

Received: 30.09.2024

Accepted: 23.10.2024

Published: 27.06.2025

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Narcissism and self-esteem as protective constructs in overweight and non-overweight adults

Narcyzm i samoocena jako konstrukty chroniące u osób dorosłych z nadwagą i bez nadwagi

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doi <https://doi.org/10.15557/PiPK.2025.0004>

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Abstract

Introduction and objective: This study aimed to investigate the relationship between narcissism as a dimension of personality and self-esteem in overweight and non-overweight adults. A secondary aim was to compare narcissism and self-esteem between overweight and non-overweight individuals. **Materials and methods:** A sample of 215 adult participants from the general population aged 18–65 years ($M = 28.62$; $SD = 9.81$) took part in the study. Overweight individuals comprised 44% ($n = 95$) and non-overweight individuals 56% ($n = 120$). The subjects completed two questionnaires (Polish adaptations): the Multidimensional Self-Esteem Inventory – MSEI and the Narcissistic Personality Inventory – NPI. **Results:** The analysis of the data shows that general narcissism correlates positively with general self-esteem in overweight and non-overweight individuals. In both groups, general narcissism correlates positively and strongly with self-esteem components, such as physical attractiveness and leadership ability. There were no significant differences in narcissism and general self-esteem between the two groups. However, non-overweight individuals scored statistically higher on self-esteem components such as competence, moral self-acceptance, body appearance and vitality. **Conclusions:** The results suggest psychological implications for working with overweight and non-overweight individuals in dealing with standards of thinness in sociocultural narcissism. In this context, it is recommended to strengthen beliefs in competence i.e. abilities, skills, uniqueness, and effectiveness in performing tasks, providing a basis for success.

Keywords: adults, self-esteem, overweight, narcissism

Streszczenie

Wprowadzenie i cel: Badanie miało na celu sprawdzenie związku między narcyzmem jako wymiarem osobowości a samooceną osób dorosłych z nadwagą i bez nadwagi. Drugim celem było porównanie narcyzmu i samooceny osób z nadwagą do osób bez nadwagi. **Materiał i metody:** W badaniu wzięło udział 215 dorosłych uczestników z populacji ogólnej w wieku 18–65 lat ($M = 28,62$; $SD = 9,81$). Osoby z nadwagą stanowiły 44% ($n = 95$), a osoby bez nadwagi – 56% ($n = 120$). Osoby badane wypełniły dwa kwestionariusze (polskie adaptacje): Wielowymiarowy Inwentarz Samooceny (Multidimensional Self-Esteem Inventory, MSEI) oraz Inwentarz Narcyzmu (Narcissistic Personality Inventory, NPI). **Wyniki:** Przeprowadzona analiza danych wskazuje, że narcyzm ogólny koreluje pozytywnie z samooceną ogólną w przypadku osób z nadwagą i bez nadwagi. Siła tej korelacji jest wysoka. U osób bez nadwagi i z nadwagą narcyzm ogólny koreluje dodatnio i silnie z takimi komponentami samooceny, jak atrakcyjność fizyczna i zdolności przywódcze. Nie występują istotne różnice w narcyzmie i samoocenie ogólnej w obu grupach. Osoby bez nadwagi uzyskały statystycznie wyższe wyniki w takich składnikach samooceny, jak: kompetencje, samoakceptacja moralna, atrakcyjność fizyczna i witalność. **Wnioski:** Wyniki sugerują implikacje psychologiczne do pracy z osobami z nadwagą i bez nadwagi w radzeniu sobie ze standardami szczupłości w społeczno-kulturowym narcyzmie. W tym kontekście rekomendowana jest praca nad przekonaniem o kompetencjach, czyli posiadanych zdolnościach, umiejętnościach, wyjątkowości i efektywności w wykonywaniu zadań, dających podstawy do odniesienia sukcesu.

Słowa kluczowe: dorośli, samoocena, nadwaga, narcyzm

INTRODUCTION

Obesity and its precursor, overweight, have recently emerged as a major public health concern around the world (Imre and Toprak, 2023). The consequences of overweight and obesity are physical and psychological risks (Bertrandt, 2011), which are also evident in low self-esteem (Miller and Downey, 1999; Pinquart, 2013). There is a preponderance of research on the self-esteem of overweight and obese children and adolescents (Domosławska-Żylińska and Pyrzak, 2014; Kivuruusu et al., 2016; Moradi et al., 2002). Less frequently, studies have examined self-assessment in overweight and obese adults (Imre and Toprak, 2023; Wu and Berry, 2018). According to a meta-analysis of self-esteem studies in overweight and obese individuals, the cultural context plays an important role (Miller and Downey, 1999; Pinquart, 2013). Self-evaluation of one's own appearance is an important factor in global self-esteem and is subject to social judgement (Brytek-Matera, 2010). Culture reinforces certain behaviours as desirable, and narcissism on an individual level may, to varying degrees, reflect broader cultural and social narcissism (Lasch, 2015). There is a link between strong internalisation of cultural standards of thinness and lack of satisfaction with one's body (Matz et al., 2002). Currently, a slim body and body weight, according to social norms, are predictors of personal and professional success as well as social recognition and acceptance. An overweight body is associated with social disapproval and sometimes stigma, discrimination, and prejudice (Bertrandt, 2011; Brytek-Matera, 2010; Tiggeman, 2002).

Narcissism

Narcissism can be considered from the following perspectives: in a clinical sense, as a disorder; in a psychoanalytic sense, including the relationship with the object; in a socio-cultural context; in a sociocognitive view as a dimension of personality (Bazińska and Drat-Ruszczak, 2000; Gawda, 2018). Raskin's theory forms the basis for empirical research into narcissism.

The concept of narcissism proposed by Raskin, in which it is treated as a dimension of personality, is part of the social-cognitive approach. Narcissism consists of the following four components: *admiration* – the need to be noticed, to be popular, to receive compliments and be admired, the need for recognition; *leadership* – the subject's belief that he or she has sufficient skills to influence others; *vanity* – delight in one's physical appearance, a strong sense of aesthetics, and a sense of uniqueness; and *self-efficacy* – a sense of competence, independence, and the ability to succeed (Bazińska and Drat-Ruszczak, 2000).

A meta-analysis of studies shows that, compared to other countries in Europe and the world, Poland could provide support for Lasch's idea of the spread of narcissism (Gawda, 2018).

Self-esteem

Self-esteem as a trait is one component of the broader concept of the self. Emotionally, it refers to a positive or negative evaluation of the self, while cognitively, self-esteem is a type of self-judgement that a person relates to the self (Brown and Marshall, 2006; Dzwonkowska et al., 2008).

The most generalised level of self-assessment is known as global self-assessment. Global self-evaluation, on the other hand, is built from detailed self-evaluations, but their simple summation does not form a global self-evaluation, as there are areas of less and more subjective importance (Fecenec, 2016). Epstein's theory provides the basis for empirical research on self-esteem.

According to Epstein's theory (O'Brien and Epstein, 1988), it is both the rational and experiential system that determine information retrieval, processing, and incorporation and organisation of self-assessment. The components of self-evaluation include: "competence – self-evaluation concerning one's abilities, speed of learning, self-efficacy in performing tasks; lovability – self-assessment regarding close, intimate contacts with other people, being accepted by others; likability – self-assessment regarding popularity and being liked by others; personal power – a self-assessment of one's ability to lead people and influence their behaviour, also assess one's own assertiveness; self-control – assess one's perseverance, discipline, ability to control one's body and emotions; moral self-approval – self-assessment of the congruence between one's professed values and one's own behaviour; body appearance – self-assessment of one's appearance, including sexual attractiveness; body functioning – self-assessment of physical form and health; identity integration – a sense of self-consistency that influences the effectiveness of organizes and integrating new experiences within self-knowledge; defensive self-esteem enhancement – understood as the need for social approval" (Fecenec, 2016, p. 23).

Among the numerous functions of self-esteem, particular attention should be given to its role in protecting the individual, maintaining balance and mental health, and the connection between high self-esteem and happiness (Adam and Wani, 2022; Baumeister et al., 2003; Brown and Marshall, 2006; Fecenec, 2016).

Self-esteem, narcissism and overweight

The literature on the subject suggests a relationship between overweight and self-esteem. The meta-analysis by Miller and Downey (1999) and Pinquart's results (2013) replicate Miller and Downey's data and confirm the association between being overweight and low self-esteem, and the effect is greater in women than in men. According to Pinquart, the relationship between overweight and self-esteem remained more or less constant over two decades. Self-esteem in younger children (0–12 years) was less affected than in adolescents (12–18 years). In one study, self-esteem among

adults measured with the Rosenberg Self-Esteem Scale was low in obese patients (Imre and Toprak, 2023). That observation was also empirically verified in another study. Overweight and obese adolescents were characterised by lower self-esteem and lower overall life satisfaction compared to adolescents with normal body weight (Domosławska-Żylińska and Pyrżak, 2014). Some studies indicate a negative correlation between self-esteem and dissatisfaction with one's own body in obese women (Sarwer et al., 1998). This is confirmed by research from Brytek-Matera (2010), which shows that body dissatisfaction is negatively correlated with dimensions of self-esteem in four spheres of human functioning: general, social, family, and professional.

Other studies show that overweight and obese individuals are characterised by higher self-esteem in areas unrelated to physical appearance (Bertrandt, 2011). Brown's (2019) research showed a lower level of self-esteem associated with the discrepancy between one's own body perception and social beauty standards. Numerous studies documented that self-esteem had a strong negative association with body image (Al-Ahmari et al., 2019; Crocker et al., 2005; Ercan and Özcebe, 2020; Imre and Toprak, 2023). Body dissatisfaction has been shown to correlate with low self-esteem, depression, and binge eating (Brytek-Matera and Charzyńska, 2009). The literature on the subject suggests a relationship between self-esteem and narcissism. Studies in population samples have shown that individuals with high self-esteem displayed the highest levels of narcissism (Campbell and Foster, 2007; Raskin et al., 1991; Zeigler-Hill, 2005). Johnson and Smith (2021) conducted research which showed that women who struggled with overweight had lower self-esteem than men, but no significant gender differences in the intensity of narcissism were found.

AIM OF THE STUDY

To our knowledge, the relationship between narcissism, as defined in Raskin's concept, and self-esteem, as defined in Epstein's concept, in overweight and non-overweight adults has not been examined previously. Therefore, our aim was to investigate this relationship. A secondary aim was to compare narcissism and self-esteem between overweight and non-overweight individuals. We hypothesised that narcissism would be associated with self-esteem, and that overweight and non-overweight adults differ in levels of narcissism and self-esteem.

MATERIALS AND METHODS

Participants

A total of 215 participants aged 18–65 years (57.9% women and 42.1% men) took part in the study. Most participants were in early or middle adulthood ($M = 28.62$; $SD = 9.81$). The respondents completed the questionnaires after giving their consent to participate in the study. All subjects

gave their informed consent before partial examination in the study, in accordance with the Declaration of Helsinki. The respondents were recruited randomly via the Internet using the "snowball" method. The research was conducted in Warsaw between February and June 2004. In the overweight group, the mean body mass index (BMI) was 26.5 (44%; $n = 95$), while in the non-overweight group it was 21.05 (56%; $n = 120$). Educational attainment ranged from secondary (42%) to higher education (58%). Most respondents lived in towns or cities (76%), while 24% resided in rural areas.

Research tools

1. The **Multidimensional Self-Esteem Inventory (MSEI)** was originally developed by O'Brien and Epstein (1988) and adapted into Polish by Fecenec (2008). The questionnaire contains 116 items, with responses given on a five-point Likert scale, from 1 – almost never to 5 – very often. Is used to measure self-esteem, both its general level and self-esteem regarding specific, important aspects of human functioning, including: 1) competence; 2) lovability; 3) likeability; 4) personal power; 5) self-control; 6) moral self-approval; 7) body appearance; 7) body functioning. The reliability of this scale was estimated using Cronbach's α coefficients. The overall self-esteem score ranges from $\alpha = 0.78$ – 0.90 .
2. The **Narcissistic Personality Inventory (NPI)**, developed by Raskin and Hall, was adapted into Polish by Bazińska and Drat-Ruszczak (2000). The tool consists of 34 items, with a five-point response scale from 1 – "It's not me" to 5 – "It's me". The Polish version of the NPI includes four subscales, in addition to which a general summary index of narcissism is calculated. The narcissism subscales include: 1) Admiration, 2) Leadership, 3) Vanity, 4) Self-sufficiency. Reliability was determined using Cronbach's alpha coefficient: Admiration $\alpha = 0.86$; Leadership $\alpha = 0.87$; Vanity $\alpha = 0.74$; Self-sufficiency $\alpha = 0.69$, and the total NPI score $\alpha = 0.82$.

RESULTS

The descriptive statistics are presented in Tab. 1.

To explain the association between narcissism and self-esteem in overweight and non-overweight adults, a correlation analysis was performed (Tab. 2).

The data analysis shows that narcissism correlates positively with general self-esteem in both overweight and non-overweight individuals. The strength of this correlation is high. In non-overweight individuals, the components of narcissism correlate positively and strongly (self-sufficiency, leader) and moderately (vanity, admiration) with general self-esteem. In overweight individuals, the components of narcissism correlate positively and strongly (vanity, self-sufficiency) and moderately (admiration, leadership) with general self-esteem. In non-overweight individuals, general narcissism correlates positively and strongly with two

Self-esteem/narcissism	Min	Max	M	SD	S	K
General self-esteem	15.00	46.00	29.65	6.08	−0.27	0.04
Competence	16.00	50.00	32.86	6.39	−0.13	0.38
Lovability	13.00	50.00	31.64	6.76	0.04	0.52
Likeability	14.00	46.00	30.90	6.03	−0.68	0.52
Personal power	14.00	50.00	31.20	6.62	−0.19	0.92
Self-control	18.00	47.00	30.67	5.25	0.00	0.74
Moral self-approval	20.00	50.00	35.49	6.39	0.20	−0.67
Body appearance	12.00	48.00	29.53	7.52	−0.19	0.33
Body functioning	11.00	50.00	30.01	8.01	0.09	−0.16
Identity integration	14.00	49.00	29.40	5.55	−0.20	1.32
Defensive self-esteem enhancement	29.00	66.00	48.28	6.68	−0.05	0.66
Admiration	13.00	52.00	29.67	7.33	0.47	0.51
Leadership	13.00	55.00	31.70	8.75	−0.06	0.07
Vanity	6.00	25.00	14.55	4.98	0.09	−0.88
Self-sufficiency	12.00	35.00	23.31	5.07	−0.20	−0.88
General narcissism	46.00	166.0	99.23	22.39	0.08	0.31
<i>M</i> – means; <i>SD</i> – standard deviation; <i>S</i> – skewness; <i>K</i> – kurtosis.						

Tab. 1. Descriptive statistics (N = 215)

self-esteem components: body appearance and personal power. In overweight individuals, general narcissism correlates positively and strongly with such self-esteem components as personal power and body appearance. In non-overweight individuals, general narcissism correlates positively

and moderately with a range of self-esteem components including body functioning, competence, identity integration, and likeability. In overweight individuals, general narcissism correlates positively and moderately with such components of self-esteem as likeability, competence, body

Self-esteem of overweight individuals	Admiration	Leadership	Vanity	Self-sufficiency	General narcissism
General self-esteem	0.41**	0.47**	0.62**	0.51**	0.55**
Competence	0.37*	0.41**	0.33*	0.51**	0.45**
Lovability	0.16	0.23	0.16	0.44**	0.27*
Likeability	0.39**	0.43**	0.41**	0.46**	0.48**
Personal power	0.45**	0.62**	0.47**	0.48**	0.59**
Self-control	0.25	0.29	0.45**	0.31*	0.34*
Moral self-approval	−0.15	0.12	−0.18	0.27	0.01
Body appearance	0.47**	0.37*	0.62**	0.34*	0.50**
Body functioning	0.35*	0.24*	0.51**	0.35*	0.38*
Identity integration	0.16	0.12	0.20	0.11	0.14
Defensive self-esteem enhancement	−0.03	0.01	0.10	0.18	0.05
Self-esteem of non-overweight individual	Admiration	Leadership	Vanity	Self-sufficiency	General narcissism
General self-esteem	0.40**	0.50**	0.48**	0.74**	0.62**
Competence	0.19*	0.36**	0.41**	0.60**	0.44**
Lovability	0.12	0.24	0.26*	0.35**	0.27*
Likeability	0.17	0.32*	0.34**	0.56**	0.41**
Personal power	0.30*	0.63**	0.36**	0.52**	0.52**
Self-control	0.02	0.22	0.15	0.41**	0.26*
Moral self-approval	−0.26*	−0.10	−0.10	0.19	−0.08
Body appearance	0.36**	0.38**	0.61**	0.54**	0.55**
Body functioning	0.39**	0.31*	0.52**	0.40**	0.49**
Identity integration	0.16	0.41**	0.30*	0.62**	0.44**
Defensive self-esteem enhancement	−0.21	0.07	0.06	0.30*	0.09
* $p < 0.05$; ** $p < 0.01$.					

Tab. 2. Relationship between self-esteem and narcissism in overweight and non-overweight individuals (Spearman's rho)

functioning, and self-control. In non-overweight individuals, general narcissism correlates positively and weakly with two components of self-esteem: lovability and self-control. In overweight individuals, general narcissism correlates positively and weakly with one component of self-esteem: lovability. In non-overweight people, general narcissism does not correlate with the following components of self-esteem: moral self-approval and defensive enhancement of self-esteem. In overweight individuals, general narcissism does not correlate with a range of components of self-esteem, including moral self-approval, defensive enhancement of self-esteem, and identity integration. Additionally, a significant difference in non-overweight people is the presence of a positive and moderate correlation of general narcissism, including its components self-sufficiency, leadership, and vanity with identity integration. This correlation does not occur in overweight people.

To clarify whether overweight and non-overweight adults differ in narcissism and self-esteem, a difference analysis was conducted (Tab. 3).

Data analysis shows that overweight and non-overweight individuals do not differ significantly in general narcissism or its components, nor do they differ in general self-esteem. However, statistically significant differences were found in the specific components of self-esteem. Compared to overweight individuals, people with normal weight obtained statistically higher scores for competence, moral self-approval, body appearance, and body functioning.

DISCUSSION AND CONCLUSIONS

Our results are in line with other published findings on the relationship between narcissism and self-esteem (Campbell and Foster, 2007; Raskin et al., 1991; Zeigler-Hill, 2005),

Narcissism	BMI	M	SD	U	p
Admiration	N	29.84	8.19	0.28	0.782
	O	29.43	6.02		
Leadership	N	32.31	8.98	0.85	0.398
	O	30.84	8.45		
Vanity	N	15.36	5.25	1.99	0.050
	O	13.43	4.40		
Self-sufficiency	N	24.00	5.49	1.65	0.103
	O	22.36	4.30		
General narcissism	N	101.51	23.66	-1.02	0.309
	O	96.07	20.34		
Self-esteem	BMI	M	SD	U	p
General self-esteem	N	30.03	6.64	0.76	0.447
	O	29.11	5.23		
Competence	N	34.25	6.61	-2.83	0.005
	O	30.93	5.60		
Lovability	N	32.03	7.10	0.70	0.484
	O	31.09	6.30		
Likeability	N	31.70	6.29	-1.79	0.073
	O	29.80	5.54		
Leadership skills	N	32.30	6.89	-1.86	0.063
	O	29.68	5.97		
Self-control	N	31.51	5.62	1.96	0.053
	O	29.50	4.49		
Moral self-approval	N	37.15	6.45	-3.22	0.001
	O	33.18	5.59		
Physical attractiveness	N	31.18	8.02	-2.22	0.026
	O	27.25	6.15		
Body functioning	N	32.16	8.06	3.41	0.001
	O	27.02	6.97		
Integration of identities	N	29.11	6.47	-0.47	0.634
	O	29.80	3.97		
Defensive self-esteem enhancement	N	49.08	7.23	1.46	0.147
	O	47.16	5.73		

BMI – body mass index; **O** – overweight; **N** – non-overweight; **U** – Mann–Whitney *U* test; **p** – level of statistical significance.

28 Tab. 3. Analysis of intergroup differences in scores for narcissism and self-esteem

but contribute new insights to the knowledge of their relationship in overweight and non-overweight individuals (Johnson and Smith, 2021). The results indicate that in both overweight and non-overweight adults, the strength of the association between global narcissism and global self-esteem is high, and components such as self-esteem related to one's own appearance and the belief in one's ability to influence other people's behaviour are important. This result therefore reinforces the significance of one's own appearance as an important factor in global self-esteem and people's beliefs about their role in success (Brytek-Matera, 2010; Tiggeman, 2002). Indirectly, this may confirm the expanding cultural and social narcissism in Poland (Gawda, 2018; Lasch, 2015). A detailed analysis of the components of narcissism shows a different pattern of their importance in relation to self-esteem. In non-overweight individuals, the most important factors are a sense of competence, independence, the ability to succeed, and the belief that they have sufficient skills to influence others. In contrast, for overweight individuals, the vanity component of narcissism – i.e. physical appearance – is of particular importance in relation to self-esteem, followed by a sense of competence (Bazińska and Drat-Ruszczak, 2000). Our results add to the body of research indicating that overweight individuals place high value on physical appearance, may be more susceptible to internalising cultural norms of thinness, and are sensitive to messages of social disapproval (Bertrant, 2011; Brytek-Matera, 2010; Tiggeman, 2002).

In our own research, it was noted that non-overweight individuals, as opposed to overweight ones, exhibit a coherent self-knowledge system that governs the organisation and integration of new information regarding feelings of competence, success, beliefs about influencing other people, and perceptions regarding one's appearance (Fecenec, 2016).

No differences in narcissism between overweight and non-overweight individuals are consistent with previous study findings (Johnson and Smith, 2021). In contrast, no lower self-esteem was found in overweight people, which is contrary to the results of other studies (Adam and Wani, 2022; Aggarwal, 2018; Al-Ahmari et al., 2017; Domosławska-Żylińska and Pyrzak, 2014; Ercan and Özcebe, 2020; Imre and Toprak, 2023; Miller and Downey, 1999; Pinquart, 2013).

This result can be explained by the fact that overweight, and not obese, adults were surveyed. At the same time, this is a very positive finding, indicating that general self-esteem does not decline at the overweight stage in the population surveyed. On the other hand, particularly noteworthy are the strong components of self-esteem in non-overweight individuals, specifically self-esteem related to one's abilities, speed of learning, and self-efficacy in performing tasks. These results correspond positively with other studies that emphasise the importance of appearance and health for overweight people (Adam and Wani, 2022; Brytek-Matera and Charzyńska, 2009).

Narcissism and self-esteem and may be protective factors in both overweight and non-overweight individuals in the context of their lower vulnerability to sociocultural factors. In particular, two components of narcissism and one component of self-esteem play a key role in this context, namely self-efficacy and leadership, and the self-esteem component of competence. They form a belief in competence, i.e. the abilities one possesses, including learning and efficiency in performing tasks, giving a sense of being exceptional in social perception and the possibility of succeeding. Moreover, the coherent integration of self-knowledge reduces sensitivity to sociocultural factors.

The present study fills a gap by showing the relationship between and differences in the components of narcissism and self-esteem in overweight and non-overweight adults. The results show that there is scope for preventive, psychological, and therapeutic work with both non-overweight and overweight individuals regarding their personality components. The aim is to ensure that their striving to meet the expectations of the culture of narcissism, i.e. the standards of thinness, has beneficial consequences for themselves and does not end in obesity and low self-esteem (Moradi et al., 2022; Wu and Bery, 2018). It is important to note the limitations of this study. There is a risk of limited representativeness because of the lack of verifiability of the actual body weight reported by the subjects, participation of volunteers in the study, the study's focus on a large urban area, and the restriction to adult participants. Therefore, research in this area should continue to verify the results presented in this article. Finally, in future studies, it would be worth including participants representing different age groups, residential locations, and cultural backgrounds, as these factors might have an important effect on the results.

Conflict of interest

The authors do not report any financial or personal connections with other persons or organisations which might negatively affect the content of this publication and/or claim authorship rights to this publication.

Author contribution

Original concept of study; analysis and interpretation of data; writing of manuscript; final approval of manuscript: REB, JM. Collection, recording and/or compilation of data: REB. Critical review of manuscript: JM.

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