

# Narcissism, core self-evaluation, and interpersonal trust among Chinese university students

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## Abstract

At present, with the continuous popularization and deepening of education, Chinese young people have an increasingly high need for self-awareness and self-cognition. Young people are beginning to think about who they are, they have a great passion for what they look like, they want to become the real sense of their own, their own different. Young people hold the hope of the future life, eager to become a personality, recognized outstanding. Starting from the relationship between narcissism level, core self-evaluation and interpersonal trust, this study explores the personality development of Chinese college students and puts forward targeted intervention suggestions. Demographic variables (gender, place of birth, only child, major, grade) were used in this study, and the Narcissistic Personality Inventory (NPI) was adopted. the Core Self-evaluation Scale (CSES), the Interpersonal Trust Scale (ITS) explores the relationships among narcissism, core self-evaluation and interpersonal trust among Chinese college students in the context of Chinese culture. Through data collation and analysis, this study found that the fairly even distribution of respondents across various demographic categories (sex, place of origin, family background, major, and year of study ensures that the findings are not skewed towards a particular demographic and are more representative of the overall student population. Also, respondents have average levels of narcissism, core self-evaluation, and interpersonal trust which implies healthy psychological profile for university students. In addition, the study reveals that sex, origin, and grade significantly influence the levels of narcissism, core self-evaluation, and interpersonal trust among university students. Specifically, men tend to exhibit higher narcissism and core self-evaluation than women, while women report higher interpersonal trust. Likewise, urban students show higher self-admiration compared to rural students, whose interpersonal trust is greater. Interestingly, interpersonal trust declines as students progress through their academic years, with marginal significance observed in the factor of being an only child. These findings emphasize the complex interplay between individual characteristics and social factors in shaping psychological constructs. Results also revealed that strong positive correlations

among the different dimensions of narcissism. However, narcissism was found to have a significant negative correlation with both core self-evaluation and interpersonal trust. Conversely, core self-evaluation and interpersonal trust exhibited a significant positive correlation. Lastly, narcissism significantly predicts lower levels of both core self-evaluation and interpersonal trust, while core self-evaluation significantly predicts higher levels of interpersonal trust. Additionally, core self-evaluation has a significant mediating effect on the prediction of narcissism and interpersonal trust, and the mediating effect is mainly on covert narcissism.

**Keywords:** narcissism, core self-evaluation, interpersonal trust

## Narcissism, core self-evaluation, and interpersonal trust among Chinese university students

### 1. Introduction

At present, with the continuous popularization and deepening of education, Chinese young people have an increasingly high need for self-awareness and self-cognition. Young people begin to think about who they are, who they want to be, their relationship with their family of origin, and what kind of people or groups their personalities are better suited to contact. Young people explore their own looks with great enthusiasm, they aspire to be the true sense of their own, different from their own. Young people hold the hope of the future life, eager to become a personality, recognized outstanding. In other words, young people today are not only concerned with what they look like, but also set their ideal self as an outstanding self-image and desire that this outstanding image be recognized by themselves and others. Some studies have found that people's narcissism level is increasing worldwide, and the narcissism level of Chinese college students has exceeded that of American students (You et al., 2013). This significantly affects young people's self-evaluation, social relationships and even their choice of a mate.

Long ago, narcissism was seen as a clinical personality disorder. But starting in the '90s, personality psychologists changed the way we think about narcissism, and it's now seen as a normally distributed personality trait. Individuals with a high level of narcissism prefer to fully express themselves in front of others, have a strong desire to express themselves, and tend to present positive aspects of themselves to facilitate the establishment of a large number of interpersonal relationships with others. Psychologists Jean and Campbell have pointed out that "modern society is an epidemic of narcissism." And a recent study showed rising levels of narcissism among American millennials (Twenge et al., 2008). It can be seen that narcissism in modern people is very common, especially among young people. With the popularization of education and economic development, Chinese society has placed more and more emphasis on personal value and self-realization, and people seem to be becoming more and more "narcissistic". When narcissism manifests in extreme, pathological ways, it constitutes narcissistic personality disorder; In contrast, in the normal population, narcissism is seen as a personality trait. At present, the cultivation and education of college students' healthy personality is the focus of general attention. Therefore, this paper attempts to explore the narcissistic personality of college students (Wang, 2024). Individuals with internal control type will attribute results to their own abilities, while individuals with external control type often attribute results to external factors such as luck (Zhang, 2019). The structural verification of these four personality traits has been the focus of core self-evaluation research. Many studies have found that the four core traits have a high factor load on a common factor. This implies that there is a more basic core self-evaluation structure behind the four core traits.

Interpersonal trust is a broad expectation, which is conducive to emotional disclosure and help seeking, making it easier to overcome psychological problems (Fumero et al., 2009). Risk factors for mental health distress include low trust in strangers and low life satisfaction (Martinez et al., 2019), and interpersonal trust can predict the level of loneliness of college students (Zhou et al., 2011). Shan (2007) studied male juvenile delinquents in Shandong Province and found that their interpersonal trust level was significantly lower than that of male students of the same age. All these indicate that interpersonal trust plays a non-negligible role in life for individual mental health, subjective well-being, life satisfaction and interpersonal communication. University students are in a young and energetic stage, and they will be the pillars of the motherland and take on the great responsibility of building socialism in the future. If their interpersonal trust level is too low, Then it will affect their interpersonal relationships, will affect the team cooperation, reduce their future work efficiency, and even lead to some psychological problems or mental illness, then the situation will not be optimistic. Therefore, paying attention to the interpersonal trust of university students will find some problems in advance, prepare for

them, and prevent some unpredictable situations.

Previous studies have found that there is a significant negative correlation between the level of narcissism and interpersonal communication, that is, individuals with high levels of narcissism may have more problems in interpersonal communication. Further studies have found that individuals with high levels of narcissism have lower levels of interpersonal trust, lower feelings of guilt about taking advantage of others, and are even more likely to engage in aggressive and retaliatory behavior toward others (Vize et al., 2020; Konrath et al., 2014). High levels of narcissism imply high levels of positive self-evaluation, which means that individuals with high levels of narcissism are also likely to have high levels of core self-evaluation. They are very concerned about their own success and the envy of others, which is manifested as a grandiosity of self and a sense of privilege in interpersonal relationships. Of course, this grandiosity of self-recognition and performance is also the externalization of their core self-evaluation content (Back et al., 2010). However, Chinese scholar Wu found that the close relationship between an individual's core self-evaluation level and interpersonal interaction, especially the emotional interaction from others, has a significant positive correlation with an individual's positive self-evaluation. The relationship between individual core self-evaluation and interpersonal interaction and interpersonal trust cannot be ignored.

In summary, this study intends to use random sampling method to measure the narcissism level of Chinese university students, and investigate the relationship between their narcissism level and core self-evaluation and interpersonal trust. The study intends to select students of different genders, grades and places of origin as survey objects, collect data in the form of questionnaires, and use differentiation analysis, correlation analysis and other methods for statistical processing.

This study not only contributes to the theoretical level, but for the current Chinese university students with high narcissism level, it is of great significance to understand its related factors and explore how it plays a role in the intervention of university students' mental health. With the help of the research results, psychological counselors, psychological teachers and other personnel can more targeted intervention for the relevant problems existing in college students, and effectively improve the mental health level of university students. As a result of this study, a psychological program for university students with average levels of interpersonal trust, core self-evaluation, and narcissism should aim to enhance emotional intelligence, self-awareness, and healthy self-esteem while promoting positive relationships and preparing students for challenges. By developing skills in emotional awareness, empathy, and relationship-building, students can improve their interpersonal interactions and overall well-being. Additionally, fostering self-awareness and a balanced sense of self-worth can empower students to make informed decisions and navigate academic and personal obstacles effectively.

**Objectives of the Study** - This study explored the influence of narcissism on the interpersonal trust core self-evaluation as well as the possible relationship among narcissism and core self-evaluation, and interpersonal trust of Chinese university students. Specifically, this paper first described the demographic variables of Chinese university students in terms of their sex, residence, major, whether they are the only child, physical health and grade; determined the narcissism, interpersonal trust, and core self-evaluation of the respondents; tested the differences among the variables when compared based on their demographic variables; examined the possible correlation among the studied variables; investigated the influence of narcissism on the core self-evaluation and interpersonal trust of the respondents; and proposed intervention program for Chinese university students to foster personal growth, improve social competence, and enhance overall well-being among university students. .

## 2. Methods

**Research Design** - In the study "Narcissism, core self-evaluation, and interpersonal trust among Chinese university students," the descriptive survey method was employed to collect quantitative data from participants. This method involved administering structured questionnaires or surveys to a sample population to gather information about their thoughts, feelings, attitudes, and behaviors regarding the variables of interest. In this

particular study, the survey likely contained items designed to measure levels of narcissism, core self-evaluation (an individual's fundamental appraisal of their worth and capabilities), and interpersonal trust (the belief in the reliability and goodwill of others) among Chinese university students (Zhong., et al., 2018; Fan., et al., 2023). The descriptive survey method was chosen due to its efficiency in gathering data from a large number of participants in a relatively short amount of time. By using standardized questionnaires, researchers could ensure consistency in data collection and facilitate comparisons across participants. Additionally, this method allows for the quantification of complex psychological constructs, enabling statistical analysis and the identification of patterns and relationships between narcissism, core self-evaluation, and interpersonal trust within the sample population. The insights gained from this descriptive survey contribute to a better understanding of these variables and their interplay in the Chinese university context (Zhou, 2018; Guo., et al. 2024).

**Participants of the Study** - The study participants were university students from various majors, grades, and genders. To ensure a diverse sample, participants were randomly selected from different universities across China using Wenjuanxing, a popular online survey platform. Questionnaires were distributed through multiple channels: psychology teachers shared them with their classes, university counselors disseminated QR codes and links through student QQ groups, and posts containing QR codes and test links were shared on online forums frequented by university students. Participation was voluntary and confidential, and interested students could access the questionnaire via the provided links or QR codes. Additionally, to incentivize participation, some students were offered compensation for completing the survey.

### **Measures**

**The Narcissistic Personality Inventory (NPI)** designed by Raskin et al.,(1979) is Narcissistic, with 54 questions in total. Those who scored higher meant that they were self-centered, expressive, communicative, and controlling, and were later modified to 40 questions, dividing narcissism into: autonomy, entitlement, exhibitionism, exploitation, self-sufficiency, superiority, and vanity. The most commonly used Chinese version is the scale for Chinese localization compiled by Zheng et al.,(2005) with reference to the existing narcissism measurement scale abroad. The scale has 28 questions and can simultaneously measure both overt and covert narcissistic personalities. Five-point Likert score was used. Scale scores are proportional to levels of narcissism, meaning that high scores indicate high levels of narcissism. In the meta-analysis study by Grijalva et al.,(2023), they utilized the Narcissistic Personality Inventory (NPI), and results revealed a complex relationship between narcissism and leadership. The scale has good reliability and validity, the internal consistency reliability of overt narcissism is 0.77, and the internal consistency reliability of implicit narcissism scale is 0.73, which has good reliability (Brailovskaia et al., 2019; Dinić et al., 2021; Krizan et al., 2018).

**Core Self-evaluation Scale, CSES.** The Core Self-Evaluation Scale (CSES) was developed by Timothy A. Judge, Edwin A. Locke, and Cathy C. Durham, and it was first published in 2003. It is a 12-item questionnaire designed to assess an individual's fundamental appraisal of their worth, competence, and capabilities. It measures four underlying personality traits: self-esteem, generalized self-efficacy, locus of control, and emotional stability (low neuroticism). A recent study published in *Current Psychology* (2022) investigated the influence of core self-evaluation (CSE) on job search outcomes among Chinese university students. The research found that students with higher CSE scores, as measured by the CSES, demonstrated better job search outcomes, including securing more job offers and higher starting salaries. This effect was partially mediated by career exploration and career adaptability, suggesting that students with positive self-perceptions are more proactive in their job search and better equipped to adapt to career challenges. The  $\alpha$  coefficient of the revised core self-assessment scale was 0.83, the half-point reliability was 0.84, and the retest reliability at a 3-week interval was 0.82(Beléndez et al., 2018; Henderson et al., 2019; Zou et al., 2022).

**Interpersonal Trust Scale (ITS),** The Interpersonal Trust Scale (ITS) was developed by Julian Rotter in 1967 to measure an individual's generalized expectancy that others can be relied upon. The scale consists of 25 items, with higher scores indicating a greater propensity to trust others. It has been widely used in research to

examine the relationship between trust and various social, psychological, and economic outcomes. A recent study published in *Frontiers in Psychology* (2020) utilized the ITS to compare the psychometric properties of three trust scales in a Chinese context. The Cronbach's alpha reliability coefficient for the Interpersonal Trust Scale (ITS) has been reported to range from .76 to .82 in various studies. This indicates that the scale has good internal consistency, meaning that the items within the scale are reliably measuring the same construct (Zhang, 2021; Krueger et al., 2019; Spadaro et al., 2020).

**Data Gathering Procedure** - Before the establishment of this study, in the process of work, the researcher had in-depth thinking about the problems and problems faced by students and patients, and had in-depth discussions with university students and patients, which not only accumulated rich research materials, but also had rich clinical practice experience. After a large number of on-site observation and structured and unstructured interviews, it is found that for Chinese university students, questions about "me" have become particularly interesting to them: Who I am, what kind of personality I am, whether my personality is a help/hindrance to my future, what kind of person I can be, what kind of people I am more likely to be friends with, whether my personality fits with that of my friends/family. Not only that, previous studies have found that the level of narcissism of Chinese university students is higher than expected. In light of these questions, the researchers decided to explore the level of narcissism among university students and its related factors. On the basis of reading a lot of monographs and literature, the researchers decided to focus on the level of narcissism, self-evaluation and interpersonal relationship of university students. After writing confirmation with the research supervisor, it was finally confirmed that narcissism level, core self-evaluation and interpersonal trust were used as research variables (Khan et al., 2023; Neviccka et al., 2018; Xu et al., 2020). The researcher collects data around the research theme and variables, and on this basis, repeatedly discusses with the supervisor, and carries out the research strictly and gradually with the approval of the supervisor. And read, select and write the thesis with the help of the supervisor. Considering the convenience of measurement in the Chinese cultural environment, the researchers searched for the Chinese version of the questionnaire revised by predecessors, and the selected translation version also had good reliability and validity (Zhou et al., 2023; Gao et al., 2018; Ruan et al., 2022). After completing the above work, the researcher began to distribute questionnaires through the network, planned to collect at least 600 valid questionnaires for data analysis, and used SPSS 16.0 for data statistics, and analyzed, discussed and summarized the obtained results after the data analysis.

**Data Analysis** - In this study, SPSS16.0 software is proposed to be used for data analysis mainly by the following methods: descriptive analysis, factor analysis, internal consistency coefficient analysis, correlation analysis and regression analysis. Specifically, quantitative data such as frequency and percentage, mean and standard deviation are first processed using descriptive statistics. The independent sample t-test and one-way analysis of variance (ANOVA) were then used to statistically treat the significant differences between the variables grouped according to their profiles. Pearson product moment correlation was used to find out whether there is a relationship between narcissism, core self-evaluation and interpersonal trust. Finally, regression equations were used to analyze and predict the effects of narcissism and core self-evaluation on interpersonal trust.

**Ethical Consideration** - The study design must be reviewed and approved by the Ethics Committee Lyceum of the Philippines University-Batangas Campus before the research can continue. This study resolutely protects the rights of the subjects, and strictly follows the principles of ethics, voluntarism, confidentiality, and benefit and harmlessness. At the beginning of each questionnaire, the researchers explained the purpose and significance of the research to the participants in detail. Before all participants participated in the test, an informed consent form was issued. After obtaining the informed consent of the participants, the survey was carried out, and the privacy of the participants and the content of the questionnaire were guaranteed not to be leaked. Each participant participated voluntarily, anonymously, and was asked to answer questions truthfully and honestly. They were also told that they could voluntarily withdraw from the survey if they did not wish to participate. If the scale in the survey induces the patient's bad emotions, the researcher can also provide appropriate psychological support.

### 3. Results and discussion

**Table 1**

*Profile of the Respondents (N=650)*

Variables	n	%
Sex		
Male	306	47.1
Female	344	52.9
Place of Origin		
Rural areas	407	62.6
City	243	37.4
Only child or not		
Only Child	272	41.8
Non-only Child	378	58.2
Major		
Liberal arts	314	48.3
Science	336	51.7
Grades		
Freshman	182	28.0
Sophomore	170	26.2
Junior	156	24.0
Senior	84	12.9
Post graduate	58	8.9

Table 1 displays the distribution of the profiles of the subjects. At the gender level, 47.1% of men and 52.9% of women were surveyed. This is the same gender distribution found in most Chinese studies. First, the gender ratio is roughly the same, and second, women make up slightly more students than men in China's higher education (Jia et al., 2019). In terms of student origin, there are 407 students from rural areas, accounting for 62.6% of the total proportion of subjects, which is also more consistent with the proportion of urban and rural population in China. In order to ensure the universality and quality of education, more institutions of higher education in China are public schools, which have lower tuition fees and can provide financial support such as scholarships and bursaries for students with financial difficulties to ensure that they complete their studies. Therefore, the proportion of higher education students in China is roughly the same as the proportion of urban and rural population. In other words, the rural population is relatively large, and the proportion of students from rural areas is also high. This shows that the Chinese government has tried its best to provide a fair education environment for Chinese students receiving higher education (Lin et al., 2020).

Due to China's population control policy, the one-child policy was promulgated in the last century, that is, each couple can only have one child. Considering this characteristic phenomenon, and that the only child or non-only child or even the birth order of children in the family may affect an individual's personality and psychological state, information on whether the participants had siblings was also collected during the study. From the data results, it can be found that among all the participants in the study, only children accounted for 41.8%. Although China has loosened the one-child policy earlier, most of the students in university are over 18 years old. Therefore, the one-child policy around 2002 can better reflect the population distribution of the only child and non-only child of the subjects in this study. Reflected in the data of this study, the proportion of only children among the subjects is still nearly half. The effect of the number of children on individual psychology will be further analyzed in the data later in this study (Zhou et al., 2019).

As for the subjects' majors, there are nearly 800 majors in China's higher education, especially the undergraduate education for this study, all of which are divided into 92 professional categories. All the majors belong to 12 disciplines, which are philosophy, economics, law, education, literature, history, science, engineering, agriculture, medicine, management, and art. These disciplines can be classified into the humanities and natural sciences. Among them, the humanities include philosophy, economics, law, education, literature, history, management, and art, while the natural sciences include science, engineering, agriculture, and medicine (Quan et al., 2021). In this study, 314 students of humanities were selected, accounting for 48.3% of the total

subjects, and 336 students of natural sciences, accounting for 51.7%.

In the undergraduate stage of higher education in China, most majors have a four-year duration, while a few majors, such as medicine and architecture, have a five-year duration. Therefore, this study divides students' grades from grade one to grade five. In the actual investigation process, apart from grade five students participating in the data collection, a small number of graduate students also participated in the investigation. All graduate students are classified as post graduates. Due to the small number of majors with the fifth grade, the proportion of post graduates in the grade of the subjects is relatively small, a total of 58 people, accounting for 8.9% of the total subjects. In addition to completing part of the school courses and graduation projects, most of the senior students leave the school for work practice activities. Therefore, in this study, the proportion of senior students is also slightly lower. A total of 84 senior students participated in the study, accounting for 12.9% of all the subjects.

The data shows that most respondents are female (52.9%), from rural areas (62.6%), not only children (58.2%), studying science (51.7%), and are either freshmen (28.0%), sophomores (26.2%), or juniors (24.0%).

**Table 2**

*Narcissism Level of the Respondents (N=650)*

Dimensions	M	SD	Interpretation
Overt narcissism	56.24	12.43	Average
Lust for power	16.83	4.21	Average
Superiority	16.87	4.25	Average
Sense of privilege	14.12	3.52	Average
Self-admiration	8.42	2.35	Average
Covert narcissism	42.09	9.73	Average
Susceptible substance	19.55	4.95	Average
Sense of privilege	14.15	3.61	Average
Self-admiration	8.39	2.45	Average

Table 2 presents the scores of the participants in the narcissism scale. The Chinese version of NPI consists of 28 questions, which are scored using a five-point Likert scale. In the NPI scale, narcissism is divided into explicit narcissism and implicit narcissism, while explicit narcissism is divided into power desire, superiority, privilege and self-admiration, while implicit narcissism is divided into susceptibility, privilege and self-admiration. Among them, the self-admiration dimension of explicit narcissism and implicit narcissism includes the same items. The dimensions of privilege shared by explicit and implicit narcissism have some items of double counting, but also contain specific items, so the two types of narcissism have different scores of privilege (Brailovskaia et al., 2019).

As can be seen from Table 2, the total score of the NPI overt narcissism was  $56.24 \pm 12.43$ , while the total score of the covert narcissism was  $42.09 \pm 9.73$ . This score shows that the narcissism score of undergraduate students in Shandong is at the middle level. In the data collected in this study, the subjects' scores in all subscales, explicit narcissism and implicit narcissism, and the total score were at the middle level. This is consistent with previous studies based on the narcissism level of Chinese college students (Hou et al., 2020, Liu et al., 2021). The data collected in this research are representative of the current Chinese higher education, especially undergraduate education. The data collected in this study are valuable for further analysis.

Overall, table 2 presents the narcissism scores of Shandong undergraduate students using the Chinese version of the Narcissistic Personality Inventory (NPI). The results indicate that overall narcissism levels are moderate, consistent with previous studies (Miller et al., 2021). Both explicit and implicit narcissism subscales also showed average scores. This data provides a valuable baseline for further analysis of narcissism among Chinese university students.



**Table 3***Core self-evaluation of the Respondents (N=650)*

Dimensions	M	SD	Interpretation
Core self-evaluation	31.80	5.35	Average

Table 3 shows the scores of the subjects in the core self-evaluation scale. The Chinese version of the Core Self-Evaluation scale (CSES) adopted in this study includes 10 questions, and five-point Likert scores are used. The Chinese version of CSES has no subscale and only measures one dimension of core self-evaluation. In this study, the score of the subjects was  $31.80 \pm 5.35$ , which was the average score. This score is the same as that of the core self-evaluation measurement of Chinese college students in recent years (Huang et al.2023, Cao et al.2023). Not only that, in the recent studies on Chinese subjects, when practitioners of various occupations were taken as research subjects and their core self-evaluation was measured, the scores of the subjects also belonged to the medium level. It was slightly lower than the scale score of university students, but the difference was not significant, such as  $29.87 \pm 4.79$ , (Zhang et al., 2022),  $27.94 \pm 4.43$  (Liu et al., 2023). This not only indicates that the core self-assessment scores of the subjects selected in this study are representative, but also reflects that the research results of core self-assessment in this study are not only in university students, but also in working adults.

Core self-evaluation is the core and basic evaluation of an individual's ability. It is also the way and result of individual self-evaluation (Far et al., 2020), the subjects collected in this study were at the average level of personal evaluation. This shows that university students' evaluation of individuals is relatively middle in China. It is no longer the inherent Chinese cultural concept that has a tendency to underestimate the value of individuals (Xiang et al., 2019) This shows that in the current Chinese higher education, university students' evaluation of themselves is no longer blindly belittling, but trying to get closer to the relatively objective level. However, Chinese university students' more objective self-cognition makes their self-cognition, mental health, future career selection and other aspects more rational and more in line with their current situation. But according to previous research, At present, the level of narcissism of Chinese university students is also higher than before (Gao et al., 2019), Healthy narcissism helps individuals maintain good mental health (Brailovskaia et al., 2021), may also improve individual self-perception, Produces high core self-evaluation. This may balance the quality of "modesty" in traditional Chinese culture, so that the core self-evaluation of Chinese university students is no longer at a low level, but reaches an average score. It is pleasing to note that objective core self-evaluation has an impact on an individual's mental health (Zou et al., 2022), the development of creativity (Zhang et al., 2020), career selection (Chen, et al. 2023) and other aspects have positive effects. The changing trend of core self-evaluation among Chinese university students reveals their healthier mental state and possible better personal development in the future to a certain extent. This is also a manifestation of the role of mental health education in Chinese university students. Of course, this is also closely related to the fact that in recent years, China's higher education attaches importance to students' mental health and actively organizes mental health-related activities.

**Table 4***Interpersonal trust of the Respondents (N=650)*

Dimensions	M	SD	Interpretation
Interpersonal trust	78.24	16.99	Average

Table 4 presents the subjects' interpersonal trust scores. The Chinese version of Interpersonal Trust Scale (ITS) adopted in this study includes 25 items, which are measured using five-point Likert scale. The scale includes only one measurement dimension, interpersonal trust. The subjects selected in this study scored  $78.24 \pm 16.99$  in this scale, which belongs to the medium score level. This score is not only similar to the interpersonal trust level of Chinese university students in recent years,  $74.37 \pm 18.88$  (Ye et al., 2022), It is also similar to the current interpersonal trust level of all age groups in China  $75.22 \pm 20.01$  (Zheng et al., 2022).

70.58±14.20 (Bao et al., 2022). This indicates that in the interpersonal trust variable, this study can be extended to the interpersonal trust level of Chinese university students, and also can be extended to some extent to adults who have left school.

The average level of interpersonal trust also corresponds to the average score of the core self-evaluation in table2 to some extent. Interpersonal trust and individual mental health, Subjective well-being (Martinez, et al. 2019), Work efficiency (Ma et al., 2019), Innovation ability (Lei et al., 2019) has a close relationship, and interestingly, as you can see in the discussion in table4, Core self-evaluation also has a positive effect on related aspects. This may also reveal, to some extent, the internal relationship between interpersonal trust and core self-evaluation. Moreover, the medium level of interpersonal trust is often a relatively ideal level. A low level of interpersonal trust may lead to a high cost of getting along with people, or make cooperation an impossible task, while a high level of interpersonal trust may violate individual boundaries. Interfering with personal values (Ma, et al. 2019) and that's not what mental health workers want to see. The moderate fluctuation of interpersonal trust can well avoid the negative effects caused by too high or too low period, so that the individual sense of value and personal boundary can be better protected, and at the same time, good cooperative relationship can be established. Improve cooperation efficiency (Krueger, et al. 2019).

**Table 5**

*Differences in the Narcissism Compared According to Profile (N=650)*

Profile	Gender		Place of Origin		Only child or not		Major		Grade	
	<i>t/F</i>	<i>p</i>	<i>t/F</i>	<i>p</i>	<i>t/F</i>	<i>p</i>	<i>t/F</i>	<i>p</i>	<i>t/F</i>	<i>p</i>
Overt narcissism	7.28	0.000***	-1.14	0.254	0.58	0.562	0.05	0.961	0.63	0.641
Lust for power	8.03	0.000***	-1.07	0.285	0.88	0.378	0.27	0.785	0.36	0.838
Superiority	6.05	0.000***	-0.58	0.564	0.49	0.625	0.29	0.774	0.89	0.471
Sense of privilege	5.02	0.000***	-1.22	0.262	-0.02	0.984	-0.87	0.383	0.57	0.686
Self-admiration	5.43	0.000***	-1.38	0.169	0.66	0.507	-0.55	0.582	1.15	0.333
Covert narcissism	5.66	0.000***	-1.39	0.165	-0.08	0.937	-0.49	0.626	0.45	0.771
Susceptible substance	4.62	0.000***	-1.27	0.205	0.06	0.995	-0.35	0.728	0.52	0.721
Sense of privilege	5.41	0.000***	-1.39	0.167	-0.06	0.952	-0.91	0.363	0.31	0.869
Self-admiration	5.32	0.000***	-0.929	0.353	-0.23	0.813	-0.11	0.916	0.679	0.607

Table 5 presents the differences in scores of narcissism levels across the subjects' profile. As shown in the table, this study examined the narcissism scores of university students in different genders, places of origin, whether they are only children, majors and grades.

Firstly, there were significant differences between genders in all dimensions of narcissism, including the total score on the narcissism scale. Overt narcissism is when a person shows obvious arrogance, confidence and self-centeredness, they tend to act very confident in social situations, their words and actions are always in the center, and they like to show off their achievements and advantages. Such people tend to cause disgust and rejection of others, and their narcissistic behavior often affects their work and life. The dimension of desire for power in overt narcissism reflects the leadership and authority tendency of narcissistic personality, that is, the subjects think that they are better than others and more competent as leaders. In this study, the score of desire for power dimension of male subjects is significantly higher than that of female subjects (male: 18.17±4.00, female: 15.64±4.02) This is to some extent consistent with the gender distribution of people in leading positions in the government or enterprises in China. Men show a greater interest in power and have greater ambitions. The dimension of superiority is that the subjects think that they are excellent and that others like and pay attention to them. In this study, the score of male subjects was also significantly higher than that of female subjects (male: 17.91±4.27, female: 15.94±4.02). This score can be found that men tend to think that they are more popular with others, which is the same as the general tendency in the current Chinese society. Men who survive in Chinese culture tend to show greater self-confidence and are more confident in their attractiveness. Women, on the other hand, are often taught that they should be humble and modest, and such a value model and behavior will certainly affect individual psychology and personality.

The sense of privilege reflects the exploitative and exploitative way in which the narcissist thinks he or she

is entitled to and deserves more from others. This reflects a tendency towards aggression and possession. In men, this is often more pronounced. Moreover, in the "son preference" culture in China (and even in East Asia), the family, society and other levels tend to tilt more resources toward men, and this tilt itself is the plunder and occupation of women's resources. In such a cultural environment, both male and female individuals are inevitably affected by the cultural environment, which often makes male individuals feel more privileged. The scores of the subjects in this study also reflected this tendency, in which the scores of the male subjects were  $14.85 \pm 3.49$ , and the scores of the female subjects were  $13.48 \pm 3.43$ , and the scores of the male subjects were significantly higher than those of the female subjects. Self-admiration shows subjects' obvious self-admiration and concentration, and subjects with high self-admiration often express their affirmation and appreciation of self-ability and value.

In this study, male subjects scored significantly higher than female subjects in the dimension of self-admiration (male:  $8.93 \pm 2.26$ ; female:  $7.95 \pm 2.33$ ) This reaction tendency is also obviously in line with the recognition of male strength and power and the suppression of female status in Chinese culture. Therefore, men tend to affirm and even amplify their own charm, and in this process, they also show self-envy and focus (Bian et al., 2021). Covert narcissism is when a person displays narcissism, but their narcissistic displays are not obvious, and they tend to hide their narcissistic feelings in an effort to appear modest, polite, and compassionate. These people tend to satisfy their narcissistic needs through self-promotion and self-promotion. They often think that they are smarter, more talented, and more attractive than others, but they don't show it in social situations. In the dimension of implicit narcissism, susceptibility reflects an overly sensitive and vulnerable characteristic of the individual.

In this study, the score of male subjects was significantly higher than that of female subjects, in which male subjects scored  $20.49 \pm 4.86$  and female subjects scored  $18.72 \pm 4.87$ , which reflected that male subjects were more susceptible than female subjects. This is in line with the general belief in Chinese culture that women are more sensitive and vulnerable, while men are stronger. However, the data in this study showed that the male subjects scored significantly higher on susceptibility than the female subjects. This is obviously inconsistent with the stereotype of male personality in Chinese culture, but this stereotype has no empirical evidence to prove. Moreover, recent studies have shown that women are more resilient (Gao et al. 2022; Liu et al. 2023), and psychological resilience has a good regulating effect on individual personality, emotion and mental health level (Vella et al., 2019), which may lead to stronger psychological adaptability and endurance of women. Of course, this is not the focus of this study, but only a hypothesis that may lead to the results of this data, and subsequent studies can be further studied on this basis. In terms of privilege in implicit narcissism, although the measured items are not exactly the same as those in explicit narcissism, the dimensional meaning is the same. The score of privilege in implicit narcissism is also significantly higher for male subjects ( $14.94 \pm 3.51$ ) than for female subjects ( $13.44 \pm 3.56$ ). In covert narcissism, the score of men is also significantly higher than that of women, in which the male subjects score  $8.92 \pm 2.41$  and the female subjects score  $7.91 \pm 2.38$ .

Secondly, there is no significant difference in scores among students from different places. Whether the subjects were the only child or not had no significant impact on their narcissism level. In terms of score convenience, there was no statistically significant difference between the only child and the non-only child in each dimension of the narcissism scale and the total score of narcissism. It shows the homogeneity of only child and non-opposite child at narcissistic level (Kong et al., 2022). In terms of majors, for the convenience of data analysis, students' majors are classified according to humanities and natural sciences. There was no significant difference in the level of narcissism among students of different majors. One possibility, the researchers speculate, is that the differences between the humanities and the sciences may be more about cognitive styles, though further research is needed to confirm this. Finally, the participants in different grades also showed the same score in narcissism level, that is, there was no statistically significant difference in the scores of the participants in different grades.

**Table 6***Differences in the Core Self-evaluation Compared According to Profile (N=650)*

Profile	Gender		Place of Origin		Only child or not		Major		Grade	
	t/F	p	t/F	p	t/F	p	t/F	p	t/F	p
Total Score	3.77	0.000***	0.62	0.538	0.58	0.56	0.61	0.540	1.10	0.357

Table 6 presents the score differences of core self-evaluations in subjects' profiles. There were significant differences in the scores of core self-evaluation between different genders. The score of male subjects was  $32.63 \pm 5.12$ , which was significantly higher than that of female subjects  $31.06 \pm 5.44$ . It showed that men had higher levels of core self-evaluation than women, and this trend was the same as the difference in scores on the narcissism scale. The researchers consider that the reason for this difference may be related to China's domestic culture (Chen et al., 2023), that is, the slanting and encouraging education of male resources, while the plunder of female resources and the education concept of encouraging humility (Pan et al., 2020; Li et al., 2018). This has a significant impact on the individual personalities of both men and women, with men acting more positively, recognizing their own worth, and focusing more on demonstrating competence and competing for resources. On the other hand, women need to show humility, gentleness and sacrifice, which makes women more likely to show the debasement and denial of self-worth, and pay more attention to the attractiveness of appearance than men (Li et al., 2024).

In the former research, it is found that gender differences in core self-evaluation exist not only in the learning process, but also in the career selection process and even in the working environment. That is, male core self-evaluation is significantly higher than female core self-evaluation (Dong, et al. 2020) This may have led to women being more conservative in their job search and lower earnings for women with the same educational background. Not only that, but this lower core self-evaluation may make women have lower expectations of their own work or academic achievements, By affecting self-efficacy or otherwise preventing women from achieving higher levels of academic or work achievement (Khaola et al., 2019). This will undoubtedly hinder the overall level of economic development and technological innovation around the world. Even, this effect will be passed down between generations, making generations of women accustomed to a lower core self-evaluation of themselves, in other words, this effect may be maintained for decades or even centuries, which is tantamount to a blow to human development. Through the data analysis in table2 above, it can be found that there is a significant positive correlation between core self-evaluation and individual mental health, creativity and other factors. Therefore, women's low core self-evaluation needs more psychological resources to counter the negative impact brought by such low evaluation. This is another waste of female power. However, there was no statistically significant difference in the core self-worth of different groups in terms of origin, only child, major and grade.

**Table 7***Differences in the Interpersonal Trust Compared According to Profile (N=650)*

Profile	Gender		Place of Origin		Only child or not		Major		Grade	
	t/F	p	t/F	p	t/F	p	t/F	p	t/F	p
Total Score	-2.48	0.014*	2.00	0.046*	1.86	0.063	0.63	0.527	9.26	0.000***

Table 7 presents the differences in interpersonal trust scores across subjects' profiles. In the interpersonal trust scale, the score of female subjects ( $79.79 \pm 16.88$ ) was significantly higher than that of male subjects ( $76.50 \pm 16.96$ ). Researchers believe that this may be related to the division of labor between the sexes during evolution (Buss, 2015). Women tend to work cooperatively, such as picking wild fruit and caring for young, while men do the physical and skilled work of hunting. As a result, women develop stronger empathy and interpersonal trust skills, which help women better adapt to the group environment and collaborate with members of the group (Yi et al., 2019; Zheng., et al. 2020).

In terms of student origin, the interpersonal trust score of rural subjects ( $79.27 \pm 17.03$ ) was significantly higher than that of urban subjects ( $76.52 \pm 16.80$ ). Meaning that subjects in rural areas were more trusting of

others. This may be due to the different rural and urban cultural environments in China. In traditional Chinese culture, people believe that "distant relatives are better than close neighbors", and people interact with each other very closely. People know each other or are related to each other, and they are more willing to discuss and share things with people around them. This makes people trust each other more. In the urban environment, because the family unit is smaller and interpersonal relationships are gradually becoming more distant, people are more accustomed to not knowing each other and not bothering each other. This unconsciously stretches the relationship between people, and correspondingly reduces the level of interpersonal trust. In this study, subjects from different places of origin have significant differences in interpersonal trust scores, and those from rural areas have higher scores.

Among the only child and non-only child, the scores of the subjects did not reach the significant level, but the p value was close to 0.05 ( $p=0.063$ ), reaching the level of marginal significance. Comparing the scores of only children and non-only children, it is found that the score of only children on interpersonal trust ( $79.70\pm 17.15$ ) is significantly higher than that of non-only children ( $77.19\pm 16.81$ ). It made the non-one-child families' score lower on interpersonal trust. In addition, parents of families with only one child will encourage their children to participate in social activities for the sake of their children's social development. In order to achieve this goal, parents of only children will beautify interpersonal communication activities in all aspects. One result was that the only child subjects scored higher on interpersonal trust. There was no significant difference in interpersonal trust scores among subjects of different majors. In other words, subjects in humanities and natural sciences showed relatively similar performance in interpersonal trust.

There were significant differences in interpersonal trust scores among different grades. Through the Post Hoc test with Tukey HSD method, it is found that with the rise of grade, subjects' interpersonal trust level shows a downward trend. This drop in scores was particularly pronounced in the difference between freshman and other grades. The interpersonal trust score of freshmen ( $82.91\pm 14.94$ ) was significantly higher than that of juniors ( $76.29\pm 18.74$ ,  $p=0.003$ ) and seniors ( $74.63\pm 17.25$ , respectively).  $p=0.002$ ) and graduate students (including fifth-year, graduate and graduate students in some majors) ( $69.78\pm 17.13$ ,  $p=0.000$ ). At the same time, the interpersonal trust score of sophomore students ( $79.71\pm 15.54$ ) was significantly higher than that of graduate students ( $69.78\pm 17.13$ ,  $p=0.001$ ). This shows that with the gradual increase of grade, the interpersonal trust degree of the subjects gradually decreases, which may be caused by the large difference between the student relationship and the teacher-student relationship between the middle school and the university in China (Lian et al., 2021). The level of interpersonal trust leveled off with each grade (scores continued to decline after the third year of university, but the difference was not significant).

**Table 8**

*Correlational Matrix of Dimensions Of Narcissism, Core Self-Evaluation, and Interpersonal Trust (N=650)*

Variable	Sub-Variable	Core Self-Evaluation			Interpersonal Trust		
		$r_{xy}$	p-value	I	$r_{xy}$	p-value	I
Narcissism	Overt	-.474**	0.000	HS	-.428**	0.000	HS
	Covert	-.483**	0.000	HS	-.416**	0.000	HS
Core Self-Evaluation					.081*	0.040	S

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

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

Table 8 presents narcissism subscales and the correlation between the total score and the scores of core self-evaluation and interpersonal trust scale. In the narcissism scale, it can be found that there is a significant positive correlation between the narcissism subscales. This indicates to a certain extent that it is meaningful to select the NPI Chinese scale to measure the subjects in this study. The relationship between the subscales accords with the theoretical basis of the narcissistic personality scale. It can be found that the score of narcissism scale and each dimension of narcissism scale and the score of core self-evaluation are significantly negatively correlated with the score of narcissism scale and core self-evaluation. According to previous studies (Zhou 2012), a high level of narcissism may affect individuals' core self-evaluation, so paying attention to the relationship

between narcissism and core self-evaluation is an important step to promote this research. High narcissists tend to have a more positive perception of themselves than they actually are. This makes high narcissists think they have the power to control what happens around them, enjoy more privileges, and even develop unrealistic feelings of self-admiration in the process. On the surface, these feelings may seem like a positive self-perception. But this is often only possible under favourable circumstances (Ding, et al. 2020). But unfortunately, in fact, most situations in life are not always favorable.

High narcissists also tend to be more sensitive to setbacks, producing deeper feelings of shock and frustration than other individuals. This deeper emotional experience tends to give high narcissism a harsher jolt. It is entirely possible that this shock will go further and affect the core self-evaluation of the individual (Lasch, 2019). Moreover, we must acknowledge that in real life, it is not only the frustrating situation that may cause an individual frustration, but also the competitive activity itself that may cause frustration. High narcissists, in particular, tend to overestimate their abilities and resources and have unrealistic expectations of themselves. At the same time, they will unconsciously belittle the ability of their rivals and competitors, resulting in their own judgment that they are completely likely to win in the competition. In practice, the results of the competition may not be satisfactory (Zeigler-Hill, 2019). For individuals with high levels of narcissism, the blow is often multiple. It is not only the frustration of losing the competition, but also the lack of resources and the inappropriate self-examination of negative emotions. This emotional self-examination tends to push high narcissists from high self-evaluation to the other extreme, which is likely to produce more self-denial, resulting in low self-evaluation of the individual.

In the current China, where the population is still huge, relatively constant resources and huge population mean that there is huge competitive pressure in study or work or even life (Gao, 2019). High narcissists experience successive failures from the level of positive self-evaluation they may initially have. The experience of failure, on the other hand, causes high narcissists to think negatively about themselves, far below their true level. This may be one of the reasons why studies of local Chinese university students found that those with high levels of narcissism had lower core self-evaluations (Luo et al., 2023). In this study, narcissism scale score and interpersonal trust score also showed a significant negative correlation. And the seem results can be found in recently research (Zhong et al., 2018).

In previous studies, it can be found that the relationship between narcissism and interpersonal relationship, especially interpersonal trust, is affected by relationship type, situation and other factors. Because high narcissists tend to be more positive in short-term encounters, it's easy for people around them to notice them and make positive comments about them. In long-term interpersonal relationships, high narcissists tend to make others in the interpersonal relationship feel strongly invaded. At the same time, high narcissists are too eager to be paid attention to and admired, and even show arrogant and demeaning behaviors. All these make the surrounding individuals shy from the initial high evaluation of high narcissists and show low acceptance. Narcissism in emerging, chaotic situations may lead to relatively positive interpersonal attraction and trust outcomes, but in stable, long-term relationships, high narcissists tend to have less desirable levels of interpersonal attraction and trust.

Previous studies on narcissism and interpersonal trust have found that the relationship between different forms of narcissism and interpersonal trust is controversial. Konrath (2014) found that individuals with a high score of grandiose narcissism generally had lower trust in others. Glover et al. (2012) found that adversarial narcissism is positively correlated with low interpersonal trust. In the early stages of interpersonal relationship building, high narcissists can use social relationships to maintain their social status. However, over time, the lack of empathy and high aggression of narcissists are gradually exposed, which inevitably leads to the reduction of interpersonal trust and the deterioration of interpersonal relationships. The confrontational nature of narcissism leads to competition, which leads to negative interpersonal perceptions and social beliefs. At the same time, narcissists always make opposing assumptions in order to protect their personal interests. In long-term interpersonal communication, the characteristics of high narcissists, such as lack of empathy and high aggression,

have been fully displayed. Therefore, the relationship between narcissism and interpersonal trust is negatively correlated in the data collected in this study. And same results can be found in the research of previously research (Rogier et al., 2023; Seidman et al., 2023; Wu et al., 2022).

In the process of examining the relationship between core self-evaluation and interpersonal trust, it is found that there is a significant positive correlation between the scores of core self-evaluation and interpersonal trust. In previous studies on Chinese adolescents, it was found that. The higher an individual's core self-evaluation, the stronger the individual's self-confidence, and the better the trust and inclusiveness in interpersonal relationship, which undoubtedly improves the level of interpersonal trust of the individual. Gao (2021) found that individuals with good interpersonal relationships in junior high school students are more conducive to improving the level of core self-evaluation. The data from this study show the same trend. In order to further explore the influence of narcissism and core self-evaluation on interpersonal trust, we try to explore the prediction relationship. In the subsequent data analysis, we explore the regression relationship between narcissism and core self-evaluation, narcissism and core self-evaluation on interpersonal trust, and narcissism and core self-evaluation on interpersonal trust.

**Table 9**

*Regression Analysis of Narcissism Dimensions on Core Self-evaluation (N=650)*

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	43.787	0.846		51.730	0.000
	COVERT NARCISSISM	-0.330	0.065	-0.600	-5.061	0.000

*a. Dependent Variable: CSES; \*Overt Narcissim was excluded for it does not predict CSES*

Table 9 explores the predictive power of narcissism (overt narcissism and covert narcissism) to core self-evaluations. The reason why the researcher used overt narcissism and covert narcissism instead of the seven dimensions is that the self-admiration dimensions are both overt narcissism and covert narcissism, and contain exactly the same measurement questions, Entering the prediction equation as a single variable would not represent overt narcissism and covert narcissism at the same time. If only one variable entered the equation, it could affect the score calculated on the narcissism scale and the meaning of narcissism. Not only that, overt narcissism and covert narcissism both include a "sense of privilege" subscale. Some of the questions are repeated, but there are also questions that are different from each other, and if the seven dimensions are calculated separately, it is possible to have the same situation as the self-admiration dimension. Therefore, the predictor variables of this regression equation were overt narcissism and covert narcissism dimensions after synthesis (Khan et al., 2023).

By using multiple regression method, it was found that covert narcissism had a statistically significant prediction equation for the core self-evaluation of an individual ( $t=-5.061$ ,  $p < 0.001$ ). The regression equation can be obtained: core self-evaluation =  $-5.061 * \text{covert narcissism} + 43.787$ . This data suggests that covert narcissism has a negative predictive effect on an individual's core self-evaluation. This conclusion is also consistent with previous theoretical studies (Khan, et al. 2023). overt narcissism is often overt in individuals who exhibit excessive self-focus and narcissism, which can positively predict an individual's core self-evaluation. It is only after overt narcissism experiences repeated setbacks that an individual may question his or her ability to overt narcissism, thereby reducing his or her core self-evaluation. In this study, overt narcissism showed no positive predictive effect on core self-evaluation. The reason may be related to the measurement population selected in this study.

This study selected university students in undergraduate schools. Therefore, in this study, overt narcissism scores diluted the positive predictive effect of overt narcissism on core self-evaluation (Rohmann et al., 2021). On the contrary, covert narcissism still showed a significant negative predictive effect on core self-evaluation. Of course, this is related to the characteristics of covert narcissism: covert narcissism tends to be more covert, they

are more likely to belittle themselves, they are anxious about what others think, and they often feel undervalued by others. They often feel unappreciated and underprivileged. Therefore, covert narcissism, whether in a more competitive environment or a less competitive environment, may show the phenomenon of psychological exploitation or manipulation of others (sense of privilege) through self-depreciation. Therefore, in the subjects selected in this study, the covert narcissism score still has a significant effect on the negative prediction of core self-evaluation (Hyatt et al., 2018).

Table 10 shows the predictive effects of overt narcissism and covert narcissism on interpersonal trust. We calculated that covert narcissism predicted interpersonal trust in a statistically significant way ( $t=-2.504$ ,  $p=0.013$ ). The regression equation can be obtained:  $\text{interpersonal trust} = -0.540 * \text{covert narcissism} + 111.568$ .

**Table 10**

*Regression Analysis of Narcissism Dimensions on Interpersonal Trust (N=650)*

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	111.568	2.802		39.812	0.000
	COVERT NARCISSISM	-0.540	0.216	-0.309	-2.504	0.013

*a. Dependent Variable: ITS*

Interestingly, in the previous table, overt narcissism did not overt narcissism predict core self-evaluation; covert narcissism did overt narcissism predict core self-evaluation negatively. When it comes to interpersonal trust, the two types of narcissism show completely opposite effects. Of course, it also has to do with the connotations of overt narcissism and covert narcissism. Overt narcissism is overt; it is overt aggression and superiority; it is overt and overt need for attention, even if it is not overt. Overt narcissism tends to attract attention during short, long encounters, overt narcissism makes them more likely to be overt leaders because of the charisma their confidence radiates (Dong et al., 2020). In longer, more stable relationships, however, it's not hard to see overt narcissism as selfish and arrogant, and those who initially had a positive view of overt narcissism tend to distance themselves from overt narcissism or stop engaging with it altogether (Miller et al., 2021).

In overt narcissism, this distancing is due to distrust, even betrayal, of some other person. This kind of cognition will make them less trust in the people around them, especially those who choose to stay away from them, thinking that their distance from them is unwise and unintelligent, and such people who make such unwise behavior are not worthy of trust, because they do not have enough judgment. Overt narcissism doesn't bother overt narcissism, but it does lead to overt narcissism reducing their level of trust in relationships (Shane-Simpson et al., 2020). Therefore, in the data collected in this study, overt narcissism traits present a significant negative predictor of interpersonal trust. As for covert narcissism, they tend to be more sensitive and inferior, and show strong insecurity and defensiveness. They enjoy less or no social interaction because they believe they are exceptional enough and different enough that they do not need to interact more with other people. Therefore, individuals who covert narcissism tend to choose tasks that are less difficult or do not require cooperation, so as to avoid not only failure and negative evaluation, but also interaction with others, and completely avoid the content of interpersonal trust. Perhaps for this reason, covert narcissism did not show significant predictive effect on interpersonal trust in this study (Lasch. 2019; Symington. 2018).

Based on the data conclusions from Table 9 to Table 10, the intermediary effect path analysis of core self-evaluation was attempted. The data results were shown in Table 11. By analyzing the influence of implicit narcissism on interpersonal trust, we can find that implicit narcissism has a significant negative predictive effect on interpersonal trust by using core self-evaluation as the mediating variable. However, when core self-evaluation was added as the mediating variable, the predictive effect of implicit narcissism on interpersonal trust decreased. Even if core self-evaluation had a significant effect on the negative prediction of implicit narcissism on interpersonal trust, this effect may play a role in the process of psychological intervention or other



related psychological treatment and intervention. The comprehensive analysis of the above data results is not difficult to find:

**Table 11**

*Mediation Estimates of Covert Narcissism (Predictor), CSES (Mediator), ITS (Dependent) (N=650)*

Effect	Estimate	SE	Lower	Upper	Z	p	Mediation
Indirect	0.132	0.0352	0.0632	0.201	3.75	<.001	13.3
Direct	-0.858	0.0703	-0.9960	-0.721	-12.22	<.001	86.7
Total	-0.726	0.0622	-0.8481	-0.604	-11.67	<.001	100.0

First of all, the data results of this study are consistent with the results of previous studies, and in line with the relevant theoretical basis. The results show that core self-evaluation as a mediating variable can significantly reduce the negative predictive effect of narcissism on interpersonal trust. In the future application of the theory, for individuals with high levels of narcissism, core self-evaluation can be regarded as an intervention focus, and the negative impact of narcissism on interpersonal trust can be achieved by improving the core self-evaluation of individuals. It contributes to the formation of good interpersonal trust and the establishment of adaptive interpersonal relationships (Cichocka et al., 2020). Second, through the comparison of Table 9, Table 10 and Table 11, it can be found that although core self-evaluation has a significant mediating effect on the prediction of narcissism to interpersonal trust, this effect is not specific to the overall concept of narcissism. Even when core self-ratings were added to the formula for predicting interpersonal trust, subjects' overt narcissism levels of salience did not change. In other words, the core self-evaluation does not effectively mediate overt narcissism. To some extent, this trend is also revealed in Table 10.

When narcissism was used as an independent variable to predict interpersonal trust, only overt narcissism showed significant negative predictive effects. Of course, it could also be that despite the significant mediating effect of core self-ratings, narcissism's overall prediction of interpersonal trust is still a negative one. This may be because covert narcissism has no significant effect on interpersonal trust in the prediction of interpersonal trust (Fang et al., 2021). Moreover, when narcissism and core self-evaluation entered the prediction of interpersonal trust as independent variables at the same time, the prediction effect of covert narcissism on interpersonal trust was still not significant, but also changed. Combined with the comparison of the direct and indirect effects of narcissism on interpersonal trust, we can find that even though core self-evaluation only affects covert narcissism, it still plays a significant mediating role and significantly reduces the negative predictive effect of narcissism on interpersonal trust. It can be inferred that the mediating effect of core self-evaluation on the prediction of narcissism to interpersonal trust is mainly on the covert narcissism. covert narcissism has less effect on interpersonal trust than overt narcissism does on dependent variables (Krizan., et al.2018).

Third, when narcissism and core self-evaluation enter the prediction equation as independent variables at the same time, compared with core self-evaluation entering the equation alone, its prediction effect on interpersonal trust changes from positive prediction to negative prediction. This change may indicate that overt narcissism, especially overt narcissism, is more overt in predicting interpersonal trust than overt self-evaluation is (Kjærviik., et al.2021). Of course, this still does not affect the core self-evaluation plays a significant mediating role. Fourth, when the prediction formula of narcissism on interpersonal trust is added to the core self-evaluation, the negative prediction effect of narcissism on interpersonal trust is reduced, but the prediction is still statistically significant, which indicates that in addition to the core self-evaluation, there are other mediating variables affecting the prediction process of narcissism on interpersonal trust (Dinić et al., 2021). Fifth, overt narcissism can be studied as an independent factor in the follow-up and exploration of this study. We explore overt narcissism's relationship with interpersonal trust and its possible mediating variables. Based on this, the researchers hypothesized that when appropriate overt narcissism mediates overt narcissism, this mediating variable may overt narcissism's negative prediction of interpersonal trust into a positive one.

Table 12

*Proposed Psychological Program for Chinese University Students*

Key Result Area	Objectives	Strategies/Activities	Persons Involved	Success Indicators
Average Narcissism	<ol style="list-style-type: none"> <li>1. Evaluate yourself correctly</li> <li>2. Improve the ability to respond to others' emotional feelings in interpersonal interactions</li> <li>3. Improve the frequency and depth of interpersonal interaction</li> </ol>	<ol style="list-style-type: none"> <li>1. One-on-one counseling;</li> <li>2. Group counseling in give feedback on others' feelings and emotions (eg. I know how you feel)</li> <li>3. Group Discussion</li> </ol>	Psychological Counselors Schoolmate Guidance	Increase the frequency and depth of human interaction
Average Core self-evaluation	<ol style="list-style-type: none"> <li>1. Improve individual self-esteem</li> <li>2. Enhance individual self-efficacy</li> <li>3. Reduce individual anxiety, tension and a series of emotional instability factors</li> <li>4. Guide individuals to make rational attribution</li> </ol>	<ol style="list-style-type: none"> <li>1. One-on-one counseling;</li> <li>2. Group counseling in self evaluation and self-approval (eg. Accept your imperfect self)</li> <li>3. Group Discussion</li> </ol>	Psychologists Counselors Guidance Schoolmates	Positive and correct personal evaluation, and this evaluation level has improved
Average Interpersonal trust	<ol style="list-style-type: none"> <li>1. Increase the level of interpersonal trust;</li> <li>2. Enhance initiative in interpersonal interaction</li> </ol>	<ol style="list-style-type: none"> <li>1. One-on-one counseling;</li> <li>2. Group counseling to enhance trust (eg. Trust training)</li> <li>3. Family counseling</li> <li>3. Group Discussion</li> </ol>	Psychologists Counselors Guidance Schoolmates	Increase your level of trust in others

Table 10 shows the proposed psychological program intended for Chinese university students. The table outlines a proposed psychological program for Chinese university students with average levels of narcissism, core self-evaluation, and interpersonal trust. For Key Result Areas (KRAs), the focus is on average levels of narcissism, core self-evaluation, and interpersonal trust and in each KRA, the program outlines the specific goals aimed at improving the identified area. In terms of strategies/activities, ways to achieve the objectives, including individual and group counseling, discussions, and specific exercises (e.g., providing feedback on emotions). With the persons involved, professionals who will facilitate the program (psychologists, counselors with success indicators: Measurable outcomes to gauge the program's effectiveness (e.g., increased interaction frequency, positive self-evaluation).

As to key points, the program focuses on helping students with average levels of these personality traits, aiming for balanced development and the program utilizes various methods, including individual counseling, group activities, and discussions for a well-rounded approach. In addition, collaboration between school counselors, psychologists, and guidance professionals is emphasized where the focus is on improving interaction frequency and depth, self-esteem and self-efficacy, and overall trust levels.

The results of this study reveal the mediating role of core self-evaluation on narcissism and interpersonal trust, and locate the role of core self-evaluation. It can be found from the data that there is indeed a phenomenon that the high level of narcissism affects the interpersonal trust of Chinese undergraduates, and thus affects the interpersonal relationship. However, a high level of core self-evaluation can effectively alleviate this negative impact, so effective intervention can be carried out around core self-evaluation and covert narcissism. Instead, focus on overt narcissism to fine-tune interpersonal strategies, improve trust, and improve relationships (Bartky, 2020). In order to effectively improve the core self-evaluation, it is necessary to intervene from the components of the core self-evaluation, namely, individual self-esteem, self-efficacy, neuroticism and control sources. First, focus on raising the level of self-esteem of the individual. Guide individuals to establish a more reasonable goal system based on the actual situation and based on personal ability. This can not only improve the completion rate of the goal, but also enhance the level of self-esteem of the individual in the process of setting the goal (McCain et al., 2018).

In addition, in the process of setting the goal, the individual is guided to analyze his personal ability and environment, find and accept his environment and his own problems, and help university students accept their imperfect self and make rational expectations on this basis. Secondly, to improve individual self-efficacy, a more objective self-cognition can not only improve individual self-esteem, but also effectively improve individual self-efficacy (Weidmann et al., 2023). At the same time, it can guide individuals to pay attention to and sum up past successful experience, and cultivate positive thinking mode based on successful experience to establish self-information. Third, pay attention to the individual's negative emotions. Emotional instability may aggravate the individual's denial of himself and reduce the level of core self-evaluation, and appropriate group and individual psychological counseling can effectively solve this problem. Fourth, students should be guided to conduct multi-angle and multi-method attribution exercises. Through different attribution methods, rational and objective attribution should be made as far as possible to avoid the reduction of core self-evaluation caused by subjective factors such as emotions.

Based on the conclusion of this study, in addition to the core self-evaluation, attention should also be paid to the part that plays a role, namely, the covert narcissism. In this regard, counselors can screen and focus on individuals with high covert narcissism in the process of regularly measuring the mental health level of university students, and cooperate with counselors, teachers and classmates to establish intervention alliances and conduct certain intervention behaviors when students are willing. At the same time, while paying attention to students' covert narcissism level, I can have in-depth communication with students with high covert narcissism level through conversation, so as to master their cognitive style and way of thinking. I try to find out the timing and ways in which core self-evaluation plays a role in covert narcissism, and precisely target it. While improving individual core self-evaluation, I also intervene with individual covert narcissism at critical moments. At the same time, open group consultation can be organized to encourage university students to enhance interpersonal trust in group activities. Of course, groups are not limited to psychological counseling groups, but can also be school associations, collective activities and other forms to promote student cooperation and enhance interpersonal trust (Du et al., 2022).

Finally, based on the conclusions of this study and the promotion of further studies and interventions, attention can be paid to overt narcissism. In addition, participation observation method and other methods were used to pay attention to and record the interpersonal communication situations of high overt narcissism, including the iteration time of interpersonal relationship and the change trend of interpersonal trust. Of course, during this period, voluntary and long-term closed group counseling can be combined to encourage students to establish and maintain interpersonal interaction in a relatively long-term closed group, so as to improve their interpersonal level as soon as possible. In the process of group counseling, exercises such as feedback on others' emotions can be added. High narcissists, as observers, observe the emotions and feelings of their partners and express them, and then the partners give feedback on the expressions of high narcissists, guiding students to shift their attention from themselves to others in this process. Encourage empathy. In addition, there is a need to mitigate the tendency of high narcissists to disparage others, as well as their simultaneous aggressive and resource-predatory tendencies. In the process of intervention, individuals are guided to reasonably evaluate their own resources and resource consumption to avoid unnecessary resource aggression and waste. Of course, this is also an effective way to help high narcissists establish good long-term interpersonal interaction and form high interpersonal trust. Overall, the table outlines a promising framework for a psychological program to help Chinese university students with average levels of these personality traits.

#### **4. Conclusions and recommendations**

The fairly even distribution of respondents across various demographic categories (sex, place of origin, family background, major, and year of study) ensures that the findings are not skewed towards a particular demographic and are more representative of the overall student population. Respondents have average levels of narcissism, core self-evaluation, and interpersonal trust which implies healthy psychological profile for university students. The study reveals that sex, origin, and grade significantly influence the levels of narcissism,

core self-evaluation, and interpersonal trust among university students. Specifically, men tend to exhibit higher narcissism and core self-evaluation than women, while women report higher interpersonal trust. Urban students show higher self-admiration compared to rural students, whose interpersonal trust is greater. Interestingly, interpersonal trust declines as students progress through their academic years, with marginal significance observed in the factor of being an only child. These findings emphasize the complex interplay between individual characteristics and social factors in shaping psychological constructs. The study found strong positive correlations among the different dimensions of narcissism. However, narcissism was found to have a significant negative correlation with both core self-evaluation and interpersonal trust. Conversely, core self-evaluation and interpersonal trust exhibited a significant positive correlation. Narcissism significantly predicts lower levels of both core self-evaluation and interpersonal trust, while core self-evaluation significantly predicts higher levels of interpersonal trust. Additionally, core self-evaluation has a significant mediating effect on the prediction of narcissism and interpersonal trust, and the mediating effect is mainly on covert narcissism.

Students may take the activities spontaneously organized by the school, and teachers as an opportunity to increase their campus activities, provide opportunities and forms for interpersonal interaction, deepen interpersonal communication and enhance interpersonal trust. Teachers may pay attention to the group of students with simple interpersonal relationships, pay attention to their covert narcissism level, understand the intermediary mechanism of core self-evaluation through interviews and participatory observation, and implement intervention. The school and psychological staff may pay targeted attention to different psychological characteristics and encourage activities in the form of group cooperation, pay equal attention to competition and cooperation, and promote the in-depth cooperation and establishment of students. Future studies may aim for larger and more diverse samples, including students from different universities, regions, and socio-economic backgrounds that would enhance the generalizability of the findings and provide a more comprehensive understanding of these psychological constructs among Chinese university students. Before implementing a program aimed at Chinese university students with average levels of narcissism, core self-evaluation, and interpersonal trust, it's crucial to conduct a thorough needs assessment to tailor the program to their specific concerns and expectation

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