

Narcissism, Big 5 personality factors & perfectionism: study of interrelatedness

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ABSTRACT

The purpose of the study was to assess the correlation between Narcissism, Perfectionism and Big-5 Personality factors and to identify, which; if any specific Big 5 PFs play a significant role in individuals when Narcissism and Perfectionism is concerned. The sample (N= 200) is representative of young adult population of Indian origin (aged 20-35 years); obtained using convenience sampling. Analyses revealed a significant positive correlation between Narcissism and Perfectionism. The Big 5 PFs correlate with Narcissism and Perfectionism. Extraversion is the only Big 5 PF that is positively correlated with both narcissism and perfectionism. Gender differences exist in Narcissism, but not in Perfectionism. Stepwise regression revealed that neuroticism is important predictor of perfectionism and extraversion is important predictor of narcissism.

Keywords: Big 5 Personality factors, Narcissism, Perfectionism, Gender differences

What is that first reaction you remember of when anyone mentions about narcissism and perfectionism? It is mostly not a pleasant look that one sees when such a mention is made. The curious mind wonders ‘why’ and the answers are best offered by research conducted in the field of personality psychology. Empirically studied correlation between narcissism and perfectionism, of each with several big five personality factors; indicates the need to explore all the variables in one study.

Narcissism refers to a pervasive pattern of grandiosity, perceived superiority, self-focus, entitlement and self-importance (Pincus & Lukowitsky, 2010). According to Morf and Rhodenalt’s (Morf & Rhodenalt, 2001) self-regulatory processing model, narcissists engage in strategic self-regulatory behaviors and processes, as a means of constructing and maintaining a relatively positive, albeit fragile, self-image. Moreover, these self-regulatory behaviors and processes are theorized to be driven by an intense need for external validation and admiration (Pincus et al. 2009). While most individuals can effectively manage needs for self-validation and admiration, narcissism involves an impaired ability to satisfy these needs such that self-enhancement becomes an overriding goal (Pincus & Roche, 2011).

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Nonetheless, evidence has converged in support of two themes linked with narcissism: narcissistic grandiosity and narcissistic vulnerability (Cain et al. 2008; Dickinson & Pincus, 2003; Pincus et al. 2009; Wink, 1991). Although narcissistic grandiosity and narcissistic vulnerability overlap, research indicates important phenotypic differences in their expression (Pincus et al. 2009). In particular, for individuals high on narcissistic grandiosity, self-esteem dysregulation triggers both aggression and envy; for individuals high on narcissistic vulnerability, self-esteem dysregulation triggers profound shame and a deep-seated sense of inadequacy (Besser & Priel, 2010; Cain et al. 2008; Pincus & Lukowitsky, 2010). Moreover, narcissistic grandiosity is characterised by the pursuit of interpersonal power and control, exaggerated self-importance, and a sense of entitlement (Pincus et al. 2009). In contrast, narcissistic vulnerability is characterised by a defensive and insecure grandiosity which leads to feelings of worthlessness and negative affect, as well as a hypervigilant readiness for criticism or failure (Cain et al. 2008; Pincus et al. 2009; Wink, 1991).

Pathological narcissism is a trait of the Narcissistic Personality Disorder that involves culturally deviant ways of concentration on self, disregard for others and an unrealistic need for endless power, beauty, ideal love and perfect life without having the ability to strive for these qualities and regard for reality. The qualities that are highlighted in an encounter with a person who is high on domain of narcissism are: unrealistic, challenging reality, sense of entitlement, a constant need for excessive admiration, overestimation and exaggeration of one's own abilities. (Pincus & Lukowitsky, 2010)

Perfectionism, as defined by American Psychological Association (APA), is the tendency to demand of others or of oneself an extremely high or even flawless level of performance, in excess of what is required by the situation. Perfectionists strive for flawlessness, have high standards, and are overly critical of themselves and others. Perfectionism is also multidimensional (Hewitt, Flett, Besser, Sherry & McGee, 2003). Two higher-order factors underlie several lower-order perfectionism dimensions: Perfectionistic strivings and Perfectionistic concerns (Dunkley, Zuroff, & Blackstein, 2003; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993). Perfectionistic strivings encompass self-generated pressures to be perfect (self-oriented perfectionism; Hewitt & Flett, 1991), alongside ceaselessly pursuing lofty goals (personal standards, Frost, Marten, Lohart, & Rosenbalte, 1990). Perfectionistic concerns comprise socially based pressures to be perfect (socially prescribed perfectionism, Hewitt & Flett, 1991), overly adverse reactions to faults (concerns over mistakes, Frost et al. 1990), and uncertainties about performance abilities (doubts about actions, Frost et al. 1990). And although perfectionistic striving and perfectionistic concern overlap (Smith & Saklofske, 2017), they are still empirically distinct (Dunkley & Blankstein, 2000; Stoeber & Otto, 2006).

Today's most prevalent system to describe personality traits is the "Big Five" personality system which describes personality by five broad trait dimensions; neuroticism, extraversion, openness to experiences, agreeableness and conscientiousness (Costa & McCrae, 1992) derived through factor analyses. High score on neuroticism reflects an individual who is worried, insecure, nervous, and highly strung. Extraversion characterises sociable, talkative, fun-loving, and affectionate personality. Openness to experience implies original, independent, creative and daring aspects of personality. Agreeableness characterises individual as good-natured, soft-hearted, trusting and courteous. Conscientiousness signifies careful, reliable, hardworking and organised personality.

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The 'why' of the research is answered with respect to its importance in understanding how these domains are related and gain insights to channelize them in favour of individual's growth and minimising the few negative aspects of perfectionism and narcissism as traits, in normal population and minimizing the deviancy that can result beforehand. Alongside, studying gender differences in narcissism and perfectionism.

Rise of narcissism in young people has been of concern (Dingfelder, 2011). "A narcissistic society would be a deeply lonely place." emphasized the rise of depression and anxiety as a consequence of the same (Barry, 2010). Campbell and Jean Twenge found in an analysis of data from 85 studies that between 1982 and 2006; college student's score on narcissism was significantly increased as indicated by rise in positive response on two narcissistic answers in Narcissistic Personality Inventory. Twenge had also found that women and international students tend to score lower on the Narcissistic Personality Inventory (Twenge & Campbell, 2009). One major epidemiological study which was published in 2008 by researchers at the National Institute of Health found that 9.4% of Americans had experienced Narcissistic Personality Disorder at some point in their life in comparison to people over age 65 who occupied 3.2% of the experienced cases. The data was derived from a nationally representative sample. But since the intervention was based on face-to-face interviews, it does not allow us to invest full confidence in the findings.

According to Sara Konrath, PhD, who is a director of the Interdisciplinary Program on Empathy and Altruism Research (iPEAR), her study on US college population revealed that narcissism and empathy are negatively correlated to each other. (Konrath, 2019).

Perfectionistic concerns in numerous psychological problems, including depression, suicide, bulimia nervosa, and anxiety disorders (Cox, Clara & Enns, 2009; Hewitt & Flett, 1991; Mackinnon et al. 2011; Smith, Sherry, Rnic et al. 2016; Smith et al. in press). Investigators rarely challenge the destructiveness of perfectionistic concerns. Conversely, for several decades, scholars have been debating the pros and cons of demanding perfection of the self (Hamacheck, 1978, Pacht, 1984). Proponents of "adaptive perfectionism" note that perfectionistic strivings sometimes correlate positively with desirable outcomes e.g. academic performance (Stoeber, 2012), especially after controlling for perfectionistic concerns (Stoeber & Otto, 2006).

Flett, Hewitt, Blankstein and Gray (1998) and Hewitt et al. (2003) proposed two supplements to trait perfectionism- namely, perfectionistic self-presentation and perfectionistic cognitions.

Trait perfectionism distinguishes the source and the direction of perfectionistic expectations; perfectionistic self-presentation involves the public, social expression of perfectionism, and perfectionistic cognitions involve the private, cognitive expression of perfectionism. These dimensions are differently related to various outcomes, including disordered personality. (Flett et al. 1998; Hewitt & Flett, 1991; Hewitt et al. 2003).

Theory, research and clinical observation suggests perfectionism is essential to understanding narcissists' style of thinking, behaving, and relating (Beck, Freeman & Davis, 2004; Freud, 1957; Horney, 1950; Ronningstam, 2010, Ronningstam, 2011, Rothstein, 1999, Sorotzkin, 1985). More than a century of case histories and theoretical accounts suggest perfectionism is a central feature of the grandiose and the vulnerable aspect of narcissists'

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style of thinking, behaving, and relating (e.g. Beck, Freeman & Davis, 2004; Freud, 1957; Horney, 1950; Ronningstam, 2010; 2011; Rothstein, 1999; Sorotzkin 1985).

In a meta-analytic review providing the most comprehensive test of the perfectionism-narcissism relationship to date, 30 studies were located (N=9091). After controlling for overlap among perfectionism dimensions, random-effects meta-analysis indicated self-oriented perfectionism, other-oriented perfectionism and perfectionistic self-promotion were related to narcissistic grandiosity, whereas socially prescribed perfectionism, perfectionistic self-promotion and nondisclosure of imperfection were related to narcissistic vulnerability. Results suggested that grandiose narcissists strive toward lofty goals, impose unrealistic demands on others, and promote an image of perfection. Results also suggested that vulnerable narcissists actively promote an image of infallibility while defensively concealing imperfections in response to perceptions of others as demanding.

Advancing research on the perfectionism-narcissism relationship using meta-analyses found that reasons for limited understanding of link between perfectionism and narcissism are as follow: firstly, there are notable between-study inconsistencies. Some studies assert all perfectionistic self-presentation dimensions are related to narcissistic grandiosity (Flett et al. 2014), whereas others contend only perfectionistic self-promotion is related to narcissistic grandiosity (Hewitt et al. 2003). Secondly, several of these studies involve smaller sample sizes and are likely underpowered. Also, the array of narcissism measures used has complicated understanding of the perfectionism-narcissism relationship. Lastly, most research on the link between perfectionism dimensions and narcissism does not evaluate the degree to which relationships stem from unique or shared variance.

Narcissistic perfectionism is characterised by an outwardly directed need for perfection, alongside a grandiose self-image, interpersonal entitlement and unreasonably high expectations for others (Flett et al. 2014; Nealis et al. 2015; Sherry et al. 2014). Extra evidence suggests that narcissistic perfectionism is a psychometrically sound construct. It is highly stable (Nealis et al. 2015).

In the validation procedure of Big Three Perfectionism Scale, it was revealed that rigid perfectionism showed medium-sized positive correlation with conscientiousness. Rigid perfectionism also showed small-sized positive correlation with neuroticism. Narcissistic perfectionism showed large-sized positive correlation with agreeableness, other-oriented perfectionism and medium-sized positive correlation with neuroticism.

The universally recognised Big 5 Personality factors are measured using a self-report scale. The four factors namely neuroticism, extraversion, openness to experience and conscientiousness were found to have stronger heredity component and agreeableness was found to have a stronger environmental component. The factors have been consistently observed in eastern as well as western cultures, also supporting genetic component. The evidence suggests that the five-factor model of personality has a high predictive value.

According to McCrae and Costa's (1999) five-factor theory of personality, the Big 5 personality traits form part of a dynamic personality system. In this system, the Big 5 represent endogenous basic tendencies that, together with external influences lead to the formulation of characteristic adaptations and the development of culturally-conditioned personal characteristics.

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The Big 5 PF factors remain stable from childhood to adulthood. Extraversion positively relates to emotional well-being, while neuroticism has been negatively related to emotional well-being. Individuals high in extraversion were able to cope with everyday life stress better than those scoring low in extraversion did. Extraverts were also more likely to seek social support to help them deal with stress. In another study, individuals high in agreeableness and conscientiousness showed greater emotional well-being. Other researchers found that people high in neuroticism were prone to depression, anxiety and self-blame. It was also associated with more physical illness and psychological distress.

People high on domain of openness to experience tend to have a wide range of intellectual interests and to seek challenges. People high on conscientiousness tend to be reliable, responsible, efficient, and dependable. They are also likely to be healthier and to live longer. Findings from cross-sectional studies on the relationship between perfectionism and the Big 5 personality traits demonstrate that conscientiousness shows significant positive correlations with self-oriented perfectionism, and neuroticism with socially prescribed perfectionism. Providing support for McCrae and Costa's dynamic personality theory (McCrae & Costa, 1999) which holds that broad personality traits play a role in the development of lower-level personality characteristics, the findings suggested that conscientiousness is a trait that plays a role in the development of lower self-oriented perfectionism because of observed significant positive correlation (Stoeber, 2018). In a meta-analytic review of Perfectionism and the Five-factor Model of personality it was concluded that over 25 years of research suggests an important link between perfectionism and personality traits included in the five-factor model (FFM) (Smith et al. 2019). Meta-analysis with random effects revealed perfectionistic concerns (socially prescribed perfectionism, concern over mistakes, doubts about actions, and discrepancy) were characterised by neuroticism (.50), low agreeableness (.26) and low extraversion (.24), perfectionistic strivings (self-oriented perfectionism, personal standards, and high standards) were characterised by conscientiousness (.44). Additionally, several Perfectionism-FFM relationships were moderated by gender, age and the perfectionism subscale. Findings complement theory suggesting that perfectionism has neurotic and non-neurotic dimensions. Narcissism is a complex puzzling personality trait. Narcissists can be quite effective in what they want from other people due to their charm and self-assurance, yet their selfish, aggressive behavior tends to alienate others. Narcissism can cause frequent interpersonal problems, yet narcissists generally seem to be happy and have high self-esteem.

Narcissism is included in the 'dark triad' of antagonistic personality traits, along with Machiavellianism and psychopathy. More recently, some scholars have argued that narcissism should be separated from the dark personality cluster due to its positive characteristics.

In a recent cross-sectional study, Allroggen et al. (Allroggen et al. 2018) examined a group of adolescents with regard to the relationship between Big 5 PF and pathological narcissism using self-report instruments. The results revealed that grandiose narcissism is primarily related to low agreeableness and extraversion, vulnerable narcissism to neuroticism.

Study assessing the bright and dark side of narcissism, revealed individuals scoring high on narcissistic rivalry strives for supremacy. Thus, reacting aggressively when their supremacy is threatened. Admiration seeking people strive for achieving self-promotion through socially acceptable ways (Back, Küfner, Dufner, & Rautmann, 2013).

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Use of personality measures to assess the vulnerabilities was suggested in a research study by Israel et al. They studied the correlation of Big 5 Personality factors with other domains concerning health and found that the scores on personality measure was a predictor of the health that was yet to come. Hence use of personality measures as 'personalized medicine' is a promising approach (Israel et al. 2014).

Current research is a sincere attempt to explore the relation and extracting deeper understanding of debated concepts such as narcissism and perfectionism, in ratio with Big 5 PF which serve as DNA for understanding personality on a continuum. The purpose of the study is to assess the correlation between narcissism, perfectionism and Big 5 Personality factors and to identify, which; if any specific Big 5 PF plays a significant role in individuals when narcissism and perfectionism is concerned. Research seeks answers to following questions: How significant is the positive correlation between narcissism and perfectionism? Are big 5 PF positively/negatively correlated with narcissism and perfectionism? Are there gender difference in narcissism and perfectionism? Highlighting the potential data reported by young adult Indian population.

METHODOLOGY

Participants

Participants were selected using non-probability sampling method and convenience sampling. Sample comprised of total 200 young adults of Indian origin (age range: 20-35 years); 100 females and 100 males respectively.

Procedure

The study was conducted using a sample of 200 young adults from adult population by means of convenient sampling. The data was collected using google forms. The participants were explained about the purpose of the study and their informed consent was obtained. Participants submitted the scales online and their responses were manually scored and reported to them. Statistical analyses were done using Statistical Package for the Social Sciences software (IBM SPSS Version 26). Frequencies of variables were checked in order to find out if the data was normally distributed; it is presented in form of histograms. The correlation between variables was assessed using Pearson's product-moment correlation technique. Independent samples t-test was used to assess the gender differences in Narcissism and Perfectionism. After assessing the correlation between perfectionism, narcissism and specific big-five personality factors; hierarchical regression analyses techniques was used to explore the form of relationship between them.

Measures

Narcissistic Personality Inventory- 40 (Raskin & Terry, 1998). The scale consists of 40 items. The scores are assigned as per the scoring key where one among the given two alternatives for each item is assigned one point indicating presence of narcissism. In Raskin & Terry (1988) alpha composite reliability scores of .83, .74, .80 and .90 were calculated for the NPI. NPI is based on the definition of Narcissistic Personality disorder found in DSM-III, but is not a diagnostic tool for NPD and instead measures subclinical and/or normal expressions of narcissism. Hence, even a person getting highest possible score on NPI, does not necessarily have NPD.

The Big Three Perfectionism Scale (Smith, M. M., Saklofske, D.H., Stoeber, J., & Sherry, S.B., 2016). The scale comprises of 45 items. It is widely used, reliable and valid instrument having internal consistency measured by Cronbach's alpha ranging from .92 to .93 for the

three global factors. It has good convergent validity tested with the Frost Multidimensional Perfectionism Scale (FMPS) and The Hewitt-Flett Multidimensional Perfectionism Scale (HF-MPS, 1991). The responses range from, strongly disagree – 0, disagree – 1, neutral – 2, agree – 3, strongly agree – 4.

The NEO- Five Factor Inventory- 3(McCrae & Robert Costa, 2010) is a 60-item instrument that measures the Big 5 personality factors. It comprises 5 domains; 12 items each that measures individual's personality traits on five domains, namely; neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. It is widely used, reliable and valid measure of the Big 5 Personality factors. With internal consistencies of N= .79, E= .79, O= .80, A= .75, C= .83. The responses range from, strongly disagree – 0, disagree – 1, neutral – 2, agree – 3, strongly agree – 4. The scale consists of several items that require being reversed scored.

Hypotheses

- There exists a significant positive correlation between Narcissism and Perfectionism.
- There exists a positive correlation between Neuroticism and Narcissism.
- There exists a positive correlation between Neuroticism and Perfectionism.
- There exists a negative correlation between Conscientiousness and Narcissism.
- There exists a positive correlation between Conscientiousness and Perfectionism.
- There exists a negative correlation between Agreeableness and Narcissism.
- There exists a negative correlation between Agreeableness and Perfectionism.
- There exists a negative correlation between Extraversion and Narcissism.
- There exists a negative correlation between Extraversion and Perfectionism.
- There exists a negative correlation between Openness to experience and Narcissism.
- There exists a negative correlation between Openness to experience and Perfectionism.
- There will be gender differences in Narcissism.
- There will be gender differences in Perfectionism.

RESULTS AND DISCUSSION

The current research purposed to assess the correlation between narcissism, perfectionism and Big 5 personality factors and to identify, which; if any specific Big 5 Personality factors play a significant role in individuals when Narcissism and Perfectionism is concerned. Quantitative data analysis revealed normal distribution of neuroticism (Fig.1.a), leptokurtic distribution of extraversion (Fig.1.b), normal distribution of openness to experience (Fig.1.c), agreeableness (Fig.1.d), conscientiousness (Fig.1.e), perfectionism (Fig.1.f), narcissism (Fig.1.g) and gender (Fig.1.h). The mean and standard deviation of each variable is presented in a table form (Table 1).

The results of the study revealed a significant positive correlation between narcissism and perfectionism, $r = .267^{**}$ (Table 2). As reported in instrument database of the Big Three Perfectionism Scale (BTPS) by Martin M. Smith, narcissistic perfectionism had large-sized positive correlation with other-oriented perfectionism (Smith et al. 2016). Further supported by research findings that indicated narcissism is positively correlated with other-oriented perfectionism (e.g. Trumpeper, Watson, & O'Leary, 2006) (Sherry et al. 2014). Pathological narcissism, specifically vulnerable narcissistic traits are linked with dysfunctional eating attitudes and behaviors in women; underlying which is highlighted a need for being perfect (Pierro et al. 2020). The negative correlation between neuroticism and narcissism, $r = -.100$

(Table 3) is consistent with negative correlation found between grandiose narcissism and conscientiousness (Zajenkowski, 2019) and a study revealing primary link between vulnerable narcissism and neuroticism (Allroggen et al. 2018). A weak magnitude of correlation coefficient limits generalizability. A significant positive correlation between neuroticism and perfectionism, $r = .484^{**}$ (Table 4) is consistent with findings that indicated small-sized positive correlation between rigid-perfectionism and neuroticism (Smith et al. 2016). Further supported by positive correlation between Self-Oriented Perfectionism-Critical and negative affect and neuroticism (Vincent et al. 2019). Conscientiousness and narcissism are positively correlated, $r = .137$ (Table 5). It is inconsistent with negative correlation between grandiose narcissism and conscientiousness (Zajenkowski, 2019). Conscientiousness and perfectionism are negatively correlated, $r = -.014$ (Table 6) which is contrary to past research where self-oriented perfectionism showed significant positive correlations with conscientiousness (Stoeber, 2018). However it is consistent with finding stating negative correlation between Self-Oriented Perfectionism-Critical (SOP-C) and conscientiousness (Vincent et al. 2019). Rigid perfectionism was found to have medium-sized positive correlation with conscientiousness (Smith et al. 2016). A significant negative correlation between agreeableness and narcissism, $r = -.241^{**}$ (Table 7) is consistent with the past findings that revealed link between grandiose narcissism and low agreeableness in adolescents (Allroggen et al. 2018) and negative correlation between grandiose narcissism and agreeableness (Zajenkowski, 2019). Existing significant negative correlation between agreeableness and perfectionism, $r = -.466^{**}$ (Table 8) is backed by small-sized negative correlation between self-critical perfectionism and agreeableness, also large-sized negative correlation between narcissistic perfectionism and agreeableness was reported (Smith et al. 2016, Mathieu, 2013, Vincent et al. 2019). Extraversion and narcissism share significant positive correlation, $r = .305^{**}$ (Table 9). It is consistent with findings that reported, grandiose narcissism and extraversion are primarily related (Allroggen et al. 2018). Another study revealed positive correlation between narcissism and extraversion in an organizational sample (Mathieu, 2013). Existing positive correlation between extraversion and perfectionism, $r = .113$ (Table 10) is consistent with Smith et al.'s study concluding perfectionistic concerns characterized by low extraversion (Smith et al. 2019). A negative correlation between openness to experience and narcissism, $r = -.112$ (Table 11) is inconsistent with a study concluding positive correlation between narcissism and FFM trait of openness to experience (Mathieu, 2013). In the current study a negative correlation between openness to experience and perfectionism was found $r = -.096$ (Table 12); which is consistent with negative correlation found between Self-Oriented Perfectionism-Critical (SOP-C) and openness to experience (Vincent et al. 2019). Gender differences exist in narcissism (Table 13), but do not exist in perfectionism (Table 14). Literature supports gender differences in narcissism and perfectionism (Morf & Rhodewalt, 2001), however Sherry et al. found in their study that perfectionism-narcissism relationship is generalized across gender (Sherry et al. 2014).

Further observations help to interpret that, agreeableness (significantly) and openness to experience are negatively correlated with both narcissism and perfectionism. Extraversion is the only Big 5 PF that is positively correlated with both narcissism and perfectionism. Therefore it is concluded that extraversion is a Big 5 PF that plays a dominant role in narcissism and perfectionism and can be used to understand these domains better if same findings are replicated in future studies. The study of interrelatedness offers a useful perspective as the Big 5 PF are known for their high predictive value.

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Additional statistical analyses of stepwise regression revealed a linear relationship for perfectionism and narcissism (Fig.2). Neuroticism is an important predictor of perfectionism and extraversion is an important predictor of narcissism. The possible reasons may be attributed to some of the core characteristics of perfectionism and narcissism that reflect unrealistic expectations and unhealthy emotional reactions accompanied by maladaptive coping mechanisms when the same expectations are not fulfilled.

The above findings can be put to use to develop personality theories for individuals who face challenges due to the shady sides of narcissism and perfectionism, and assist in the treatment planning for the same. This research highlights the possibilities of rightly channelizing traits such as perfectionism and narcissism, enabling the individuals possessing them to use it as super powers to achieve goals of higher standard and ensure better quality performance with dedication and efforts as input. The findings can only be generalized with caution, to normally functioning individuals. By modifying inappropriate demands that are linked with pathological narcissism and maladaptive perfectionism, one can have a different picture of individuals with narcissism and perfectionism; free of unrealistic expectations from other people and invalid demands. Additionally, it can also alarm against the precautions one may take in order to not let the narcissism evolve into Narcissistic Personality Disorder and the perfectionism reach to an extent where an individual's normal functioning and productivity is hampered. Thus, highlighting the importance of theory development and treatment planning for individuals who are at risk of negative implications of narcissism and perfectionism. Current research is a sincere effort to revisit the concepts of narcissism and perfectionism and explore the role of Big 5 personality factors in association with the same. Ultimately, acknowledging the 'grey' aspects underlying the dark labels.

Figure 1.

Histograms representing data distribution across variables: a) Big 5 PF: Neuroticism, b) Big 5 PF: Extraversion, c) Big 5 PF: Openness to experience, d) Big 5 PF: Agreeableness, e) Big 5 PF: Conscientiousness, f) Perfectionism, g) Narcissism and h) Gender.

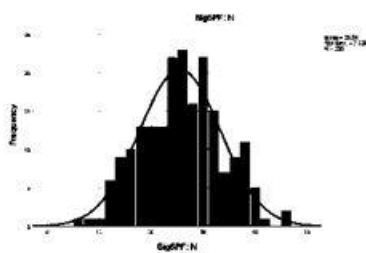


Fig. 1 a) Big 5 PF: Neuroticism

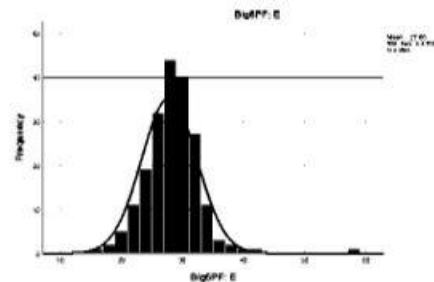


Fig. 1 b) Big 5 PF: Extraversion

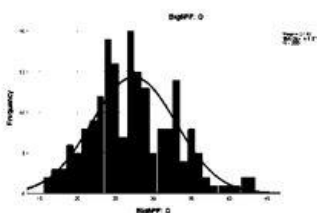


Fig. 1 c) Big 5 PF: Openness to experience

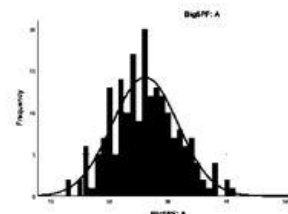


Fig. 1 d) Big 5 PF: Agreeableness

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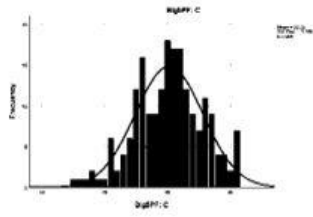


Fig. 1 e) Big 5 PF: Conscientiousness

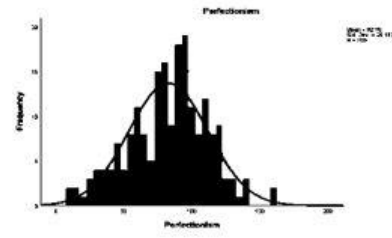


Fig. 1 f) Perfectionism

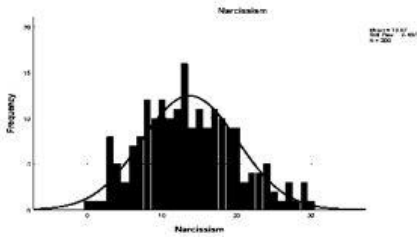


Fig. 1 g) Narcissism

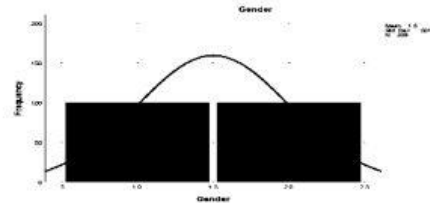


Fig. 1 h) Gender

Table 1: Representing mean and standard deviation of variables (N=200).

VARIABLES	MEAN	SD
Big 5 PF: Neuroticism	25.54	7.828
Big 5 PF: Extraversion	27.85	4.518
Big 5 PF: Openness to Experience	27.41	5.571
Big 5 PF: Agreeableness	26.08	5.618
Big 5 PF: Conscientiousness	30.25	5.386
Perfectionism	82.76	29.183
Narcissism	13.67	6.405
Gender	1.5	.501

Table 2: Descriptive statistics and correlations for narcissism and perfectionism

VARIABLES	MEAN	S.D.	N	PEARSON'S CORRELATION COEFFICIENT (r)
Narcissism	13.67	6.405	200	.267**
Perfectionism	82.76	29.183	200	

Note: **. Correlation is significant at the 0.01 level (2-tailed), $p = .000$

Table 3: Descriptive statistics and correlations for neuroticism and narcissism

VARIABLES	MEAN	S.D.	N	PEARSON'S CORRELATION COEFFICIENT
Neuroticism	25.54	7.828	200	-.100
Narcissism	13.67	6.405	200	

Note: $p = .159$

Table 4: Descriptive statistics and correlations for neuroticism and perfectionism

VARIABLES	MEAN	S.D.	N	PEARSON'S CORRELATION COEFFICIENT
Neuroticism	25.54	7.828	200	.484**
Perfectionism	82.76	29.183	200	

Note: **. Correlation is significant at the 0.01 level (2-tailed), $p = .000$

Table 5: Descriptive statistics and correlations for conscientiousness and narcissism

VARIABLES	MEAN	S.D.	N	PEARSON'S CORRELATION COEFFICIENT
Conscientiousness	30.25	5.386	200	.137
Narcissism	13.67	6.405	200	

Note: $p = .052$

Table 6: Descriptive statistics and correlations for conscientiousness and perfectionism

VARIABLES	MEAN	S.D.	N	PEARSON'S CORRELATION COEFFICIENT
Conscientiousness	30.25	5.386	200	-.014
Perfectionism	82.76	29.183	200	

Note: $p = .849$

Table 7: Descriptive statistics and correlations for agreeableness and narcissism

VARIABLES	MEAN	S.D.	N	PEARSON'S CORRELATION COEFFICIENT
Agreeableness	26.08	5.618	200	-.241**
Narcissism	13.67	6.405	200	

Note: **. Correlation is significant at the 0.01 level (2-tailed), $p = .001$

Table 8: Descriptive statistics and correlations for agreeableness and perfectionism

VARIABLES	MEAN	S.D.	N	PEARSON CORRELATION COEFFICIENT
Agreeableness	26.08	5.618	200	-.466**
Perfectionism	82.76	29.183	200	

Note: **. Correlation is significant at the 0.01 level (2-tailed), $p = .000$

Table 9: Descriptive statistics and correlations for extraversion and narcissism

VARIABLES	MEAN	S.D.	N	PEARSON CORRELATION COEFFICIENT
Extraversion	27.85	4.518	200	.305**
Narcissism	13.67	6.405	200	

Note: **. Correlation is significant at the 0.01 level (2-tailed), $p = .000$

Table 10: Descriptive statistics and correlations for extraversion and perfectionism

VARIABLES	MEAN	S.D.	N	PEARSON CORRELATION COEFFICIENT
Extraversion	27.85	4.518	200	.113
Perfectionism	82.76	29.183	200	

Note: $p = .112$

Table 11: Descriptive statistics and correlations for openness to experience and narcissism

VARIABLES	MEAN	S.D.	N	PEARSON CORRELATION COEFFICIENT
Openness to Experience	27.41	5.571	200	-.112
Narcissism	13.67	6.405	200	

Note: $p = .115$

Table 12: Descriptive statistics and correlations for openness to experience and perfectionism

VARIABLES	MEAN	S.D.	N	PEARSON CORRELATION COEFFICIENT
Openness to Experience	27.41	5.571	200	-.096
Perfectionism	82.76	29.183	200	

Note: $p = .177$

Table 13: Independent samples test results for gender differences in narcissism

Variable	Gender	N	Mean	S.D.	Mean Difference	t	df	Sig.(2-tailed)
Narcissism	(Male)	100	15.06	6.613	2.780	3.136	198	.002
	(Female)	100	12.28	5.902				

Table 14: Independent samples test results for gender differences in perfectionism

Variable	Gender	N	Mean	S.D.	Mean Difference	t	df	Sig.(2-tailed)
Narcissism	(Male)	100	85.39	30.314	5.260	1.277	198	.203
	(Female)	100	80.13	27.911				

Figure 2: Representing regression plots for a) Perfectionism and b) Narcissism

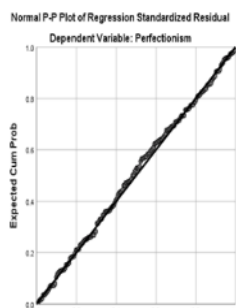


Fig. 2 a) Perfectionism

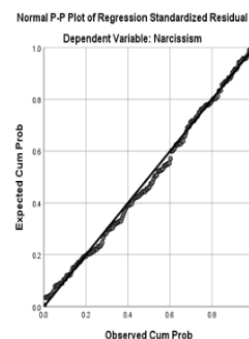


Fig. 2 b) Narcissism

Table 15: Model summary of stepwise regression analyses for perfectionism as dependent variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.484 ^a	.234	.230	25.608
2	.590 ^b	.348	.341	23.690
3	.609 ^c	.370	.361	23.332

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Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
a. Predictors: (Constant), Big5PF: N				
b. Predictors: (Constant), Big5PF: N, Big5PF: A				
c. Predictors: (Constant), Big5PF: N, Big5PF: A, Big5PF: O				
Dependent Variable: Perfectionism				

Note: The variables entered were: Neuroticism, Agreeableness and Openness to experience. Model Summary of stepwise regression analyses for perfectionism as dependent variable (Table 15) revealed R= .609, R square= .370 and adjusted R square= .361 when neuroticism, agreeableness and openness to experience were entered as predictors.

Table 16: ANOVA statistics for perfectionism as dependent variable

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39641.504	1	39641.504	60.452	.000 ^b
	Residual	129838.976	198	655.752		
	Total	169480.480	199			
2	Regression	58924.165	2	29462.082	52.498	.000 ^c
	Residual	110556.315	197	561.200		
	Total	169480.480	199			
3	Regression	62785.076	3	20928.359	38.446	.000 ^d
	Residual	106695.404	196	544.364		
	Total	169480.480	199			
a. Dependent Variable: Perfectionism						
b. Predictors: (Constant), Big5PF: N						
c. Predictors: (Constant), Big5PF: N, Big5PF: A						
d. Predictors: (Constant), Big5PF: N, Big5PF: A, Big5PF: O						

ANOVA for perfectionism (Table 16) indicates highest F value of 60.45 for neuroticism as a predictor, which signals significance.

Table 17: Coefficients of Stepwise Regression Analyses for Perfectionism as dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.723	6.192		5.931	.000
	Big5PF: N	1.803	.232	.484	7.775	.000
2	(Constant)	94.579	11.412		8.288	.000
	Big5PF: N	1.411	.225	.379	6.280	.000
	Big5PF: A	-1.835	.313	-.353	-5.862	.000
3	(Constant)	108.148	12.340		8.764	.000
	Big5PF: N	1.592	.232	.427	6.878	.000
	Big5PF: A	-1.657	.316	-.319	-5.250	.000
	Big5PF: O	-.834	.313	-.159	-2.663	.008
Dependent Variable: Perfectionism						

Coefficients of stepwise regression for perfectionism (Table 17) indicate highest correlation coefficient of .484 and t= 7.775 for neuroticism.

Table 18: Model Summary of stepwise regression analyses for Narcissism as dependent variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.305 ^a	.093	.088	6.116
2	.366 ^b	.134	.125	5.991
3	.403 ^c	.162	.149	5.908
a. Predictors: (Constant), Big5PF: E				
b. Predictors: (Constant), Big5PF: E, Big5PF: A				
c. Predictors: (Constant), Big5PF: E, Big5PF: A, Big5PF: N				
Dependent Variable: Narcissism				

Note: The variables entered were: Extraversion, Agreeableness and Neuroticism. Model Summary of stepwise regression analyses for narcissism as dependent variable (Table 18) revealed R= .403, R square= .162 and adjusted R square= .149 when extraversion, agreeableness and neuroticism were entered as predictors.

Table 19: ANOVA statistics for Narcissism as dependent variable

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	757.154	1	757.154	20.240	.000 ^b
	Residual	7407.066	198	37.409		
	Total	8164.220	199			
2	Regression	1092.936	2	546.468	15.224	.000 ^c
	Residual	7071.284	197	35.895		
	Total	8164.220	199			
3	Regression	1323.403	3	441.134	12.639	.000 ^d
	Residual	6840.817	196	34.902		
	Total	8164.220	199			
a. Dependent Variable: Narcissism						
b. Predictors: (Constant), Big5PF: E						
c. Predictors: (Constant), Big5PF: E, Big5PF: A						
d. Predictors: (Constant), Big5PF: E, Big5PF: A, Big5PF: N						

ANOVA for Narcissism (Table 19) indicates highest F value of 20.24 for extraversion as a predictor, which signals significance.

Table 20: Coefficients of Stepwise Regression Analyses for Narcissism as dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.648	2.707		.609	.543
	Big5PF: E	.432	.096	.305	4.499	.000
2	(Constant)	8.803	3.536		2.490	.014
	Big5PF: E	.393	.095	.277	4.146	.000
	Big5PF: A	-.233	.076	-.205	-3.059	.003
3	(Constant)	14.366	4.104		3.500	.001
	Big5PF: E	.383	.094	.270	4.087	.000
	Big5PF: A	-.294	.079	-.258	-3.730	.000
	Big5PF: N	-.144	.056	-.176	-2.570	.011
Dependent Variable: Narcissism						

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Coefficients of stepwise regression for narcissism (Table 20) indicate highest correlation coefficient of .305 and $t = 4.499$ for extraversion.

CONCLUSION

It is concluded that narcissism and perfectionism have a significant positive correlation. The Big 5 PF are correlated with narcissism and perfectionism. Neuroticism and perfectionism have significant positive correlation. Agreeableness has significant negative correlation with both, perfectionism and narcissism. Extraversion is the only Big 5 PF that is positively correlated with both the variables; narcissism and perfectionism. Openness to experience is negatively correlated with narcissism and perfectionism. Gender differences exist in Narcissism, but not in Perfectionism.

Limitations

The variables of this study are broad and contradictory. Unavailability of short standardized scales. Some dated research findings had to be quoted due to absence of latest relevant research. Participants' preconception about narcissism and perfectionism may have influenced their responses. Mixed findings do not permit to conclude on Narcissism and Perfectionism.

Future directions

Use of more rigorous statistical techniques is recommended for in-depth analyses. Randomized sampling techniques will help to generalize the results with more confidence. Longitudinal study considering all three variables can be done, to gain more insight. Developing a theory on narcissism and perfectionism which utilizes predictive value of Big 5 PF.

Implications of the study

The current research proposes that since narcissism and perfectionism show significant positive correlation, in order to understand either better; knowledge of both can be utilized. Extraversion is the Big 5 PF that plays a significant role in favour of narcissism and perfectionism. Males and females differ on domain of narcissism. Perfectionism has no gender differences. The Big 5 PF characterised as good; agreeableness and openness to experience are negatively correlated with narcissism and perfectionism. There is not enough evidence to label narcissism and perfectionism as good or bad; hence it is found in grey areas of personality triad.

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Conflict of Interest

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