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# Investigating the Relationship Between Self-Esteem and Body Image Concern and Self-Compassion in Women with Female Pattern Hair Loss

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| ARTICLE INFO | ABSTRACT |
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| | The aim of the present study was to investigate the relationship between self-esteem body image concern and self-compassion in women with hair loss with a female pattern, in this study descriptive-correlation method was used, and the statistical population of this study includes all women with hair loss. It was with a female pattern that they referred to the Runic Skin and Hair Clinic in Qazvin City in the spring of 1402, and the statistical sample of the present study included 300 women with female pattern hair loss who were selected by available sampling. Rosenberg self-esteem scale (RSES), body image concern questionnaire (BICI) and self-compassion scale short form (SCS-SF) were used to collect data. After distributing and completing the questionnaires, the samples were collected and scored. The results showed that self-esteem has a negative and statistically significant relationship with concern about body image in women with hair loss with a feminine pattern, and self-esteem has a statistically significant positive relationship with self-compassion in women with hair loss with a feminine pattern (05/05). 0>P). |

## 1. **Introduction**

Female androgenetic alopecia or female pattern hair loss is one of the most common types of hair loss in women (Müller et all, 2023). FPHL is characterized by the progressive shrinking of hair follicles and loss of hair density, mainly in the central parietal area of the scalp (Ramos et all, 2015). FPHL is a common hair loss disorder, but with age, 55% of women over 70 years of age experience significant pattern hair loss, and severe disease progression occurs during adolescence in a small number of patients. Typically, FPHL reaches a first peak during the reproductive years and a second peak after menopause (Bertoli et al., 2020). In a Brazilian study, it was found that 68% of women between the ages of 20 and 29 have hair loss (Tsutsui et al., 2022; Chaikittisilpa et al., 2022). reported the prevalence of female pattern hair loss of 2.52% in postmenopausal women with an average age of 58 years. Interestingly, the prevalence of FPHL also varies by location and ethnicity. For example, a prevalence analysis of a student population showed that the overall prevalence of FPHL among high school girls was 28.6%, which was significantly higher in rural than urban areas and significantly associated with family history (Youssef et al., 2022).

On the other hand, androgenetic alopecia can have a significant effect on a person's appearance and self-esteem (Kranz et al., 2019). For women, thick and healthy hair signifies a sense of self-esteem, and self-confidence, shows their ability to change, and security, and implies social interaction. These elements, which are associated with the chronicity of the disease and its treatment resistance, have an important negative impact on the quality of life of women (Shimizu et al., 2018). The results of Bayani et al.'s research (1402) showed that the self-esteem of candidates and non-candidates for hair mesotherapy has a statistically significant difference. Having long and thick hair results in a more beautiful effect for women, the issue of hair loss in can bring more destructive psychological consequences to them, among these consequences can be the loss of self-esteem in women suffering from hair loss. hair, because they feel that they have lost their beautiful appearance by losing a large part of their hair (Bayani et al., 1402). Self-esteem arises from the sense of value and confidence that a person has in himself and his abilities, therefore, self-esteem is a type of personal evaluation that causes a person to pay attention to himself (Ravary and Baldwin, 2018).

Hair loss not only affects aesthetics but also strongly affects the psychological state of people (Alessandrini et al., 2021). Extensive scientific research shows that alopecia affects patients' perception of their body image and significantly reduces their self-confidence (Masood, 2023). Patients who have changes in their physical appearance experience many cognitive changes, including dissatisfaction with their appearance, running away from themselves, and negative thoughts towards themselves (Avis et all, 2004). In this regard, Ayat-Elahi et al. (1401) show that hair loss may lead to dissatisfaction with appearance. Also, the results of Adil and Godwin's research (Adil and Godwin, 2017) indicate that androgenetic alopecia creates a feeling of decreased attractiveness in patients. Body image is actually a person's perception of the size and proportion of the body, which is associated with other people's thoughts, feelings, and views of his body. The term body image refers to people's cognitive evaluation of their bodies (Banfield et all, 2002).

Another variable that can be investigated in women suffering from hair loss with the feminine pattern is self-compassion. (Neff, 2003) defined self-compassion as self-kindness shared humanity, and mindfulness. He introduced the concept of facing one's own personal pain, not avoiding or disconnecting from it, and developing a desire to alleviate this suffering and heal oneself with kindness. Self-compassion or self-love helps adult women to accept more of their bodies, and together with other components of self-compassion, they create perceptions of themselves and their physique for the individual in relation to others, which improve the body image relationship. And confidence helps. In this way, women who love themselves value themselves more (Pisitsungkagarn et all, 2014). Self-compassion may increase women's ability to appreciate their bodies, thereby promoting body acceptance and respect regardless of their imperfections (Stapleton et all, 2017). Hair loss has many psychological and social effects for affected people, especially women, since this problem is not malignant, its annoying conditions are ignored. Therefore, examining the psychological aspects of hair loss in women can bring psychological and physical care for women,

based on this, the present study aims to investigate the relationship between self-esteem and self-compassion and concern about body image in women with hair loss. The hair was done with a feminine pattern.

theories
•Self-esteem is related to body image concerns in women with female-pattern hair loss.
•Self-esteem is related to self-compassion in women with female-pattern hair loss.


## Research Method
In this research, the descriptive-correlation study method was used.

Statistical population and sample
The statistical population of this research included all women suffering from female pattern hair loss who visited the Ronic Skin and Hair Clinic in Qazvin city in the spring of 1402, and the statistical sample of the current study included 300 women suffering from female pattern hair loss. were selected as available sampling.

## Tools
Self-esteem scale
The Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) was created in 1965. The scoring of this scale is based on a 4-point Likert scale, in which a score of 4 is given to the answer to completely agree and 1 is given to completely disagree. In the research (Greenberger et all, 2003), the reliability of this scale using the internal consistency method was 0.84 and the retest method was 0.84 after two weeks, and 0.67 after 5 months. In their research, it has also been stated that this scale has a significant negative relationship with the subscale of neuroticism and with the subscales of extroversion, empiricism, and duty-based from the Neo personality questionnaire, and not with the subscale of agreement, these results indicate validity. Convergent and divergent averages and suitable for this scale. In the research (Rajabi and Bahloul, 2016) for the reliability of this scale, the internal consistency coefficients of the items in the entire student sample were 0.84, male students 0.87, and female students 0.80. The correlation coefficients between each of the items of the scale with the total score of the items varied from 0.56 to 0.72 and all were significant at the P<0.001 level. In their research, the analysis between the above scale and the death obsession scale showed -0.34 in the whole sample, -0.44 in male students, and -0.27 in female students, which indicates the divergent validity of Rosenberg's self-esteem scale.


## Body Image Concern questionnaire
The Body Image Concern Questionnaire (BICI) was designed by (Littleton et al, 2005). The scoring of this questionnaire is based on a 5-point Likert scale so that the answer of never is given a score of 1 and always a score of 5. In this research, the reliability of this questionnaire was checked by the internal consistency method and Cronbach's alpha coefficient was 0.93. In their research, the convergent validity of this tool was checked by calculating its correlation coefficient with the Padova Obsessive Compulsive Questionnaire and the Eating Disorders Questionnaire, and its correlation coefficients with these tools were 0.62 and 0.40, respectively, in Mohammadi and Sajjadinejad's research. (2009) Cronbach's alpha coefficient of 0.84 and the result of factor analysis using the oblique rotation method and based on the Scree test, in total, all the questions explained 39.88% of the total variance of the test.

Compassion scale
The Self-Compassion Scale Short Form (SCS-SF) has 12 questions that were designed by (Raes et all, 2011). The scoring of this scale is using a 5-point Likert scale in such a way that a score of 1 is assigned to the answer "never" and "always" is assigned a score of 5. The reliability of this scale was reported to be 0.86 alpha coefficient and 0.97 correlation coefficient with the long form. In their research, after analyzing the confirmatory factor, they stated that the version of 12 questions is a suitable alternative to the long version of self-compassion. In Shahbazi et al.'s research (2014), the reliability of this scale using Cronbach's alpha was reported as 0.91 for the whole. In their research,

the concurrent validity coefficients of this scale with the general health questionnaire were significant from -0.28 to -0.48.

Data analysis methods

SPSS 26 software and descriptive and inferential tests were used to analyze the data. In descriptive statistics, frequency distribution, mean and standard deviation were used, and to test the research hypotheses, statistical tests of multiple regression analysis using stepwise method and Pearson's correlation coefficient were used.

## Findings

**Table No. 1. Descriptive statistics**

| The standard deviation | Average | the most | the least | Number | Variable |
|---|---|---|---|---|---|
| 2/956 | 24/93 | 33 | 17 | 300 | Self-esteem |
| 8/413 | 56/78 | 79 | 37 | 300 | Body image concerns |
| 7/203 | 35/16 | 53 | 19 | 300 | Self-compassion |

According to table number 1, the average level of self-esteem in women with hair loss is 24.93, self-compassion is 35.16, and concern about body image is 56.78.

**Table No. 2. Summary of self-esteem regression analysis**

| $R^2$ Adjusted | $R^2$ | R | Predictor variable | Model | Criterion variable |
|---|---|---|---|---|---|
| 0/131 | 0/134 | 0/366 | Body image concerns | 1 | Self-esteem |
| 0/197 | 0/202 | 0/450 | Body image concerns and self-compassion | 2 | |

Table No. 2 shows that both predictive variables have been able to enter the equation and have a significant contribution in predicting self-esteem according to the amount of explained variances.

**Table No. 3. Results of variance analysis of self-esteem**

| P | F | MS | df | SS | Sources Change | Model |
|---|---|---|---|---|---|---|
| 0/000 | 46/117 | 350/043 | 1 | 350/043 | regression | 1 |
| | | 7/590 | 298 | 2261/906 | Remaining | |
| | | – | 299 | 2611/949 | Total | |
| 0/000 | 37/690 | 264/365 | 2 | 528/731 | regression | 2 |
| | | 7/014 | 297 | 2083/219 | Remaining | |
| | | – | 299 | 2611/949 | Total | |

Table No. 3 shows the results of the variance analysis of self-esteem according to the variables of body image concern and self-compassion. The significance levels of both models are less than 0.05 and therefore the explained variance ratios in each model are statistically significant.

**Table No. 4. Regression coefficient of predictor variable in the model**

| P | t | Beta | SE | B | Predictive variables | Model |
|---|---|---|---|---|---|---|
| 0/000 | 29/562 | – | 1/087 | 32/233 | The constant of Eq | 1 |
| 0/000 | –6/791 | –0/366 | 0/019 | –0/129 | Body image concerns | |
| 0/000 | 20/341 | – | 1/366 | 27/790 | The constant of Eq | 2 |
| 0/000 | –6/397 | –0/334 | 0/018 | –0/117 | Body image concerns | |
| 0/000 | 5/047 | 0/264 | 0/021 | 0/108 | Self-compassion | |

**Table number 5. Pearson's correlation coefficient**

| Self-compassion | Body image concerns | statistics | Variable |
|---|---|---|---|
| 0/304 | –0/366 | The correlation coefficient | Self-esteem |
| 0/000 | 0/000 | Significance level | |
| 300 | 300 | Number of subjects | |

According to table number 5, the observed correlation coefficient for self-esteem and concern about body image is equal to -0.366 and the significance level is 0.000, and thus, with 95% confidence, we can say that there is a statistically significant relationship between self-esteem and concern about body image. There is. This relationship is inverse. On the other hand, the observed correlation coefficient for self-esteem and self-compassion is equal to 0.304 and the significance level is 0.000, and as a result, there is a statistically significant relationship between self-esteem and self-compassion, and this relationship is positive.

**Discussion**

According to what was mentioned, the following research was aimed at investigating the relationship between self-esteem, concern about body image and self-compassion in women suffering from hair loss with a female pattern. The female pattern was determined in the spring of 1402 when they referred to the Runic Skin and Hair Clinic in Qazvin city, and the statistical sample of the research included 300 women with female pattern hair loss who were selected through available sampling. Ronberg self-esteem scale (RSES), body image concern questionnaire (BICI) and self-compassion scale short form (SCS-SF) were used to collect data. After analyzing the scores, the results showed that self-esteem has a negative and statistically significant relationship with concern about body image in women with hair loss with a female pattern, and self-esteem with self-compassion in women with hair loss with a female pattern has a positive and statistically significant relationship. has it.

As the results showed, self-esteem and concern about body image in women with hair loss have a negative and statistically significant relationship with the female pattern. The result of this hypothesis is in line with the results of the following researches: (Liu et all, 2018) The results of the research mentioned that hair transplantation in men significantly increased the level of self-esteem and satisfaction with the appearance of patients. (Poot, 2004) stated in his research that patients with alopecia have lower self-esteem, quality of life and weaker body image. Self-esteem is closely related to appearance satisfaction (von Soest et all, 2009; Cash et all, 2002). The level of self-esteem is closely related to satisfaction with appearance, and many patients expect to increase their self-esteem through cosmetic surgery (Alfonso et all, 2005). Recently, studies have shown that cosmetic surgery not only improves physical appearance, but also increases self-esteem and builds self-confidence (von Soest et all, 2009; Cash et all, 2002).

To explain this finding from the research, it can be said that the body and dissatisfaction with it has become one of the most important concerns and preoccupations in the lives of girls and women (Ronoq Shashkalani et al., 2017). Hair is considered an important component of aesthetics for

women, hair loss with a female pattern also causes thinning and thinning of the hair, which reduces the beauty of the appearance of the hair to a part that can Dissatisfaction with the body image in women suffering from hair loss, and as a result, it causes them to withdraw from the society, and the continuation of this reduces their self-esteem, for another explanation of this research finding, this can be done. He stated that the intense worry of negative evaluation by others causes a decrease in satisfaction with the body image, and a person is faced with the question of whether my value is affected by my appearance and whether this appearance is acceptable. And this concern about body image continues to increase and causes a decrease in self-esteem in women with female pattern hair loss, and therefore self-esteem has a negative relationship with body image concern in women with female pattern hair loss.

On the other hand, the results showed that self-esteem and self-compassion in women with hair loss have a positive and statistically significant relationship with the female pattern, the result of this hypothesis is in line with the results of the following researches: the result of the research (Gandhi et al. 2023) showed that patients with alopecia areata experience psychological and psychosocial symptoms including depression, anxiety, anger, social withdrawal, embarrassment and low self-esteem. The research (Gilbert and Irons, 2005) on the relationship between self-esteem and compassion shows that positive self-esteem with positive value towards oneself helps to raise one's social position in interpersonal and social relationships, and the quality of compassion It increases kindness towards oneself. (Pisitsungkagarn et all, 2014) also showed that positive self-emotions are related to self-worth and better self-care.

In explaining this finding of the research, it can be stated as follows:

that people who have high self-compassion have a balanced and clear awareness of their experiences and hardly criticize themselves for their failures or not reaching their standards, and in fact ignore the painful aspects of their feelings or experiences taken and they do not ruminate (Neff and Vonk, 2009). In women with hair loss, when these women have self-compassion, they do not judge themselves too harshly for their hair loss, they do not use other people's feedback as a criterion for their own judgment, and problems arise. They accept their hair more easily and do not consider themselves worthless because of this, and they do not consider their value based on their appearance, on the contrary, if they have low compassion, they consider the components of their own and others' judgments about their appearance as proof of their value. They themselves know, so it can be concluded that self-esteem is related to self-compassion in women with female hair loss.

## Offers

It is suggested to other researchers and researchers in their investigations and future studies in the society of women suffering from hair loss with a feminine pattern to investigate the relationship between external factors and variables and their effective role on self-esteem because it seems that these factors, along with other factors, can be a good predictor of self-esteem. Psychotherapists and counsellors are also suggested to have a special look at women suffering from female pattern hair loss, because so far not enough research has been done on this community and their psychological problems remain hidden, and since Women are psychologically more vulnerable than men, so more attention should be paid to the factors affecting their mental health.

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