach's alpha coefficient for the similarity between acceptance and avoidance of uncertainty was 0.87, for He reported 0.87 inhibitory uncertainty from action and -0.89 for the total flexibility tolerance of uncertainty (cited by Besharat et al., 2014). In this study, the Cronbach's alpha value was 0.79.

Schema therapy sessions

The therapeutic approach in this research was schema therapy based on the book "Schema Therapy" by Young et al. (2003). The therapy consisted of eight sessions, each lasting 120 minutes (Table 1).

Schema therapy intervention was performed during 8 sessions of 120 minutes once a week for the experimental group and the data were analyzed by multivariate analysis of covariance (MANCOVA) in SPSS software (version 26, IBM Corporation, Armonk, NY, USA).

Table 1. Schema therapy sessions

Session	Description
First session	Stating the goals of the treatment, encouraging the participants to continue attending the meetings and familiarizing them with schema therapy, focusing on the life history, pre-test
Second session	Familiarizing with primary maladaptive schemas, their types and characteristics, explaining coping styles, and communicating between current life problems and schemas
Third session	Presenting the logic of cognitive techniques and the metaphor of war, examining members' assignments, using the therapeutic style of empathic exposure, a new definition of schema-confirming evidence
Fourth session	Using cognitive techniques, evaluating the advantages and disadvantages of coping styles and responses, having a dialogue between the student's point of view and a healthy point of view, using role-playing, teaching how to compile training cards
Fifth session	Presenting the logic of experimental techniques and their goals, mental imagery, relating the mental image of the past to the present, and an imaginary conversation with parents
Sixth session	Providing the logic of behavioral techniques, stating the purpose of behavioral techniques, preparing a comprehensive list of specific behaviors as the subject of change, providing ways to prepare a list of behaviors, prioritizing to break the pattern and identify the most problematic behavior, increasing motivation to change behavior
Seventh session	Practicing healthy behaviors through mental imagery and role-playing, overcoming obstacles to changing behavior, making important changes in life
Eighth session	Summary and conclusion with the help of members, post-test

Results

The demographic data of the research participants indicated that the mean and standard deviation (SD) of age in the experimental group was 26.33 ± 2.19. In the control group, the corresponding value was 26.80 ± 5.79.

According to table 2, the average scores of individuals in the experimental group in the variable of self-compassion in the post-test have shown a greater increase compared to the control group. However, in the control group, there is not much difference. Additionally, the body shame score in the experimental group decreased in the post-test, while there was not much difference in the control group. Moreover, the scores of intolerance of uncertainty have also decreased in the post-test in the experimental group, but there is not much difference in the control group. To determine effectiveness, first, the underlying assumptions of the covariance test were examined. The Shapiro-Wilk test was used to check the normality of score distribution. The results indicated that the assumption of normality of score distribution was satisfied (P > 0.05).

Table 2. Mean and standard deviation (SD) of scores of self-compassion, body shame, and uncertainty intolerance in the pretest and posttest in the two groups

Source of variance	Group	Pre-test	Post-test
		Mean ± SD	Mean ± SD
Self-compassion	Experimental	45.41 ± 4.17	96.93 ± 6.28
	Control	79.46 ± 5.82	79.33 ± 6.10
Body shame	Experimental	34.80 ± 1.82	13.13 ± 1.59
	Control	29.80 ± 7.44	31.53 ± 4.99
Uncertainty intolerance	Experimental	108.33 ± 8.28	46.06 ± 6.28
	Control	88.93 ± 9.29	88.53 ± 8.95

SD: Standard deviation

Table 3. The results of multivariate research tests

Effect	Value	F	Hypothesis df	Error df	P-value	Partial eta squared
Pillai's trace	0.750	23.034	3	23	0.001	0.750
Wilks' lambda	0.250	23.034	3	23	0.001	0.750
Hotelling's trace	3.004	23.034	3	23	0.001	0.750
Roy's largest root	3.004	23.034	3	23	0.001	0.750

df: Degree of freedom

The results of Levene's test for checking the homogeneity of variance-covariance were not statistically significant, indicating the establishment of the assumption of homogeneity of the covariance matrix (P = 0.058, F = 2.546, Box's M = 17.306). Besides, the Brown-Forsythe test was used, and the results showed that the scores of research groups in the post-test of dependent variables had homogeneous variances (P > 0.05). Furthermore, the level of significant interaction between group and pre-test self-compassion, body shame, and intolerance of uncertainty was not significant (P > 0.05), indicating that the assumption of homogeneity of regression slopes has been met, and the necessary conditions for analyzing the covariance test were satisfied.

The results of the four-variable MANCOVA showed that, with controlling for the effects of pre-test scores, there was at least a significant difference between the experimental and control groups in one of the variables (P < 0.05) (Table 3).

To analyze the data, a univariate analysis of covariance (ANCOVA) was employed. The results of the ANCOVA revealed that, with controlling for the pre-test scores, there was a significant difference between the control and experimental groups in terms of self-compassion (P < 0.001, F = 239.454), body shame (P < 0.001, F = 555.477), and intolerance of uncertainty (P < 0.001, F = 301.050). In other words, the therapeutic schema was effective in enhancing self-compassion, reducing body shame, and mitigating intolerance of uncertainty in cosmetic surgery applicants. Considering the eta-squared index in both control and experimental groups, it can be inferred that 53% of the variance in the difference between the control and experimental groups in the SCS, 63% of the variance in the difference between the control and experimental groups in the body shame scale, and 62% of the variance in the difference between the control and experimental groups in the IUS is attributed to the mutual effect of the independent variable, namely the therapeutic schema (Table 4).

Table 4. Summary of analysis of covariance (ANCOVA) to assess the effect of schema therapy on self-compassion, body shame, and uncertainty intolerance

Variable	Source of variations	SS	df	MS	F	P-value	Eta
Self-compassion	Pretest	148.030	1	148.030	6.996	< 0.001	0.191
	Group	5066.690	1	5066.690	239.454	< 0.001	0.528
	Error	571.303	27	21.159			
Body shame	Pretest	254.891	1	254.891	52.706	< 0.001	0.598
	Group	2686.359	1	2686.359	555.477	< 0.001	0.628
	Error	130.576	27	4.836			
Uncertainty intolerance	Pretest	811.633	1	811.633	25.392	< 0.001	0.441
	Group	9622.836	1	9622.836	301.050	< 0.001	0.614
	Error	863.340	27	31.964			

SS: Sum of squares; df: Degree of freedom; MS: Mean squares

Discussion

The present research aimed to investigate the effectiveness of schema therapy on self-compassion, body shame, and intolerance of uncertainty in women seeking cosmetic surgery. The results of the data analysis indicated a significant positive relationship between schema therapy and self-compassion. These findings were consistent with the studies of Erwin et al. (2019), Hosseini & Momen (2022), and Ansari et al. (2020).

In explaining these findings, it can be said that schema therapy focuses on combating maladaptive schemas and replacing them with skilled and authentic cognitive processes and responses on a broad scale. Consequently, this approach contributes to the enhancement of psychological well-being (Ansari, Asgari, Makvandi, Heidari, & Seraj Khorrami, 2020). According to a study by Yang and colleagues, the goal of schema therapy is to understand emotional states, and during the therapeutic process, these emotional needs are somewhat fulfilled, serving as a foundation for strengthening schemas (Irvine et al., 2019).

Maladaptive schemas primarily result from unmet emotional needs, and by changing these schemas, individuals' mindset, including concerns about negative body evaluation, decreases. Schema therapy for self-compassion can play a significant role in influencing behavior and cognition. Self-compassion can reduce these negative experiences and increase self-esteem, leading to improved satisfaction with body image. Self-compassion allows individuals to accept their body's flaws and imperfections, preventing self-blame for not achieving unattainable cultural beauty ideals, ultimately leading to a desirable perception of body image (Hosseini & Momen, 2022).

Considering the obtained results, it is evident that schema therapy has a significant negative relationship with body shame. The current research results align with the studies of Ansari et al. (2020), Taheri et al. (2022), and Walker et al. (2021). In explaining this finding, it can be stated that schema therapy helps individuals seeking cosmetic surgery to have a better understanding of themselves instead of feeling ashamed, allowing them to modify their cognitive, emotional, and behavioral processes. This leads to a more compassionate self-perception and improvement in distress levels in these individuals (Taheri, Marashi, Hamid, & Beshlideh, 2022).

The present research demonstrates that schema therapy has a significant negative relationship with intolerance of uncertainty in individuals seeking cosmetic surgery. The search results indicate that there is no direct research on the impact of schema therapy on intolerance of uncertainty in women seeking cosmetic surgery. However, studies by Rezaeifard et al. (2022), Inman et al. (2023), and Nedaei et al. (2023) showed that schema therapy was effective in regulating intolerance of uncertainty in individuals with anxiety and depression. Moreover, the difficulty in tolerating uncertainty may be related to the tendency to believe that uncertainty itself is distressing and undesirable and that one should avoid it. In social situations where individuals are evaluated, the characteristic of these situations is often ambiguous and unpredictable. Therefore, when individuals find themselves in unclear, ambiguous, and unpredictable situations, they experience stress, and they may likely interrupt the task they intended to perform in such conditions. However, this feature cannot be observed in individuals seeking cosmetic surgery because these individuals feel uncomfortable due to shame about their physical condition. Therefore, with schema therapy and changing the individual's schemas, it is possible to address anxiety and intolerance of uncertainty effectively.

In conclusion, schema therapy appears to be a promising intervention for women seeking cosmetic surgery, as it positively influences self-compassion, reduces body shame, and decreases intolerance of uncertainty. The findings of this study contribute to the growing body of literature supporting the effectiveness of schema therapy in enhancing psychological well-being and addressing specific challenges in individuals seeking cosmetic surgery.

Conclusion

The results indicated the effectiveness of schema therapy on self-compassion, body shame, and intolerance of uncertainty in women seeking cosmetic surgery. The limitations of the present study included the restricted sample population, consisting only of women, which diminishes the generalizability of the research findings. Additionally, non-cooperation of some women participating in the study was another constraint.

It is recommended that to enhance the generalizability of future research, studies should include both women and men simultaneously to allow for findings that apply to both genders. Furthermore, to prevent unnecessary cosmetic surgeries, standard psychological assessments should be implemented without relying on any external physical indicators. This approach effectively reduces the number of unnecessary cosmetic procedures.

In conclusion, the study suggests that implementing psychological assessments as a standard practice can be effective in minimizing unnecessary cosmetic surgeries. Additionally, incorporating both genders in future research will contribute to the broader generalizability of findings.

Conflict of Interests

Authors have no conflict of interests.

Acknowledgements

All the participants in this research are thanked and appreciated.

References

Aghasi, M., & Tizdast, T. (2021). A comparison of self-compassion and self-efficacy in people with and without cosmetic surgery. *Health Psychology and Social Behavior*, *1*(2), 89-104.

Ansari, S., Asgari, P., Makvandi, B., Heidari, A., & Seraj Khorrami, N. (2020). Effectiveness of schema therapy in psychological distress, body image, and eating disorder beliefs in patients with anorexia nervosa. *Avicenna J Neuro Psycho Physiology*, *7*(3), 184-189. doi:10.32592/ajnpp.2020.7.3.107 [doi]

Coffman, K. L., Dean, E. A., & Zwiebel, S. J. (2022). Body image and facial transplantation. In P.C. Zimbrean, Y. Sher, C. Crone, & A. F. DiMartini (Eds.), *Transplant psychiatry: A case-based approach to clinical challenges* (pp. 79-90). Cham: Springer International Publishing.

Darajati, A. A., & Rezaee, O. (2023). Predicting the symptoms of body dysmorphic disorder based on the amount of use of social networks and defense mechanisms in the clients of cosmetic surgery centers. *Rooyesh-e-Ravanshenasi*, *11*(11), 63-72.

Di Gesto, C., Nerini, A., Policardo, G. R., & Matera, C. (2022). Predictors of acceptance of cosmetic surgery: instagram images-based activities, appearance comparison and body dissatisfaction among women. *Aesthetic.Plast.Surg*, *46*(1), 502-512. doi:10.1007/s00266-

021-02546-3 [pii];2546 [pii];10.1007/s00266-021-02546-3 [doi]. Retrieved from PM:34477907

Eftekhar , T., Hajibabaei , M., Deldar, P., Rahnama , P., & Montazeri , A. (2019). Sexual quality of life, female sexual function, female genital self- and body image among women requesting genital cosmetic surgery: A comparative study. *Psychology & Sexuality, 10*(2), 94-100. doi:10.1080/19419899.2018.1552187 [doi].

Ghadampour, E., Bagheri, N., Tanha, Z., & Tavakoli, Z. (2022). Comparison of the efficacy of positive psychotherapy and schema therapy on cognitive flexibility and physical self-esteem in women seeking cosmetic surgery. *The Journal of Psychological Science, 21*(115), 1143.

Hashemian, M., Aflakseir, A., Goudarzi, M., & Rahimi, C. (2021). The relationship between attachment styles and attitudes toward body image in high school girl students: The mediating role of socio-cultural attitudes toward appearance and self-acceptance. *Research in Cognitive and Behavioral Sciences, 11*(2), 1-26. doi:10.22108/CBS.2022.131524.1598 [doi].

Hosseini, S. M., & Momen, F. (2022). Investigating the Relationship between self-compassion and body management in women. *Research of Womens, 6*(1), 23.

Inman, M. L., Johansen, D., & Sherman, D. (2023). Church Affirmation Moderates the Relationship Between Weight-Rejection-Sensitivity and Body Dissatisfaction in Young Adults in the USA. *J Relig.Health, 62*(4), 2585-2608. doi:10.1007/s10943-022-01688-1 [pii];10.1007/s10943-022-01688-1 [doi]. Retrieved from PM:36372833

Irvine, K. R., McCarty, K., McKenzie, K. J., Pollet, T. V., Cornelissen, K. K., Tovee, M. J. et al. (2019). Distorted body image influences body schema in individuals with negative bodily attitudes. *Neuropsychologia., 122*, 38-50. doi:S0028-3932(18)30760-7 [pii];10.1016/j.neuropsychologia.2018.11.015 [doi]. Retrieved from PM:30500663

Jones, K. M., Brown, L., Houston, E. E., & Bryant, C. (2021). The role of self-compassion in the relationship between hot flushes and night sweats and anxiety. *Maturitas., 144*, 81-86. doi:S0378-5122(20)30428-X [pii];10.1016/j.maturitas.2020.11.001 [doi]. Retrieved from PM:33358213

khabbaz sabet, s., poladi Rishehri, A., keykhosrovani, m., & Bahrani, M. (2023). The relationship between tendency to cosmetic surgery with negative body image and irrational beliefs in women applying for cosmetic Surgery: Mediation role of cognitive emotion regulation. *Health Psychology, 11*(44), 31-50. doi:10.30473/hpj.2022.60727.5327 [doi]

Lowe-Calverley, E., & Grieve, R. (2021). Do the metrics matter? An experimental investigation of Instagram influencer effects on mood and body dissatisfaction. *Body Image., 36*, 1-4. doi:S1740-1445(20)30406-X [pii];10.1016/j.bodyim.2020.10.003 [doi]. Retrieved from PM:33099189

Nedaei, A., Gavi, H., Sheykholeslami, A., & Sadri Damirchi, E. (2023). The effectiveness of emotional schema therapy on the intolerance of uncertainty and the difficulty of emotion regulation in people suffering from comorbid depression and anxiety. *Shenakht Journal of Psychology and Psychiatry, 10*(1), 103-115. doi:10.32598/shenakht.10.1.103 [doi].

Oveisi, H., Monirpour, N., & Zargham Hajebi, M. (2023). Model of ego strength based on the object relations and mediating role of the personality organization in people applying cosmetic head and face surgery. *Rooyesh-e- Ravanshenasi, 12*(1), 145-154.

Pullmer, R., Chung, J., Samson, L., Balanji, S., & Zaitsoff, S. (2019). A systematic review of the relation between self-compassion and depressive symptoms in adolescents. *J Adolesc, 74*, 210-220. doi:S0140-1971(19)30097-1 [pii];10.1016/j.adolescence.2019.06.006 [doi]. Retrieved from PM:31254780

Rabeei, M., Mashayekh, M., Hatami, M., Zam, F., & Shabani, S. (2023). Comparing of the effectiveness of schema therapy and self-compassion-based therapy on feelings of loneliness, negative body image, and sensitivity to rejection in women applying for

cosmetic surgery. *Middle Eastern Journal of Disability Studies, 13*, 53. Retrieved from http://jdisabilstud.org/article-1-2962-en.html

Rezaeifard, A., Mazraeh, N., Khodarahimi, S., Giski, M. M., & Rasti, A. (2022). The effect of group-based emotional schema therapy on anxiety sensitivity and anxiety severity in outpatient females with generalized anxiety disorder. *Journal of Evidence-Based Psychotherapies, 22*(1), 39-54.

Sarwer, D. B. (2019). Body image, cosmetic surgery, and minimally invasive treatments. *Body Image., 31*, 302-308. doi:S1740-1445(18)30555-2 [pii];10.1016/j.bodyim.2019.01.009 [doi]. Retrieved from PM:30704847

Taheri, A., Marashi, S. A., Hamid, N., & Beshlideh, K. (2022). The effectiveness of compassion focused therapy on psychological well-being and meaning in life of mothers of children with intellectual- developmental disorder. *Iranian Journal of Psychiatry and Clinical Psychology, 28*(1), 20-33.

Walker, C. E., Krumhuber, E. G., Dayan, S., & Furnham, A. (2021). Effects of social media use on desire for cosmetic surgery among young women. *Curr Psychol, 40*(7), 3355-3364. doi:10.1007/s12144-019-00282-1 [doi]. Retrieved from https://doi.org/10.1007/s12144-019-00282-1

Wang, Y., Qiao, X., Yang, J., Geng, J., & Fu, L. (2023). "I wanna look like the person in that picture": Linking selfies on social media to cosmetic surgery consideration based on the tripartite influence model. *Scand.J Psychol, 64*(2), 252-261. doi:10.1111/sjop.12882 [doi]. Retrieved from PM:36321668

Wu, Y., Alleva, J. M., Broers, N. J., & Mulkens, S. (2022). Attitudes towards cosmetic surgery among women in China and the Netherlands. *PLoS One, 17*(4), e0267451. doi:PONE-D-21-33471 [pii];10.1371/journal.pone.0267451 [doi]. Retrieved from PM:35446909

Yakin, D., Gencoz, T., Steenbergen, L., & Arntz, A. (2019). An integrative perspective on the interplay between early maladaptive schemas and mental health: The role of self-compassion and emotion regulation. *J Clin Psychol, 75*(6), 1098-1113. doi:JCLP22755 [pii];10.1002/jclp.22755 [doi]. Retrieved from PM:30735580

Yilmaz, Z., Gottfredson, N. C., Zerwas, S. C., Bulik, C. M., & Micali, N. (2019). Developmental premorbid body mass index trajectories of adolescents with eating disorders in a longitudinal population cohort. *j Am.Acad.Child Adolesc Psychiatry, 58*(2), 191-199. doi:S0890-8567(18)32042-2 [pii];10.1016/j.jaac.2018.11.008 [doi]. Retrieved from PM:30738546