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**The Reciprocal Interactions between
Narcissism, Appearance Schemas, and
Body Quality of Life in Women by Age**

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Abstract:

Narcissism has a promising impact on the lifestyle of a woman. This study has been designed to evaluate the cognitive process regarding their narcissistic approach using three questionnaires. A total of 408 participants have been recruited by snowball sampling method. They provided paper-based questionnaires after acquiring proper consent and delivering the objectives of the study. Data analysis has been completed using SPSS software. Results indicated a major impact of age on the opinions of women related to their appearance based on grandiose narcissism. Scheffe test shows a significant difference between BIQLI of the four age groups. There has a great correlation among the variables Narcissistic Admiration and Rivalry Questionnaire (NARQ), Appearance Schemas Inventory- Revised (ASI- R), and Body Image Quality of Life Inventory (BIQLI). It has been observed that BIQLI has a negative relation with the NARQ. This research would be beneficial in a way to evaluate the psychological nature of the women and its effects on their appearance, as well as it has provided significant results by comparing variables of three different measuring standards of perception of body image.

Keywords: Narcissism, Appearance Schemas, Body quality of life.

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المستخلص

هدفت الدراسة الحالية إلى معرفة العلاقات الارتباطية بين النرجسية، ومخططات المظهر، وجودة حياة صورة الجسم، لدى عينة من الإناث، بالإضافة إلى مقارنة تلك المتغيرات عبر فئات عمرية مختلفة. وتكونت عينة الدراسة من (٤٠٨) أنثى بمدى عمري (٢٠ - ٥٩) سنة، وبمتوسط عمري (٣٦.٩٧)، وانحراف معياري قدره (١٠.٦٢). وتم تقسيم أفراد العينة إلى أربع فئات عمرية. وقد تم ترجمة وتقنين بطارية من المقاييس للتحقق من أهداف الدراسة، وهي: استبيان النرجسية (التنافس/الاعجاب)، قائمة جودة حياة صورة الجسم، وقائمة مخططات المظهر. وتم استخدام الإحصاء الوصفي في تحليل البيانات. وقد انتهت نتائج الدراسة إلى وجود علاقات ارتباطية موجبة دالة بين مخططات المظهر، وجودة حياة صورة الجسم. كما أشارت النتائج إلى وجود فروق ذات دلالة إحصائية بين متغيرات الدراسة تعزى لمتغير الفئة العمرية. وقد تم تفسير ومناقشة النتائج في ضوء الإطار النظري والدراسات السابقة.

الكلمات الدلالية: النرجسية- مخططات المظهر- جودة حياة صورة الجسم.

Introduction:

There is an in- born competition among women due to their appearance and presentation. There is a motive for competing, including the desire of worthier and more admirable than other women. This drive for superiority often develops insecurity, danger, personality deficiency, and jealousy (Tanenbaum, 2011). Young women have faced society's pressure to be slim and smart. According to Markus (1977), self-schemas are the subconscious thought process we use to update personal information and appearance according to our surroundings (Labarge et al., 1998). Suppose a woman thinks negative criticism about her body characteristics and analyzes it unfavorably (e.g., maladaptive appearance schemas). In that case, she may go into depression and become anxious, and lose confidence in her natural appearance. It also disturbs her self- respect and makes her feel minor in front of other ladies (Young, 2007; Loudin & Robinson, 2003; Jones et al., 2012). In actuality, schemas related to personality highlight the importance of the sense of an individual's sense of self (Cash, 2012). Exhibition of manners and looks have ample importance in appearance- schematic person, and they also judge themselves (Young, 2007). These individuals produce a more detailed appearance in which their thoughts revolve around their presentation's self- evaluation (Tiggemann, 2005; Cash et al., 2005; Tiggemann et al., 2004).

Women attach themselves to 'self- objects' which they regard as perfect. They give specific attention to personal appearance and desire to display it. Earlier studies highlight the relationship of narcissism with positive body image, but their limitations include treating narcissism as a homogenous factor. Recently, studies referred to two detailed aspects of narcissism: grandiose and vulnerable. The first appears as the image of grandiosity, superiority, and supremacy, while the vulnerable narcissism disguises the feelings of insufficiency and negativity by considering a bit more uncertain and defensive grandiosity (Swami et al., 2015). Grandiose narcissism provides admiration and rivalry concepts in which the major goal is maintaining a splendor image of oneself. Attempts of being eccentric due to the cognitive thoughts of oneself amplified through admiration

strategy. Its outcomes include admirable social status, a charismatic personality, and being an important person in society. Rivalry strategy includes devaluing others' status by commanding their ways of living and belittling their achievements and status. Its consequences could be refusal, being unworthy, and distrust (Król et al., 2022). Those individuals with the responsive presentation of maintained information regarding themselves, known as self- schema, are more directed towards the presented characteristics of their body than those without schemas. These women rely on their appearance and evaluate themselves according to information about the particular domain. They greatly demanded appearance- related information and calibrated the presentation according to their idealized personality (Jung & Lee, 2006).

Women have to endure certain pressures to achieve their desirable standards, as they could go too far to gain impossible standards. Their appearance and body image has influenced their thoughts and feelings. Researchers have mentioned that there is an impact of natural attributes on the self- perception of presentation. This study aimed to recognize the effects of Narcissistic admiration and rivalry on body image perception. The purpose of this study was to elaborate on the perception of body image among women of different age groups.

Hypothesis:

After going through the literature review regarding narcissism, schema of appearance, body quality of life, and its prevalence in women of different age groups, we found some research gaps that had to be addressed to explain the nature of self- perception oneself. The research questions which were catered in this study are:

- The impact of reciprocal interactions between narcissism, appearance schemes, and the body's quality of life.
- A comparison between females in different age groups concerning the variables of narcissism, appearance schemes, and the body's quality of life.
- Correlations between narcissism, appearance schemes, and the body's quality of life.

- The possibility of predicting the body's quality of life as a dependent variable through narcissism (independent variable) and schema (independent variable).

Eventually, it was hypothesized that there is a strong correlation between narcissism, appearance schema, and the body's quality of life, and women from the young age bracket had a more positive attitude towards their variables. All of the variables had a major effect on each other, and narcissism and appearance schema had a prominent impact on the body's quality of life.

Method:

This study comprises a cross- sectional comparative survey among women of different age groups. The sample size is 408. It is divided into four groups based on their age (20- 29, 30- 39, 40- 49, and 50- 59). Every participant has been examined and none have been presented with any eating disorder or prior history and treatment of eating disorder. The respondents have been asked for their consent to participate in this survey before starting the questionnaires and they have been informed that the survey requires their opinion about their perceptions of body image across the life.

Instruments:

Three questionnaires have been translated into the Arabic language through the back- translation technique.

1-NarcissisticAdmirationand Rivalry Questionnaire (NARQ, Back et al., 2013):

The NARQ is an 18- item scale that assesses grandiose narcissism and separates it into admiration and rivalry components. The aggressive part of narcissism is represented by narcissistic adoration (9 items), and the hostile aspect is represented by narcissistic rivalry (9 things). Each dimension distinguishes between three subscales, each of which is measured by three items and contains information on the affective- motivational, cognitive, and psychological dynamics of narcissists. Grandiosity, the pursuit of originality, and charm are subscales of admiration. Devaluation, aiming for supremacy, and aggression are the subscales of rivalry. Respondents were allowed to respond to these statements on a 6- point scale

ranging from 1 (not agree at all) to 6 (agree at all) (Back et al., 2013).

2- The Body Image Quality of Life Inventory (BIQLI, Cash& Fleming, 2002a):

The BIQLI is a self- report instrument that assesses how one's body image and particular thoughts about their looks affect several facets of their life. There are 19 questions total, which measure the following domains: "life in general, emotional states, same and other sex relations, eating and exercise, grooming activities, sexual experiences, and family and work/school contexts." The content of the item represents the areas or situations where body image has been determined to be important. On a 7- point Likert scale, the effects of those elements are rated from +3 (extremely positive effect), 0 (no influence), and 3 (very negative effect). The mean of all 19 questions is used to create the BIQLI's composite score, with a higher score signifying a more positive effect of body image on the life of an individual.

It has a raised internal consistency (Cronbach's $\alpha = 0.95$), validity of items (correlations of 0.45–0.86), and a high stability for a few weeks test period (test–retest reliability = 0.79). It is a one- dimensional scale (Cash et al., 2002b).

3- The Appearance- Schemas Inventory- Revised (ASI- R; Cash et al., 2004a):

The ASI- R is a 20- item self- report questionnaire that was used to measure body image investment including particular thoughts and assumptions regarding the significance, meaning, and impacts of appearance in life. The items comprised of two subscales: Self- Evaluative Salience (SES; 12 items) and Motivational Salience (MS; 8 items). Self- Evaluative salience reflects how people consider that their physical appearance elaborates their self- worth. In other words, how people consider physical appearance to be crucial in their social and emotional experiences.

Motivational salience assesses motivation for the management of one's appearance. It determines how much people take care of their looks and act according to their

appearance. Participants select items on a 5- point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

The ASI- R provides two subscale scores and a total score. A total ASI- R score can be calculated by calculating the mean of all 20 statements, in which higher scores provide high levels of overall dysfunctional schematic investment in appearance. A higher SES score determines a higher investment in physical presentation, whereas a greater MS score explains a higher engagement in appearance management behaviors. According to Cash, Melnyk, and Hrabosky (2004), the internal consistencies of the ASI- R were up to the limit. For the total score, the alpha value was .88 for women and .90 for men.

The Self- Evaluative Saliency was .82 for women and .84 for men and the Motivational Saliency was .90 for women and .91 for men (Cash et al., 2004b).

Procedures

The printed version of the questionnaires was delivered to the participants of the research. The questionnaire starts with a welcome note which comprises the aims and objectives of the research project, an estimated time frame for the completion of the questionnaire, a description of the voluntary type of participants, and the confidentiality and anonymity of the responses of the participants. The method of sampling used was the snowball technique.

In this technique initially, the reach of the survey would be increased by accessing the new members via existing participants. In this study, several respondents had referred the researchers to other women which assist in completing the sample size. To answer this study's research questions, a statistical analysis was conducted using IBM Statistical Package for Social Sciences (SPSS) statistics.

Results

The sample age has been divided into four groups, as mentioned in Table 1. The group with the most participants is G1 (20- 29). The results indicate a clear difference between the opinions of groups as mentioned in Table 2. There is a statistically significant difference.

Table 1. Demographic Data

	Sample	G1 (20-29)	G2 (30-39)	G3 (40-49)	G4 (50-59)
N	408	126	107	92	83
%	100	31	26.2	22.5	20.3
Age	20-59	20-29	30-39	40-49	50-59
M (Age)	36.9730	23.9286	35.4206	43.4457	51.6024
SD ((Age))	10.62734	2.78906	2.51050	2.56075	2.24662

Table 2. ANOVA results of all the variables including BIQLI, ASI-R, ASI-SES, ASI-MS, NARQ, NARQ-A, and NARQ-R

Variables		Sum of Squares	df	Mean of Squares	F	Eta Squared η^2
BIQLI	Between Groups	68.587	3	22.862	273.201***	.670
	Within Groups	33.808	404	.084		
	Total	102.395	407	-		
ASI-R	Between Groups	14.472	3	4.824	144.335***	.517
	Within Groups	13.503	404	.033		
	Total	27.975	407	-		
ASI-R-SES	Between Groups	11.420	3	3.807	54.306***	.287
	Within Groups	28.319	404	.070		
	Total	39.739	407	-		
ASI-R-MS	Between Groups	27.297	3	9.099	164.259***	.549
	Within Groups	22.380	404	.055		
	Total	49.677	407	-		
NARQ	Between Groups	37.128	3	12.376	290.001***	.683
	Within Groups	17.241	404	.043		
	Total	54.368	407	-		
NARQ-A	Between Groups	24.095	3	8.032	94.908***	.413
	Within Groups	34.188	404	.085		
	Total	58.283	407	-		
NARQ-R	Between Groups	62.209	3	20.736	210.742***	.610
	Within Groups	39.752	404	.098		
	Total	101.961	407	-		

It is noted from the results of the previous table that all F values were statistically significant at the level ($p < .001$) for all study variables, and this means that there are significant differences in the study variables due to the age group variable, and the age group plays an important role in causing these differences. To find out the direction of these differences, the researcher conducted the Scheffe test, and the results are shown in the following table:

Table 3. Post hoc Scheffe test to present the direction of changed variables

Variables		Mean Difference			
		G ₁	G ₂	G ₃	G ₄
BIQLI	G ₁	---	-.49427***	-1.12816***	-.36636***
	G ₂		---	-.63390***	.12791*
	G ₃			---	.76181***
	G ₄				---
ASI-R	G ₁	---	-.16281***	-.47914***	-.00876
	G ₂		---	-.31633	.15404***
	G ₃			---	...15404***
	G ₄				---
ASI-R-SES	G ₁	---	-.03681	-.32314***	.17567***
	G ₂	.03681	---	-.28633***	.21249***
	G ₃	.32314***	.28633***	---	.49881***
	G ₄	-.17567***	-.21249***	-.49881***	---
ASI-R-MS	G ₁	---	-.35179***	-.71314***	-.28542***
	G ₂	.35179***	---	-.36135***	.06638
	G ₃	.71314***	.36135***	---	.42773***
	G ₄	.28542***	-.06638	-.42773***	---
NARQ	G ₁	---	-.01852	.20992***	.77003***
	G ₂	.01852	---	.22845***	.78855***
	G ₃	-.20992***	-.22845***	---	.56010***
	G ₄	-.77003***	-.78855***	-.56010***	---
NARQ-A	G ₁	---	.02210	-.04777	.59430***
	G ₂	-.02210	---	-.06987	.57221***
	G ₃	.04777	.06987	---	.64208***
	G ₄	-.59430***	-.57221***	-.64208***	---
NARQ-R	G ₁	---	-.05914	.46762***	.94575***
	G ₂	.05914	---	.526761***	1.000489***
	G ₃	-.46762***	-.52676***	---	-.47813***
	G ₄	-.94575***	-1.00489***	-.47813***	---

It is clear from the results of the previous table that there are significant differences in the BIQLI variable attributed to the age group. The relations of variables of NARQ and ASI- R and with BIQLI have been mentioned in Table 3. They are discussed separately below.

Correlations between ASI- R and BIQLI

The correlation coefficient (r) value between BIQLI and ASI- R is 0.817 which shows a high positive association between these two variables. The p- value is <0.01 which means the relationship is statistically significant. It indicates that BIQLI is directly proportional to ASI- R. Whereas, the relation of BIQLI with SES and MS separately is 0.734 and 0.752 respectively, which shows a moderate association. Their relation is also statistically significant.

Correlations between NARQ and BIQLI

The correlation coefficients (r) between BIQLI and NARQ, NARQ- A, and devaluation are 0.36, 0.425, and 0.440 respectively which represents a low positive association, but statistically significant (<0.01). The correlation coefficients (r) between BIQLI and, rivalry and aggressiveness are 0.254 and 0.120 respectively which shows a negligible correlation with a p- value <0.05 . While the correlation coefficients (r) between BIQLI and, grandiosity and supremacy show a negative correlation, with no statistically significant difference. Also, there is a high positive relation between BIQLI and Charmingness with a correlation coefficient (r) of 0.706, showing a direct relationship between these two variables with a statistically significant difference.

Correlations between NARQ and ASI- R

The correlations between the variables of NARQ and variables of ASI- R mostly have a statistically significant relationship with a moderate positive association (0.3– 0.5). The relation of NARQ, NARQ- A, and Charmingness with ASI- R, SES, and MS is highly positive with a p- value of <0.01 . Some variables of NARQ have a negative association with variables of ASI- R, these include grandiosity, uniqueness, and supremacy. Grandiosity, Uniqueness, and

Supremacy had a negligible correlation with ASI- R and SES and a negative association with MS with no statistically significant relation.

Table 4. Pearson's Correlation among all the variables to identify significant relationship

Correlations													
	BIQ LI_a vg	ASI _R	SES	MS	NA RQ	Adm iratio n	Rival ry	Gr an dio siti y	Uniq ue ness	Char mingn ess	Dev alu tion	Supr emac y	Aggres sivene s
BIQLI avg	1												
ASI_R	.817*	1											
SES	.734*	.946**	1										
MS	.752*	.842**	.622**	1									
NARQ	.369*	.504**	.543**	.314*	1								
Admiration	.425*	.519**	.533**	.367*	.843**	1							
Rivalry	.254*	.393**	.443**	.213*	.918**	.560*	1						
Grandiosity	-.091	.056	.135**	-.089	.617**	.644*	.474*	1					
Uniqueness	.044	.146**	.226**	-.023	.671**	.719*	.503*	.468**	1				
Charmingness	.706*	.621**	.499**	.670*	.133	.307*	-.023	-.389**	-.174**	1			
Devaluation	.440*	.461**	.412**	.429*	.503**	.249*	.590*	-.077	.062	.409**	1		
Supremacy	-.014	.149**	.228**	-.019	.732**	.453*	.793*	.561**	.518**	-.285**	-.135**	1	
Aggressiveness	.120*	.239**	.319**	.046	.759**	.516*	.788*	.554**	.518**	-.181**	.132**	.591*	1

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Table 5. Regression Analysis between independent variables (NARQ and ASI-R) and dependent variable (BIQLI)

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	.818 ^a	.670	.668	.40439

a. Predictors: (Constant), ASI_R, NARQ

As mentioned in the above Table, the R- square value is 0.670. This represents that the independent variables including NARQ and ASI- R cause a 67 % change in the dependent variable i.e. BIQLI.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	134.580	2	67.290	411.491	.000 ^b
1	Residual	66.392	406	.164		
	Total	200.973	408			

a. Dependent Variable: BIQLI_avg

b. Predictors: (Constant), ASI_R, NARQ

In the above- mentioned table, the ANOVA results show that the p- value is 0.000 which is less than 0.05, hence it indicates that there is a significant relationship between our independent variables i.e. NARQ and ASI- R, and, the dependent variable i.e. BIQLI.

Coefficients						
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
	(Constant)	-4.419	.186		-23.806	.000
1	NARQ	-.005	.003	-.058	-1.743	.082
	ASI_R	.070	.003	.846	25.608	.000

a. Dependent Variable: BIQLI_avg

The above- mentioned table shows coefficient results. As mentioned in this table, the beta value for NARQ is- 0.58 which shows a negative relationship between the independent variable i.e. NARQ, and the dependent variable i.e. BIQLI. It shows an inverse relationship between these two variables in which an increase in the value of the independent variable causes a decrease in the value of a dependent variable. The beta value for ASI- R, an independent variable with BIQLI, a dependent variable is 0.846. It indicates that there is an increase of 0.846 units of the dependent variable after increasing the independent variable i.e. ASI- R for 1 unit. It also shows a positive relationship between these two variables.

Discussion

The principal objective of this research is to report the differences in the opinions of women from different age groups through NARQ, ASI- R, and BIQLI questionnaires developed by Back et al., 2013, Cash et al., 2004c, and Cash & Fleming, 2002a respectively. The results show a statistically significant difference between the reviews of women from different age groups. According to Vecchione et al. (2018), it has summarized that there is a positive correlation between the admiration and rivalry components of the NARQ questionnaire. It is also shown in the present study that most of the variables of the NARQ are positively correlated with each other (Vecchione et al., 2018). NARQ, ASI- R, and BIQLI questionnaires have significantly contributed to the study of narcissism, enabling researchers to explore the multidimensional nature of this personality trait. Previous research employing the NARQ has revealed valuable insights into the correlates and consequences of narcissism. Studies have found a positive association between admiration and self- esteem, showing that individuals having high admiration scores tend to have a strong sense of self- worth (Back et al., 2013). According to Besser et al. (2017), ASI- R has consistently found positive associations between higher levels of negative appearance- related quality and narcissism. Narcissistic admiration and rivalry had similar correlations with interpersonal motives. It is also experienced that an aspect of narcissism has been altered due to the influence of other factors

of narcissism. This phenomenon is called the suppression effect (Zeigler- Hill et al., 2021). It was observed by Braitman (2002), that the High Appearance Schematic group had a good score which is higher on the Awareness and Internalization Scales of the Sociocultural Attitudes towards Appearance Questionnaire (SATAQ) than the Low Appearance Schematic group. Negative self- schemas and appearance schemas among women in general as also observed. It has been found that women with low body satisfaction reported more negative self- schemas than those with high body satisfaction (Braitman, 2002). Age has also an important effect on these variables. Younger women had a more inclination towards being narcissists as compared to older women. This factor has also been evaluated in the current study. Main reason behind it is that with life experience and increasing age, women may undergo a shift in priorities and perspective. As they mature, they often develop a deeper understanding of themselves and their relationships, which can lead to increased empathy and decreased narcissistic self- esteem, as they prioritize personal growth, meaningful connections, and contributing to their communities. Well, it is crucial to recognize that the relationship between age and narcissism in women is influenced by cultural factors, individual differences, and also by the parenting styles (Watson et al., 1992; Wilson & Sibley, 2011). These factors vary across different societies and can shape the manifestation of narcissism. Moreover, individual variations in personality, upbringing, and life experiences further contribute to the complexity of the relationship between age and narcissism in women. Narcissistic admiration and rivalry have differential effects on body image and quality of life. Narcissistic admiration, characterized by a positive self- evaluation, may enhance body image quality of life by promoting self- confidence and satisfaction with one's appearance. Conversely, narcissistic rivalry, enabled by competitive tendencies, may diminish body image and quality of life by fostering social comparisons and negative self- evaluations and also related to a greater anxiety but it does not have any effect on public speaking (Manley et al., 2020). Additionally, appearance schemas were found to play an important role. Individuals with positive appearance schemas

tend to experience greater body image quality of life, as they possess more adaptive cognitions, emotions, and behaviors related to their presentation.

Conclusion

This study has provided data regarding the narcissistic approach of women to alter their appearance. It has been concluded that age has a significant impact on this approach. It also shed light on the relative factors among the narcissistic admiration and rivalry, appearance schemas, and body image quality of life variables, most of these variables had a positive association among themselves.

References

- Back, M. D., Küfner, A. C. P., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. A. (2013). Narcissistic admiration and rivalry: Disentangling the bright and dark sides of narcissism. *Journal of Personality and Social Psychology*, 105(6), 1013- 1037. [https://doi: 10.1037/A0034431](https://doi.org/10.1037/A0034431)
- Braitman, K. A. (2002). Relationships among body satisfaction, appearance schemas, early maladaptive schemas, and sociocultural attitudes towards appearance. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 62(10- B), 4835.
- Cash, T. F. (2012). Cognitive- behavioral perspectives on body image. In T. F. Cash (Ed.), *Encyclopedia of body image and human appearance* (pp. 334–342). Elsevier Academic Press. <https://doi.org/10.1016/B978-0-12-384925-0.00054-7>.
- Cash, T. F., Fleming, E. C., Alindogan, J., Steadman, L., and Whitehead, A. (2002a). Beyond body image as a trait: the development and validation of the Body Image States Scale. *Eating disorders*, 10, 103–113. <https://doi.org/10.1080/10640260290081678>.
- Cash, T. F., & Fleming, E. C. (2002b). The impact of body image experiences: Development of the Body Image Quality of Life Inventory. *International Journal of Eating Disorders*, 31(4), 455–460. <https://doi.org/10.1002/eat.10033>.
- Cash, T.F., Jakatdar, T.A., & Fleming- Williams, E. (2004a). The body image quality of life inventory: further validation with college men and women. *Body Image: An International Journal of Research*, 1(3), 279- 287. [https://doi.org/10.1016/s1740-1445\(03\)00023-8](https://doi.org/10.1016/s1740-1445(03)00023-8).
- Cash, T. F., Melnyk, S. E., & Hrabosky, J. I. (2004b). The assessment of body image investment: An extensive revision of the appearance schemas inventory. *International Journal of Eating Disorders*, 35, 305- 316. <https://doi.org/10.1002/eat.10264>.
- Cash, T. F., Thériault, J., & Annis, N. M. (2004c). Body image in an interpersonal context: Adult attachment, fear of intimacy, and social anxiety. *Journal of Social and Clinical Psychology*, 23(1), 89- 103. <https://doi.org/10.1521/jscp.23.1.89.26987>.

- Cash, T.F., Santos, M.T., & Fleming- Williams, E. (2005). Coping with body- image threats and challenges: Validation of the body image coping strategies inventory. *Journal of Psychosomatic Research*, 58(2), 190- 199. <https://doi.org/10.1016/j.jpsychores.2004.07.008>.
- Jones, A. L., Kramer, R. S. S., & Ward, R. (2012). Signals of personality and health: The contributions of facial shape, skin texture, and viewing angle. *Journal of Experimental Psychology: Human Perception and Performance*, 38(6), 1353–1361. <https://doi.org/10.1037/a0027078>.
- Jung, J., & Lee, S. H. (2006). Cross- cultural comparisons of appearance self schema, body image, self esteem, and dieting behavior between Korean and US women. *Family and Consumer Sciences Research Journal*, 34(4), 350- 365.
- Król, T., Wojtyna, E., Hyla, M., Michalik, P., & Michalski, T. (2022). The dark side of sport training. Self- esteem, narcissism and exercise addiction in women's Cross Fit training. *European Review of Applied Psychology*, 72(5), 100814.
- Labarge, A.S., Cash, T.F., & Brown, T.A. (1998). Use of a Modified Stroop Task to Examine Appearance- Schematic Information Processing in College Women. *Cognitive Therapy and Research*, 22, 179- 190. <https://doi.org/10.1023/A:1018732423464>.
- Loudin, J. L., Loukas, A., & Robinson, S. (2003). Relational Aggression in College Students: Examining the Roles of Social Anxiety and Empathy. *Aggressive Behavior*, 29(5), 430–439. <https://psycnet.apa.org/doi/10.1002/ab.10039>.
- Manley, H., Paisarnsriromsuk, N., & Roberts, R. (2020). The effect of narcissistic admiration and rivalry on speaking performance. *Personality and Individual Differences*, 154, 109624.
- Markus, H. (1977). Self- schemata and processing information about the self. *Journal of Personality and Social Psychology*, 42, 38- 50. <https://doi.org/10.1037/0022-3514.35.2.63>.
- Swami, V., Cass, L., Waseem, M., & Furham, A. (2015). What is the relationship between facets of narcissism and women's body image? *Personality and Individual Differences*, 87, 185- 189.

- Tanenbaum, L. (2011). **Catfight: Women and competition**. New York: Seven Stories Press.
- Tiggemann, M, Hargreaves, D, & Polivy, J., & McFarlane, (2004). A word- stem completion task to assess implicit processing of appearance- related information. *Journal of Psychosomatic Research*, 57(1), 73- 78. [https://doi.org/10.1016/S0022-3999\(03\)00565-8](https://doi.org/10.1016/S0022-3999(03)00565-8)
- Tiggemann, M. (2005). Television and adolescent body image: The role of program content and viewing motivation. *Journal of Social & Clinical Psychology*, 24(3), 361- 381. <https://doi.org/10.1521/jscp.24.3.361.65623>
- Vecchione, M., Dentale, F., Graziano, M., Dufner, M., Wetzel, E., Leckelt, M., & Back, M. D. (2018). An Italian validation of the Narcissistic Admiration and Rivalry Questionnaire (NARQ): Further evidence for a two-dimensional model of grandiose narcissism. *BPA- Applied Psychology Bulletin (Bollettino di Psicologia Applicata)*, 66(281).
- Watson, P. J., Little, T., & Biderman, M. D. (1992). Narcissism and parenting styles. *Psychoanalytic Psychology*, 9(2), 231.
- Wilson, M. S., & Sibley, C. G. (2011). 'Narcissism creep?': Evidence for Age- Related Differences in Narcissism in the New Zealand General Population. *New Zealand Journal of Psychology*, 40(3).
- Young, T. R. (2007). The relationship between appearance schemas, self- esteem, and indirect aggression among college women. Oklahoma State University.
- Zeigler- Hill, V., Besser, A., Gabay, M., & Young, G. (2021). Narcissism and exercise addiction: the mediating roles of exercise- related motives. *International journal of environmental research and public health*, 18(8), 4243.