

ORIGINAL ARTICLE

Social and physical anhedonia in relation to grandiose and vulnerable narcissism

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BACKGROUND

Narcissism has two different dimensions which differ in terms of social functioning. Grandiose narcissism is associated with higher extraversion, while vulnerable narcissism is associated with greater introversion. Both forms of narcissism present numerous forms of social maladjustment. Anhedonia (social and physical) is associated with measures of social maladjustment and is one of the core symptoms of serious mental conditions. The aim of the current study was to investigate the relationship between social and physical anhedonia and the two forms of narcissism, grandiose and vulnerable.

PARTICIPANTS AND PROCEDURE

A sample of 339 young adults completed the Polish version of the Hypersensitive Narcissism Scale, the Narcissistic Personality Inventory, and two subscales of the Wisconsin Schizotypy Scales – Short Form: the Revised Social Anhedonia Scale and the Physical Anhedonia Scale.

RESULTS

We found a positive correlation between social anhedonia and vulnerable narcissism, and a negative correlation between social anhedonia and grandiose narcissism. Physical anhedonia was not related to any form of narcissism. Older people and men scored higher on the social anhedonia scale.

CONCLUSIONS

Vulnerable narcissistic personality is associated with social deficits, namely social anhedonia. Future research could investigate the relationship between vulnerable narcissism and schizotypy to establish whether vulnerable personality is a risk factor for developing serious mental illnesses.

KEY WORDS

personality; vulnerable narcissism; grandiose narcissism; social anhedonia; physical anhedonia

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BACKGROUND

NARCISSISM

Narcissism has two different dimensions, the grandiose and the vulnerable, which are associated with different traits. These two components of narcissism were distinguished by Wink (1991) on the basis of the psychodynamic theory (Kernberg, 1975; Kohut, 1977). Grandiose narcissism manifests itself in overstated self-esteem, denial of one's own weaknesses, self-aggrandisement, an exhibitionistic tendency, a strong need for admiration by others, and the exploitation of other people (Gabbard, 1989, 1998; Miller & Campbell, 2008; Wink, 1991). Vulnerable narcissism, on the other hand, manifests itself in hypersensitivity and vulnerability (Kernberg, 1975), overt self-inhibition, covert grandiose expectations for oneself and others, oscillation between feelings of superiority and inferiority, and fragile self-confidence (Gabbard, 1989, 1998; Miller & Campbell, 2008). From the interpersonal point of view, grandiose narcissism is associated with higher extraversion and fewer social constraints. This may lead to popularity at first sight (Back et al., 2010). Vulnerable narcissism seems to have no 'social benefits' at any time. Greater vulnerable narcissism is associated with greater introversion, anxiety, and social avoidance (Miller et al., 2012). However, there are reports showing that both forms of narcissism are predictors of unpopularity in peer networks (Czarna et al., 2014). Despite differences in the individual's behaviour, the two forms of narcissism share an underlying sense of entitlement and grandiose self-relevant fantasies (Wink, 1991).

ANHEDONIA

Anhedonia is the lack of interest in and the withdrawal from all casual and pleasant activities (Ribot, 1897), both social and physical (Chapman et al., 1995). Anhedonia is one of the core symptoms of serious mental conditions such as major depression (Meehl, 1962) or schizophrenia (where it is one of the negative symptoms) (Klein, 1974). Social anhedonia also predicts future schizophrenia-spectrum disorders (Gooding et al., 2005; Kwapil, 1998b). It seems that anhedonia has typically been studied in depression and schizophrenia, but it has also been recognized in other neuropsychiatric disorders, such as Parkinson's disease (Isella et al., 2003), substance use disorder (Volkow et al., 2002), overeating (Davis & Woodside, 2002), and the demonstration of risky behaviours (Franken et al., 2006). The lack of diagnostic specificity gives reason to suppose that anhedonia can be both the cause and the effect of an individual's poor psychophysical condition. Social

anhedonia is associated with measures of social maladjustment, depression, poor morale, psychoticism (confused thinking), symptoms that may indicate neurological problems (e.g. headaches, dizziness, loss of motility and coordination, poor concentration and memory, or speaking and reading difficulty), and poor health. Physical anhedonia has a similar, though less pronounced, pattern of associations (Penk et al., 1979).

CURRENT STUDY

As described above, anhedonia is a major symptom of depression and a negative symptom of schizophrenia (American Psychiatric Association, 2013), but also a symptom associated with a myriad of disease processes. On the basis of psychoanalytical theories, it was also described in the context of depression and schizophrenia as the inability to feel pleasure, but also as a defence mechanism (Arieti, 1960). In the psychoanalytic theories narcissism and schizophrenia share some similarities, e.g. megalomania (a form of denial and disavowal of the limitations of the self) and a corresponding withdrawal of interest from the outside world. In fact, Freud built the construct of narcissism upon observation of schizophrenia patients. This withdrawal from the outside world may manifest in different ways, by escape into imagination or disconnection from emotions, feelings, and cognition. In schizophrenia this withdrawal takes the form of positive symptoms (escape into imagination) and negative ones, such as anhedonia (disconnection from feelings). To a lesser extent it is observed in positive schizotypy and negative schizotypy. In the grandiose form of narcissism an inflated sense of self-esteem and overestimation of one's powers and beliefs come to the fore and in extreme forms of narcissism can be associated with delusions and psychotic processes. We believe that this form of withdrawal from the real world has more in common with positive symptoms in schizophrenia. On the other hand, we expect that withdrawal from the outside world in vulnerable narcissism will correspond more to the negative symptoms of schizophrenia, namely to anhedonia.

There are also empirical premises that might support the relationship of anhedonia and vulnerable narcissism. For example, introversion, which is characteristic of vulnerable narcissism, is associated with anhedonia (Kerns, 2006; Watson et al., 2005). Also, social withdrawal is observed in vulnerable narcissists (i.e., social anxiety and social avoidance; Miller et al., 2012). Thus, we expect vulnerable narcissists to experience social anhedonia. We expect grandiose narcissism, on the other hand, to be associated with lower social anhedonia, as grandiose narcissists are

more extraverted (Miller & Campbell, 2008). Social rewards (e.g., admiration; Miller & Maples, 2012) are important for them, but there is no risk of their being hurt if the rewards are not present (overt self-esteem; Miller & Campbell, 2008). The current study therefore aimed to investigate the links between the two forms of narcissism and the two types of anhedonia. We also ask the question whether physical anhedonia is related to the two forms of narcissism, as physical anhedonia has been related to various non-adaptive psychological characteristics (Isella et al., 2003; Volkow et al., 2002).

PARTICIPANTS AND PROCEDURE

PARTICIPANTS

The participants completed an anonymous online survey containing demographic questions and the scales listed below. They were recruited via publicly accessible social networking websites (e.g. Facebook). All procedures performed in this study were in accordance with the ethical standards of the University of Warsaw and with the Declaration of Helsinki. Amongst the 339 respondents, females made up 69% ($n = 235$) and males 31% ($n = 104$). The age range was 16 to 34, with an average age of 21.90 years ($SD = 2.65$). Amongst the participants 72% were undergraduates, 26% were graduates, and 2% had primary and vocational education.

MEASURES

Narcissism. To assess vulnerable narcissism, the Polish version (Czarna et al., 2014) of the Hypersensitive Narcissism Scale (HSNS) by Hendin and Cheek (1997) was used. The HSNS is composed of 10 items with a five-point Likert response format ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) for questions such as “When I enter a room I often become self-conscious and feel that the eyes of others are upon me”. In the present sample, the Cronbach’s α of the HSNS was .72.

To assess grandiose narcissism, the Polish adaptation (Bazińska & Drat-Ruszczak, 2000) of the Narcissistic Personality Inventory (NPI) by Raskin and Hall (1979) was used. The NPI contains 34 items, with the answers being added up to give a total score, representing four facets of grandiose narcissism: authority, self-sufficiency, vanity, and exhibitionism. The respondents rated the degree to which they endorsed each statement using a five-point Likert response format, from 1 (*does not apply to me*) to 5 (*applies to me*). An example statement was “I like to be the centre of attention”. In the present sample, the Cronbach’s α of the NPI was .92.

Anhedonia. Social and physical anhedonia were measured with two subscales of the Wisconsin Schizotypy Scales – Short Form (WSS-SF; Winterstein et al., 2011). The WSS-SF is a short form of a popular schizotypy scale (Wisconsin Schizotypy Scale; Chapman et al., 1976, 1980) that has been used in studies of clinical, at-risk, and healthy samples. The Revised Social Anhedonia Scale (RSAS) and Physical Anhedonia Scale (PhAS) were translated into Polish using the parallel blind technique (Werner & Campbell, 1970). Three independent translations were made, by an academic psychologist (who is also a psychotherapist), a professional linguist in Polish, and a student of psychology. The two scales are self-reporting measures consisting of statements that reflect a deficit in the ability to experience interpersonal pleasure (e.g., “I prefer hobbies and leisure activities that do not involve other people”) and a deficit in the ability to experience physical pleasure (e.g., “After a busy day, a slow walk has often felt relaxing”). In the present sample the Cronbach’s α was .75 and .77 for RSAS and PhAS, respectively.

RESULTS

Pearson correlations revealed (Table 1) that vulnerable narcissism was associated with greater social anhedonia, whereas grandiose narcissism was negatively correlated with social anhedonia. Comparison of the two correlations with Steiger’s z -test showed that the association of social anhedonia with vulnerable narcissism shared 4.8% more variance compared to that with grandiose narcissism ($z = 5.71, p < .001$). No relationship was found between physical anhedonia and any form of narcissism, although social and physical anhedonia were positively related to each other (Table 1). Furthermore, associations of the two types of narcissism with social anhedonia were significantly stronger than those with physical anhedonia by 7.2% and 2.4% of variance, respectively.

In a supplementary analysis, a regression model was tested, with social anhedonia as the dependent variable, age and sex entered as predictors in the first block, NPI and HSNS entered in the second block, followed by interactions of age and sex with NPI and HSNS entered in the third block as predictors (Table 2). The regression prediction for social anhedonia showed that a higher level of social anhedonia was predicted by older age, a higher level of vulnerable narcissism, and a lower level of grandiose narcissism. The two types of narcissism explained 11% of the variance in social anhedonia. The same statistics were obtained for physical anhedonia. The regression analysis showed that physical anhedonia was predicted by male sex only (Table 2).

Table 1

Results of Pearson correlations ($N = 339$) and comparison between correlations of two types of anhedonia with two types of narcissism

Variables	NPI	Social anhedonia	Physical anhedonia	Steiger's z-test
Social anhedonia	–	–	.42**	
NPI	–	–.16**	–.03	2.14*
HSNS	.03	.27**	.04	4.07***

Note. HSNS – Hypersensitive Narcissism Scale (vulnerable narcissism); NPI – Narcissistic Personality Inventory (grandiose narcissism); * $p < .05$, ** $p < .01$, *** $p < .001$

Table 2

Results of regression analyses of social anhedonia and physical anhedonia as the outcome predicted by age, sex, HSNS, and NPI simultaneously

	Social anhedonia		Physical anhedonia	
	β	R^2	β	R^2
Block 1		.02		.06***
Age	.11*		.03	
Sex	–.09		–.25***	
Block 2		.11***		.01
NPI	–.20***		–.09	
HSNS	.29***		.07	
Block 3		.01		.01
Age*NPI	–.04		–.12	
Age*HSNS	–.01		.02	
Sex*NPI	–.16		.05	
Sex*HSNS	.13		.01	

Note. Sex coded 0 – men, 1 – women; * $p < .05$, *** $p < .001$; HSNS – Hypersensitive Narcissism Scale (vulnerable narcissism); NPI – Narcissistic Personality Inventory (grandiose narcissism).

DISCUSSION

The aim of the present study was to investigate the relationships between vulnerable and grandiose narcissism and social and physical anhedonia. As expected, social anhedonia was negatively related to grandiose narcissism and positively related to vulnerable narcissism. No relationship was found between physical anhedonia and any form of narcissism. The results also revealed that older people and males scored higher on the social anhedonia scale.

The result showing lower social anhedonia in grandiose narcissists is in line with previous studies showing that, although grandiose personalities reported domineering and vindictive interpersonal problems, they denied interpersonal distress related to their interpersonal problems. By contrast, vulner-

able narcissistic individuals reported high interpersonal distress and greater domineering, vindictive, cold, and socially avoidant interpersonal problems (Dickinson & Pincus, 2003). Some researchers suggest that vulnerable narcissistic individuals experience greater anxiety when developing relationships with others because of their lowered self-esteem. Their chronic hypersensitivity and disappointment, stemming from unmet entitled expectations, reach an intolerable level, so that social withdrawal and avoidance is an attempt to manage self-esteem (Cooper, 1998; Gabbard, 1998; Gersten, 1991; Kraus & Reynolds, 2001; Wink, 1991). This sets up a vicious circle, because vulnerable narcissism is linked to low self-esteem and interdependent self-construal (Rohmann et al., 2012). Interpersonal distress, anxiety, and an avoidant attitude towards people predispose a vul-

nerable personality to take no pleasure from interpersonal contacts. Only one recent study has reported on the relationships between narcissism and anhedonia, and showed results similar to the present ones, that is, a positive correlation between vulnerable narcissism and anhedonia. At the same time, this study did not find any association between anhedonia and grandiose narcissism, but the authors did not analyse the separate aspects of anhedonia: the social and physical dimensions (Miller et al., 2013).

In the present study physical anhedonia appeared to be unrelated to either vulnerable or grandiose narcissism. We have not specified directional hypotheses regarding these associations, but one can argue that physical anhedonia should be positively related to vulnerable narcissism rather than grandiose narcissism, given that physical anhedonia is an expression of generally worse mental health, which may be expected in the vulnerable personality rather than in the grandiose one. Specifically, there is evidence in the literature that vulnerable narcissism correlates positively with more factors from the Personality Inventory for Diagnostic and Statistical Manual of Mental Disorders 5 (PID5) than grandiose narcissism (Miller et al., 2012). Miller et al. (2012) also pointed out that narcissistic vulnerability is common for the majority of personality disorders and is associated with the severity of these disorders.

According to the current results, vulnerable narcissistic individuals take no pleasure from social contact, but some of them can take pleasure from physically pleasant activities. Limiting the relationship between vulnerable narcissism and anhedonia only to deficits in social hedonic capacities indicates the impairment of social functioning in the vulnerable personality. To date, most of the research on social anhedonia has considered individuals with schizophrenia spectrum disorders and has obtained results similar to the current ones. For instance, Meehl (1962, 1975, 1987) reported that the anhedonia experienced by individuals with schizophrenia was specifically related to social pleasure rather than general pleasure. Moreover, Meehl (1962, 1975, 1987) considered social anhedonia as a personality defect predisposing an individual to serious mental illnesses such as schizophrenia. Contemporary researchers also recognize social anhedonia as a symptom of severe psychopathology that occurs even before the onset of schizophrenia (Pflum & Gooding, 2019). This raises the question of whether individuals with vulnerable narcissistic personality are at risk of developing psychotic disorders.

According to the literature, grandiose narcissism is correlated with psychotic symptoms, such as unusual beliefs and perceptions (Miller et al., 2013). A grandiose narcissistic personality may perhaps predispose an individual to psychotic episodes with positive symptoms, whereas a vulnerable narcissistic person-

ality predisposes an individual to full schizophrenia with negative symptoms and withdrawal from society. In the study by Samaniego and colleagues (2011), siblings of patients with psychosis who score highly on the schizotypy scale (schizotypy is considered as an expression of genetic vulnerability to schizophrenia) show a specific psychopathological personality profile that includes, amongst other features, anxiousness, social avoidance, and narcissism. In their study, narcissism was defined as the antagonistic and distancing attitude that is common to both forms of narcissism.

In the present study, social anhedonia was higher in male and older people. Physical anhedonia was only predicted by gender (higher in males). The same effect of gender was also found in previous studies on anhedonia in non-clinical samples from western (American/Caucasian; Kwapil, 1998a) and eastern (Chinese; Chan et al., 2012) populations. Furthermore, a large epidemiological study on social anhedonia confirms that it is higher in males than females (Dodell-Feder & Germine, 2018), but unrelated to age. In another study, only physical anhedonia was found to be related to age; younger participants scored higher on physical anhedonia (Paino-Piñero et al., 2008).

The main limitation of the present study is that the participants were not asked about any psychiatric diagnosis or current psychiatric treatment. The sample was composed of young individuals. Both social anhedonia and narcissism decrease with age (Foster et al., 2003; Miettunen & Jaaskelainen, 2008), but we do not expect this to affect the direction of the observed correlations. The limitation is the overrepresentation of women in the study because men are higher than women in narcissism, social, and physical anhedonia (Dodell-Feder & Germine, 2018; Grijalva et al., 2015; Miettunen & Jaaskelainen, 2008). This may have contributed to the lack of a relationship between physical anhedonia and vulnerable narcissism in the present study.

Summing up the current results, the vulnerable narcissistic personality is associated with social deficits, namely social anhedonia. Future research could investigate the relationship between vulnerable narcissism and schizotypy to establish whether vulnerable personality is a risk factor for developing serious mental illnesses such as schizophrenia. In practice, this will enable early intervention if it proves to be a risk factor.

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