

**NARCISSISM AND SELF-ENHANCEMENT
AMONG ADULTS: ROLE OF SELF-
COMPASSION, COUNTERFACTUAL
THINKING, AND DELAYED DISCOUNTING**

By

Moneeba Bukhari

(S23-29589)



NATIONAL UNIVERSITY OF MODERN LANGUAGES

ISLAMABAD

JANUARY, 2025

**NARCISSISM AND SELF-ENHANCEMENT AMONG
ADULTS: ROLE OF SELF-COMPASSION,
COUNTERFACTUAL THINKING, AND
DELAYED DISCOUNTING**

By

Moneeba Bukhari

MSc. Applied Psychology, National University of Modern Languages Islamabad, 2022

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF PHILOSOPHY

In Applied Psychology

To

DEPARTMENT OF APPLIED PSYCHOLOGY
FACULTY OF SOCIAL SCIENCES



NATIONAL UNIVERSITY OF MODERN LANGUAGES, ISLAMABAD

© Moneeba Bukhari, 2025



THESIS AND DEFENSE APPROVAL FORM

The undersigned certify that they have read the following thesis, examined the defense, are satisfied with the overall exam performance, and recommend the thesis to the Faculty of Social Sciences for acceptance.

Thesis Title: Narcissism and Self-enhancement among Adults: Role of Self-compassion, Counterfactual Thinking, and Delayed Discounting

Submitted by: Moneeba Bukhari **Registration #:** 46-MPhil/Psy/S23

Master of Philosophy

Applied Psychology

Dr. Asia Mushtaq

Signature of Research Supervisor

Ms. Fatima Afsar

Signature of Research Co-supervisor

Prof. Dr. Muhammad Riaz Shad

Name of Dean (FSS)

Signature of Dean (FSS)

Date

AUTHOR'S DECLARATION

I, Moneeba

Daughter of Syed Ali Jawad Hussain Bukhari

Registration # 46-MPhil/Psy/S23

Discipline: Applied Psychology

Candidate of **Master of philosophy** at the National University of Modern Languages do hereby declare that the thesis “**Narcissism and Self-enhancement among Adults: Role of Self-compassion, Counterfactual Thinking, and Delayed Discounting**” submitted by me in partial fulfillment of MPhil degree. It is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

I also understand that if evidence of plagiarism is found in my thesis/dissertation at any stage, even after the award of a degree, the work may be cancelled, and the degree revoked.

Signature of Candidate

MONEEBA BUKHARI

Name of Candidate

Date

ABSTRACT

Title: Narcissism and Self-enhancement among Adults: Role of Self-compassion, Counterfactual Thinking, and Delayed Discounting

Grandiose narcissistic traits refer to exploitative and arrogant attitudes, often leading to poor interpersonal relationships and destructive behaviors. However, little is known about the relationship of narcissism with self-enhancement, which is narcissistic self-enhancement that extends beyond normal positive self-regard; delayed discounting, the tendency to devalue future rewards in favor of immediate gratification; counterfactual thinking, the mental process of imagining alternative outcomes to past events; and self-compassion, defined as kindness toward oneself in times of failure or distress. This study aimed to explore these associations and was conducted in two phases. Phase one, the pilot study, was conducted to estimate the usefulness and suitability of scales in the Pakistani context. Phase two, the main study, examined the relationships among these variables. Data were collected through convenience sampling from 745 participants aged 19–60 years. Results revealed that narcissism was positively correlated with self-enhancement, delayed discounting, and downward counterfactual thinking. Sequential mediation analysis indicated that delayed discounting and downward counterfactual thinking mediated the relationship between narcissism and self-enhancement. Moderation analysis further showed that self-compassion strengthened the link between narcissism and delayed discounting, suggesting that individuals with higher self-compassion were more likely to engage in impulsive decision-making despite their narcissistic tendencies. In contrast, as age increased, the associations between narcissism and delayed discounting, delayed discounting and counterfactual thinking, counterfactual thinking and self-enhancement, and narcissism and self-enhancement weakened, indicating a buffering effect of age.

TABLE OF CONTENTS

Chapter	Page
THESIS AND DEFENSE APPROVAL FORM	iii
AUTHOR’S DECLARATION	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	xi
LIST OF ABBREVIATION	xii
LIST OF APPENDIXES	xiii
ACKNOWLEDGEMENTS	xiv
DEDICATION	xv

TABLE OF CONTENTS

1. INTRODUCTION

	Context of the study.....	16
1.1	Rationale of the Study	19
1.2	Statement of the Problem	21
1.3	Research Objectives.....	22
1.4	Research Questions	22
1.5	Hypotheses	23
1.6	Operational Definition	25
1.7	Conceptual Framework	27

2. LITERATURE REVIEW

2.1	Narcissism	30
2.2	Self-Enhancement	38
2.3	Self-Enhancement and Grandiose Narcissism.....	44
2.4	Delayed Discounting	47
2.5	Narcissism and Delayed Discounting	53
2.6	Counterfactual Thinking.....	56
2.7	Counterfactual Thinking and Narcissism.....	59
2.8	Delayed Discounting and Counterfactual Thinking	61
2.9	Counterfactual Thinking and Self-Enhancement.....	62
2.10	Self-Compassion	64
2.11	Self-Compassion and Delayed Discounting	67
2.12	Literature in Pakistani Context	68
2.13	Theoretical Framework	71

3. METHOD

3.1	Research Design	74
3.2	Phase I Pilot Study	75
3.3	Results of Pilot Testing	78
3.4	Phase 2 Main Study.....	87
3.5	Objectives.....	87
3.6	Hypotheses	88
3.7	Sample	89
3.8	Instruments	90
3.9	Procedure	94
3.10	Statistical Plan	95

4. ANALYSIS AND INTERPRETATION OF DATA

4.1	Descriptive Statistics of Study Measures.....	97
4.2	Relationship between the Study Variables	106
4.3	Regression Analysis Variables	107
4.4	Mediation by Delayed Discounting and Counterfactual Thinking	112
4.5	Moderation by Self-Compassion	114
4.6	Moderation by Age	116
4.7	Group Comparisons on Demographic	124
4.8	Factorial Analysis of Gender and Age.....	131

5. SUMMARY, DISCUSSIONS, CONCLUSIONS AND SUGGESTIONS

5.1	Summary.....	133
5.2	Discussion.....	133
5.3	Limitations and Suggestions	144
5.4	Future Implications of present study	146
5.5	Conclusion	147

References	148
-------------------------	------------

Appendices	181
-------------------------	------------

LIST OF TABLES

Table 3.1	Frequencies and Percentages of Demographic Variables (N=100)	78
Table 3.2	Descriptive and Alpha Reliability of Scales (N=100)	80
Table 3.3	Item-total Correlation analysis for Narcissistic Personality Inventory (PNI) (N=100)	81
Table 3.4	Item-total Correlation analysis for Positivity Embracement Subscale of the Self-Enhancement/Protection Strategies Scale (SES) (N=100)	82
Table 3.5	Item-total Correlation analysis for Impulsivity-8 Scale (IS) (N=100)	83
Table 3.6	Item-total Correlation analysis for Counterfactual Thinking Negative Event Scale (Downward Counterfactual Thinking) (N=100)	84
Table 3.7	Item-total Correlation analysis for Narcissistic Personality Inventory (PNI) (N=100)	85
Table 3.8	Correlation analysis for Variables under Investigation (N = 100)	86
Table 4.1	Frequencies and Percentages of Demographic Variables (N = 745)	97
Table 4.2	Frequencies and Percentages of Emerging Adults from Age 19 to 29 (N = 282)	99
Table 4.3	Frequencies and Percentages of Established Adults from Age 30 to 45 (N = 231)	101
Table 4.4	Frequencies and Percentages of Middle Adults under Study from Age 46 to 60 (N = 232)	103
Table 4.5	Descriptive and Alpha Reliability of Scales (N = 745)	105
Table 4.6	Correlation analysis for Variables under Study (N = 745)	106
Table 4.7	Simple linear Regression Analysis of Narcissism on Delayed Discounting (N = 745)	107
Table 4.8	Simple linear Regression Analysis of Narcissism on Downward Counterfactual Thinking (N = 745)	108
Table 4.9	Simple linear Regression Analysis of Narcissism on Self-Enhancement (N = 745)	109
Table 4.10	Simple linear Regression Analysis of Delayed Discounting on Downward Counterfactual Thinking (N = 745)	110
Table 4.11	Simple linear Regression Analysis of Downward Counterfactual Thinking on Self-Enhancement (N = 745)	111

Table 4.12	Sequential Mediation Analysis of Narcissism on the Self-Enhancement through Delayed Discounting and Counterfactual Thinking (N = 745)	112
Table 4.13	Moderation of the effect of Narcissism on Delayed Discounting by Self-Compassion among Adults (N = 745)	114
Table 4.14	Moderation of the effect of Narcissism on Delayed Discounting by Age Groups (N = 745)	116
Table 4.15	Moderation of the effect of Delayed Discounting on Counterfactual Thinking by Age Groups (N = 745)	118
Table 4.16	Moderation of the effect of Counterfactual Thinking on Self-Enhancement by Age Groups (N = 745)	120
Table 4.17	Moderation of the effect of Narcissism on Self-Enhancement by Age Groups (N = 745)	122
Table 4.18	Mean Comparison of Males and Females on Variables under Study (N = 745)	124
Table 4.19	Difference among Adult groups on Variables under Study (N = 745)	125
Table 4.20	Post Hoc Analysis of Group Difference of the Study Variables (N=745)	126
Table 4.21	Difference among levels of Education on Variables under Study (N = 745)	128
Table 4.22	Post Hoc Analysis of Group Difference of the Study Variables (N=745)	129
Table 4.23	Factorial Analysis of Variance among Gender and Adult Groups (N = 745)	131

LIST OF FIGURES

Figure 1.1	Conceptual Framework of the Study	29
Figure 4.1	Sequential Mediation of the indirect effect of Narcissism on Self-enhancement through Delayed Discounting and Counterfactual Thinking	112
Figure 4.2	Moderation of the effect of Narcissism on Delayed Discounting by Self-Compassion among Adults (N = 745)	114
Figure 4.3	Moderation of the effect of Narcissism on Delayed Discounting by Age Groups	116
Figure 4.4	Moderation of the effect of Delayed Discounting on Counterfactual Thinking by Age Groups	118
Figure 4.5	Moderation of the effect of Counterfactual Thinking on Self-Enhancement by Age Groups	120
Figure 4.6	Moderation of the effect of Counterfactual Thinking on Self-Enhancement by Age Groups	122

LIST OF ABBREVIATIONS

NPI	Narcissistic Personality Inventory
SES	Self-enhancement scale
IS	Impulsivity Scale
CTS	Counterfactual thinking Scale
SCS	Self-compassion Scale

LIST OF APPENDICES

Appendix A	Consent Form & Demographic Sheet
Appendix B	Narcissistic Personality Inventory
Appendix C	Self-enhancement scale
Appendix D	Self-compassion Scale – Short Form
Appendix E	Counterfactual Thinking Negative Events Scale
Appendix F	Impulsivity-8 scale
Appendix G	Authors' Permission for Scales

ACKNOWLEDGEMENTS

In the name of Allah, the most merciful and beneficent

First and foremost, I am deeply thankful to **Allah Almighty**, the Gracious and Merciful, for His countless blessings, including the strength, perseverance, and guidance that have brought me to the completion of this thesis. Without His grace, none of this would have been possible.

I would like to extend my heartfelt gratitude to my supervisor, Dr. Asia Mushtaq, and my co-supervisor Ma'am Fatima Afsar for their steadfast support, insightful guidance, and invaluable encouragement throughout this journey. Their dedication and belief in my abilities have been a beacon of inspiration, even during moments of difficulty. I pray for their continued health, success, and happiness.

My sincerest thanks go to my parents, my husband and siblings for their unwavering love, prayers, and support. Your encouragement has been my anchor, and your belief in me has given me the strength to overcome every obstacle. I am forever indebted to you for your unconditional support and endless prayers.

I am also deeply grateful to my friends, Malaika and Mahrukh, for standing by me during challenging times. Your kindness, encouragement, and presence have been a source of comfort and strength throughout this process. Thank you for your unconditional support and for being such an important part of this research and so of my life.

To everyone who contributed to this journey in ways big or small, your help and kindness will always be remembered with gratitude.

DEDICATED

TO

Ammi & Abbu

May Allah's grace and blessings always surrounds them

Chapter 1

INTRODUCTION

In recent literature, narcissism has gained vast attention because it influences social connections and mental well-being. Although it has been studied as a mental disorder recently, the concept of sub-clinical narcissism has emerged. A subject of interest because not everyone meets or fulfills the criteria of a disorder but still has notable implications (Weidmann et al., 2023), and because narcissism is a personality feature or attribute its presence in the general population is understandable. Kaufman et al. (2020), in his investigation postulated that individuals with Narcissistic features or attributes strive for admiration and praise and desire control and dominance over other people even at the cost of their relation with others often leading to poor interpersonal relationships and destructive behaviors and these patterns are most prominent in the adulthood phase which is marked by social responsibilities, Persistent relationships, and career aspirations or establishment.

Stage of adulthood is very crucial for examining or studying narcissism as this period involves considerable self and social growth because adults engage in persistent relationships, career aspirations, or establishment and fulfillment of other social family responsibilities while narcissistic tendencies can disturb relationship dynamics. Individuals who possess high levels of narcissistic features may self-enhance to boost or elevate their self-view and to hold more positive self-perception even at the cost of others. although self-enhancement is a positive construct yet in the context of narcissism it does not reflect healthy self-esteem rather it refers to narcissistic self-enhancement which is beyond normal boundaries and involves unhealthy or

unrealistic overly positive self-views that cannot be justify through one's abilities or achievements (Sedikides et al., 2004)

Investigating narcissism specifically subclinical grandiose narcissism and narcissistic self-enhancement is crucial or vital due to the link of these traits with various maladaptive behaviors such as belittling other people just for self-preservation and boosting one's self-view and narcissistic tendencies leads to social seclusion, poor interpersonal relationships (Campbell et al., 2011). Having said that it is also reported that individuals with high narcissistic features manipulate and exploit others for their personal gain, they have little emotional understanding of others and often abuse others emotionally (Campbell et al., 2011).

Additionally, self-compassion, downward counterfactuals, and delayed discounting emerge as key factors in comprehension of narcissism and its features such as self-elevation or boosting. Self-compassion involves self-kindness and self-care in failure or times of difficulty making it a perfect variable to study with reference to narcissism to see how individuals with narcissistic features indulge in self-kindness. According to Neff (2016), highly self-compassionate people can manage negative feelings more effectively such as guilt, shame, and other emotions making them less liable to the adverse impacts of narcissism because these individuals exhibit kind behavior towards themselves so instead of over-indulgence in these emotions they think of failure as a natural phenomenon that happens to everyone. Counterfactual thinking is a cognitive or mental activity or process of imagining alternative outcomes to reality narcissists often engage in downward counterfactual thoughts to maintain their inflated self-image (Smallman et al., 2018) because downward counterfactuals involve thinking of unfavorable outcomes thus leading them to believe that their decision was most favorable and

practical at that point in time. This tendency to avoid upward counterfactuals guarantees that narcissists sustain their exaggerated self-image by minimizing their perceived flaws (Roese & Olson, 1995).

Delayed discounting refers to the enhanced tendency to favor instant small incentives rather than future incentives that are relatively large and serves as a crucial factor in the decision process (Bickel et al., 1999; Madden et al., 1997) this tendency provides an explanation of reckless behaviors linked with narcissism. Their impulsiveness coupled with their exaggerated self-views hinders their capability to set long-term goals hence affecting their personal growth and career achievements (Malesza & Kaczmarek, 2018). Comprehension of these variables with reference to narcissistic self-enhancement enables a more detailed exploration of narcissistic features and their related mental and interpersonal consequences.

This stresses the importance or value of investigating subclinical narcissistic traits or narcissistic tendencies and how it relates to self-kindness, counterfactual thinking or reasoning, delay discounting, and self-enhancement or personal growth, due to their impacts and effects on personal and societal welfare or collective well-being. An essential population for analyzing or comprehending the way these psychological aspects influence or shape the behavior at various life stages is especially Adults. Moreover, by analyzing or exploring these dynamics or traits in both genders, the study strives to deliver a comprehensive or in-depth understanding of how narcissistic characteristics or traits affect mental health or well-being and social relationships across multiple demographic populations or segments.

1.1 Rationale

This study aims to examine the complex association or link among narcissism, self-compassion, counterfactual thinking, delayed discounting, and self-enhancement among adults, recognizing their crucial role in individual well-being (Neff, 2003; Raskin & Terry, 1988; Costa & McCrae, 1992; Taylor & Brown, 1988). Narcissism, characterized by self-centeredness and grandiosity, has been linked to diminished life satisfaction and heightened experiences of depression and anxiety (Neff, 2016; Vazire & Funder, 2006) poor control of self (Jones & Paulhus, 2011; Vazire & Funder, 2006) gambling behavior (Campbell et al., 2004), risk-prone actions (Foster et al., 2009) inability to indulge in self-learning or take lessons from their errors (Campbell et al., 2004; Foster et al., 2009; Foster & Trimm, 2008) exhibit a tendency to indulge in impulsive behaviors (Crysel et al., 2012; Lakey et al., 2007).

Although narcissism has been studied as a mental disorder recently, the concept of sub-clinical narcissism has emerged. A subject of interest because not everyone meets or fulfills the criteria of a disorder but still has notable implications (Weidmann et al., 2023), and because narcissism is a personality trait its presence in the general population is understandable while former studies have focused on pathological or clinical aspect of narcissism, our approach aims to explore less severe narcissistic features found in general population which is a unique aspect of our study.

Additionally, the study delves into self-enhancement, a key facet of narcissism (Morf et al., 2011). Although self-enhancement is a positive construct yet in the context of narcissism it does not reflect healthy self-esteem rather it refers to narcissistic self-enhancement which is beyond normal boundaries and involves unhealthy or unrealistic overly positive self-views that

cannot be justify through one's abilities or achievements (Sedikides et al., 2004). Drawing from these unique findings this investigation aims to expand the current limited or underdeveloped literature or knowledge by investigating the negative aspects of self-enhancement in individual's with narcissistic features.

Narcissists often engage in downward counterfactual thoughts because downward counterfactuals involve thinking of unfavorable outcomes thus leading them to believe that their decision was most favorable and practical at that point in time. This tendency guarantees that narcissists sustain their exaggerated self-image by minimizing their perceived flaws (Roese & Olson, 1995). Delayed discounting refers to the enhanced tendency to favor instant small incentives rather than future incentives that are relatively large (Bickel et al., 1999; Madden et al., 1997) providing an explanation of reckless behaviors linked with narcissism. Their impulsiveness coupled with their exaggerated self-views hinders their capability to set long-term goals hence affecting their personal growth and career achievements (Malesza & Kaczmarek, 2018). This study will contribute to explain how individuals with narcissistic features shape their self-view through cognitive processes.

Although self-compassion it a positive construct (Deniz, Kesici & Sümer, 2008; Neff, 2016) due to its link with other positive constructs such as self-esteem (Souza & Hutz, 2016), there are some studies that also portray its negative side due to its link with self-efficacy (Liao et al., 2021), that serves a negative aspect as well because of its link with risk-prone acts (Ogunyemi & Mabekoje, 2007; Shajumon & Luke, 2024). Upon considering this phenomena researchers identified a link between self-compassion and risk-prone attitude (Bailis et al., 2022). They stated that more risky actions in more self-compassionate people can be supported through

the view which states that self-compassion mitigates negative self-assessment, and discouraging internal monologues that would discourage taking risks otherwise. Drawing from these unique discoveries or findings this investigation aims to expand the current limited or underdeveloped literature or knowledge by investigating the negative aspects of self-compassion in individual's with narcissistic features.

Stage of adulthood is very crucial for examining or studying narcissism as this period involves considerable self and social growth because adults engage in persistent relationships, career aspirations, or establishment and fulfillment of other social family responsibilities while narcissistic tendencies can disturb relationship dynamics. According to Kaufman et al. (2020), destructive behaviors (e.g. striving for dominance even at the cost of their relation with others often leading to poor interpersonal relationships) in individuals with Narcissistic features are most prominent in the adulthood phase. The inclusion of emerging-adults from age 19 to 29, established-adults from age 30 to 45, and middle adults aged 45 to 60, including both male and female population specifically enhance or boost the generalizability and relevance of our research findings.

1.2 Statement of the Problem

In the present literature, we can find numerous studies that address how narcissism is linked with self-enhancement but specifically in non-pathological populations or general people the interplay of narcissistic attributes or features with delayed discounting and downward counterfactual thinking that may contribute to influence or shape self-enhancement among adults has yet to be explored or investigated which reflects a substantial literature gap. Another notable

gap is that in previous studies how narcissistic self-compassion may influence the delayed discounting behavior in people with narcissistic features has not been studied specifically in the adult population. Therefore, how delayed discounting and downward counterfactual thinking serve as sequential mediators and how self-compassion serves as a potential moderator among adults remains unclear. Furthermore, the influence or effect of demographic variables such as gender and age groups has not been addressed adequately. Filling or addressing these gaps is crucial for future understanding of these variables. The aim of the present investigation is to fill these gaps by exploring or investigating these relationships and their effects or impact on emotional-management and psychological well-being.

1.3 Objectives

1. To examine the intriguing relationship between narcissism, self-compassion, counterfactual thinking, delayed discounting, and self-enhancement among adults.
2. To evaluate the sequential mediating effect of delayed discounting and counterfactual thinking in the link between adult's self-enhancement and narcissistic features.
3. To evaluate the moderating influence of self-compassion in association among adult's delayed discounting and narcissistic features.
4. To examine the role of demographic variables (gender, age) on adult's self-enhancement and narcissistic features.

1.4 Research Questions

1. What role do narcissistic features, self-compassion, counterfactual thinking, and delayed discounting play in shaping self-enhancement among adults?

2. How do delayed discounting and counterfactual thinking collectively influence the relationship between adults' self-enhancement and narcissistic features?
3. How does self-compassion affect the link between adults' delayed discounting and narcissistic features?
4. What role do gender and age groups play in determining the degree of narcissistic features present in individuals?

1.5 Hypotheses

H1. Among adults, narcissism will be positively associated with counterfactual thinking, delayed discounting, and self-enhancement.

1a. There will be a positive association between narcissism and self-enhancement among adults.

1b. There will be a positive association between narcissism and counterfactual thinking among adults.

1c. There will be a positive association between narcissism and delayed discounting among adults.

1d. There will be a positive association between delayed discounting and counterfactual thinking among adults.

1e. There will be a positive association between counterfactual thinking and self-enhancement among adults.

H2. Narcissism will be a positive predictor of counterfactual thinking, delayed discounting, and self-enhancement among adults.

2a. Narcissism will be a positive predictor of self-enhancement among adults.

2b. Narcissism will be a positive predictor of counterfactual thinking among adults.

2c. Narcissism will be a positive predictor of delayed discounting among adults.

2d. Delayed discounting will be a positive predictor of counterfactual thinking among adults.

2e. Counterfactual thinking will be a positive predictor of self-enhancement among adults.

H3. Delayed discounting and counterfactual thinking will sequentially mediate the association between narcissism and self-enhancement among adults.

H4. Self-compassion will strengthen the relationship between narcissism and delayed discounting among adults.

H5. Age will moderate the relationship between narcissism and delayed discounting.

H6. Age will moderate the relationship between delayed discounting and counterfactual thinking.

H7. Age will moderate the relationship between counterfactual thinking and self-enhancement.

H8. Age will moderate the relationship between narcissism and self-enhancement.

H9. Young adults will exhibit excessive levels of narcissism in contrast with older adults.

H10. Men will exhibit excessive levels of narcissism in contrast with women.

1.6 Operational Definition

1.6.1 Narcissism

Narcissism and all its subsequent elements are basically described by a high level of self-esteem, the superior impression of oneself and self-importance, features that include pride; prideful self; behaviors that are self-centered; and the so-called superficial charm by Vazire and Funder (2006). In the current research grandiose narcissistic attributes are measured by utilizing Narcissistic Personality Inventory (NPI-13) created by Gentile and colleagues in (2013), to estimate the specific features of narcissism. Participants gave their responses on the items of the narcissism scale and the individuals who rate more on the scale are said to have excessive levels of narcissistic propensities meaning they think mightier of themselves.

1.6.2 Self-Compassion

Individual's tendency to treat themselves with warmth even at time of failure or defeat or the amount to which individual is gentle and kind to themselves during the hard or painful time of stress, failure or defeat and above all, forgiving oneself is generally illustrated as self-compassion (Neff, 2003). Neff was able to develop the Short Form of Self-Compassion Scale having 12 items to estimate and appraise this tendency. Individuals who rate more on the scale are said to have excessive levels of self-compassion propensities meaning they are more kind toward their selves. The lower the score in the present scales the lower the perceived level of self-compassion.

1.6.3 Delayed Discounting

The tendency of individuals involving decision-making process of choosing an immediate yet smaller reward over far greater but delayed reward is a construct of cognitive psychology explained as delayed discounting. This tendency to appraise the worth of a reward decreased with time is estimate utilizing the Impulsivity-8 Scale developed by Kovaleva et al. (2014). Participants gave their responses on the items of the impulsivity scale and the individuals who rate more on the scale are said to have excessive levels of delayed discounting propensities meaning they tend to prefer immediate smaller rewards instead of delayed but large rewards.

1.6.4 Counterfactual Thinking

Counterfactual thinking is the process of thinking of substitute consequences or after effects to reality in both positive and negative directions (Roese & Olson, 1995). The imagining of the worst possible outcomes to events that just occurred explains negative direction and refers to downward counterfactuals, whereas imagining better possible outcomes than the outcomes that occurred in reality, refers to upward counterfactuals. In particular, this study targets downward counterfactual thinking or the act of thinking about how the actual outcome could have been worse. To estimate and appraise this tendency, 4-items downward subscale of Counterfactual Thinking Negative Events Scale developed by Rye and his colleagues in (2008) was utilized. Participants gave their responses on the subscale and the individuals who rate more on the downward subscale are said to have excessive levels of downward counterfactuals propensities.

1.6.5 Self-Enhancement

Self-enhancement is a construct that refers to the cognitive and behavioral ways in which people use different approaches to increase their self-esteem, or at least, to preserve their positive self-image (Paulhus, 1998; Taylor & Brown, 1988). Although self-enhancement is often studied concerning positive psychology as a positive trait, in the current study the construct is studied as narcissistic elevated self-enhancement following its negative nature. The Self-Enhancement Subscale of the Self-Enhancement and Self-Protection Strategies Scale developed by Hepper and his colleagues in (2010) was utilized to estimate self-enhancing attributes and the individuals who rate more on the scale are said to have excessive levels of self-enhancement propensities.

1.7 Proposed model of the study

Narcissism is positively linked with self-enhancement, and this relationship is sequentially mediated by delayed discounting and counterfactual thinking. Self-compassion serves as a moderator, enhancing the strength of the relationship between narcissism and delayed discounting. The conceptual model of the study was developed after thoroughly revising the previous literature. Sub-clinical narcissism has been linked with self-enhancement (Grijalva & Zhang, 2015; Morf et al., 2011; Raskin & Terry, 1988). Narcissism has been even explained as an indicator of self-enhancement (Paulhus, 1998). Morf et al. (2001), in their "dynamic self-regulatory processing model of narcissism" suggests that this self-regulatory mechanism is characterized by an inclination toward self-enhancement. Studies have identified that individual with narcissistic features narcissism are inclined towards delayed discounting (Coleman et al., 2022; Crysel et al., 2012; Jonason & Webster, 2010; Lam and 林曉晴, 2021; Malesza &

Kalinowski, 2019). Previous research by Smallman et al. (2018) indicated an association among delayed discounting and counterfactual thinking where the results indicated that people with elevated degree of impulsivity were more inclined to generate downward counterfactuals. A link between narcissism and downward counterfactuals can be found in literature where results of the various researches showed a positive connection between both (Kausel et al., 2013; Roese & Epstude, 2017; Sanna et al., 1999; Stucke, 2003). Researches indicate that when people faced threats, encounter obstacles or failure, or are inspired to enhance their self they often engage in comparison with less fortunate people (Aspinwall & Taylor, 1993; Crocker et al., 1987; Pyszczynski et al., 1985; Wills, 1981). Epstude and Roese (2008) in “functional theory of counterfactual thoughts” theorized when individual engage in downward counterfactuals they facilitate emotional stability by reflecting on inferior consequences and viewing actual outcomes more favorable thus leading towards high self-esteem and self-enhancement. Therefore, delayed discounting and counterfactual thinking are sequentially mediating the relationship between narcissism and self-enhancement. Delayed discounting has been linked with risky behaviors (Mishra & Lalumière, 2016). A positive connection is found between self-efficacy and risk-prone acts (Ogunyemi & Mabekoje, 2007; Shajumon & Luke, 2024), Self-compassion and self-efficacy (Liao et al., 2021), and self-compassion and risk-prone attitude in literature (Bailis et al., 2022). Consequently, self-compassion is serving as a positive moderator influencing delayed discounting.

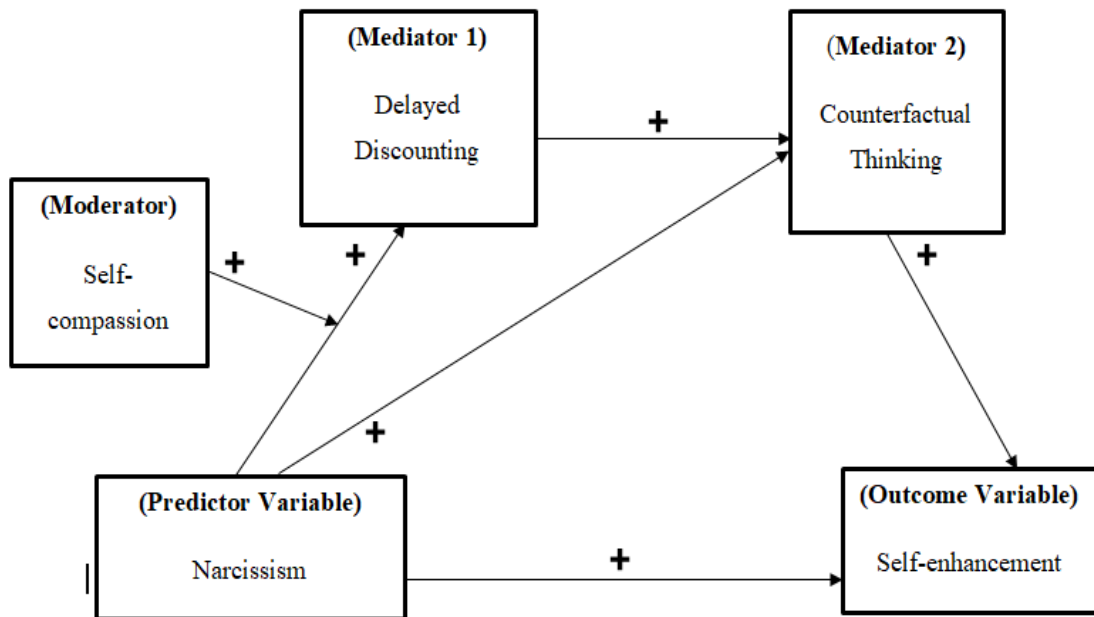


Figure 1.1 Proposed framework of the study

Chapter 2

LITERATURE REVIEW

2.1 Narcissism

Narcissistic personality disorder (NPD) is an enduring pattern of behavior that may lead toward disability in social, emotional, and occupational effectiveness this suggests that individuals with narcissistic personality features show substantial disability in the normal functioning of life (Stinson et al., 2008). Conceptualization of narcissism can be traced back to the thousands of years old saga of narcissus. The multi-dimensional concept of narcissism has captured remarkable recognition and interest in various fields of psychology such as social, clinical, behavioral psychology, and personality development (Cain et al., 2007). Individuals with narcissistic features show an exaggerated form of self-view, a sense of distinctiveness and exceptionalism, a sense of control and praise from others along with the drive for regard and attention (Krizan & Herlache, 2017).

2.1.1 Pathological and Non-pathological Narcissism

There are numerous ways in which narcissism can be divided or classified. Based on the degree it can be divided into pathological narcissism which is a more severe form of narcissism and then there is non-pathological narcissism or subclinical narcissism as suggested by the name is less severe there are two types of narcissism in literature based on observable attributes they are grandiose narcissism and vulnerable narcissism. Lastly, in terms of expression, narcissism can be either blatant or subtle (Pincus & Lukowitsky, 2009).

Narcissism that is severe or pathological is called narcissistic personality disorder and includes significant impairments or disabilities in normal functioning and in the functioning of Interactional effectiveness this extreme form of narcissism also includes superiority or grandiosity, exaggerated and elevated self-love, lack of emotional understanding, exploitation of others, arrogance and deceit, and viewing oneself to be someone with uniqueness and jealousy for others along with thinking that others are jealous of them, drive to achieve praise, having overly positive self-views that are unrealistic, and expressing behaviors such as unnecessary bragging (American Psychiatric Association, 2013). Narcissism in its extreme form is also related to diminished or poor control of self (Jones & Paulhus, 2011; Vazire & Funder, 2006). Furthermore, in its clinical nature vulnerable narcissism (Cain et al., 2008), along with comprising self-admiration, egocentrism, and entitlement the individual with vulnerable narcissistic features also displays clinical distress, Frailty, and vulnerability (Miller et al., 2017). To assess the degree of vulnerable narcissistic traits in people The Pathological Narcissistic Inventory is commonly utilized (PNI; Pincus et al., 2009).

Paulhus and Williams (2002) postulated that non-pathological narcissism belongs to three relatively different yet interconnected clusters of personality known as the dark personality triad. The dark personality triad comprises these non-pathological clusters involves psychopathy, Machiavellianism, and narcissism and they all share some common attributes narcissism due to its connection with altruistic or helping behavior and characteristics, emotional intelligence, and mental resilience makes it a distinctive construct (Papageorgiou et al., 2017; Petrides et al., 2011).

The definition or conceptualization of the subclinical nature of narcissism can be traced back to the efforts of Raskin and Hall (1979) who defines non-pathological narcissism based on the interpretation of narcissistic personality disorder from DSM. Moreover, they argued that narcissistic dimensions or features are derived from the clinical disorder comprising superiority, excessive self-love or egocentrism, authority over others, and a grandiose view of oneself. To assess these less severe narcissistic features the narcissistic personality inventory is utilized and the statements were improvised using the student population. The transition from severe to a more manageable form of narcissism i.e. from clinical narcissistic attributes to general narcissistic features is strongly validated by robust literature (Morf & Rhodewalt, 2001). Additionally, Pincus et al. (2009) explained that individuals with sub-clinical narcissistic features display excessive levels of overly optimistic self-perception and contentment just to protect their ego and uphold their self-view.

2.1.2 Grandiose Vs Vulnerable Narcissism

Scholars have extensively explored various interpretations and conceptualizations of narcissism, ultimately categorizing it into two primary subtypes: grandiose and vulnerable (Hart et al., 2017). Upon exploring narcissism specifically grandiose narcissism individuals with grandiose narcissistic attributes exhibit superiority or grandiosity, exaggerated and elevated self-love, and self-view that is overly exceptional or top-tier which acts as a mechanism for self-improvement or to enhance the self rather than a shallow mask or appearance (Miller et al., 2011). Those with heightened grandiose narcissistic behaviors have been linked to patterns of attention-seeking and grandiosity, consistently pursuing admiration, a strong desire for increased social status, a propensity to take advantage of other people and demonstrating an unwarranted

overconfidence in their social abilities (Carey et al., 2015; Weiser, 2015; Hart et al., 2016). Furthermore, vulnerable narcissism along with comprising self-admiration, egocentrism, and entitlement the individual with vulnerable narcissistic features also displays clinical distress, Frailty, and vulnerability (Miller et al., 2017).

Researchers such as Back et al. (2013) observed that although the literature on narcissism was progressing with time it continued to be shaped by narcissistic personality inventory (NPI) only so narcissism was conceptualized by them which Incorporated established comprehension or understanding of grandiose narcissistic features and resolved or clarified several genuine contradictions and in their new concept regarding grandiose narcissism they identified and proposed two further dimensions which were interconnected yet distinct in nature and these two facets were rivalry and admiration in narcissism. Both these extended facets i.e. narcissistic rivalry and admiration while remaining distinct features shared a common aim which was the preservation or retention of self-superiority or grandiosity.

2.1.3 Narcissistic Admiration and Narcissistic Rivalry

Back et al. (2013) argued that there are two approaches in which individuals with narcissistic features pursue grandiose self-perceptions these are either through an approach to enhance the self namely narcissistic admiration, or self-protecting approaches namely narcissistic rivalry. Narcissistic admiration, the first dimension, portrays the self-elevation facet of narcissism. It comprises fantasy of superiority, immense need for exclusivity or distinctiveness, and self-glorifying behaviors intended to seek social approval or praise and reinforce or elevate narcissistic self-image. Individuals high on this specific aspect of narcissistic admiration view themselves as superior uphold self-confidence and often make promising first impressions.

Furthermore, narcissistic rivalry which is the second aspect shows a more self-protective or self-guarding side of narcissism which involves demeaning others, seeking dominance or control, and engaging in antagonist or aggressive actions that may mitigate the ego's perceived threat and may lead to social discords. people with this aspect of rivalry may think they are highly competitive, mistrust others, think of others as they are inferior beings, demand complete attention of others devoid of any distraction, and act in detached and vindictive ways.

Additionally, Back et al. (2013) also stated that positive or favorable attributes like enhanced self-regard or confidence, superiority, gratefulness, positive envy, trust in others, and forgiving behavior are connected with narcissistic admiration and motives like personal achievement, self-reliance, excitement, and desire for pleasure or enjoyment revolves around the drive of this dimension. On the other hand, destructive or adverse attributes that involve decreased self-regard or worth, impulsive tendencies, destructive or unhealthy envy, sadness, distress, diminished emotional understanding, lack of forgiving attitude, and behaviors like mistrust are related to the rivalry aspect of narcissism. This aspect of narcissism revolves around the primary drive to gain power or control. This is also confirmed by the analysis done by Funder (2006) who explained that both overly optimistic and overly pessimistic self-perceptions explain narcissism.

In this study, we consider narcissism as non-pathological narcissism involving a superior self-view. Numerous researches or previous literature extensively explored grandiose narcissism which is more vigorous form or expression exhibit superiority, elevated self-love or worth, self-improvement, delusional confidence, disposition to manipulate other people, and animosity and coldness when confronted (e.g., Miller et al., 2017).

In their study, Krizan and Bushman (2010) Suggested that individuals with grandiose narcissistic features strive for dominance or superiority even if it means they have to sacrifice their interpersonal relations or damage them and the point that appears pivotal or fundamental to these objectives or goals is social contrasts or comparisons where narcissistic individuals with enhanced self-esteem make contrasts that are downward where they assume they are more successful and favorable position as compared to others and have an unrealistic superior view of themselves as compared to other important people in their life and these views are the result of their high self-regard. this notion is supported by (Paulhus, 1998) who stated that individuals with a heightened degree of grandiosity may employ reasoning based on a superior sense of self due to their unrealistic self-reliance and self-absorbed focus.

Various scholars have studied gambling behavior concerning narcissism one investigation among many was connected by Campbell et al. (2004) who Highlighted that due to a heightened degree of confidence in one's abilities is present in individuals with grandiose narcissistic features so they overestimate their abilities resulting in larger and more risky gambles consequently leading to more losing as compared to the general population without these features. narcissists are prone to take more risks than the general population without their performance being better which means they simply overestimate their competence leading to taking risks but because this overly positive self-view is unrealistic no improvement in performance has been reported. Furthermore, other investigators also expanded these findings and postulated that people with grandiose narcissistic tendencies understand these risks but they think more highly of the change that can make them stand out more and ignore the greater loss (Foster et al., 2009).

In the investigation conducted by Vazire and Funder (2006), they explored impulsive behavior and narcissistic features and provided robust evidence for the presence of a relationship between narcissistic features and impulsive behavior also postulated that one of the key aspects and features of narcissism is impulsiveness and this attribute can result in immediate reward seeking to ignore its negative consequences in long run.

In their meta-analytical review, Vazire and Funder (2006) further stated strongly that after employing or utilizing various assessments to measure narcissistic features or impulse behavior this feature was persistently identified which explains that rather than acting as a simple correlate of narcissistic features it may be acting as a potential foundation of personality mechanism of individuals with narcissism.

Nagler et al. (2014) explored socio-emotional intelligence concerning the dark triad of personality to investigate if individuals from a dark triad comprising of Narcissism, Psychopathy, and Machiavellianism use emotional intelligence to manipulate others and findings revealed that individuals with narcissistic or psychopathic features used emotional intelligence to manipulate people and also link was positive between these two traits and emotional manipulation.

Another recent investigation conducted by Jarwan et al. (2024) explored the relationship between severe forms of narcissism i.e. narcissistic personality disorder and emotional manipulation and demographic variables such as sex, age range, qualification level, and marriage span and conclusions that were drawn suggested that robust differences were evident in male population along with individual married not more than ten years, and people from the lower educational background and correlation was also identified in emotional manipulation and degree of narcissistic personality disorder Among partners.

2.1.4 Narcissism and Age

Personality traits are long-lasting and believed to remain constant throughout time and are long-lasting yet it is also supported by studies that changes in personality traits or attributes are likely to happen throughout life (Donnellan, Hill, & Roberts, 2015). meta-analytical review and longitudinal research also validate this notion stating that as people transit from young adulthood to middle age they grow more diligent, become more cooperative, and gain more emotional steadiness or resilience (Damian et al., 2018; Roberts et al., 2006). Moreover, scholars such as Twenge (2006) have also stated that today's young adults have greater level of narcissism and its related traits than previous generations. Twenge and colleagues (2008) supported this claim and identified that a 33% increase in narcissism was found from the 1980s and onward.

2.1.5 Narcissism and Gender

Numerous studies have explored gender and age differences among individuals with narcissistic features or attributes. Grijalva et al. (2014) also explored gender influence in people with high narcissistic tendencies and findings identified that the male sample has more narcissistic attributes as compared to the female sample and this gender-based disparity stayed consistent or stable throughout various age categories and across the years 1990 through 2013 in American college students. In their Long-term exploration Chopik and Grimm (2019) examined if there will be any difference in the degree of narcissistic features from early adolescence to late adulthood ranging from age 13 to age 77 among Individuals born during 1923–1969. Findings stated that narcissistic traits showed moderate stability or consistency throughout the lifespan but

they also identified that extremely unhealthy or self-destructive narcissistic behaviors diminish with self-autonomy or self-reliance increasing with age.

In a more recent study researchers explored age-related or gender-related disparities over 8 commonly employed inventories to assess narcissistic traits or levels and yielded results showing the presence of increased narcissistic levels among young adults the most with males scoring more as compared to the female sample (Weidmann et al., 2023).

2.2 Self-Enhancement

Concepts about oneself can be defined as the Cumulative set of conclusions that a person draw about oneself or it can mean a complete understanding of self-perception (Baumeister, 1997). A fundamental notion concerning mental health is when it comes to oneself is the ability to determine reality precisely is needed to gain psychological adjustment. This concept or notion can be traced back to classical Greeks where it can be best explained by the concept of “know thyself” given by Socrates. Contrary from the enduring and conventional perspective that says to function efficiently self-awareness is necessary, Taylor and Brown (1988) postulated that views about oneself that are overly optimistic or illusions of self-superiority are key traits of mental well-being. Researches also confirmed that self-enhancement is associated positively with improved psychological health.

Dufner et al. (2018) meta-analytic investigation regarding pros and cons of self-enhancement showed associations between self-enhancement and interpersonal adaptation and between self-enhancement and self-adjustment (Contentment, positive emotions, negative emotions, and sadness). The positive relationship that was present between Self-enhancement

and personal adjustment was vigorous across gender, age groups, and culture with causal perspective also confirming this relationship.

Previously various researchers found that degree of self-esteem can forecast the different self-enhancement approaches. In the analysis done by Qiu (2018) examined whether self-esteem steadiness influenced the Connection between degree of self-esteem and different self-enhancing strategies and yielded results confirmed where both degree and steadiness was favorably associated with straightforward self-elevation, but inversely associated with indirect elevation of self. Additionally, people having strong self-esteem indicated increased rate in direct self-enhancement.

Kwan et al. (2004) Identified Two distinct perspectives of self-enhancement occur simultaneously in reported literature. With One concept Derived from Festinger's (1954) theory social-comparison which of and evaluates how individuals perceive themselves with others: this perspective states that individuals who view themselves more favorably than they view others are more self-enhanced. Alternate perspective Based on Allport's (1937) concept of self-awareness Contrast Personal perception with other's perception: this view postulated that individuals who view themselves more favorably than they are viewed by others are more self-enhanced.

Manifestations of self-enhancing behavior incorporate people's disposition toward self-serving bias (Sedikides & Alicke, 2012) and unrealistic optimistic illusions, which are the individual's inclination toward holding unrealistic and overly positive self-beliefs and one's situation (Taylor & Brown, 1988). Moreover, people often compare themselves with others in society who they consider less competent to boost their self-esteem (Festinger, 1954).

According to Taylor and Brown (1994), there are three major domains in which people exhibit positive self-deceptions and optimistic illusions: they perceive and view themselves as overly positive which is inaccurate, they think they have more power over situations than they actually have and lastly they often have overly exaggerated positive views of future than the statistical data or researches support.

In their study, Regan and colleagues (1995) inquired if people show optimism that is unrealistic only for their individual future or if they generally exhibit unrealistic positivity for other individuals as well. The findings of the investigation indicated that as compared to same-gender peers, individuals only show optimism that is unrealistic only for their individual future and for their close friends. Still, they did not show positivity for the future of people who were not relevant to them whereas results of study 2 which utilized unbiased measures indicated that in contrast with people who were not personally relevant to an individual, they only showed future-related optimism that was unrealistic for themselves instead of general optimism bias for others.

Researchers Czaja and Röder (2020) analyzed Among Independent traders the effects of self-attribution bias to understand if it is present in Individual investors or not and findings indicated that self-boosting and enhancement of self leads to Insufficient or poor performance in the future and subsequently Investors participate in more regular Investments, Portfolio modifications with Balanced portfolio management and less diversified portfolio when susceptible to self-boosting bias and this association also support existing literature implying that inflated confident behavior is influenced by biased self-serving process and investor who gives

excessive credit their past success to their personal abilities turn out to be overly confident (Gervais & Odean, 2001), and perform Insufficiently and poorly (Barber & Odean, 2000).

Researchers Alice and Sedikides (2009) described self-enhancement as the deposition to give overvalue to personal traits or more credit than deserved whereas they explained self-protection or self-preservation as ways used to prevent falling short of an expected level. Both ideas are based on the belief that either people desire to feel good about them or simply want to avoid negative self-evaluation so both these ideas serve as motivational drives that either work to enhance self-esteem or to prevent the decrease in this self-esteem.

Brown and colleagues (1988) studied the link between the tendency toward biased self-enhancement and self-worth to see if people exhibiting a high degree of self-esteem also show a high degree of self-boosting behavior directly linked with optimistic self-concepts while people with a low degree of self-worth tend to exhibit self-boosting behavior which is not directly linked with optimistic self-concepts results showed people with greater self-esteem showed biasedness when engaged in group situation directly and people having less self-esteem demonstrated favoritism when they were indirectly engaged in group mechanisms. Additionally, after participants had received a positive appraisal these patterns were less observed in contrast to those receiving critical feedback it may be due to overly optimistic expectations after getting positive feedback which made real outcomes less impressive in comparison.

The study by Sedikides and Gregg (2008) asserts that self-enhancement can be expressed at four levels: as a visible and observed outcome, a continuous mechanism, a trait of personality, and an Intrinsic drive. It can also be divided into three categories: ostensible signs, dynamic processes, and personality Features. Ostensible signs offer preliminary evidence of self-

enhancement, and self-superiority bias or the above-average effect is a widely recognized indicator of it. This above-average effect describes an individual's predisposition to regard and perceive social competencies and one's cognitive skills as unrealistically elevated compared to other people (Alicke & Govorun, 2005).

Researchers John and Robins (1994) in their study explored accuracy versus potential partiality or biasedness in self-assessment of effectiveness and productivity in a group discussion in a managerial context among individuals and results reported that despite self-awareness or self-perception indicated convergent validity and alignment with Employee standards they showed less precision and accuracy when they were evaluating their personal performance as compared to the assessment of peers and Usually they assessed their performance Marginally better or improved relative to when their performance was assessed by their peer or staff. This phenomenon points to the superiority bias or above-average effect when evaluating own performance.

Second category in which self-enhancement can be divided is dynamic processes which include the strategies utilized by individuals to elevate and boost their self-worth. According to Steele (1988), these approaches to inflating one's self-image may involve selective memory or recalling where an individual emphasizes and remembers only favorable and supportive responses while Reducing the impact of negative feelings, or it may involve self-reassurance that Comprises emphasizing personal strengths and qualities and optimistic traits and characteristics to mitigate or balance the perceived threats to self-regard or self-esteem.

In the research done by D'Argembeau and Van Der Linden (2008) they inquired how memories are stored and shaping and how they are retrieved and if in this process individual's

motivation to uphold and sustain optimistic or positive self-regard (self-elevation) might play a crucial role. Researchers by encouraging participants to recall both favorable and negative situations or incidents involving self-assessments or favorable and negative situations or incidents involving assessment or judgement about other people the yielded results indicated optimism bias or false positivity which involve recalling events that are more positive in robust detail as compare to the events or incidents that were negative and this was true for incidents that included self-assessment but not others evaluation. Moreover this bias was robust in people having high degree of self-worth or self-esteem. This indicated the biasedness in shaping and recalling memory as well as how self-esteem might play a role in it.

Lastly, personality Attributes related to self-enhancement, specifically grandiose narcissism can affect the degree to which people exhibit behaviors that elevate their self. Individuals with narcissistic features demonstrate increased self-worth, a sense of entitlement, and a need for validation which leads to an increase in self-elevated behavior (Raskin & Terry, 1988). In the examination of the existing studies done by Grijalva and Zhang (2015), their focus was self-awareness and self-enhancing behavior in association with narcissism and they identified that there was a robust favorable connection between narcissistic and self-enhancing behaviors implying that narcissists emphasize their agentic traits as compared to communal traits.

Rooted in the idea of selfhood from a social constructionism perspective (Markus & Kitayama, 1991; Triandis, 1989), the perspective of relativism postulates that in Western cultures the need for self-enhancement evolves as a result of the emphasis on individualism and the

absence of self-enhancing behaviors in eastern culture is due to their emphasize on collectivistic perspective.

Findings from a long-term randomized study conducted by O'Mara and colleagues (2012), carried out in China and America investigate the cause-and-effect relationship between self-enhancement and psychological well-being in both Western and Eastern cultures and results confirm the universal perspective that self-elevated behaviors boost mental well-being from baseline in both china and America.

2.3 Self-Enhancement and Grandiose Narcissism

Although Self-enhancement is generally considered a positive psychological construct, rooted in positive psychology, and is associated with greater mental well-being (Taylor & Brown, 1988). Nevertheless, there is also a negative aspect attached to it specially, especially narcissistic self-enhancement, that comprises of an exaggerated and grandiose perception of oneself intending at proclaiming superiority over other people as narcissism according to Krizan and Herlache (2017) is characterized by exaggerated and Unreasonable self-love, grandiosity, and a sense of entitlement often leading to feelings of Arrogance and superiority. So superiority is a common characteristic of both narcissism and self-enhancement.

A large survey was conducted by Brown (1988) in which he asked participants to rate themselves and others and 89% of participants gave higher or favorable ratings to themselves as compared to others it confirms the deposition of people to Strive for self-enhancement. Although it is the nature of humans to elevate their self or enhance their self-worth to some extent individuals with grandiose narcissistic features exhibit this tendency to an extreme level which is

often toxic and exceeds the normal boundary of having optimistic self-perceptions because they ignore appropriate social cues (Morf et al., 2011).

Morf et al. (2011) stated that narcissists are closely related to self-enhancement and described narcissism as a self-absorbed personality. Narcissism and self-elevation can also be explained with the perspective which states that other people optimistic view about narcissistic people is used by narcissists to uphold their excessively optimistic Self-image (Morf & Rhodewalt, 2001). For many years these two concepts have been used interchangeably and as closely related concepts. Paulhus (1998) even explained narcissism as an indicator of self-enhancement while other researchers see it as a pivotal component of narcissistic features (Campbell et al., 2000; John & Robins, 1994; Wallace, 2011). Raskin and Terry (1988) postulated that personality Attributes related to self-enhancement, specifically grandiose narcissism can affect the degree to which people exhibit behaviors that elevate their self. Individuals with narcissistic features demonstrate increased self-worth, a sense of entitlement, and a need for validation which leads to an increase in self-elevated behavior.

In their meta-analytic review of narcissistic self-enhancement, Grijalva and Zhang (2015) emphasized introspective enhancement of self to see if narcissists view themselves more favorably than they are viewed by others. Their findings showed a modest favorable connection between narcissism and self-enhancement, where narcissists enhanced their Self-directed attributes at a higher level as compared to their communal attributes. Additionally, even when narcissists are at risk of being isolated from other people they will still proceed to overstate and amplify their qualities. Baumeister and Vohs (2001) expand Morf and Rhodewalt's (2001) study and postulated that narcissistic individuals are addicted to elevated self-image which is not only

costly but self-destructive as well. Narcissists may maintain self-enhancement as it is a motivation to safeguard and escalate their own self-view (Leary, 2007).

Researchers John and Robins (1994) in their study explored accuracy versus biasedness in self-assessment of performance in a group discussion in a managerial context among individuals and results reported that people who self-enhanced more in group discussion were those who rated themselves higher on narcissism inventory as compared to less self-enhanced individuals. Researchers postulated that narcissists have overly positive image of their qualities which is unrealistic due to their obsession with self-affirmation.

Sedikides et al. (2002) explained that people's Predisposition to self-enhance is influenced by to which extent people are held accountable for their self-rating by asking respondents to write and then grade that essay additionally some respondents before grading essays were told they were subject to the audience scrutiny while others were not and findings revealed that individuals who thought they were answerable to audience assigned lower ratings to their essay while other gave their essay more favorable rating than deserved with this researchers proposed that when individuals are expected to rationalize their self-assessment they tend to self-enhance less as compared to people who think they don't have to justify their ratings.

Moreover, even if this is the case narcissists unlike most people seem to violate or disregard norms and still persist in exhibiting self-entitlement and self-enhancing behavior despite knowing that they will have to defend their appraisals (Collins & Stukas, 2008) and will proceed to overstate and amplify their qualities even at the risk of being isolated from other people. It is validated that people with narcissistic features take recognition for group achievement by often denying other members their deserved credit (Campbell et al., 2000).

To conclude, it can be said the individual exhibiting narcissistic features especially that of grandiosity tend In conclusion, narcissists have self-enhancement that exceed boundary of normality and leads to more destructive form of self-elevation that is unrealistically exaggerated and include overestimating one's achievements and worth even at the cost of taking others credit, disregarding norms. This toxic superiority bias or entitling behavior Mirrors the drive of these individuals to proclaim authority even when the consequences are severe and unfavorable for themselves and people around (Morf et al., 2011; Campbell et al., 2000; Collins & Stukas, 2008).

2.4 Delayed Discounting

Timing of rewards along with the quantity of rewards greatly influences daily decisions between reward options. Talking about time, it is a profoundly abstract concept as it cannot be directly observed and it remains untouchable, unheard, and undetectable but still in the decision process it is a vital component that can't be ignored. Studies emerged specifically within the fields of psychology and economics contemplate the manner in which gains, losses, and probabilities correlated with time are merged to conjure the decision that will decide the choice.

Other researches illustrated time-related choices as individuals opting for a compatible judgment of how much resource or what resource to take across time by adjusting cost and merits or advantages at various time interval (Loewenstein, 1988; Loewenstein and Thaler, 1992). In their investigation Kalenscher and Pennartz (2007) described that individual's will seldom waiting for an elevated reward rather will opt for a lesser but instantaneous reward. Choosing among several outcomes at various times is termed as intertemporal decision making. As defined by Riis-Vestergaard et al. (2017) delayed discounting is the process that explains with the passage of time value or worth of an incentive or reward diminishes or decreases. The

diminished worth of an incentive when it is received unpredictably or after a delay by keeping within the behavioral economic framework is illustrated as discounting.

Green and Myerson, (2004) discovered that disposition of temporal discounting of an individual is associated with the duration of time and quantity of wealth and also with the risk acknowledged by people. According to Frederick et al. (2002) If the decision of choosing ‘1000£ in 2 years’ or ‘150£ now’ is presented to individuals, they might incline towards the latter alternative as the former option is difficult and more uncertain and that the individuals might not get the optimum benefit in 2 years from the former option. Nonetheless, the periodicity of temporal discounting may lessen if the individuals are encouraging and reassuring when they confront or face unpredictability or threats because the individuals comparatively remain resistant to risks. Approach-avoidance theory of power illustrates and defines this concept (Keltner et al., 2003).

Keltner et al. (2003) gave the approach-avoidance theory of power and control to potentially justify delayed discounting. Authority over crucial resources or valuable assets like information and money depicts power or control (Fast et al., 2009, 2012; Dubois et al., 2010; Maner et al., 2012) or authority to impact or persuade ideas and behavior of other individuals (Keltner et al., 2003). According to this theory, people who possess excessive or escalated sense of control or power intend to remain concentrated on incentives that inspire them to act in a more goal-directed or approach-focused actions or behavior. On the other hand individuals with decreased authority or limited control have more increased sensitivity to threats and their actions are constrained or limited in various scenarios hence causing or guiding them to engage in escalated avoidance reactions. Highly powerful people display higher levels of optimism and

confidence as compared to less powerful people while considering potential risks due to their belief that they possess more reserves and are capable of tackling obstacles or hurdles.

It was found by Anderson and Galinsky (2006) that those individuals who are having greater power or authority are generally more self-assured or confident while assessing possible dangers or threats, resultantly, causing these individuals to take huge risks. See et al. (2011) additionally argued that biased decisions are more prominent in highly powerful people as compared to less powerful people. In their study, Duan et al. (2017) expanded this by exploring the power and decisions link and identified that a view or Awareness of power (capability to shape the thoughts and behaviors of people) diminishes these tendencies.

In the research done by Haushofer et al. (2021) they explained that when the worth or value of the delayed reward reduces or drops, there becomes a greater inclination for the immediate option or choice Madden et al. (2009) further identified this trend to be an important feature of everyday decision processes specifically in healthcare, the educational field, substance addiction (Bickel & Marsch, 2001; Bickel et al., 2006) as well as compulsive betting. Discount in outcomes that were delayed was notably more than in matched controls.

Recent evidence supports that more abrupt or inclined delay discounting foresees or anticipates much more negative results in individual's drug abuse intervention or Recuperation studies (Dallery & Raiff, 2007; Yoon et al., 2007). It was similarly observed by Alessi and Petry (2003) that within individuals with gambling addiction, the extent of delay discounting explained greater differences in gambling intensity than frequently used personality tests for impulsivity. Additionally, researchers identified the link between low GPA and excessive temporal discounting, an increased history of sexual experiences, and unsafe sexual practices especially

present among adolescents and in the stage of young adulthood (Chesson et al., 2006). Therefore delay discounting is considered to be related to impulsivity.

Mahalingam et al. (2013) described the process that linked delay discounting towards these behaviors or actions indicating that discounting may represent a wider or broader characteristic of self-control as well as impulsivity. Regarding personality traits, Manning et al. (2014) identify a robust association of temporal discounting with neuroticism and conscientiousness which are connected to impulsiveness and self-regulation or impulse control as outlined by Big-Five personality traits (Carver, 2005; Costa & McCrae, 1992; DeYoung, 2011).

The study by Ainslie (1975) outlined impulsiveness as the inclination to select or opt for less beneficial choices or alternatives over more rewarding options. Based on his perspective, hyperbolic curves best clarified impulsiveness, in which they reveal the declining value or worth of rewards as they become delayed. This association between temporal discounting and impulsiveness results from failure to consider future outcomes and ignoring the effects of behavior in the long run. Due to this, delayed discounting is viewed as a facet of impulsiveness. In support of this notion researches proposed that delay discounting amounts to an apparent aspect of impulsivity (Reynolds et al., 2005; Bernoster et al., 2019).

Mazur (1987) hyperbolic decay model mathematically reported discounting behavior and in his equation, an individual's discount rate is presented by the free parameter 'k' which is widely used as a measure or gauge for behavioral impulsiveness. The more a future reward is devalued, the discount rate increases, which shows that the individual is much more impulsive.

The study by Steward et al. (2017) analyzed the associations among impulsiveness and temporal discounting among young and old patients with gambling addiction together with the intermediary function of impulsivity in impacting or altering gambling behavior in both age groups. The findings illustrated no meaningful or notable differences in age of gambling patients regarding delay discounting whereas positive correlations among delayed discounting and impulsiveness were identified in individuals belonging from young adulthood stage.

Moreira and Barbosa (2019) study was to evaluate and spot the specificities of delay discounting (DD) processes in proportion to impulsive behavior. The review focused to interpret existing literature to acknowledge how individuals with impulsive tendencies belittle future rewards or consequences and scout the potential of using DD as a tool in assessments and interventions. Results manifested that individuals with prominent impulsivity traits often opt to discount future rewards more abruptly. They prefer lesser immediate rewards over greater delayed ones and choose to delay losses even if the consequences aggravate over time.

2.4.1 Delay Discounting and Maladaptive Behaviors

A wide range of maladaptive behaviors are correlated with more inclined delay discounting which likely offer short-term rewards but are dangerous overtime. Delay discounting is connected with addiction of drugs (Mackillop et al., 2011), behavior of gambling (Alessi & Petry, 2003), overweight or fatness (Barlow et al., 2016), risky or unsafe sexual experiences (M. W. Johnson et al., 2015), destructive or negligent behaviors and threats to well-being (Daugherty & Brase, 2009).

Snider et al. (2018) study focused to inquire whether delay discounting could anticipate the constancy of other unhealthy or financially reckless behaviors, unconstrained of smoking. These reckless acts comprise compulsive drinking, poor dietary choices, a sedentary lifestyle, and wasteful expenditure or financial irresponsibility, and people who indulge in these maladaptive actions have elevated or Increased temporal discounting tendencies because they prefer instant pleasure while ignoring future outcomes. The analysis disclosed that delay discounting do not forecast engagement in safe driving so no safe driving behavior in the population was forecasted by delay discounting.

The type or kind of outcome which is being discounted has a significant influence on the extent of delay discounting. To illustrate this, Madden et al. (1997) identified that those people who were suffering from narcotic dependence discounted delayed money or wealth much less than that of same quantity of heroin or drugs. In a similar fashion, Bickel et al. (1999) illustrated that newcomer to smoking discounted delayed money or wealth much lesser than drugs.

Lastly, it has been revealed by numerous researchers who studied temporal discounting that a person's tendency to devalue rewards in one setting or scenario or for devaluation of a specific type of incentive predicts temporal discounting in different situations or for other incentive (Dixon et al., 2003; M. W. Johnson et al., 2010; Odum, 2011). This view is supported by Charlton and Fantino (2007) as they explained that people who show impulsive behavior concerning food devalue rewards relating to entertainment as well.

Individuals inclined to undervalue future rewards make choices that include instant gratification of rewards over sustained advantages (Mazur, 1987; Ainslie, 1975). This pattern of impulsivity and lack of self-restraint or impulse control is correlated with negative consequences

like Betting, drug dependency, and unhealthy or dangerous practices (Amlung et al., 2016; Bickel et al., 2019). The degree to which individuals devalue future rewards also varies with different forms of reinforcement or incentive and with certain attributes such as neuroticism and conscientiousness (Manning et al., 2014). So understanding this construct is very crucial.

2.5 Narcissism and Delayed Discounting

In the domain of personality characteristics, individuals with narcissistic grandiosity features who manipulate or use others for their best interest and have the inability to indulge in self-learning or take lessons from their errors (Campbell et al., 2004; Foster et al., 2009; Foster & Trimm, 2008) exhibit a tendency to indulge in impulsive behaviors (Crysel et al., 2012; Lakey et al., 2007) and tend to prioritize instant gratification of incentives underestimating future incentives or reinforcement that will be given after a delay (Jonason & Webster, 2010). This perspective is related to hasty decisions and Decreased consideration of possible adverse or risky outcomes (Littrell et al., 2019; Malesza & Kaczmarek, 2018).

Temporal discounting refers to the enhanced tendency to favor instant small incentives rather than future incentives that are relatively large and serves as a crucial factor in the decision process (Bickel et al., 1999; Madden et al., 1997) and has wide-ranging consequences in the comprehension of impulsive behaviors (Holt et al., 2003; Richards et al., 1999). Upon exploring impulsivity and its relationship with narcissistic features or attributes in an investigation done by Cain et al. (2007) notable trends appear or become evident such as impulsivity or poor self-restraint attributes and striving for personal gain without considering how others will perceive these actions. Additionally, there is a robust connection between temporal discounting and

harmful behavior like excessive betting, excessive or compulsive drinking, and Tobacco dependency (Critchfield & Kollins, 2001; Green & Myerson, 2004; Kirby & Maraković, 1996).

In the investigation conducted by Vazire and Funder (2006), they explored impulsive behavior and narcissistic features and provided robust evidence for the presence of a relationship between narcissistic features and impulsive behavior also postulated that one of the key aspects and features of narcissism is impulsiveness and this attribute can result in immediate reward seeking to ignore its negative consequences in long run. In their meta-analytical review, they further stated strongly that after employing various assessments to measure narcissistic features or impulse behavior this feature of impulsiveness was persistently identified across all tools.

As explained by Mintz et al. (2011) impulsiveness is additionally linked with a decreased level of self-regulation and when it decreases along with an increase in narcissistic tendencies it compromises the capacity of a narcissistic person to maintain mental well-being in the long term but people with a high degree of narcissism attain a greater degree of hedonistic happiness and contentment because this well-being is fueled by attaining enjoyment and avoiding suffering.

A commonly established link among individuals with either psychopathic features or narcissistic features is impulsiveness (Jakobwitz & Egan, 2006; Raskin & Terry, 1988) which enhanced the already established link between narcissism and temporal discounting specifically individuals with grandiose narcissistic features show more strong self-stated impulsiveness and impulsive actions or attributes (Malesza & Kaczmarek, 2018).

Crysel et al. (2012) investigated the dark personality traits and impulsivity to identify a connection between dark personality traits and impulsivity i.e. hasty behaviors such as excessive

gambling and delay discounting and findings indicated that there was indeed a robust connection between narcissistic features and temporal discounting, and between dark traits, delay discounting and risky gambling. Moreover, reckless acts were more linked with narcissistic features explaining their preference for instant gratification of rewards as compared with incentives given after a delay or in the future.

Researchers like Malesza and Kalinowski (2019) also identified psychopathic or narcissistic features as potential predictors of temporal discounting and impulsiveness with Lam and 林曉晴 (2021) further expanding this link and identifying grandiose narcissistic features as robust predictors of impulsiveness and reckless choices or decisions in delayed discounting activities.

Another study conducted by Buelow and Brunell (2014) studied how particulate attributes of narcissism lead to risky acts and the need for immediate gratification of rewards over later rewards and escalated elevated degree of self-absorption or entitling behavior predicted an inclination towards immediate incentives rather than incentives that are more valuable but will be given in future after a delay of time. In their meta-analytical review, Coleman et al. (2022) further explored this link and identified that temporal or delayed discounting was more significantly related to grandiose narcissistic features.

Exploration and comprehension of the connection present in narcissistic features and the desire for immediate gratification of rewards instead of rewards that are more valuable but are delayed known as temporal discounting is essential and vital to understanding the process of impulsivity and reckless decisions and how this decision contributes to harmful consequences such as drug dependence or betting behavior (Crysel et al., 2012; Buelow & Brunell, 2014) so

investigating this connection can pave the way for future strategies to reduce these adverse impacts.

2.6 Counterfactual Thinking

Every day we all experience taking decisions that might affect our livelihood either drastically or in a subtle manner. Nevertheless, it is hard to evade or prevent thinking or considering about alternate possibilities or outcomes if we had opted for another route or picked a different way. According to studies, the notion of "what if..." frequently crosses an individual's mind when these individuals think about the decisions they've taken in life. Nonetheless, these hypothetical situations or possibilities are a fundamental and natural aspect of humanity. We often come to understand our motivations, longings, and disappointments or sorrows by rethinking about these imagined scenarios, influencing how individuals would advance into the future.

Counterfactual thinking is explained as thoughtful consideration or contemplation of events or situations that were likely to occur but never did in the reality (Kahneman & Tversky, 1981; Decety & Ingvar, 1990). In the view of Roese (1997) to partake in counterfactual thinking, an individual must put aside events taking place in reality and ponder about the substitute outcomes that may transpire instead. Kahneman and Miller (1986) further elaborated Counterfactual thought as a reflection or recollection of a past that is not in line with or differs from what truly happened.

2.6.1 Types of Counterfactuals

Study by Markman et al. (1993) illustrated that counterfactual thoughts can exhibit both positive or negative traits and aspects. For example, visualizing or considering ideal scenarios or outcomes (upward counterfactuals) or considering worse or unfavorable possibilities (downward counterfactuals). Other than this, Roese and Olson (1995) illustrated that they can also be other-referent, self-referent, and non-referent, based on whether they involve or affect you, another person, or are impersonal in general. Focal point of our study is on downward counterfactual thinking pattern.

In the view of Kahneman and Miller (1986) Norm theory was the earliest theoretical framework which defined counterfactual thinking whereas the momentary activation of memories corresponding to the past encounters which were identical to the recent situation was termed as Counterfactual generation. 'If only' thoughts are caused by uncommon occurrences that strengthen or affirm the usual course of events. To give an illustration, a rider travelling on a strange road at a very unusual time would wish for taking the usual road if he confronts an accident. Alternatively, a biker facing the same accident by travelling on his model route at an odd time would likely wish to travel at the optimum time instead. Kahneman and Miller (1986) further illustrated that within the context of cognitive or mental shortcuts and distortions, norm theory was formulated. This theory presented counterfactual thinking as a form of distorted reasoning or as a manifestation of biased judgment and choices. Functional theory was an alternative to describe counterfactual thinking.

As speculated by Epstude and Roese (2008), Functional theory of Counterfactual Thinking hypothesizes that upward counterfactuals can allot blame to oneself (self-referent),

other individuals (other-referent), or no one in general (non-referent), meanwhile downward counterfactuals are set apart as non-referent solely. Kahneman and Miller (1986) study revealed that the primary aim and function of upward counterfactuals is to aid in enhancing or facilitating the development of knowledge and accomplishment by pointing out the way of how a goal or task might have been accomplished or attained (For instance, 'an A on the exam would have been achieved, if I had put in more effort or studied harder for it'). Yet, upward counterfactuals often tend to intensify or strengthen negative feelings or emotions like sorrow, grief, regret, and remorse by highlighting the gap between the actual situation and a hypothetical, more positive, more favorable scenario. The study by Roese and Epstude (2017) illustrated that in comparison to upward counterfactuals, downward counterfactuals boost or promote emotional wellness and well-being by helping people acknowledge that a undesirable or unfavorable scenario was evaded (such as, 'I'm thankful and relieved I passed the paper instead of failing it').

In the view of researchers, the purpose of counterfactual thinking with regards to unlawfulness and shame has been contemplated by quite a few researchers where they argue about the association of upward counterfactuals with guilt in the shape of “I would not have been in an accident had I avoided overtaking the truck,” where the cause of the unfortunate outcome becomes a particular behavior picked by the substitute. Humiliation or guilt, oppositely, by casting doubt or challenging the individual's skills and highlighting or drawing attention towards the importance of modifying or altering personal actions to influence the result, highlights or focuses on the reason in the hypothetical scenarios or possibilities (Niedenthal et al., 1994; Roese and Olson, 1997). Ultimately, it is notable that emotions involving contentment and ease or solace are affiliated with downward counterfactual thinking. As this type of thinking often tends

to make an individual feel better, so it can also succeed in attaining a function of mood repair (Roese and Olson, 1995; Sanna, 1998; Sanna et al., 2001).

Roese and Olson (1993) detected that individuals who were more self-esteemed were more prone to produce counterfactuals following appreciative outcomes, while individuals with lower self-esteem were inclined to doing so after unfavorable outcomes. The study by Sanna et al. (1999) illustrated that generation or development of better or worse hypothetical scenarios was affected by mood and emotions, with optimists displaying a pattern of opting for creating downward counterfactuals when feeling pessimistic or during low moods.

The study by Mandel and Dhami (2005) directed at investigating whether counterfactual thinking magnified guilt more than shame and to inspect the mediating role of self-blame. The results manifested that upward counterfactual thinking remarkably increased guilt compared to factual thinking, while no dependable difference in shame was observed. This effect was compatible regardless of whether the content of counterfactual thoughts was behavioral or characterological. Self-blame conciliated the relationship, with counterfactual-focused prisoners reporting excessive self-blame, which heightened their guilt. These findings indicated the prominent and unique relationship amongst counterfactual thinking and guilt where counterfactual thinking enhanced guilt independently.

2.7 Counterfactual Thinking and Narcissism

In his study Stucke (2003) proposed that by comprehending or recognizing the importance and function of counterfactual thinking in those people exhibiting strong or high levels of narcissistic traits, reveals how they influence their self-concept or construct their self-

view by means of these hypothetical situations or counterfactual scenarios. Within the framework or scope of grandiose narcissism, studies and researches reveal that those people who possess these characteristics are prone to or have a tendency to create counterfactuals that align with their primary objective to sustain or uphold their desire for grandiosity. They may incline towards downward counterfactuals, assigning high performance to them and condemning external factors for low performance (Stucke, 2003).

The attributes of narcissism on prophesizing counterfactuals thoughts and hindsight bias was probed by Kausel et al. (2013). Observations from the study revealed outcome favorability to be in a positive connection with hindsight bias whereas it was negatively linked with should counterfactuals. Hindsight bias was also revealed to be in a positive affiliation with narcissism. Fascinatingly, a mediated moderation was also observed in which should counterfactuals were impacted by the pair of outcome favorability and narcissism which further exerted influence on hindsight bias. This research reviews the implications and directions for future investigation.

Study by Grundmann et al. (2022) examined the link amongst the correlation or association of counterfactual thinking and grandiose narcissism in such a way that findings showed that upward counterfactuals or better outcomes are often avoided by people exhibiting high levels of grandiose narcissism. It was further narrated that this avoidance is tied or linked to diminished guilt or remorse, indicating that narcissistic objectives could be attained or fulfilled by the support or contribution from downward counterfactuals.

Studies suggested that downward counterfactuals might be deployed or utilized by individuals having grandiose narcissistic traits who exhibit a high opinion of oneself compared to other people and have an assumption of special rights or entitlement, as a method or tactic to

defend and preserve their self-image or self-respect by thinking of worse possibilities or more negative results than those encountered, therefore preserving or upholding a positive self-concept (Roese & Epstude, 2017; Sanna et al., 1999). Grasping the knowledge about this relationship is essential to understand or explain how individuals with grandiose narcissistic traits control or regulate their emotional reactions and responses to setbacks and helps in clarifying their emotional well-being and interpersonal dynamics or social connections.

2.8 Delayed Discounting and Counterfactual Thinking

Impulsive decision making is illustrated by a choice pattern in which choosing lesser and smaller immediate rewards are preferred over bigger but delayed rewards (Richards et al., 1999). Counterfactual thinking is the cognitive function or thought process that may be engaged or initiated when dealing or confronting with disappointing results and undesirable outcomes (Epstude & Roese, 2011; Roese, 1997).

Research by Smallman et al. (2018) explained the association among functional upward-additive counterfactual thinking and delayed discounting, which encourages or promotes growth and learning through previous errors or mistakes. Furthermore, it explored the affiliation among delayed discounting and functional counterfactual thinking. The findings disclosed that individuals with elevated levels of impulsivity were unlikely to take part in functional upward-additive counterfactuals, and instead were more probable to spawn downward counterfactuals. The findings of the research points to the fact that individuals who exhibit or possess delay discounting behavior or traits are less likely prone or inclined to constructively or positively consider negative situations or disappointments.

Study by Richards et al. (1999) illustrated that a habit or tendency to devalue delayed rewards is regularly displayed or revealed by people with strong or elevated impulsive tendencies or traits. Smallman et al. (2018) argued that in the event of encountering unfavorable results or consequences, this impulsive trait continues or persists; therefore, people make efforts to alter or modify their conduct or behavior in response to previous mistakes. Epstude and Roese (2011) revealed that this inclination or pattern is stronger in the case of individuals having grandiose narcissistic traits, since individuals with these narcissistic traits are more likely inclined to practice or partake in delay discounting.

To preserve their grandiose self-view, meanwhile centering on how the circumstances could have been worse, the individuals tend to generate downward counterfactuals and that the decision they had to take was the only optimum choice at that time. Roese (1997) illustrated that to support or strengthen their inflated self-perception or self-concept, individuals make use of this particular thought process or cognitive approach which justifies or clarifies why these individuals habitually neglect or fail to learn from their errors.

2.9 Counterfactual Thinking and Self-Enhancement

In spite of the fact that the current knowledge on counterfactual thoughts does not present much evidence-based verification, the social comparison literature gives awareness about the coping strategy or the means of self-enhancement by making use of downward counterfactuals. It was discovered that individuals often partake in downward social comparison when they are confronted with fear, are motivated to self-enhance, or when they confront failure (Aspinwall & Taylor, 1993; Crocker et al., 1987; Pyszczynski et al., 1985; Wills, 1981) and curtail their favored level of comparison (Gibbons et al., 2002).

The study by Sanna et al. (1999) illustrated that the generation or construction of upward and downward alternatives is guided or impacted upon by emotions or feelings, with individuals displaying positive characteristics and optimistic traits leaning or favoring towards negative alternatives when in a bad mood or in adverse emotional states. It was discovered that in comparison with defensive pessimists, optimistic individuals are more likely to opt for downward counterfactuals when they confront any taxing event and negative moods in the hope to possibly re-establish self-views that are positive (Kasimatis & Wells, 1995; Sanna, 1996, 1998). The reason according to which individuals with elevated self-esteem along with optimists opt for these downward counterfactuals is because these individuals are thrilled to see themselves positively. Schimel et al. (2001) illustrated that modern documentation highlights that downward counterfactual thinking is frequently opted by those individuals who are driven to strengthen their self.

The purpose of study by White and Lehman (2005) was to discover how downward counterfactual thoughts are triggered under the influence of cultural background, self-affirmation, and self-enhancement motives. Findings expressed that downward counterfactuals were more recurrent when self-enhancement motives were noteworthy, with event intensity and cultural factors further impacting the spawning of downward counterfactuals. The pursuit or need for self-improvement or self-advancement facilitated these outcomes, drawing attention and emphasizing about the importance or significance of motivational and environmental factors in counterfactual thinking process.

To conclude the findings of the research, hypothetical or alternative thinking, particularly in the form of downward counterfactuals or worse-case scenarios, contributes crucially or

substantially to self-improvement and in promoting self-esteem by aiding or supporting people in reconstructing or rebuilding a favorable self-view or a positive self-image during hardships and adversity (Sanna et al., 1999; Schimel et al., 2001). Researches point out that formation of worse-case scenario outcomes or alternatives is greatly influenced upon by drives for self-improvement or self-empowerment, emotional condition or disposition, cultural factors or upbringing and personal affirmation, and hopeful individuals with a positive outlook and high self-regard or self-worth demonstrate or display a higher likelihood or preference of using this approach (Kasimatis & Wells, 1995; Sanna, 1996; White & Lehman, 2005).

2.10 Self-Compassion

Wise (1991) illustrated that in order to explain or outline an individual's sensitivity to other individuals emotional needs, struggles, and pain, expressions such as 'concern' and 'sympathy' are commonly used interchangeably which subsequently aims to lessen their distress or suffering and results in or triggers empathetic responses. However, in comparison to this researchers explained self-compassion (SC) in such a way that it acts as a constructive emotional management technique or a beneficial emotional regulation approach and a self-driven strategy that encompasses acknowledging individual challenges and risks in theoretical, attentional, and emotional domains coupled with empathy or combined with compassion (Elices et al., 2017; Neff, 2003).

In the context of Buddhist teachings, Neff (2003) focused on illustrating self-compassion by the means of utilizing three fundamental or vital parts being common humanity, mindfulness, and kindness. (a) self-kindness—also called compassion is caring for oneself with empathy or tenderness and awareness instead of judging, criticizing or assessing (b) mindfulness—also

called awareness is seeing one's experiences with a clear perspective or with impartiality rather than hiding or neglecting them (c) common humanity—also called shared experience is recognizing pain, shortcomings and flaws as common human struggles and challenges other than being separated from them. Neff et al. (2017) narrates Self-compassionate as the deprivation of self-judgment in response to personal pain, self-compassion conflicts with the feeling of loneliness by acknowledging a shared human experience after confronting suffering.

As summarized by Neff and Vonk (2009) an element of self-perception that does not fundamentally involve self-evaluation, instead promotes an outlook on failure experiences as possibilities for growth and improvement refers to self-compassion. Neff and Vonk (2009) described in their study that the extent of self-compassion has been connected or tied to enhanced optimism in times of distress or hardships in individuals. The study by Allen and Leary (2010) illustrated that self-compassion may be affiliated with constructive coping strategies like problem solving, acceptance, and reappraisal as self-compassion was viewed in itself as a positive coping strategy.

The meta-analysis by MacBeth and Gumley (2012) discovered that in populations of adults over numerous cross-sectional studies, self-compassion had a positive association with emotional regulation whereas it was aversively associated with psychopathology (Zessin et al., 2015). As illustrated by various investigations, increased well-being and satisfaction, positive feelings or moods, and emotional awareness or insight are related to greater or increased compassion towards oneself whereas its levels are inversely linked with stress and risks, eating issues or disorders, aggressive behavior, and mental health symptoms such as anxiousness or depressed mood and emotional distress (MacBeth & Gumley, 2012; Neff et al., 2006; Zessin et

al., 2015). Bluth and Blanton (2015) showed that compassion towards oneself or self-kindness was strongly linked to life satisfaction or well-being and adversely related with emotional strain or stress. These findings were illustrated by a supplementary cross-sectional investigation among secondary school students.

The study by Wong and Mak (2012) investigated how individuals with vulnerability styles (autonomy, self-criticism, and sociotropy) are protected from depression by probably moderating elements of personal compassion (shared humanity, mindfulness, and kindness towards oneself). It was also illustrated that mindfulness and self-kindness moderated the relationship between depression and self-criticism as well as between depression and autonomy. When controlling for self-compassion components and gender, the relationship among depression and self-criticism was moderated by common humanity. For distinct age-groups, it has been proposed that self-compassion may vary according to gender.

Hyde et al. (2008) focused to investigate how self-compassion evolves during adolescence and whether gender differences materialize across different stages of this period. Studies show evidence about young women or teenage females that they usually demonstrate reduced self-kindness or self-care in relation to male counterparts, perhaps as a result of greater self-awareness related to physical transformations, peer dynamics or social bonds, and romantic involvements. This increase in self-recognition or self-consciousness becomes more prominent with the increasing age of females.

In their meta-analytical review, Yarnell et al. (2015) showed that slightly enhanced self-care or self-kindness was displayed by population of men rather than females, with the difference more noticeable or evident in groups that included more ethnic representation or participants.

Extending this idea further, Yarnell et al. (2018) examined the influence of gender among university or college and adult population samples upon self-compassion. They reported a small gender difference, with men reporting elevated self-compassion, but discovered that masculine gender role orientation had a stronger impact on self-compassion than gender alone.

2.11 Self-Compassion and Delayed Discounting

An incentive or reinforcement will eventually lose its value with the passage of time; this event ortrend is known as ‘temporal discounting’ or ‘delayed discounting’ (Riis-Vestergaard et al., 2017). Researchers identified that low GPA can be seen in people with higher degree of delayed discounting behavior (Kirby et al., 2005), before time exposure to sexual activities, and unsafe sexual practices in teenage individuals or people who belonge from young adulthood stage (Chesson et al., 2006) along with risky behaviors (Mishra & Lalumière, 2016) that are dangerous s and harmful (Gençtanırım, 2014).

According to Neff (2003) self-compassion represents a constructive emotion regulation strategy involving treating oneself with care and understanding instead of evaluating or judging when faced with challenges. Literature showed positive link between self-compassion and other positive constructs such as findings of the study done by Souza & Hutz (2016) identified robust favorable link between self-compassion, self-efficacy, and self-esteem. Although self-efficacy is a positive construct literature has also identified its problematic side by identifying its link with risky acts. In this regard, an investigation was conducted by researches to explore the degree of self-efficacy, stress-coping attitude and risky attitudes among first and second born children and findings indicated that as compared to second born, first-born children had elevated degree of self-efficacy and risk-prone behavior (Shajumon & Luke, 2024). Another research also identified

similar phenomena where study findings showed favorable connection or association among more risky behavior and self-efficacy (Ogunyemi & Mabekoje, 2007).

Although self-compassion is a positive construct but there are some studies that also portray its negative side due to its link with self-efficacy (Liao et al., 2021), that serves a negative aspect as well because of its link with risk-prone acts (Ogunyemi & Mabekoje, 2007; Shajumon & Luke, 2024). Upon considering this phenomena researchers also studied if self-compassion has a link with risk-prone attitude or not or if individual with high degree of self-compassion leads to more harmful or risky behavior. One such research that studied this link was conducted by Bailis et al. (2022) in which they investigated whether self-compassion leads to more risk-taking in games concerning gambling and if prior problematic gambling behavior influence this link or not. Findings revealed that self-compassion was not linked with increased risky gambling in individuals with no prior gambling activities and behavior. Findings revealed that in individual with high level of self-compassion with signs of gambling activities in past predicted more risk-taking especially in young male adults. They stated that more risky actions in more self-compassionate people can be supported by the view that self-compassion mitigates negative self-assessment, and discouraging internal monologues that would discourage taking risks otherwise.

2.12 Researches in Pakistani context

Various studies have explored the extent and occurrence of narcissistic features in Pakistani people specifically among university students or journal youth population. Qadir et al. (2019) have also accessed narcissistic trends among adults aged 18 to 25. The results indicated that nearly 48% of males and 44% of females exceeded the cutoff of the 40-item narcissistic

personality inventory which explains a notable presence of narcissistic features or attributes in young people findings demonstrate that narcissistic features in young and visuals are common occurrences with minor gender-based disparity. The gender disparity was additionally studied by various researches, and they demonstrated that the male population had a high level of narcissistic features or attributes as compared to the female population , (Hassnain et al., 2023; Khan et al., 2023; Nayyar et al., 2023),. Although these investigations only concentrated on narcissistic features without understanding its foundation they still provide valuable insight into gender and age disparities of narcissistic features in the general population. Another research was conducted by (Hassnain et al., 2023) where they explored narcissistic features among medical and healthcare students and their link with educational achievement. Findings identified that healthcare students displayed a high degree of narcissism as compared to medical students with a robust link between narcissistic traits and academic success.

Narcissistic features are mostly found to be linked with self-promoting and self-boosting behaviors. These claims were supported by Abbasi et al. (2024) exploration and findings suggested that narcissism predicts self-promoting behaviors on social media platforms with Multidimensional perfectionism serving as a mediator. The results also suggested a link between narcissistic features, self-centered, and other-centered perfectionism where these both served as a mediators between narcissism and self-promoting behavior on social networking platforms. Iqbal et al. (2012) identified a robust positive link between narcissism and self-worth or regard which enhanced body-worth or body image. Sulaman and Qayyum (2020) additionally identified a positive link between self-esteem and Goal-oriented motivation in government workers.

Despite its connection with self-promotion, the link of narcissistic traits with negative constructs is also well established in literature, especially in Pakistani culture. In this regard, Imran et al. (2024) discovered that narcissism is linked with low self-esteem posted more selfies as low self-image is related to high selfie-posting behavior. Malik et al. (2020) also supported this notion and identified a negative link between narcissism and self-worth or esteem which leads to enhanced selfie posting. Similarly, Nayyar et al. (2023) reported a weak relationship between narcissism and flourishing. Moreover, Shah et al. (2020) noted that narcissism was linked with morally questionable organizational actions, and narcissists in these situations or circumstances don't experience the emotions of Remorse or embarrassment. Lastly, despite the desire for admiration and control, Khan et al. (2023) found a negative link between individuals with narcissistic traits and their motivation for power or control.

Although there were no studies that explored delayed or temporal discounting with narcissism in the Pakistani context impulsivity was studied concerning narcissism. Iftikhar and Iftikhar (2024) in their investigation discovered a favorable link between dark traits of personality (Containing narcissism), aggressive tendencies, and impulsivity in adolescents. Limited studies in the current literature concerning narcissism in Pakistan highlight the importance of carrying out further research that explores the concept of narcissism and its connection with self-enhancement, delayed discounting, counterfactual thoughts, and self-compassion.

2.13 Theoretical Framework

2.13.1 Dynamic Self-Regulatory Processing Model

From a theoretical perspective, Morf et al. (2001), in their "dynamic self-regulatory processing model of narcissism" postulated that narcissism is a self-regulatory strategy that is utilized to sustain unrealistically excessive degree of self-worth through a collaborative reinforcing framework of interactional and self-directed self-regulatory strategies. Alongside these approaches, this self-regulatory mechanism is characterized by an inclination toward self-enhancement. Morf et al. (2011) also described narcissism as a self-enhancing personality.

This framework combines both trait-based and dynamic (interpersonal, cognitive, and emotional) perspectives on personality, presenting an integrated model to comprehend the difficulties linked with narcissistic features. This framework further proposed that individuals having narcissistic features or attributes possess superior yet frail self-views which urge them to seek Persistent approval or self-assurance. According to Morf and Rhodewalt's (2001), this need manifests through interpersonal interactions that enhance the self-view.

Self-enhancement is a defining characteristic or aspect of this structure. (Higgins, 1997) postulated that the drive for dominance or authority, achievement, and Progress is emphasized by narcissistic self-control or emotional-management. This strategy represents a Goal-driven perspective where people with narcissistic features are motivated by ambition. Self-promotion here not only reflects a behavior display but also a motivation for narcissists to sustain elevated self-view.

The interaction or collaboration of emotional, interpersonal, and mental mechanisms emphasizes the progressive or dynamic quality of self-development in narcissism. Individuals foster or maintain a pattern of self-assurance that enhances their elevated yet frail self-view when they constantly participate in self-boosting actions. Narcissism and self-enhancing acts are defined as interconnected components of this comprehensive self-regulation mechanism.

2.13.2 Functional Theory of Counterfactual Thoughts

This theory was introduced by Epstude and Roese (2008), in which they explained counterfactual thinking in depth. They theorized that counterfactual thoughts serve beneficial roles and are functional in nature. They postulated that counterfactual thoughts act as a tool to encourage progress and growth that leads to goal achievement by utilizing strategies that offer guidance to attain the goals.

In their theory they postulated that counterfactual thinking has two basic functions, learning and enhancing self-esteem. upward counterfactuals involves imagining ideal or favorable outcomes than the actual ones are prominently helpful in the better or improved future performance because they lead individuals towards more effective methods to attain future goals by Identifying weaknesses in past acts as compared to downward counterfactuals which involve expecting unfavorable outcomes than the actual ones. It facilitate emotional stability by letting them reflecting on inferior consequences and viewing actual outcomes more favorable thus leading towards high self-esteem and self-enhancement.

According to the theory, counterfactual thoughts have both behavioral and affective components. Behavioral component is linked with upward counterfactuals as they drive

individuals to use past failures as lessons and perform better in future. Conversely, emotional component is linked with downward counterfactuals, which boost self-esteem by thinking the actual outcomes are better than imagined ones by focusing on less favorable consequences.

Roese and Epstude (2017) in the revised version of this theory explained that downward counterfactuals boost esteem, enhance self-view, and emotional well-being as compared to upward counterfactuals by helping individual's that they have avoided an unwanted or adverse situation. Counterfactual thinking functions as a vital aspect of self-enhancement by allowing individuals to manage their emotional and cognitive responses or attitudes.

Chapter 3

METHODOLOGY

The effect that grandiose narcissism has on self-enhancement which is sequentially mediated by a decision process known as delayed discounting and a cognitive thought process called counterfactual thinking and moderated by a tendency to treat own self with warmth called self-compassion among adults was investigated in the present investigation. To gather the data in current research the measures that were administered were all self-rated which were: The Narcissistic Personality Inventory, a concise and brief version of the Self-Compassion Scale, Impulsivity Scale, Counterfactual Thinking Scale, and the Self-Enhancement and Self-Protection strategies scale's Self-Enhancement subscale. This section mainly describes the design that this study follows, scales validity and their reliability, the techniques or approaches used for sampling, a plan about how the data was collected, and lastly, the plan of which statistical analysis was used.

3.1 Research Design

The present research was conducted in two phases: a pilot study and a main study, employing a cross-sectional correlational design. The study utilized translated versions of the following scales: Narcissistic Personality Inventory (NPI-13) created in (2013) by Gentile and his colleagues, Self-Compassion Scale Short Form, developed by Neff (2003), Impulsivity-8 Scale developed by Kovaleva et al. (2014), scale created by Rye and his colleagues in (2008) named Counterfactual Thinking Negative Events Scale, and Self-Enhancement Subscale of the

Self-Enhancement-Self Protection Strategies Scale developed by Hepper and his colleagues in (2010). In the pilot study, the clarity of the translated Urdu versions of the measures was evaluated, along with their cultural appropriateness. Following this, the main study was conducted to test the hypotheses of the current research.

3.2 Phase I Pilot Study

3.2.1 Objectives

1. To estimate and establish the test battery's applicability, suitability, handiness, and utility in the Pakistani sample.
2. To evaluate the psychometric properties of the measures in language.
3. To ensure whether the Urdu version of the instruments used are culturally appropriate and if they are readable and understandable for participants with different qualification levels or academic backgrounds.
4. To estimate and appraise the scales to ensure whether they are suitable to be used in the main study by executing an initial viability assessment of all scales and their subscales.

3.2.2 Step I Translation of Study Measures

In the first step forward, with Brislin's (1976) method, the instruments were examined and then translated into the targeted Urdu language without changing the main context with the help of a committee of three Urdu linguistic scholars, one English language specialist, and one psychology scholar all having PhD. Another committee including my supervisor me and two teachers having domain-related expertise then evaluate and appraised the translated version.

Finally, in the third step back, the committee of three English linguistic scholars having PhD, one Urdu language specialist, and one psychology expert all having PhD degrees were given the Urdu translated versions, and the draft was reviewed, compared, and assessed and final draft with the necessary changes was made which was again reviewed by the committee including two relevant subject experts, my supervisor and me and thus the final translated version was achieved and distributed among the participants for pilot testing.

3.2.3 Step II Pilot Testing of Study Measures

Initially in this phase, to ensure whether the translated Urdu versions of the instruments used are culturally appropriate, comprehensible, and to ensure whether they are suitable to be used in the main study, all five scales and their subscales were administered on a small sample. To evaluate the psychometric properties, feasibility, suitability, effectiveness of the instruments, and their utility in the Pakistani sample was the first and foremost aim of the pilot study phase.

3.2.4 Sample

The pilot study was carried out with 100 participants, with a ratio of 33% males and 67% females aged from 19 to 60 years, from Islamabad, Rawalpindi, and Multan city. From every respondent, the informed consent stated that they were aware of the purpose of the current research and that the participant's personal information and results would be kept confidential, was acquired.

Inclusion/Exclusion criteria

The standards for the participants' inclusion and exclusion in sample were as follows:

1. Participants must be adults aged between 19 and 60 years.
2. Participants must not have any history of psychopathology.
3. Participants must be capable of reading fluently and comprehending Urdu language.

3.2.5 Measures

The following instruments were utilized during this phase (detailed descriptions of these measures are provided in the main study):

1. Narcissistic Personality Inventory, NPI-13 (Gentile et al., 2013)
2. Self-compassion Scale Short Form, developed by Neff (2003).
3. Impulsivity-8 Scale developed by Kovaleva et al. (2014)
4. Counterfactual Thinking Negative Events Scale developed by Rye et al. (2008).
5. Self-Enhancement Subscale of the Self-Enhancement/Protection Strategies Scale by Hepper and his colleagues (2010).

3.2.6 Procedure

The convenient sampling approach was utilized to gather the data from participants for the pilot study from adults of diverse groups with ages ranging from 19 to 60 years and the targeted cities to gather the data were Islamabad, Rawalpindi, and Multan. An all-inclusive form comprising a confidentiality statement to ensure the confidentiality and privacy of information provided by the participants, consent or agreement form stating willingness to participate in the study, a brief introductory paragraph explaining the main objectives of the current study, all-inclusive demographic summary sheet which included information on gender, age, education, occupational status, family size, and marital status to obtain the demographic profile of each

respondent was obtained, and five well-defined scales to get the scores on each variable of each respondent were all incorporated in the procedure of data collection, and Participants were encouraged to complete this explicit demographic question sheet together with the five scales, with the whole process taking approximately 10-15 minutes. The data gathered was ultimately analyzed using SPSS version 26.

3.3 Results of Pilot Testing

To assess the validity and consistency of the scales used in current research, descriptive analysis were performed to estimate the consistency and practicality of each scale and its subscales reliability analysis was performed and for estimating the relationship between the variables correlation analysis was performed. The results are detailed below.

Table 3.1

Frequencies and Percentages of Demographic Variables (N=100)

Characteristics	Categories	N	%
Age	19-29	83	83
	30-45	10	10
	46-60	7	7
Gender	Male	33	33
	Female	67	67
Family Type	Nuclear	36	36
	Joint	64	64

Education Level	Matric	3	3
	FA	17	17
	BA	32	32
	Masters	24	24
	Higher	24	24
Working Status	Employed	46	46
	Unemployed	54	54
Marital Status	Single	62	62
	Committed	11	11
	Married	24	24
	Separated/Divorced	1	1
	Widowed	2	2
	Remarried	0	0

The participant characteristics revealed a large sample of emerging adults aged 19-29 years constituting of the total sample, 10% of established adults aged 30-45, and only 7% of middle adults aged 46-60. The gender distribution clearly shows a large ratio of female participants as compared to male participants. Most participants came from joint families. The academic attainment varied; highest were Bachelor's level qualification holder, and only 3% of participants with matriculation level qualification. The working status of the sample suggested that the ratio of employment was relatively low among the sample. Regarding marital status,

most were single, then married, and no participants reported being remarried. A complete outline of the study sample is provided in these details which showcases the assorted psychological attributes of the sample.

Table 3.2

Descriptive and Alpha Reliability of Scales (N=100)

Scale	No. of item	<i>M</i>	<i>SD</i>	α	Range		Skewness
					Actual	Potential	
NPI Total	13	40.84	8.96	.85	13-65	13-65	.14
SES Total	10	36.34	7.86	.84	10-50	10-50	-.64
IS Total	8	28.34	6.48	.79	13-40	8-40	-.39
CTS Total	4	15.43	10.25	.75	5-20	4-20	-.99
SCS Total	12	40.75	6.74	.72	12-60	12-60	-.51

Note. NPI Total = Narcissism. SES Total = Self-enhancement. IS Total = Impulsivity. CTS Total = Counterfactual thinking. SCS Total = Self-compassion.

Table 3.2 highlights the psychometric properties of the study scales, all of which demonstrated good reliability. The Narcissistic Personality Inventory with 13 items indicating high stability and consistency across items. The Self-Enhancement Scale (SES) with a

Cronbach's alpha of .84 reflecting good reliability. The 8-item Impulsivity Scale (IS) showed an adequate reliability. The 4-item Counterfactual Thinking Scale (CTS) had Cronbach's alpha of .75. Finally, Self-Compassion Scale having 12-items reflecting adequate reliability across all scales.

Table 3.3

Item-total Correlation analysis for Narcissistic Personality Inventory (PNI) (N=100)

Scale	<i>M</i>	<i>SD</i>	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
NPI_1	3.26	1.18	.37	.85
NPI _2	3.56	1.16	.63	.84
NPI _3	3.37	1.04	.60	.84
NPI _4	3.32	1.13	.48	.85
NPI _5	3.46	1.02	.32	.86
NPI _6	3.69	1.04	.41	.85
NPI _7	3.32	1.20	.45	.85
NPI _8	2.21	1.18	.53	.84
NPI _9	3.01	1.15	.57	.84
NPI _10	2.60	1.23	.57	.84
NPI _11	2.46	1.14	.61	.84
NPI _12	3.28	1.07	.59	.84
NPI _13	3.30	1.24	.54	.84

Table 3.3 suggests the item-total correlation coefficients among the 100 respondents in the Narcissistic Personality Inventory and results depict little to relatively high inter-item associations from .320 to .634. Cronbach's alpha varies between .83 to .85 meaning that even if the item is deleted it won't drastically change the overall reliability of the scale and with the NPI; items remain sufficiently consistent without the need to unnecessarily delete any item.

Table 3.4

Item-total Correlation analysis for Positivity Embrace Scale of the Self-Enhancement/Protection Strategies Scale (SES) (N=100)

Scale	<i>M</i>	<i>SD</i>	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SES_1	3.84	1.15	.57	.83
SES_2	3.57	1.27	.66	.82
SES_3	3.61	1.34	.57	.82
SES_4	3.74	1.23	.47	.83
SES_5	3.31	1.26	.55	.83
SES_6	3.50	1.26	.45	.84
SES_7	3.53	1.19	.56	.83
SES_8	3.75	1.11	.65	.82
SES_9	3.78	1.15	.40	.84
SES_10	3.71	1.23	.51	.83

Table shows the item-total correlation among the 100 respondents for the Positivity Embrace Subscale of the Self-Enhancement/Protection Strategies Scale (SES) and results depict weak to relatively moderate inter-item associations from .397 to .662. Cronbach's alpha if items are deleted is between .817 and .841 meaning that even if the item is deleted it won't drastically change the overall reliability of the scale or improve it. Precisely, the results suggest that items remain sufficiently consistent without the need to unnecessarily delete any item.

Table 3.5

Item-total Correlation analysis for Impulsivity-8 Scale (IS) (N=100)

Scale	<i>M</i>	<i>SD</i>	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
IS_1	3.65	1.09	.48	.83
IS_2	3.40	1.22	.41	.84
IS_3	3.57	1.28	.30	.86
IS_4	3.38	1.21	.67	.81
IS_5	3.37	1.24	.72	.79
IS_6	3.57	1.13	.53	.82
IS_7	3.61	1.13	.75	.80
IS_8	3.79	1.15	.74	.80

Table 3.5 shows the item-total correlation among the 100 respondents for the Impulsivity-8 Scale (IS) and results depict weak to relatively moderate inter-item associations from .298 to .752 as suggested by the results. Cronbach's alpha if an item is deleted varies between .797 to .856 meaning that even if the item is deleted it won't drastically change the overall reliability of the scale or improve it. Precisely, the results suggest that items remain sufficiently consistent with IS, and maintain adequate internal consistency without the need to unnecessarily delete any item.

Table 3.6

Item-total Correlation analysis for Counterfactual Thinking Negative Event Scale (Downward Counterfactual Thinking) (N=100)

Scale	<i>M</i>	<i>SD</i>	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CTS_1	3.96	1.04	.36	.73
CTS_2	4.09	1.04	.50	.64
CTS_3	3.82	1.14	.63	.56
CTS_4	3.56	1.14	.51	.64

Table shows the item-total correlation among the 100 respondents for the Counterfactual Thinking negative events scale specifically measuring downward counterfactuals. Results depict weak to relatively moderate inter-item associations from .358 to .631 between the items and total

score of scale as suggested by the results. Cronbach's alpha if an item is deleted varies between .560 to .726 meaning that even if the item is deleted it won't drastically change the overall reliability of the scale measuring Downward Counterfactual Thinking or improve it despite the variability in the association between items and total score of the scale. Precisely, the results suggest that items remain sufficiently consistent and maintain adequate internal consistency, without the need to unnecessarily delete any item.

Table 3.7

Item-total Correlation analysis for Narcissistic Personality Inventory (PNI) (N=100)

Scale	<i>M</i>	<i>SD</i>	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SCS_1	3.26	1.28	.45	.69
SCS_2	3.68	1.05	.27	.72
SCS_3	3.83	1.04	.26	.72
SCS_4	3.11	1.30	.24	.72
SCS_5	3.63	1.26	.31	.71
SCS_6	3.24	1.28	.23	.73
SCS_7	3.69	1.21	.37	.71
SCS_8	3.32	1.40	.41	.70
SCS_9	3.13	1.26	.51	.69
SCS_10	3.25	1.14	.18	.73
SCS_11	3.05	1.25	.49	.69
SCS_12	3.00	1.27	.55	.68

Table 3.7 shows the item-total correlation among the 100 respondents for the Self-Compassion Scale. Results depict the inter-item association ranges from .358 to .631, with items SCS_1, SCS_2, SCS_3, SCS_4, and SCS_6 are weaker than items SCS_9, SCS_11, and SCS_12. Alpha reliability if an item is deleted varies between .681 to .729 meaning that even if the item is deleted it won't drastically change the overall consistency of the scale or improve it despite the variability in the association across items and the total score of the measure.

Table 3.8

Correlation analysis for Variables under Investigation (N = 100)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Narcissism	40.84	8.96	-				
2. Self-Enhancement	36.34	7.86	.49**	-			
3. Delayed Discounting	28.34	6.48	.32**	.18	-		
4. Self-Compassion	15.43	10.25	.21*	.21*	.37**	-	
5. Counterfactual Thinking	40.75	6.74	.14	.22*	.15	.33**	-

* $p < .05$, ** $p < .01$

Table 3.8 shows pattern association between study variables with specific focus on significant correlation coefficients. The narcissism was significantly and positively correlated with the self-enhancement, and this revealed that increased narcissism is associated with increased self-enhancement. Also, narcissism was positively related to the delayed discounting which posed that higher narcissistic individuals present more delayed discounting. The correlation of narcissism and counterfactual thinking revealed non-significant low positive

association. The narcissism was significantly and positively correlated with the self-compassion. The self-compassion further correlated positively with self-enhancement and delayed discounting. In addition, counterfactual thinking revealed robust positive association with self-enhancement and self-compassion.

3.4 Phase 2 Main Study

Before carrying out the main study, a pilot study was performed with a sample of 100 participants to estimate the consistency of measures and determine if measures are suitable for use in the main study. The findings of this study indicated satisfactory to strong consistency of all instruments affirming their appropriateness for the larger sample. The main study was then conducted to rigorously test the hypotheses formulated for this current research study.

3.5 Objectives

5. To examine the intriguing relationship between narcissism, self-compassion, counterfactual thinking, delayed discounting, and self-enhancement among adults.
6. To evaluate the sequential mediating role of delayed discounting and counterfactual thinking in the relationship between adult's self-enhancement and narcissistic features.
7. To evaluate the moderating influence of self-compassion in association among adult's delayed discounting and narcissistic features.
8. To examine the role of demographic variables (gender, age) on adult's self-enhancement and narcissistic features.

3.6 Hypotheses

H1. Among adults, narcissism will be positively associated with counterfactual thinking, delayed discounting, and self-enhancement.

1a. There will be a positive association between narcissism and self-enhancement among adults.

1b. There will be a positive association between narcissism and counterfactual thinking among adults.

1c. There will be a positive association between narcissism and delayed discounting among adults.

1d. There will be a positive association between delayed discounting and counterfactual thinking among adults.

1e. There will be a positive association between counterfactual thinking and self-enhancement among adults.

H2. Narcissism will be a positive predictor of counterfactual thinking, delayed discounting, and self-enhancement among adults.

2a. Narcissism will be a positive predictor of self-enhancement among adults.

2b. Narcissism will be a positive predictor of counterfactual thinking among adults.

2c. Narcissism will be a positive predictor of delayed discounting among adults.

2d. Delayed discounting will be a positive predictor of counterfactual thinking among adults.

2e. Counterfactual thinking will be a positive predictor of self-enhancement among adults.

H3. Delayed discounting and counterfactual thinking will sequentially mediate the association between narcissism and self-enhancement among adults.

H4. Self-compassion will strengthen the relationship between narcissism and delayed discounting among adults.

H5. Age will moderate the relationship between narcissism and delayed discounting.

H6. Age will moderate the relationship between delayed discounting and counterfactual thinking.

H7. Age will moderate the relationship between counterfactual thinking and self-enhancement.

H8. Age will moderate the relationship between narcissism and self-enhancement.

H9. Young adults will exhibit excessive levels of narcissism in contrast with older adults.

H10. Men will exhibit excessive levels of narcissism in contrast with women.

3.7 Sample

In selecting the participants, we targeted adults aged between 19 and 60 years as the population under consideration. The total sample consisted of 745 participants with 380 males and 365 female. The specimen was subsequently arranged into three distinct age groups: The sample was further categorized into three age groups: emerging adults age ranging from 19 to 29,

established adults age ranging from 30 to 45, and middle adults age ranging from 46 to 60, with each category comprising an adequate ratio of males and females. The sample was selected by making use of convenience sampling approaches from diverse locations such as offices, libraries, parks, and universities, and the targeted cities to gather the data were Islamabad, Rawalpindi, Multan, and Bahawalpur by distributing test batteries along with a demographic sheet from participants.

3.8 Instruments

Through an all-inclusive demographic summary sheet which included information on gender, age, education, occupational status, family size, and marital status, the demographic profile of each respondent was obtained. Additionally, to obtain their scores on each variable participants were granted a profile form in addition with the following instruments for this current study: Narcissistic Personality Inventory (NPI-13) created by Gentile and his colleagues in 2013, Self-compassion Scale Short Form, developed by Neff (2003), Impulsivity-8 Scale developed by Kovaleva et al., (2014), Counterfactual Thinking Negative Events Scale developed by Rye and his colleagues in (2008), and Self-Enhancement Subscale of the Self-Enhancement/Protection Strategies Scale developed by Hepper and his colleagues in (2010).

2.7.1 Narcissistic Personality Inventory

Consisted by Gentile and his colleagues in year (2013), Narcissistic Personality Inventory (NPI-13) is self-rating tool consisting of 13 items which has been derived from longer set of 40 items scale consisted by Raskin & Terry in (1988). The inventory is developed to measure grandiose narcissism when it is expressed at the subclinical level. Alongside the total score, it

comprises three subscales as derived by Ackerman et al. (2011): There was also five-item Grandiose-Exhibitionism (GE, $\alpha = .75$; e.g., “I enjoy looking at myself in the mirror”), four item Leadership-Authority (LA, $\alpha = .73$; e.g., “I am a natural ruler”), and four item Exploitativeness-Entitlement (EE, $\alpha = .52$; e.g., “I find it easy to control others”). The NPI-13 is scored on a 5-point Likert scale with the following options: For the scale of response used, 1 represents Strongly Disagree, 2 for Disagree, 3 for Neutral, 4 for Agree and 5 for Strongly Agree. NPI-13 scores reveal different level of subclinical narcissistic peculiarities. Scores from 52 to 65 corresponds to extreme narcissistic features; from 39 to 51 – to high narcissistic features; from 26 to 38 – to moderate features; from 13 to 25 – to low features; and the scores below 13 correspond to extremely low narcissistic features. Regarding validity, the results of Hautz’s study suggest that the NPI-13 is a valid measure of the constructs of interest in this analysis, as it has an internal reliability coefficient alpha equal to .73.

2.7.2 Self-compassion Scale – Short Form

Short Form of the Self-Compassion Scale created in 2013 by Neff, is a reliable self-report measurement tool; administered in 12 items and designed to assess self-compassion in adults. This scale also yielded good Consistency across items with an alpha coefficient of 0.86 and a high correlation with the total Self-Compassion Scale of 0.97 (Raes et al., 2011). The indexer has a test retest consistency of 0.71 for a 5-month interval which validates its utility in research studies. The SCS-SF is completed with 16 items designated on a 5-point Likert scale, the options of which extent from 5 (Always) to 1 (Never); six of the items are reverse-scored (1, 4, 8, 9, 11, 12). The scale is divided into six subscales, each containing two items: Self-Kindness (e.g., I am gentle with me when I’m at fault or make errors), Self-Judgment (e.g., I have a tendency of

criticizing myself and dwell on my flaws), Common Humanity (e.g., I embrace my flaws as a component of human experience and nature), Isolation (e.g., upon facing failure over things that are significant to me, I feel isolated aloof and sad), Mindfulness (e.g., keeping my emotions regulated and balance when something occurs that usually upset or disturb me), and Over-identification (e.g., When feeling sad or blue I usually inclined to ruminate and dwell on all things that's are not going right).

2.7.3 Impulsivity-8 scale

Impulsivity-8 scale was created by Kovaleva et al. (2014), to measure impulsivity. It is a well-defined self-report or self-administered questionnaire that has 8 items, which reflect various aspects of impulsivity. This scale includes four subscales: Perseverance ($\alpha = 0.68$), which tests the ability to set goals and achieve them on time (example questions include: “organizing the schedule in a way that ensures the completion of all tasks that are required on time”); Premeditation ($\alpha = 0.65$), which measures the extent of pre-planned behavior (example questions are: “giving prior thought before acting out on them”); Urgency ($\alpha = 0.54$), which reflects impulsive behaviors that occur under stress (example questions include: “planning things with care to get them done timely”); and Sensation Seeking ($\alpha = 0.68$), which assesses the willingness to take risks (e.g., “always ready to take reckless chances”). The scale utilizes a 5-point Likert format with response options: 5 (Always), 4 (Quite Often), 3 (Sometimes), 2 (Rarely) and 1 (Never). The items that are coded reversely include items such as 3, 4, 5, and 6, where the rating given to them represents the item. The overall reliability estimate established for the Impulsivity-8 scale is 0.65 based on the alpha coefficient.

2.7.4 Counterfactual Thinking Negative Events Scale (CTNES)

Specifically, The Counterfactual Thinking Negative Events Scale has been namely created by Rye and colleagues in (2008) and presents itself as a self-report scale that comprises 16 items and focuses on the counterfactual thinking connected to negative events. Counterfactual thinking is the process of thinking of alternative outcomes to reality in both positive and negative directions (Roese & Olson, 1995). the imagining of the worst possible outcomes to events that just occurred explains negative direction and refers to downward counterfactuals whereas imagining better possible outcomes than the outcomes that occurred, in reality, refers to upward counterfactuals. The scale includes four subscales: Self-referent upward, which focuses on the participants' thoughts about how the situations could have been better if they had done things differently (e.g., "I tend to contemplate about how much things would have been preferable if I had done something different"); Other-referent upward consist of thinking how other people could have changed the outcome (for example, somebody could have been less selfish and the problem could have been avoided). With the opposite focal theme of non-a prefixed phrases, Non-referent upward reflects on ways events could have been positive others were not responsible (e.g., Non-referent upward): Although no one was at fault, I still now wonder how the event could go better). Non-referent downward in particular concerns itself with thinking about how could have turned for the worse (for instance, "I ponder over how much worse things could have got"). The scale utilizes a 5-point Likert format with response options: 5 (Always), 4(Great quite often), 3 (Sometimes), 2 (Seldom), and 1 (Never). The stability and consistency of the subscales is high, with alpha as follows: SRU, α of.77; ORU, α 0.85; NRU, α , 0.79 and NRD,

α , 0.84. The reliability measures by subscales are between .75 to .86 and the test and retest consistency and stability over two week for the sample is from .73 to .84.

2.7.5 Positivity Embracement subscale of Self-enhancement/Protection Scale

Self-enhancement is gauged using the Positivity Embracement subscale of the Self-Enhancement/Protection Strategies Scales as postulated by Hepper et al. (2010). This subscale comprises 10 items, divided into two distinct subscales: It consists of concept labels such as Positivity Embracement, also known as Hooray construal's. The Positivity Embracement subscale incorporates five items in the reception of how people pursue and leverage affirmative feedback, mostly through self-aggrandizing tendencies and actions. The Favorable Construal subscale also includes 5 items, which refer to specific cognitive processes through which self-relevant events are cognitively cast in a favorable self-image-enhancing manner, including positive illusions or comparative optimism. The scale uses a 5-point Likert format with the following response options: 5 = Apply Completely, 4 = Apply Moderately, 3 = Apply Somewhat; 2 = Apply Very Little; 1 = Don't Apply. The reliability estimate for this set of items known as the alpha is .69.

3.9 Procedure

To conduct the main study, data was collected from the community having matriculation qualifications that would allow them to understand and comprehend the language, and ages ranging from 19 to 60 by making use of convenience sampling approaches from diverse locations such as offices, libraries, parks, and universities, and the targeted cities to gather the data were mainly Islamabad, Rawalpindi, Multan, and Bahawalpur. Each participant was given a

self-administered questionnaire which had an all-inclusive demographic summary sheet to get the demographic profile, and five well-defined scales to get the scores on each variable of each respondent. Participants were pre-informed verbally by explaining the goal of the study, the significance of the exercise, and the fact that their information and all their results would be kept anonymous before they answered the questionnaire. All participants signed a consent form after explaining to them that the information gathered from them would not be used for anything else apart from research. They were encouraged to complete all items thoughtfully and the input that they provided they were appreciated for that. By utilizing and taking advantage of the Statistical Package for Social Sciences (SPSS) software; version 26 all the data that was collected from the sample under study were analyzed.

3.10 Statistical Plan

By utilizing the Statistical Package for Social Sciences (SPSS) software; version 26 and Process Macro version 4.0 all the data were analyzed in the current study that was collected from the sample under study. In the first stage of data preparation, the first step was done which is generally data cleaning, screening, and analyzing normality assumptions to avoid mistakes in the data and ensure that it is cleaned to use for further smooth analysis. The second step consisted of a descriptive analysis of the study variables where the demographic profile of each respondent was obtained by doing a frequency distribution analysis of participant's demographics which included information on gender, age, education, occupational status, family size, and marital status followed by the descriptive analysis of study variables was then done to determine kurtosis, skewness, standard deviation, and mean to get information of participators characteristics. The quantities and proportions were determined for categorical demographic

parameters while for the continuum variables, the mean and standard deviations were used. The consistency of the test batteries used in the current study was also determined and estimated by making use of Cronbach's alpha consistency analysis. For the estimation of the associations between the variables under investigation, moment-product correlation analysis was utilized. To estimate the predictions, regression analyses were conducted and moderation and mediation analyses were conducted. Most specifically, Model 1 of Process Macro version 4.0 was utilized for Moderation analysis and by making use of Model 4 sequential mediation was conducted.

Chapter 4

RESULTS

4.1 Descriptive Statistics of Study Measures

Table 4.1

Frequencies and Percentages of Demographic Variables (N = 745)

Characteristics	Categories	N	%
Age	19-29	282	37.9
	30-45	231	31.0
	46-60	232	31.1
Gender	Male	380	51
	Female	365	49
Family Type	Nuclear	374	50.2
	Joint	371	49.8
Education Level	Matric	181	24.3
	FA	134	18.0
	BA	181	24.3
	Masters	139	18.7
	Higher	110	14.8
Working Status	Employed	509	68.3
	Unemployed	236	31.7

Marital Status	Single	256	34.4
	Committed	35	4.7
	Married	423	56.8
	Separated/Divorced	9	1.2
	Widowed	17	2.3
	Remarried	374	50.2

Table 4.1 showcases the demographic qualities of the respondents. The participant's Dispersion or Distributional pattern of age revealed a balanced representation across three age groups; 19-29, emerging adults; 30-45, established adults; 46-60, and middle adults. This representation revealed that most participants belong from age ranging from 19 to 29 years and least from age category 46 to 60 years. A fair representation can be seen in Male and female respondents as well with slightly large representation of male participants. Ratio of participants belonging from either joint or nuclear family arrangement is also adequate with more participants belonging from nuclear family. The academic qualification of the research sample shows variation where participants who acquired matriculation qualification and BA degree were higher and the least had education above master's level. In the case of the employment status of the participants a clear variation can be seen where majority of the participants were employed. As far as marital status is concerned variability can be seen here as well where the majority of participants are married or single. The demographic profile of the sample provides overall information on gender, age, education, occupational status, family size, and marital status which showcases the assorted psychological attributes of the sample.

Table 4.2*Frequencies and Percentages of Emerging Adults from Age 19 to 29 (N = 282)*

Characteristics	Categories	N	%
Gender	Male	147	19.7
	Female	135	18.1
Family Type	Nuclear	147	19.7
	Joint	135	18.1
Education Level	Matric	37	5.0
	FA	44	5.9
	BA	92	12.3
	Masters	51	6.8
	Higher	58	7.8
Working Status	Employed	144	19.3
	Unemployed	138	18.5
Marital Status	Single	203	27.2
	Committed	31	4.2
	Married	47	6.3
	Separated/Divorced	1	0.1
	Widowed	0	0.0
	Remarried	0	0.0

The participant characteristics revealed a large sample of emerging adults aged 19 to 29 years. The gender distribution shows a slightly large ratio of male participants. Most participants came from nuclear families with varied academic attainment, highest with BA level education, or education above master's level, and least with intermediate education, and matriculation level qualification. The working status of the sample shows that the ratio of employment was relatively high among the sample. As far as marital status is concerned variability can be seen here as well where the majority of participants are single. The demographic profile of the sample provides overall information on gender, age, education, occupational status, family size, and marital status which showcases the assorted psychological attributes of the sample.

Table 4.3*Frequencies and Percentages of Established Adults from Age 30 to 45 (N = 231)*

Characteristics	Categories	N	%
Gender	Male	117	15.7
	Female	114	15.3
Family Type	Nuclear	99	13.3
	Joint	132	17.7
Education Level	Matric	66	8.9
	FA	36	4.8
	BA	44	5.9
	Masters	51	6.8
	Higher	34	4.6
Working Status	Employed	174	23.3
	Unemployed	57	7.6
Marital Status	Single	38	5.1
	Committed	3	0.4
	Married	186	25.0
	Separated/Divorced	1	0.1
	Widowed	3	0.4
	Remarried	0	0.0

Table 4.3 shows the demographic profile of the participants. This representation revealed that participants who belong from age ranging from 30 to 45 years. A fair representation can be seen in Male and female respondents as well with a slightly large ratio of male participants. Most participants came from joint families. Majority of participants had matriculation level qualification. The working status of the sample suggested variability in the shows that the ratio of employment was relatively high among the sample. As far as marital status is concerned variability can be seen here as well where the majority of participants are married, and among the sample there are no participants who were remarried. The demographic profile of the sample provides overall information on gender, age, education, occupational status, family size, and marital status which showcases the assorted psychological attributes of the sample.

Table 4.4*Demographic Attributes of Middle Adults under Study from Age 46 to 60 (N = 232)*

Characteristics	Categories	N	%
Gender	Male	116	15.6
	Female	116	15.6
Family Type	Nuclear	128	17.2
	Joint	105	14.1
Education Level	Matric	78	10.2
	FA	54	7.2
	BA	45	6.0
	Masters	37	5.0
	Higher	18	2.4
Working Status	Employed	191	25.6
	Unemployed	41	5.5
Marital Status	Single	15	2.0
	Committed	1	0.1
	Married	190	25.5
	Separated/Divorced	7	0.9
	Widowed	14	1.9
	Remarried	5	0.7

Table 4.4 shows the demographic profile of the participants. This representation revealed that participants who belong from age ranging from 30 to 45 years. A fair representation can be seen in Male and female respondents as well with a slightly large ratio of male participants as compared to females. Most participants came from nuclear families with majority of participants with matriculation level qualification. The working status of the sample shows that the ratio of employment was relatively very high among the sample. As far as marital status is concerned variability can be seen here as well where the majority of participants are married. The demographic profile of the sample provides overall information on gender, age, education, occupational status, family size, and marital status which showcases the assorted psychological attributes of the sample.

Table 4.5*Descriptive Statistics and Alpha value of variables under Study (N = 745)*

Scale	No. of item	<i>M</i>	<i>SD</i>	α	<i>Range</i>		Skewness
					Actual	Potential	
NPI_T	13	41.49	8.69	.84	14-62	13-65	-.13
IS_T	8	23.45	7.56	.87	9-39	8-40	.24
CTS_T	4	13.99	2.71	.82	4-20	4-20	-.31
SES_T	10	35.97	7.27	.83	13-50	10-50	-.48
SCS_T	12	42.39	7.17	.79	12-60	12-60	-.18

Note. NPI Total = Narcissism. SES Total = Self-enhancement. IS Total = Impulsivity. CTS Total = Counterfactual thinking. SCS Total = Self-compassion.

Table 4.5 presents the details about the scales employed in the study, number of items used, mean scores, standard deviations, actual and potential score range and Cronbach's alpha (α) co-efficient. The NPI has 13 items, and the Cronbach's alpha of .84 indicates relatively high reliability. The IS assessing delayed discounting respondents good internal consistency. DCT incorporates four items, and coefficient alpha of .82 make this scale highly reliable. The Self-Enhancement Scale (SES) represents good consistency. Finally, the Self-Compassion Scale also yields adequate consistency. As shown by these results, all the scales employed in this study are effective in capturing their conceptual underlying construct.

4.2 Relationship between the Study Variables

Table 4.6

Correlation analysis for Variables under Study (N = 745)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Narcissism	41.49	8.69	-				
2. Self-Enhancement	35.97	7.27	.67**	-			
3. Delayed Discounting	23.45	7.56	.48**	.33**	-		
4. Counterfactual Thinking	13.99	2.71	.51**	.41**	.46**	-	
5. Self-Compassion	42.39	7.17	.14**	.12**	-.04	.14**	-

** $p < .01$

Table 4.6 showcases that narcissism bore a robust or notable positive relationship to self-enhancement, implying those who exhibit high narcissism also reported high self-enhancement. Narcissism also correlated significantly with delayed discounting, self-compassion, and counterfactual thinking, with the result suggesting that narcissistic individuals are particularly prone to delayed discounting, self-kindness and thinking unfavorable outcomes to reality. Delayed discounting also correlated significantly with self-enhancement. There was also robust positive relationship between counterfactual thinking and other variables indicating that subjects who often imagine downward counterfactuals had higher narcissism, self-enhancement, and higher degree of delayed discounting. Nonetheless, the correlation between self-compassion and the other parameters was less strong, but positive with narcissism and counterfactual thinking and negative with delayed discounting. While there was no statistically Substantial correlation between self-compassion and delayed discounting all others variables were highly linked.

4.3 Regression Analysis

Table 4.7

Simple linear Regression Analysis of Narcissism on Delayed Discounting (N = 745)

Variables	<i>B</i>	<i>SE</i>	β	95% <i>CI</i>		<i>p</i>
				<i>LL</i>	<i>UL</i>	
Narcissism	.16	.03	.48	.36	.47	.000
$R = .479, R^2 = .23, (F = 220.85, p < .001)$						

Table 4.7 reports a simple linear regression analysis considering the role that narcissism plays in delayed discounting. The findings also show that narcissism can uniquely account for delayed discounting. Further analysis revealed that narcissism has a direct positive effect on delayed discounting, which implies that participants with excessive level of narcissism have more probability or chance to engage in behavior related to timely reward devaluation.

Narcissism accounts for 23 percent of the total variation in delayed discounting. This implies that narcissism is a significant or reasonably valid predictor of the degree of delay in discounting among this sample.

Table 4.8

Simple linear Regression Analysis of Narcissism on Downward Counterfactual Thinking (N = 745)

Variables	<i>B</i>	<i>SE</i>	β	95% <i>CI</i>		<i>p</i>
				<i>LL</i>	<i>UL</i>	
Narcissism	.16	.01	.50	.14	.18	.000
$R = .505, R^2 = .255, (F = 254.046, p < .001)$						

Table 4.8 displays a simple linear regression analysis comparing narcissism with downward counterfactual thinking. The findings include a positive correlation that confirms the hypothesis implying that increased levels of narcissism result in higher levels of downward counterfactual thinking, therefore, there is a Substantive statistical association between narcissism and downward counterfactual thinking. These results indicate that participants with excessive or magnifying levels of narcissism are more frequently have thoughts about how worse a situation could have been, so that the research sheds light on the psychological processes and outcome of narcissism.

Table 4.9*Simple linear Regression Analysis of Narcissism on Self-Enhancement (N = 745)*

Variables	<i>B</i>	<i>SE</i>	β	95% <i>CI</i>		<i>p</i>
				<i>LL</i>	<i>UL</i>	
Narcissism	.56	.02	.67	.51	.60	.000
$R = .667, R^2 = .45, (F = 596.26, p < .001)$						

Table 4.9 shows the outcomes of the simple linear regression between narcissism and self-enhancement. Accordingly, the regression coefficient shows that for unit increase in narcissism, self-enhancement also increased. This means that narcissism is responsible for a large proportion of the variability inherent in self-enhancement scores. These results emphasize the centrality of narcissism as a factor that implies that individuals with higher narcissist self-attributes enhance their self.

Table 4.10

Simple linear Regression Analysis of Delayed Discounting on Downward Counterfactual Thinking (N = 745)

Variables	<i>B</i>	<i>SE</i>	β	95% <i>CI</i>		<i>p</i>
				<i>LL</i>	<i>UL</i>	
Delayed Discounting	.16	.01	.46	.14	.19	.000
$R = .457, R^2 = .21, (F = 195.91, p < .001)$						

Table 4.10 shows a summary of linear regression analysis findings for the investigation of the association between delayed discounting and downward counterfactual thinking. The result shows that for each unit increase in the delayed discounting, the downward counterfactual thinking increases. Results indicate that the proportion of the total sum of variance in downward counterfactual thinking is 21 percent explained by delay discounting. These findings suggest that increased or higher levels of delayed discounting relate to the downward counterfactual thinking suggesting that people are inclined to seek immediate gratification and may not utilize positive aspects and they do not realize that their decisions could be wrong, and thus they allow their brains to dwell more on other unfavorable possibilities of the other options.

Table 4.11

Simple linear Regression Analysis of Downward Counterfactual Thinking on Self-Enhancement
(N = 745)

Variables	<i>B</i>	<i>SE</i>	β	95% <i>CI</i>		<i>p</i>
				<i>LL</i>	<i>UL</i>	
Downward Counterfactual Thinking	1.09	.09	.41	.92	1.27	.000
$R = .408, R^2 = .17, (F = 148.13, p < .001)$						

Table 4.11 shows the outcomes for a simple linear regression analysis in terms of the effects of downward counterfactual thinking on self-enhancement. The table shows that as downward counterfactual thinking increases, by one unit, self-enhancement also rises. The value of the beta coefficient shows positive correlation, and the impact of downward counterfactual thinking on self-enhancement is moderate with 17 percent of the changes in self-enhancement are explained by downward counterfactual thinking. These results suggest that people who go over how things could have been even worse, a form of downward counterfactual thinking, exhibit higher self enhancement, these negative comparisons are not employed just in defense of ego but more in an effort to build up a more positive perception of success within the self.

4.4 Mediation by Delayed Discounting and Counterfactual Thinking

Table 4.12

Sequential Mediation Analysis of Narcissism on the Self-Enhancement through Delayed Discounting and Counterfactual Thinking (N = 745)

Variables	Child Internalizing Problem				
	<i>B</i>	<i>SE</i>	<i>p</i>	95% <i>CI</i>	
				<i>LL</i>	<i>UL</i>
Mediator (Delayed Discounting)					
Predictor (Narcissism)	.416	.028	.000	.361	.471
Mediator (Counterfactual Thinking)					
Predictors (Narcissism)	.116	.010	.000	.094	.136
Delayed Discounting	.099	.012	.000	.075	.124
DV (Self-Enhancement)					
Predictors (Narcissism)	.522	.028	.000	.466	.576
Delayed Discounting	-.013	.031	.664	-.074	.047
Counterfactual Thinking	.267	.088	.002	.093	.439
Total Effect (Narcissism)	.558	.022	.000	.513	.603
Indirect Effect	<i>B</i>	Boot <i>SE</i>	Boot 95% <i>CI</i>		
			<i>LL</i>	<i>UL</i>	
N→DD→SE	-.005	.014	-.034	.022	
N→CT→SE	.031	.011	.008	.053	
N→DD→CT→SE	.011	.004	.003	.020	

Note. *B*= Unstandardized coefficients; *LL*=Lower limit; *UL*=Upper Limit; *N*= Narcissism; *DD*= Delayed Discounting; *CT*= Counterfactual Thinking; *SE*= Self-Enhancement.

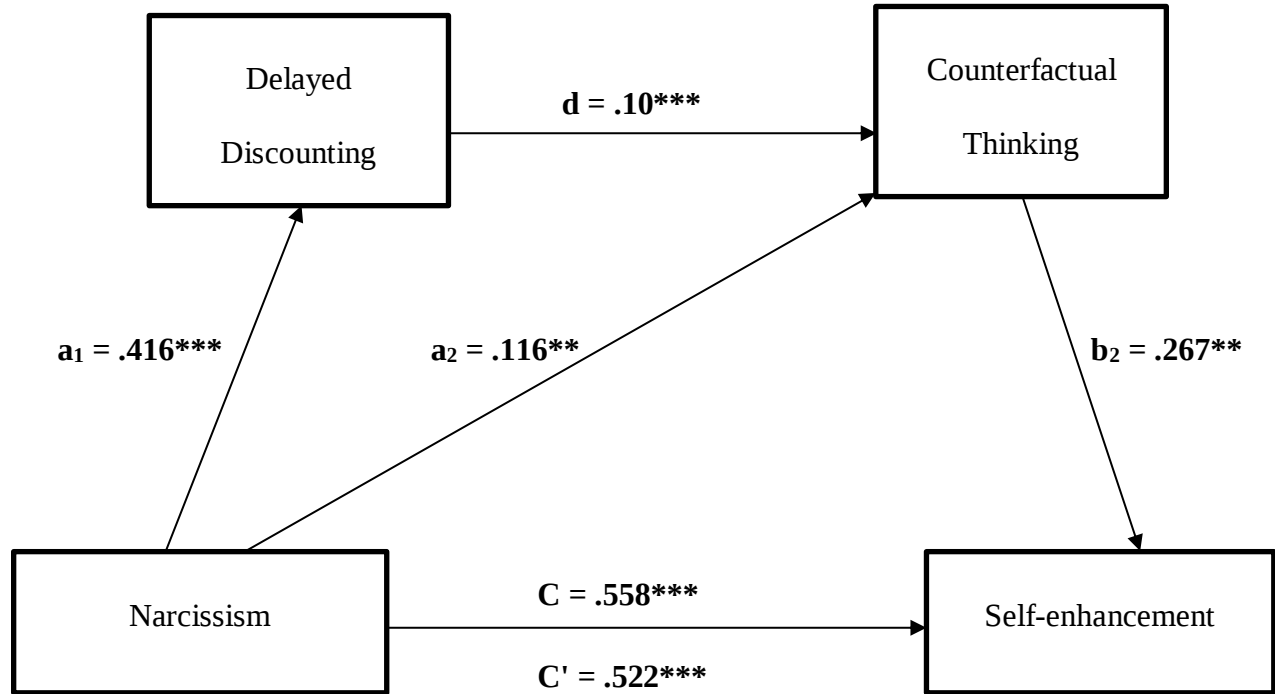


Figure 4.1. Sequential Mediation of the indirect effect of Narcissism on Self-enhancement through Delayed Discounting and Counterfactual Thinking.

Table 4.12 shows the sequential mediation analysis of mediation effect of delayed discounting and counterfactual thinking between narcissism and self-enhancement. The table shows substantial total effect of the model, $b = .56$, $t = 24.42$, $CI [.51, .60]$, $p < .001$. The link was found to be statistically significant for the direct effect, $b = .52$, $t = 18.74$, $CI [.47, .58]$, $p < .001$. Lastly, a significant impact was found for Indirect effect of the model, $b = .01$, $CI [.003, .02]$, $p < .01$. The results were significantly positive for all the paths (a_1 , d , a_2 , b_2 , C) stating that delayed discounting and counterfactual thinking mediated the link between narcissism and self-enhancement.

4.5 Moderation by Self-Compassion

Table 4.13

Moderation of the effect of Narcissism on Delayed Discounting by Self-Compassion among Adults (N = 745)

Predictors	Delayed Discounting			
	B	t	95% CI	
			LL	UL
Constant	23.36	96.44***	22.88	23.83
Narcissism	.43	14.75***	.36	.47
Self-Compassion (Moderator)	-.12	-3.50**	-.18	-.05
Narcissism x Self-Compassion	.01	3.22**	.01	.02
R^2	.25***			
ΔR^2	.01**			
F	82.75***			
ΔF	10.38**			

*** $p < .001$, ** $p < .01$

Note. B= Unstandardized coefficients; LL=Lower limit; UL=Upper Limit.

Table 4.13 shows moderation analysis, with narcissism as a predictor, delayed discounting as an outcome variable, and self-compassion as a moderator. The result of table indicates significant main effect between narcissism and delayed discounting relationship, $b = .43$, $CI [.36, .47]$, $t = 14.75$, $p < .001$, statistically significant main effect was found to be present between self-compassion and delayed discounting relationship, $b = -.12$, $CI [-.18, -.05]$, $t = -3.50$, $p < .01$. Lastly, the combined influence of self-compassion on narcissism and delayed discounting

link was found to be significant as well, $b = .01$, $CI [.01, .02]$, $t = 3.22$, $p < .01$. Suggesting that as the level of self-compassion increases the link between narcissism and delayed discounting also increases, indicating an enhancing effect of self-compassion, and when the level of self-compassion decreases it weakens the link between narcissism and delayed discounting. At all levels, self-compassion significantly moderates the link between narcissism and delayed discounting, but the effect is strongest when self-compassion is at its highest level.

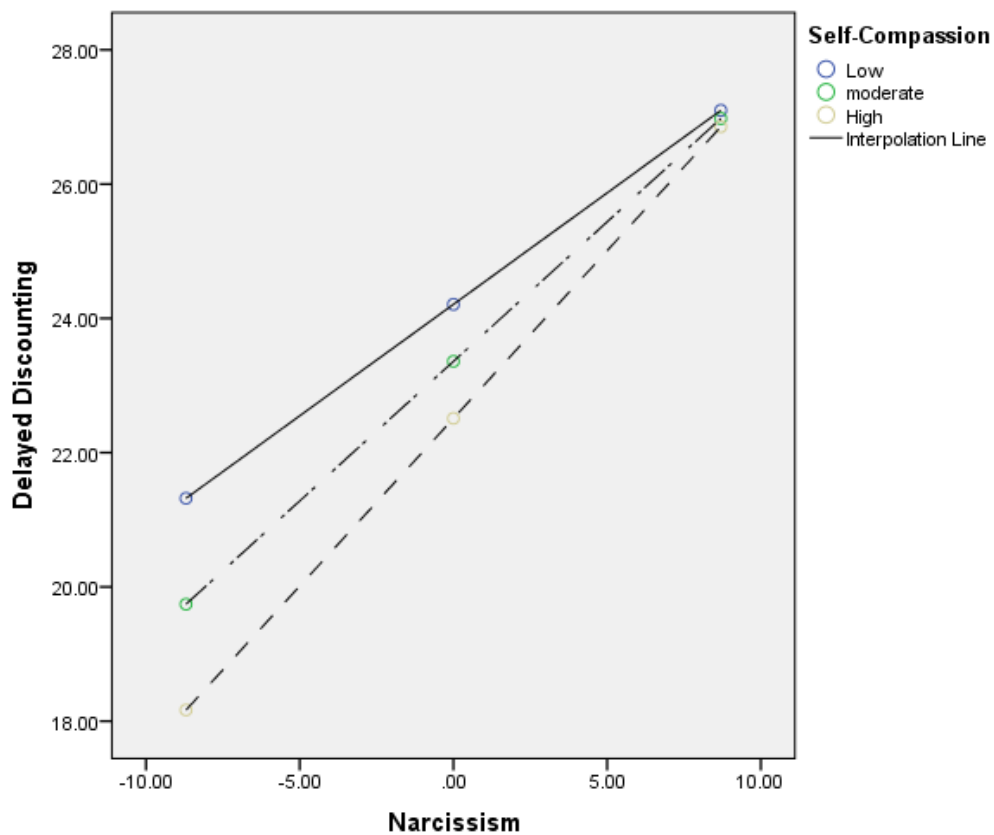


Figure 4.2. Moderation of the effect of Narcissism on Delayed Discounting by Self-Compassion among Adults (N = 745)

4.6 Moderation by Age Groups

Table 4.14

Moderation of the effect of Narcissism on Delayed Discounting by Age Groups (N = 745)

Predictors	Delayed Discounting			
	B	t	95% CI	
			LL	UL
Constant	23.37	103.39***	22.93	23.81
Narcissism	.37	14.42***	.32	.43
Age Groups (Moderator)	-3.09	-11.32***	-3.63	-2.58
Narcissism x Age Groups	-.09	-2.89**	-.15	-.03
R^2	.35***			
ΔR^2	.01**			
F	132.43***			
ΔF	8.34**			

*** $p < .001$, ** $p < .01$

Note. B= Unstandardized coefficients; LL=Lower limit; UL=Upper Limit.

Table 4.14 shows moderation analysis, with narcissism as a predictor, delayed discounting as an outcome variable, and age as a moderator. The result of table indicates significant main effect between narcissism and delayed discounting relationship, $b = .37$, $CI [.32, .43]$, $t = 14.42$, $p < .001$, statistically significant main effect was found to be present between age and delayed discounting relationship, $b = -3.09$, $CI [-3.63, -2.58]$, $t = -11.32$, $p < .001$. Lastly, the interaction effect of age on narcissism and delayed discounting link was found to be significant

as well, $b = -.09$, $CI [-0.15, -.03]$, $t = -2.89$, $p < .01$. Suggesting that as the level of age increases the link between narcissism and delayed discounting weakens; indicating a buffering effect of age, conversely, at the lower level of age the link between narcissism and delayed discounting is relatively stronger. At all levels, age significantly moderates the link between narcissism and delayed discounting, but the effect becomes progressively weaker as age increases.

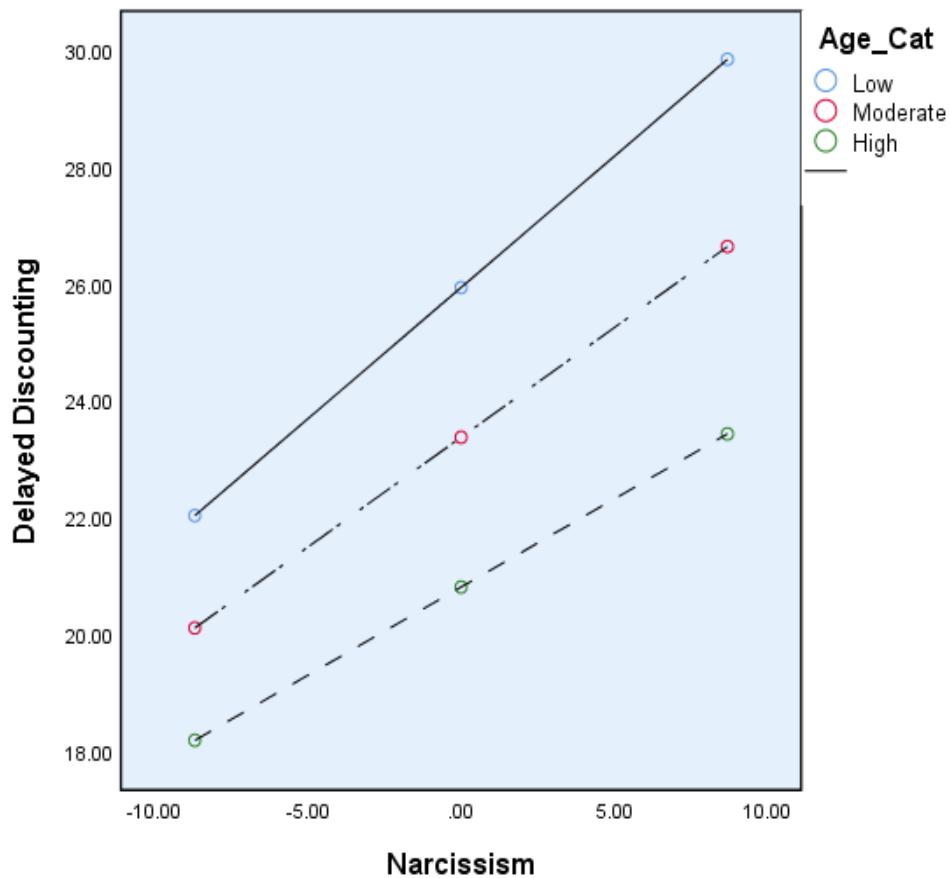


Figure 4.3. Moderation of the effect of Narcissism on Delayed Discounting by Age Groups

Table 4.15

Moderation of the effect of Delayed Discounting on Counterfactual Thinking by Age Groups (N = 745)

Predictors	Counterfactual Thinking			
	B	t	95% CI	
			LL	UL
Constant	13.91	145.28***	13.72	14.10
Delayed Discounting	.16	12.87***	.14	.19
Age Groups (Moderator)	-.003	-.03	-.23	.22
Delayed Discounting x Age Groups	-.03	-1.97*	-.06	-.0001
R^2	.21***			
ΔR^2	.004*			
F	66.76***			
ΔF	3.88*			

*** $p < .001$, * $p < .05$

Note. B= Unstandardized coefficients; LL=Lower limit; UL=Upper Limit.

Table 4.15 shows moderation analysis, with delayed discounting as a predictor, counterfactual thinking as an outcome variable, and age as a moderator. The result of table indicates significant main effect between delayed discounting and counterfactual thinking relationship, $b = .16$, $CI [.14, .19]$, $t = 12.87$, $p < .001$, the main effect between age and delayed discounting relationship was found to be non-significant, $b = -.003$, $CI [-.23, .22]$, $t = -.03$, $p > .05$. Lastly, the interaction effect of age on delayed discounting and counterfactual thinking link was found to be significant, $b = -.03$, $CI [-.06, -.0001]$, $t = -1.97$, $p < .05$. Suggesting that as the level of

age increases the link between delayed discounting and counterfactual thinking weakens; indicating a buffering effect of age, conversely, at the lower level of age the link between delayed discounting and counterfactual thinking it relatively less weak. At all levels, age significantly moderates the link between delayed discounting and counterfactual thinking, but the effect becomes progressively weaker as age increases.

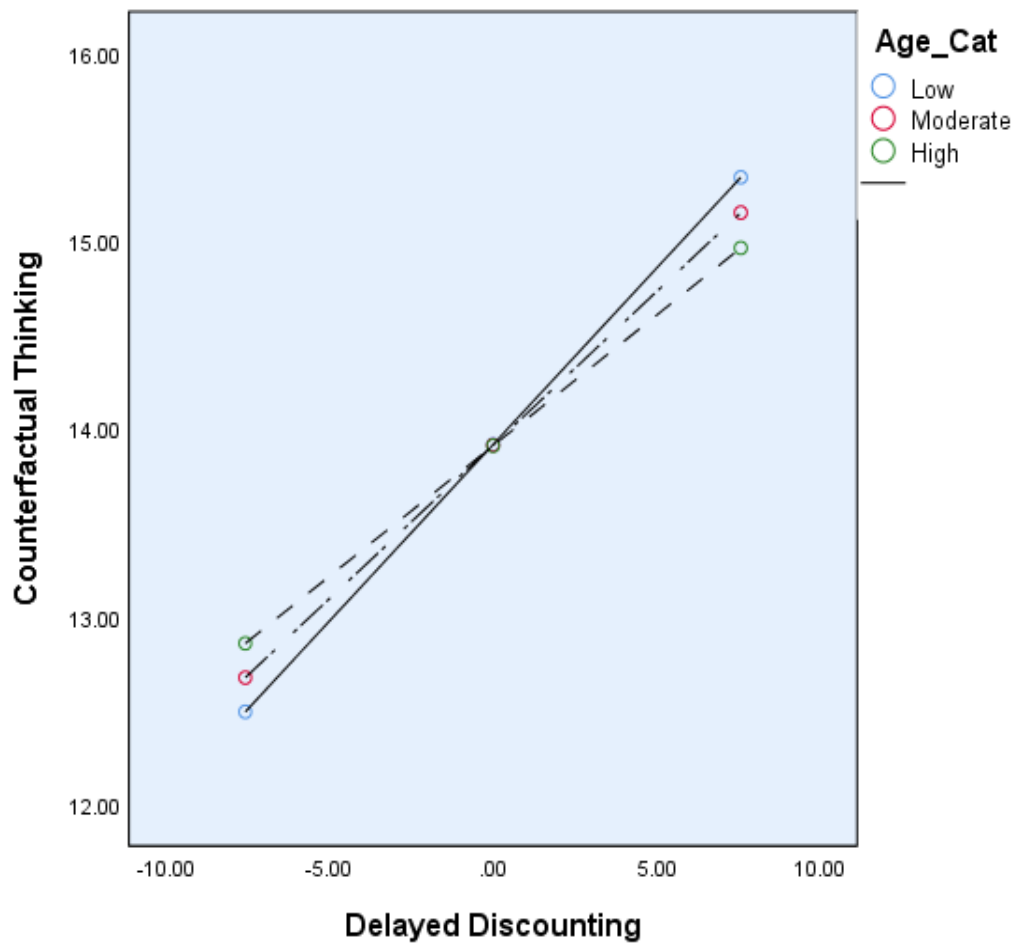


Figure 4.4. Moderation of the effect of Delayed Discounting on Counterfactual Thinking by Age Groups

Table 4.16

Moderation of the effect of Counterfactual Thinking on Self-Enhancement by Age Groups (N = 745)

Predictors	Self-Enhancement			
	<i>B</i>	<i>t</i>	95% <i>CI</i>	
			<i>LL</i>	<i>UL</i>
Constant	35.87	145.52***	35.39	36.36
Counterfactual Thinking	1.05	11.56***	.88	1.23
Age Groups (Moderator)	-.56	-1.90	-1.15	.01
Counterfactual Thinking x Age Groups	-.24	-2.23*	-.46	-.03
R^2	.17***			
ΔR^2	.01*			
<i>F</i>	52.62***			
ΔF	5.01*			

*** $p < .001$, * $p < .05$

Note. *B*= Unstandardized coefficients; *LL*=Lower limit; *UL*=Upper Limit.

Table 4.16 shows moderation analysis, with counterfactual thinking as a predictor, self-enhancement as an outcome variable, and age as a moderator. The result of the table indicates significant main effect between counterfactual thinking and self-enhancement relationship, $b = 1.05$, $CI [.88, 1.23]$, $t = 11.56$, $p < .001$, the main effect between age and counterfactual thinking relationship was found to be non-significant, $b = -.56$, $CI [-1.15, .01]$, $t = -1.90$, $p > .05$. Lastly, the interaction effect of age on counterfactual thinking and self-enhancement link was found to be significant, $b = -.24$, $CI [-.46, -.03]$, $t = -2.23$, $p < .05$. Suggesting that as the level of age increases

the link between counterfactual thinking and self-enhancement weakens; indicating a buffering effect of age, conversely, at the lower level of age the link between counterfactual thinking and self-enhancement it relatively less weak. At all levels, age significantly moderates the link between counterfactual thinking and self-enhancement, but the effect becomes progressively weaker as age increases.

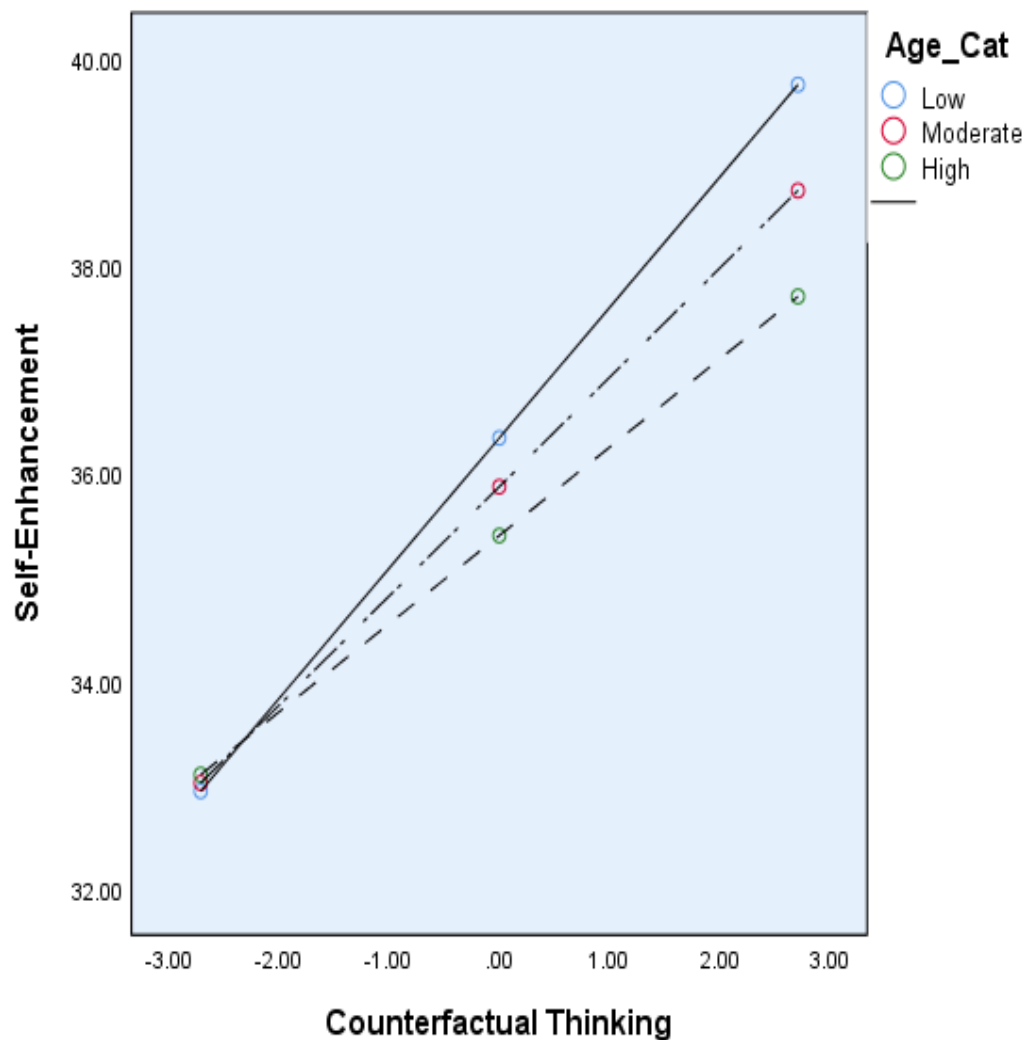


Figure 4.5. Moderation of the effect of Counterfactual Thinking on Self-Enhancement by Age Groups.

Table 4.17*Moderation of the effect of Narcissism on Self-Enhancement by Age Groups (N = 745)*

Predictors	Self-Enhancement			
	B	t	95% CI	
			LL	UL
Constant	35.90	180.12***	35.51	36.29
Narcissism	.55	24.09***	.51	.60
Age Groups (Moderator)	-.39	-1.61	-.86	.08
Narcissism x Age Groups	-.07	-2.76**	-.13	-.02
R^2	.45***			
ΔR^2	.01**			
F	204.35***			
ΔF	7.64**			

*** $p < .001$, ** $p < .01$ *Note. B= Unstandardized coefficients; LL=Lower limit; UL=Upper Limit.*

Table 4.17 shows moderation analysis, with narcissism as a predictor, self-enhancement as an outcome variable, and age as a moderator. The result of the table indicates significant main effect between narcissism and self-enhancement relationship, $b = .55$, $CI [.51, .60]$, $t = 24.09$, $p < .001$, the main effect between age and narcissism relationship was found to be non-significant, $b = -.39$, $CI [-.86, .08]$, $t = -1.61$, $p > .05$. Lastly, the interaction effect of age on narcissism and self-enhancement association was found to be significant, $b = -.07$, $CI [-.13, -.02]$, $t = -2.76$, $p < .01$. Suggesting that as the level of age increases the connection between narcissism and self-

enhancement weakens; indicating a buffering effect of age, conversely, at the lower level of age the connection between narcissism and self-enhancement is relatively less weak. At all levels, age significantly moderates the link between narcissism and self-enhancement, but the effect becomes progressively weaker as age increases.

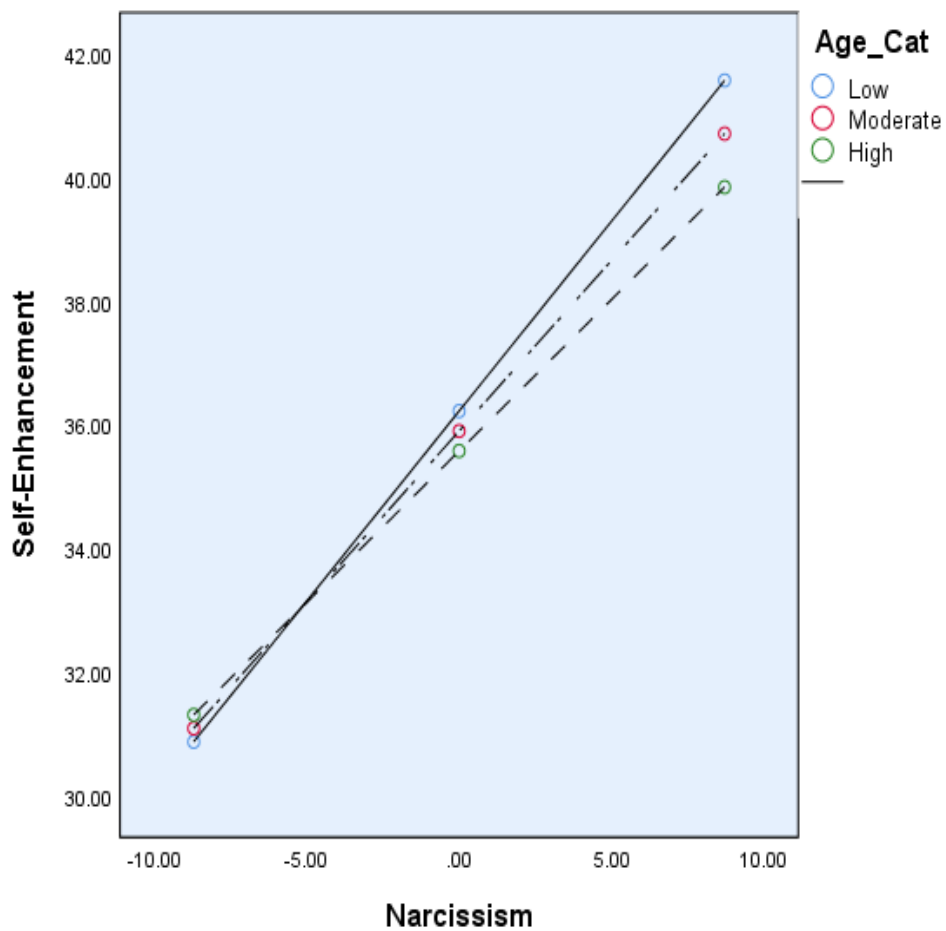


Figure 4.6. Moderation of the effect of Counterfactual Thinking on Self-Enhancement by Age Groups

4.7 Group Comparisons on Demographic Variables

Table 4.18

Mean Comparison of Males and Females on Variables under Study (N = 745)

Variables	Male (n = 380)		Female (n = 365)		t (743)	p	Cohen's d	95% CI	
	M	SD	M	SD				LL	UL
Narcissism	42.21	8.48	40.74	8.86	2.30	.022	.17	.21	2.71
Delayed Discounting	23.29	7.77	23.63	7.33	-.60	.545		-1.42	.75
Counterfactual Thinking	14.06	2.68	13.90	2.73	.81	.415		-.23	.55
Self-Enhancement	36.38	6.89	35.56	7.64	1.5	.123		-.22	1.86
Self-Compassion	42.51	6.97	42.25	7.37	.50	.616		-.77	1.29

Table 4.18 shows the outcomes for gender based mean differences of study variables. The table shows significant gender based mean difference for narcissism with male scoring higher as compared to females, indicating that men exhibit more narcissistic features or attributes than females. For all other variables such as delayed discounting, counterfactual thinking, self-compassion, and self-enhancement non-significant gender based mean difference was observed.

Table 4.19*Difference among Adult groups on Variables under Study (N = 745)*

	Emerging		Established		Middle				
	Adults		Adults		Adults				
	19-29		30-45		46-60				
	(n = 281)		(n = 231)		(n = 232)				
Variables	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i> (2,742)	<i>p</i>	ηp ²
Narcissism	42.95	8.76	41.12	8.29	40.07	8.78	7.40	.001	.020
Delayed Discounting	27.17	6.65	22.42	7.17	19.97	6.99	6.95	.000	.164
Counterfactual Thinking	14.56	2.73	13.90	2.65	13.37	2.59	72.60	.000	.034
Self-Enhancement	37.10	7.54	35.83	6.87	34.74	7.14	20.47	.001	.018
Self-Compassion	40.74	7.59	42.09	6.72	44.68	6.46	12.94	.000	.052

df= 2,742

Table 4.19 shows the mean differences between adult age groups for all the variables under investigation. The result indicates that emerging adults aged 19 to 29 scored the highest on narcissism, delayed discounting, counterfactual thinking, and self-enhancement, with middle adults aged 46 to 60 showing the lowest scores. Self-compassion scores are highest in middle adults and lowest in emerging adults. The yielded outcomes suggest that self-compassion increases while other variables decrease with age.

Table 4.20*Post Hoc Analysis of Group Difference of the Study Variables (N=745)*

Variables	(I) Adult Groups	(J) Adult Groups	Mean Difference (I-J)	(I-J)	S.E	P	95% CI	
							LL	UL
Narcissism	Emerging	Established	Em > Es	1.83	.76	.017	.33	3.34
	Emerging	Middle	Em > Mi	2.87	.76	.000	1.37	4.38
	Established	Middle	Es > Mi	1.04	.80	.193	-.53	2.62
Delayed Discounting	Emerging	Established	Em > Es	4.74	.61	.000	3.54	5.95
	Emerging	Middle	Em > Mi	7.20	.61	.000	5.99	8.40
	Established	Middle	Es > Mi	2.45	.64	.000	1.19	3.72
Counterfactual Thinking	Emerging	Established	Em > Es	.66	.23	.005	.199	1.12
	Emerging	Middle	Em > Mi	1.19	.24	.000	.73	1.65
	Established	Middle	Es > Mi	.53	.25	.033	.04	1.01
Self-Enhancement	Emerging	Established	Em > Es	1.27	.64	.047	.02	2.53
	Emerging	Middle	Em > Mi	2.37	.63	.000	1.11	3.62
	Established	Middle	Es > Mi	1.09	.67	.102	-.22	2.41
Self-Compassion	Emerging	Established	Em < Es	-1.34	.62	.031	-2.56	-.12
	Emerging	Middle	Em < Mi	-3.93	.61	.000	-5.15	-2.72
	Established	Middle	Es < Mi	-2.59	.65	.000	-3.86	-1.31

Table 4.20 shows the results of the post hoc analysis of variables under investigation. Emerging adults aged 19 to 29 scored significantly higher on narcissism, delayed discounting, counterfactual thinking, and self-enhancement as compared to established or middle adults. Additionally, as compared to middle adults established adults aged 30 to 45 scored substantially higher on delayed discounting and counterfactual thinking, and middle adults scored substantially higher on self-compassion as compared to established adults who scored high on self-compassion as compared to emerging adults. The yielded outcomes suggest that self-compassion increases while other variables decrease with age.

Table 4.21*Difference among levels of Education on Variables under Study (N = 745)*

Variables	Matric (n=181)		FA (n=134)		BA (n=181)		Masters (n=139)		Higher (n=110)		F(4,740)	p	η^2
	M	SD	M	SD	M	SD	M	SD	M	SD			
Narcissism	42.50	9.79	41.66	7.25	41.29	8.85	41.01	8.77	40.52	7.97	1.10	.36	
Delayed Discounting	22.86	8.09	21.79	8.01	24.01	7.34	24.56	6.98	24.16	6.82	3.15	.01	.01
Counterfactual Thinking	13.81	2.61	13.85	2.50	14.04	2.69	14.20	3.00	14.05	2.72	.51	.73	
Self-Enhancement	37.04	7.00	35.98	6.49	36.01	6.92	35.44	7.89	34.80	8.16	1.90	.11	
Self-Compassion	42.91	6.69	43.59	7.02	41.83	7.63	41.85	7.37	41.62	6.88	1.98	.10	
df= 4,740													

Table 4.21 shows differences in variables under investigation with different education levels. The table shows a significant qualification-based difference with people from the Ba, masters, and higher education levels scoring highest on delayed discounting compared to FA, and Matric, indicating that people with higher education levels have more probability or chance to engage in behavior related to timely reward devaluation. For all other variables such as narcissism, counterfactual thinking, self-compassion, and self-enhancement non-significant mean differences were observed.

Table 4.22*Post Hoc Analysis of Group Difference of the Study Variables (N=745)*

Variables	(I) Education	(J) Education	Mean	(I-J)	S.E	p	95% CI	
	level	level	Difference (I-J)				LL	UL
Delayed	Matric	FA	M > FA	1.06	.86	.215	-.62	2.74
Discounting	Matric	BA	M < BA	-1.14	.79	.146	-2.70	.40
	Matric	Masters	M < Mas	-1.69	.84	.045	-3.36	-.03
	Matric	Higher	M < H	-1.30	.91	.152	-3.08	.48
	FA	BA	FA < BA	-2.21	.85	.010	-3.89	-.53
	FA	Masters	FA < Mas	-2.76	.91	.002	-4.55	-.98
	FA	Higher	FA < H	-2.36	.97	.015	-4.26	-.46
	BA	Masters	BA < Mas	-.55	.85	.517	-2.21	1.11
	BA	Higher	BA < H	-.15	.91	.867	-1.93	1.63
	Masters	Higher	Mas > H	.39	.95	.679	-1.48	2.28

Table 4.22 shows a post hoc analysis of qualification-based differences in variables under investigation with different education levels such as Matric, FA, BA, Masters, and Higher education level. The table shows that individuals with FA level qualifications scored

substantially less as compared to BA, people with matric scored lower as compared to people from the masters, and people with FA scored less as compared to masters and higher education levels on delayed discounting, indicating that people with higher education levels have more probability or chance to engage in behavior related to timely reward devaluation and inclination toward instant gratification of reward. For all other variables such as narcissism, counterfactual thinking, self-compassion, and self-enhancement non-significant mean differences were observed.

4.7 Factorial Analysis

Table 4.23

Factorial Analysis of Variance among Gender and Adult Groups (N = 745)

		Adult Groups								
Variables	Gender	Emerging Adults		Establish Adults		Middle Adults		<i>F</i> (Gender)	<i>F</i> (Adult Groups)	<i>F</i> (GxAG)
		M	SD	M	SD	M	SD			
Narcissism	Male	43.34	8.74	40.96	8.31	42.02	8.20	5.359*	7.395**	3.790*
	Female	42.54	8.79	41.2	8.30	38.12	8.94			
Delay	Male	27.03	7.00	22.42	7.24	19.44	7.10	.804	72.514***	.354
Discounting	Female	27.33	6.28	22.44	7.13	20.50	6.87			
Counterfactual	Male	14.49	2.76	13.57	2.76	14.03	2.40	.712	13.259***	8.835***
Thinking	Female	14.64	2.71	14.24	2.50	12.71	2.61			
Self-Enhancement	Male	37.56	7.19	35.11	6.82	36.15	6.35	2.145	6.903**	5.246**
	Female	36.61	7.90	36.58	6.88	33.32	7.62			
Self-Compassion	Male	40.92	6.93	41.99	7.12	45.07	6.17	.373	20.468***	.285
	Female	40.55	8.26	42.19	6.31	44.29	6.74			

*** $p < .001$, ** $p < .01$

Table 4.23 shows Factorial Analysis of Variance among Gender and Adult Groups differences of variables under investigation. The table showed that narcissism was higher in males compared to the female participants. Using the dimensions above, narcissism was also higher among emerging adults compared to established and middle adults. In counterfactual thinking, the emerging adult group had a higher score than the two other groups, and the gender by age effect was also significant. There were substantial differences in delayed discounting by age with the emerging adults being higher than the other groups. In the same way, scores mean for self-enhancement was significantly higher in emerging adults compared to middle adults, an interaction gender and age effect evidenced. In contrast, self-compassion did not differ across gender or age group. Other independent variables such as for gender delayed discounting and for age groups self-compassion were not significant.

Chapter 5

DISCUSSION

5.1 Summary

The current investigation explores how narcissists shape their enhanced self-views and what roles does delayed discounting and counterfactual thinking play in the link between individuals with narcissistic tendencies and their self-enhancement. Moreover, it investigates the role of self-compassion in the link between narcissism and delayed discounting in adults. The focus of this research is to explore the variables within subclinical population with no Underlying mental health issue.

5.2 Discussions

The present investigation was conducted to evaluate the sequential mediating role of delayed discounting and counterfactual thinking in the relationship between adults' self-enhancement and narcissistic features to identify how these variables explain self-enhancement in individuals with narcissistic tendencies or features, and to evaluate the moderating influence of self-compassion in association between adults' delayed discounting and narcissistic features to assess whether self-compassion enhances the link between narcissism and delayed discounting.

Additionally, the study explore these constructs and variables across gender and three age groups: emerging adult's age ranging from 19 to 29, established adult's age ranging from 30 to 45, and middle adult's age ranges from 46 to 60, influence or impact actions and mental well-being in adults with subclinical narcissistic features in Pakistani context. The objective to

conduct this investigation emerges from previous findings stating in the context of narcissism self-enhancement refers to narcissistic self-enhancement which is beyond normal boundaries and involves unhealthy or unrealistic overly positive self-views that cannot be justify through one's abilities or achievements (Sedikides et al., 2004). This leads to inability to indulge in self-learning or take lessons from their errors (Campbell et al., 2004; Foster et al., 2009; Foster & Trimm, 2008) exhibit a tendency to indulge in impulsive behaviors (Crysel et al., 2012; Lakey et al., 2007) due to their overconfidence.

Additionally, in the current study to obtain their scores on each variable participators were provided with a demographic sheet along with the following instruments: the Narcissistic Personality Inventory (NPI-13) created by Gentile and his colleagues in 2013, Self-compassion Scale Short Form, developed by Neff (2003), Impulsivity-8 Scale developed by Kovaleva et al. (2014), Counterfactual Thinking Negative Events Scale developed by Rye and his colleagues in (2008), and Self-Enhancement Subscale of the Self-Enhancement/Protection Strategies Scale developed by Hepper and his colleagues in (2010). Moreover, the findings of this study indicated satisfactory to strong consistency of all instruments affirming their appropriateness.

Scores of instruments were analyzed or compared using transformed scores calculated from mean and standard deviation. Descriptive statistics were utilized for the research variables and continuous variables (e.g., age), such as mean, while frequency and percentages were calculated for categorical variables (e.g., gender or family status). To explore the link between narcissism and self-enhancement with a focus on the sequential mediating role of delayed discounting and counterfactual thinking and the moderating role of self-compassion in narcissism and delayed discounting various hypotheses were generated.

5.2.1 Narcissism and Self-Enhancement

The aim of the present investigation was to explore the link between narcissism and self-enhancement. For this purpose it was hypothesized that there will be a positive association between narcissism and self-enhancement among adults. The result of the correlation analysis showcases that narcissism bore a robust or notable positive relationship to self-enhancement and it also positively predicts self-enhancement, implying that the individuals who have high narcissistic features or attributes also reported high self-enhancement to maintain their overly positive self-image and to assert their superiority over other people. Thus it is evident from these results that the hypothesis was accepted and it can also be validated from the previous literature where sub-clinical narcissism has been linked with self-enhancement (Grijalva & Zhang, 2015; Morf et al., 2011; Raskin & Terry, 1988). Baumeister and Vohs (2001) postulated that narcissistic individuals are addicted to elevated self-image which is not only costly but self-destructive as well. Morf et al. (2001), in their "dynamic self-regulatory processing model of narcissism" suggests that this self-regulatory mechanism is characterized by an inclination toward self-enhancement. Paulhus (1998) even explained narcissism as an indicator of self-enhancement while other researchers see it as a pivotal component of narcissistic features (Campbell et al., 2000; John & Robins, 1994; Wallace, 2011). There are number of justifications or explanation for this link such as narcissists may maintain self-enhancement as it is a motivation to safeguard and escalate their own self-view (Leary, 2007). Another explanation is that individuals with narcissistic features maintain unrealistically optimistic self-views emerging from their preoccupation with self-assurance. The exaggeration of their achievements and

constant external approvals are needed to uphold their enhanced self-views and protect their fragile self-esteem.

5.2.2 Narcissism and Delayed Discounting

Another goal of the current exploration was to identify the association between narcissistic features and delayed discounting due to which it was assumed that there will be a positive association between narcissism and delayed discounting among adults. To test this assumption correlation and regression analysis were done and the findings of these analyses suggested that narcissism correlated significantly with delayed discounting which explains that narcissistic individuals are particularly prone to delayed discounting and that narcissism is a significant or reasonably valid predictor of the degree of delay in discounting among this sample. Thus we can conclude from the results that the hypothesis was indeed accepted and researchers also supported this claim as various studies have identified that individuals with narcissistic features are inclined towards delayed discounting (Coleman et al., 2022; Crysel et al., 2012; Jonason & Webster, 2010; Lam and 林曉晴, 2021; Malesza & Kalinowski, 2019). Furthermore, individuals with narcissistic grandiosity features who manipulate or use others for their best interest tend to prioritize instant gratification of incentives underestimating future incentives or reinforcement that will be given after a delay (Jonason & Webster, 2010). One justification for this tendency is their poor self-control or impulsiveness. Impulsiveness in individuals with narcissistic features coupled with their exaggerated self-views hinders their capability to set long-term goals, affecting their personal growth and career achievements (Malesza & Kaczmarek, 2018).

5.2.3 Narcissism and Counterfactual Thinking

The goal or objective of the present investigation was to investigate the link between narcissism and counterfactual thinking. For this purpose, it was assumed that there would be a positive association between narcissism and counterfactual thinking among adults. The result of the correlation and regression analysis showcases that narcissism bore a robust or notable positive relationship with counterfactual thinking that confirms the hypothesis implying that increased levels of narcissism result in higher levels of downward counterfactual thinking and that narcissism is a predictor of counterfactual thinking. These results indicate that participants with excessive or magnifying levels of narcissism more frequently have thoughts about how worse a situation could have been. A link between narcissism and downward counterfactuals can be found in literature where results of the various researches showed a positive connection between both (Kausel et al., 2013; Roese & Epstude, 2017; Sanna et al., 1999; Stucke, 2003). An explanation for this relationship could be that narcissists often engage in downward counterfactual thoughts because downward counterfactuals involve thinking of unfavorable outcomes thus leading them to believe that their decision was most favorable and practical because imagining unfavorable outcomes than the favorable or actual ones maintain their need for an inflated self-view or this tendency guarantees that narcissists sustain their exaggerated self-image to reinforce their superiority by minimizing their perceived flaws (Roese & Olson, 1995).

5.2.4 Delayed Discounting and Counterfactual Thinking

To explore the link between delayed discounting and counterfactual thinking it was assumed that there will be a positive association between delayed discounting and counterfactual

thinking among adults. This hypothesis was supported by the findings from correlation analysis, which revealed a robust positive relationship between counterfactual thinking and delayed discounting, with delayed discounting also predicting counterfactual thinking, indicating that subjects prone to delayed discounting often imagine downward counterfactuals. Previous research by Smallman et al. (2018) indicated an association between delayed discounting and counterfactual thinking where the result indicated that people with elevated or excessive degree of impulsivity were more inclined to generate downward counterfactuals. Similarly, Roese (1997) illustrated that to support or strengthen their inflated self-perception or self-concept individuals make use of this particular thought process or cognitive approach to generate downward counterfactuals. One justification can be that people who are inclined to seek immediate gratification do not realize that their decisions could be wrong specifically individuals with narcissistic features fail to learn from their mistakes. Thus they allow their brains to dwell more on other unfavorable possibilities of the other options to justify their decision and preserve their self-esteem.

5.2.5 Counterfactual Thinking and Self-Enhancement

To investigate the association between counterfactual thinking and self-enhancement it was assumed that there will be a positive association between counterfactual thinking and self-enhancement among adults. To test this assumption correlation and regression analysis were performed and the result of the analysis showcases a robust positive relationship between counterfactual thinking and self-enhancement and that counterfactual thinking is a positive predictor of self-enhancement. These results suggest that people who go over how things could have been even worse, a form of downward counterfactual thinking, exhibit higher self-

enhancement. Thus we can conclude from the results that the hypothesis was indeed accepted and previous literature also supports this assumption as it has been found that when people faced threats, encounter obstacles or failure, or are inspired to enhance their self they often engage in comparison with less fortunate people (Aspinwall & Taylor, 1993; Crocker et al., 1987; Pyszczynski et al., 1985; Wills, 1981). Epstude and Roesse (2008) in their “functional theory of counterfactual thoughts” theorized when individuals engage in downward counterfactuals they facilitate emotional stability by reflecting on inferior consequences and viewing actual outcomes more favorable thus leading towards high self-esteem and self-enhancement. One explanation could be that individuals who generate downward counterfactuals are more self-enhanced because people generally or naturally opt for the cognitive processes that help them maintain their self-worth when people reflect on negative outcomes that could have occurred but are avoided they feel a sense of contentment and relief and it avoids the feeling of guilt followed by a wrong decision so this process mitigates the negative emotions of disappointment. Another justification is people who go over how things could have been even worse these negative comparisons are not employed just in defense of ego but more in an effort to build up a more positive perception of success within the self.

5.2.6 Sequential Mediating role of Delayed Discounting and Counterfactual Thinking

The aim of the present investigation was to investigate the mediating effect of delayed discounting and counterfactual thinking in the association between narcissism and self-enhancement. For this purpose, it was hypothesized that delayed discounting and counterfactual thinking will sequentially mediate the association between narcissism and self-enhancement among adults. To test this assumption sequential mediation analysis was performed and the

results were significantly positive for all the paths (a1, d, a2, b2, C) stating that delayed discounting and downward counterfactual thinking mediated the connection between narcissism and self-enhancement. It means that although the direct effect between narcissism and self-enhancement was statistically substantial this effect increased after both mediators were added thus the hypothesis or assumption is accepted in the present study. Past researchers also support this finding as numerous studies have identified that individuals with narcissistic features are inclined towards delayed discounting (Coleman et al., 2022; Lam and 林曉晴, 2021; Malesza & Kalinowski, 2019), delayed discounting and downward counterfactual thinking are associated (Smallman et al., 2018), and Schimel et al. (2001) illustrated that downward counterfactual thinking is frequently opted by those individuals who are driven to strengthen their self. One justification could be that individuals with narcissistic features are prone to prefer instant smaller reinforcement instead of larger delayed one due to their impulsiveness (Malesza & Kaczmarek, 2018) and to justify their decision they generate downward counterfactual thoughts as it involve thinking of unfavorable outcomes thus leading them to believe that their decision was most favorable and practical leading to more inflated self-concept (Roese & Olson, 1995), lastly, by imagining unfavorable outcomes they mitigates the negative emotions of disappointment and leading to a higher degree of self-enhancement (Epstude & Roese, 2008).

5.2.7 Moderating role of Self-Compassion

The study assumed that self-compassion will strengthen the relationship between narcissism and delayed discounting among adults. This hypothesis was supported by the results of moderation analysis which indicated that as the level of self-compassion increases the link between narcissism and delayed discounting also increases, indicating an enhancing effect of

self-compassion, and when the level of self-compassion decreases it weakens the link between narcissism and delayed discounting. At all levels, self-compassion significantly moderates the link between narcissism and delayed discounting, but the effect is strongest when self-compassion is at its highest level. Previous literature also proves that delayed discounting has been linked with impulsive and risky behaviors (Mishra & Lalumière, 2016). A positive connection is found between elevated self-efficacy and risk-prone acts (Ogunyemi & Mabekoje, 2007; Shajumon & Luke, 2024). As self-compassion is linked with a higher degree of self-efficacy (Liao et al., 2021), naturally self-compassion and risk-prone attitude are also associated in literature (Bailis et al., 2022). The moderating effect of self-compassion can be justified by its role in promoting risk-prone actions. Overconfidence is a common aspect linked with both self-efficacy and self-compassion, so self-compassionate people also tend to possess a high degree of self-efficacy due to overconfidence in one's ability to handle the situation. This inflated self-efficacy may lead them to engage in risk-prone actions or delayed discounting. In conclusion, narcissists with a high degree of self-compassion may justify their impulsive choices as manageable due to their overconfidence, thereby reinforcing their inclination toward delayed or temporal discounting.

5.2.8 Moderating Role of Age

The moderating role of age was also explored between narcissism and delayed discounting, delayed discounting and counterfactual thinking, counterfactual thinking and self-enhancement; lastly, age was explored as a moderator, with narcissism as a predictor, and self-enhancement as an outcome variable. To explore the moderation effect of age it was hypothesized or assumed that age will moderate the relationship between narcissism and delayed

discounting. The second hypothesis was that age would moderate the relationship between delayed discounting and counterfactual thinking. Furthermore; it was assumed that age would moderate the relationship between counterfactual thinking and self-enhancement. Finally, it was hypothesized that age will moderate the relationship between narcissism and self-enhancement. All these hypotheses were accepted as the results revealed as the level of age increases these links become weaker indicating a buffering effect of age, conversely, at the lower level of age these links become relatively less weak. At all levels, age significantly moderates the link between narcissism and delayed discounting, delayed discounting and counterfactual thinking, counterfactual thinking and self-enhancement, narcissism and self-enhancement, but the effect becomes progressively weaker as age increases. The present study found that narcissism was highest in emerging adults in the age range of 19–29 years consistent with earlier research that shows that emerging adults are higher in narcissism (Weidmann et al., 2023). These predilections reduce with age particularly unhealthy or self-destructive narcissistic actions (Chopik, & Grimm, 2019). The present research supported age as a moderator and elucidated that age mitigated the relationship between narcissism and its associated behaviors of delayed discounting, downward counterfactual thinking and self enhancement. Since self-enhancement here refers to narcissistic self-enhancement which is explained by sustaining exaggerated or escalated self-perception it also diminishes with age. Likewise, delayed discounting a behavior linked with impulsiveness becomes less prominent with age due to self-regulation. Downward counterfactual thoughts which are used by individuals with narcissistic features to justify their instant gratification of incentive over delayed one are also reduced. This reduction may be attributed to enhanced emotional stability and due to an increase in self-autonomy or self-reliance with age.

5.2.9 Effects of Demographics on Study Variables

In the present study, the gender-based mean difference was studied in narcissism and it was assumed that men will exhibit excessive levels of narcissism in contrast with women. This hypothesis was accepted because it was evident from the results of the *t*-test analysis indicated a significant gender-based mean difference for narcissism with males scoring higher as compared to females, indicating that men exhibit more narcissistic features or attributes than females. This finding is also supported by the results from the investigation conducted by Grijalva et al. (2014) also identified that the male sample has more narcissistic attributes as compared to the female sample. Another study also yielded similar results with males scoring more as compared to the female sample (Weidmann et al., 2023). This can be justified by the social roles traditionally assigned to both genders. Males are more associated with dominance, leadership, and confidence; while on the other hand, females are associated with more altruistic or interpersonal traits such as kindness, compassion, and care (Bakan, 1966; Deaux & LaFrance, 1998; Martin, 1987). Consequently, narcissistic features in men are socially accepted, but when women display similar traits they are criticized.

It was also investigated in the present study how the degree of narcissism differs in different adult age groups and it was hypothesized that young adults will exhibit excessive levels of narcissism in contrast with older adults. The results revealed that emerging adults aged 19 to 29 scored the highest on narcissism as compared to established adults aged 30 to 45, with middle adults aged 46 to 60 showing the lowest scores. These findings suggest that the hypothesis was accepted. The previous literature also supports this notion as results from a study conducted to investigate age-based differences in narcissism identified the presence of increased narcissistic

levels among young adults (Weidmann et al., 2023). One justification for this could be that although narcissistic traits showed moderate stability or consistency throughout the lifespan extremely unhealthy or self-destructive narcissistic behaviors diminish with age due to self-autonomy or self-reliance increasing with age (Chopik & Grimm, 2019).

The age difference was also explored in other variables and the result indicates that emerging adults aged 19 to 29 scored the highest on delayed discounting, counterfactual thinking, and self-enhancement, with middle adults aged 46 to 60 showing the lowest scores. Self-compassion scores are highest in middle adults and lowest in emerging adults. The yielded outcomes suggest that self-compassion increases while other variables decrease with age. these findings can be justified with the same notion that because self-autonomy or self-reliance increases with age so self-compassion also increases but other unhealthy or self-destructive narcissistic behaviors diminish with age (Chopik & Grimm, 2019) because with age emotional stability also increases which leads to low delayed discounting, downward counterfactuals and narcissistic features.

5.3 Limitations and Suggestions

1. The limitation of the study is that reliance on self-report questionnaires may introduce social desirability and response bias. Negative behaviors or feelings might not have been well reported by participants, particularly about topics that are more sensitive, such as narcissism and self-enhancement. While it is convenient to use, future research could increase data accuracy through the use of some combination of methods that yield data more valid through observational or behavioral assessments.

2. However data was only collected from urban areas (Islamabad, Rawalpindi, Multan and Bahawalpur) and may not adequately reflect the views of people residing in rural regions or other parts of Pakistan. Therefore future studies should focus on the larger sampling of different regions to increase the generalizability of their findings.
3. One of the problems with including participants with a minimum of a matriculation qualification limits the sample to those with higher qualification levels. It may ignore important variations in the relationship of different educational backgrounds to the study variables. Future studies could include a more broad education range to gain a better picture of how education can influence narcissism, self-compassion, and self-enhancement.
4. While the study included a subclinical population limitation need to be considered with regard to applicability in clinical settings. So it does not allow us to see how the studied variable would interact with other variables in those with a clinical condition such as depression or Narcissistic Personality Disorder. Further exploration of such dynamics in clinical populations will further benefit future research.
5. Limitations include that investigation utilized cross-sectional method which does not allow a causal relationship between the variables. Although associations were found between variables but the direction of these relationships is unclear. Future investigations should utilize longitudinal design to understanding the temporal relationship of these variables.

5.4 Future Implications of Present Study

1. This study provides useful implications for both theory and practice. Secondly, they advance the understanding of how delayed discounting and downward counterfactual thinking sequentially mediate between narcissism and narcissistic self-enhancement. By expanding our theory of narcissism and self-enhancement, it brings to light how cognitive processes interact. Future research can examine other cognitive or emotional mechanisms, like emotional management or self-control that could extend on this relationship.
2. The results of this study in clinical practice suggest that mental health professionals, especially those who work with individuals having narcissistic features or disorder, should include narcissistic self-compassion in their deliberations. Since narcissistic self-compassion may enhance the individuals tendency toward delayed discounting due to overconfidence in their ability to handle situation. Understanding of this dynamic may help inform the development of targeted interventions intended to reduce impulsive decision making.
3. Narcissistic individuals, could also benefit from therapies such as Compassion focused therapy (CFT) or mindfulness based interventions that would help them to control their impulsiveness and delayed discounting tendency and promote more adaptive self-compassion and long term decision making strategies so exploration of self-compassion considering narcissism is necessary.
4. Additionally, the potential moderator role of age on these relationships requires future exploration. Better understanding about how delayed discounting and counterfactual

thinking may interact with narcissism and self enhancement across life stages can improve contributions to more personalized interventions. Such age based differences in these psychological processes may affect how interventions are targeted to different age groups to make them more effective.

5. Finally, there is a need for future research to also account for socio-cultural factors.

Future inclusion of diverse populations and regions could expand our existing models of self-regulation and develop more effective support targeted toward individuals with narcissistic traits so that clinical and educational interventions can be more effective in recognizing and helping individuals who exhibit the traits of narcissism.

5.5 Conclusion

The current investigation aimed to explore how narcissists shape their enhanced self-views among adults, and to explore the sequential mediating role of delayed discounting and counterfactual thinking and investigated the moderating impact of self-compassion and age. The focus of this research is to explore the variables within subclinical population with no underlying mental health issue. Regression analysis indicated that narcissism predicts self-enhancement while delayed discounting and counterfactual thinking sequentially mediated the connection or association between narcissism and self-enhancement. The present investigation also found the moderating role of self-compassion between narcissism and delayed discounting, and moderating role of age in all possible paths. Moreover, it was identified in the study that men exhibit higher degree of narcissistic features specifically young adults.

References

- Abbasi, N. U. H., Arshad, Q., Wang, T., & Hadi, A. (2024). Narcissism, perfectionism, and self-promoting behavior on social networking sites among university students in Pakistan. *Anales De Psicología*, 40(2), 290–299. <https://doi.org/10.6018/analesps.545411>
- Ainslie, G. (1975). Specious reward: A behavioral theory of impulsiveness and impulse control. *Psychological Bulletin*, 82(4), 463–496. <https://doi.org/10.1037/h0076860>
- Alessi, S., & Petry, N. (2003). Pathological gambling severity is associated with impulsivity in a delay discounting procedure. *Behavioural Processes*, 64(3), 345–354. [https://doi.org/10.1016/s0376-6357\(03\)00150-5](https://doi.org/10.1016/s0376-6357(03)00150-5)
- Alicke, M. D., & Govorun, O. (2005). The better-than-average effect. In M. D. Alicke, D. A. Dunning, & J. I. Krueger (Eds.), *Studies in self and identity* (pp. 85–106). New York: Psychology Press.
- Alicke, M. D., & Sedikides, C. (2009). Self-enhancement and self-protection: What they are and what they do. *European Review of Social Psychology*, 20(1), 1–48. <https://doi.org/10.1080/10463280802613866>
- Alicke, M. D., & Sedikides, C. (Eds.). (2011). *Handbook of self-enhancement and self-protection*. The Guilford Press.

- Allen, A. B., & Leary, M. R. (2010). Self-Compassion, stress, and coping. *Social and Personality Psychology Compass*, 4(2), 107–118. <https://doi.org/10.1111/j.1751-9004.2009.00246.x>
- Allport, G. W. (1937). *Personality: A Psychological Interpretation*. New York, NY: Holt, Rinehart & Winston.
- American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders (DSM-5®)*. Washington, DC: American Psychiatric Association Psychiatric Pub.
- Amlung, M., Vedelago, L., Acker, J., Balodis, I., & MacKillop, J. (2016). Steep delay discounting and addictive behavior: a meta-analysis of continuous associations. *Addiction*, 112(1), 51–62. <https://doi.org/10.1111/add.13535>
- Anderson, C., & Galinsky, A. D. (2006). Power, optimism, and risk-taking. *European Journal of Social Psychology*, 36(4), 511–536. <https://doi.org/10.1002/ejsp.324>
- Anderson, C., Brion, S., Moore, D. A., & Kennedy, J. A. (2012). A status-enhancement account of overconfidence. *Journal of Personality and Social Psychology*, 103(4), 718–735. <https://doi.org/10.1037/a0029395>
- Aspinwall, L. G., & Taylor, S. E. (1993). Effects of social comparison direction, threat, and self-esteem on affect, self-evaluation, and expected success. *Journal of Personality and Social Psychology*, 64(5), 708–722. <https://doi.org/10.1037/0022-3514.64.5.708>

Back, M. D., Küfner, A. C. P., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J.

A. (2013). Narcissistic admiration and rivalry: Disentangling the bright and dark sides of narcissism. *Journal of Personality and Social Psychology*, 105(6), 1013–1037.

<https://doi.org/10.1037/a0034431>

Bailis, D. S., Single, A. N., Brais, N. J. J. R., & Schellenberg, B. J. I. (2022). Going for broke:

Self-compassion, risky decision-making, and differences in problem gambling severity among undergraduates. *Self and Identity*, 22(3), 379–407.

<https://doi.org/10.1080/15298868.2022.2104363>

Barber, B. M., & Odean, T. (2000). Trading is hazardous to your wealth: the common stock

investment performance of individual investors. *The Journal of Finance*, 55(2), 773–806.

<https://doi.org/10.1111/0022-1082.00226>

Barlow, P., Reeves, A., McKee, M., Galea, G., & Stuckler, D. (2016). Unhealthy diets, obesity

and time discounting: a systematic literature review and network analysis. *Obesity*

Reviews, 17(9), 810–819. <https://doi.org/10.1111/obr.12431>

Baumeister, R. F. (1997). Identity, self-concept, and self-esteem. In *Handbook of personality*

psychology (pp. 681–710). Elsevier. <https://doi.org/10.1016/B978-012134645-4/50027-5>

Baumeister, R. F., & Vohs, K. D. (2001). Narcissism as addiction to esteem. *Psychological*

inquiry, 12(4), 206-210.

Bernoster, I., De Groot, K., Wieser, M. J., Thurik, R., & Franken, I. H. (2019). Birds of a feather

flock together: Evidence of prominent correlations within but not between self-report,

- behavioral, and electrophysiological measures of impulsivity. *Biological Psychology*, 145, 112–123. <https://doi.org/10.1016/j.biopsycho.2019.04.008>
- Bickel, W. K., & Marsch, L. A. (2001). Toward a behavioral economic understanding of drug dependence: Delay discounting processes. *Addiction*, 96(1), 73–86.
<https://doi.org/10.1046/j.1360-0443.2001.961736.x>
- Bickel, W. K., Athamneh, L. N., Basso, J. C., Mellis, A. M., DeHart, W. B., Craft, W. H., & Pope, D. (2019). Excessive discounting of delayed reinforcers as a trans-disease process: Update on the state of the science. *Current Opinion in Psychology*, 30, 59–64.
<https://doi.org/10.1016/j.copsyc.2019.01.005>
- Bickel, W. K., Miller, M. L., Yi, R., Kowal, B. P., Lindquist, D. M., & Pitcock, J. A. (2006). Behavioral and neuroeconomics of drug addiction: Competing neural systems and temporal discounting processes. *Drug and Alcohol Dependence*, 90, S85–S91.
<https://doi.org/10.1016/j.drugalcdep.2006.09.016>
- Bickel, W. K., Odum, A. L., & Madden, G. J. (1999). Impulsivity and cigarette smoking: Delay discounting in current, never, and ex-smokers. *Psychopharmacology*, 146(4), 447–454.
<https://doi.org/10.1007/pl00005490>
- Bluth, K., & Blanton, P. W. (2014). The influence of self-compassion on emotional well-being among early and older adolescent males and females. *The Journal of Positive Psychology*, 10(3), 219–230. <https://doi.org/10.1080/17439760.2014.936967>
- Brown, J. D. (1998). *The self*. McGraw-Hill.

- Brown, J. D., Collins, R. L., & Schmidt, G. W. (1988). Self-esteem and direct versus indirect forms of self-enhancement. *Journal of Personality and Social Psychology*, 55(3), 445–453. <https://doi.org/10.1037/0022-3514.55.3.445>
- Buelow, M. T., & Brunell, A. B. (2014). Facets of grandiose narcissism predict involvement in health-risk behaviors. *Personality and Individual Differences*, 69, 193–198. <https://doi.org/10.1016/j.paid.2014.05.031>
- Cain, N. M., Pincus, A. L., & Ansell, E. B. (2007). Narcissism at the crossroads: Phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review*, 28(4), 638–656. <https://doi.org/10.1016/j.cpr.2007.09.006>
- Campbell, W. K., & Foster, C. A. (2002). Narcissism and Commitment in Romantic Relationships: An Investment Model analysis. *Personality and Social Psychology Bulletin*, 28(4), 484–495. <https://doi.org/10.1177/0146167202287006>
- Campbell, W. K., & Sedikides, C. (1999). Self-threat magnifies the self-serving bias: A meta-analytic integration. *Review of General Psychology*, 3(1), 23–43. <https://doi.org/10.1037/1089-2680.3.1.23>
- Campbell, W. K., Bonacci, A. M., Shelton, J., Exline, J. J., & Bushman, B. J. (2004). Psychological entitlement: Interpersonal consequences and validation of a self-report measure. *Journal of Personality Assessment*, 83(1), 29–45. https://doi.org/10.1207/s15327752jpa8301_04

- Campbell, W. K., Brunell, A. B., & Finkel, E. J. (2011). Narcissism, interpersonal self-regulation, and romantic relationships: An agency model approach. *Journal of Personality*, 79(6), 1413–1451. <https://doi.org/10.1111/j.1467-6494.2010.00711.x>
- Campbell, W. K., Goodie, A. S., & Foster, J. D. (2004). Narcissism, confidence, and risk attitude. *Journal of Behavioral Decision Making*, 17(4), 297–311. <https://doi.org/10.1002/bdm.475>
- Campbell, W., Reeder, G. D., Sedikides, C., & Elliot, A. J. (2000). Narcissism and comparative self-enhancement strategies. *Journal of Research in Personality*, 34(3), 329–347. <https://doi.org/10.1006/jrpe.2000.2282>
- Carey, A. L., Brucks, M., Kufner, A. C. P., Holtzman, N., Deters, F. G., Back, M. D., Donnellan, B., Pennebaker, J. W., & Mehl, M. R. (2014). Narcissism and the use of personal pronouns revisited [Dataset]. In *PsycEXTRA Dataset*. <https://doi.org/10.1037/e578192014-947>
- Carver, C. S. (2005). Impulse and constraint: perspectives from personality psychology, convergence with theory in other areas, and potential for integration. *Personality and Social Psychology Review*, 9(4), 312–333. https://doi.org/10.1207/s15327957pspr0904_2
- Charlton, S. R., & Fantino, E. (2007). Commodity specific rates of temporal discounting: Does metabolic function underlie differences in rates of discounting? *Behavioural Processes*, 77(3), 334–342. <https://doi.org/10.1016/j.beproc.2007.08.002>

- Chesson, H. W., Leichliter, J. S., Zimet, G. D., Rosenthal, S. L., Bernstein, D. I., & Fife, K. H. (2006). Discount rates and risky sexual behaviors among teenagers and young adults. *Journal of Risk and Uncertainty*, 32(3), 217–230. <https://doi.org/10.1007/s11166-006-9520-1>
- Chopik, W. J., & Grimm, K. J. (2019). Longitudinal changes and historic differences in narcissism from adolescence to older adulthood. *Psychology and Aging*, 34(8), 1109–1123. <https://doi.org/10.1037/pag0000379>
- Coleman, S. R. M., Oliver, A. C., Klemperer, E. M., DeSarno, M. J., Atwood, G. S., & Higgins, S. T. (2022). Delay discounting and narcissism: A meta-analysis with implications for narcissistic personality disorder. *Personality Disorders Theory Research and Treatment*, 13(3), 210–220. <https://doi.org/10.1037/per0000528>
- Collins, D. R., & Stukas, A. A. (2008). Narcissism and self-presentation: The moderating effects of accountability and contingencies of self-worth. *Journal of Research in Personality*, 42(6), 1629–1634. <https://doi.org/10.1016/j.jrp.2008.06.011>
- Costa, P. T. (1992). Professional manual: Revised NEO personality inventory (NEO-PI-R) and NEO five-factor inventory (NEO-FFI). *Psychological Assessment Resources*.
- Critchfield, T. S., & Kollins, S. H. (2001). Temporal discounting: Basic research and the analysis of socially important behavior. *Journal of Applied Behavior Analysis*, 34(1), 101–122. <https://doi.org/10.1901/jaba.2001.34-101>

- Crocker, J., Thompson, L. L., McGraw, K. M., & Ingerman, C. (1987). Downward comparison, prejudice, and evaluations of others: Effects of self-esteem and threat. *Journal of Personality and Social Psychology*, 52(5), 907–916. <https://doi.org/10.1037/0022-3514.52.5.907>
- Crysel, L. C., Crosier, B. S., & Webster, G. D. (2012). The Dark Triad and risk behavior. *Personality and Individual Differences*, 54(1), 35–40. <https://doi.org/10.1016/j.paid.2012.07.029>
- Czaja, D., & Röder, F. (2020). Self-attribution bias and overconfidence among nonprofessional traders. *The Quarterly Review of Economics and Finance*, 78, 186–198. <https://doi.org/10.1016/j.qref.2020.02.003>
- D'Argembeau, A., & Van Der Linden, M. (2008). Remembering pride and shame: Self-enhancement and the phenomenology of autobiographical memory. *Memory*, 16(5), 538–547. <https://doi.org/10.1080/09658210802010463>
- Dallery, J., & Raiff, B. R. (2007). Delay discounting predicts cigarette smoking in a laboratory model of abstinence reinforcement. *Psychopharmacology*, 190(4), 485–496. <https://doi.org/10.1007/s00213-006-0627-5>
- Damian, R. I., Spengler, M., Sutu, A., & Roberts, B. W. (2018). Sixteen going on sixty-six: A longitudinal study of personality stability and change across 50 years. *Journal of Personality and Social Psychology*, 117(3), 674–695. <https://doi.org/10.1037/pspp0000210>

- Daugherty, J. R., & Brase, G. L. (2009). Taking time to be healthy: Predicting health behaviors with delay discounting and time perspective. *Personality and Individual Differences*, 48(2), 202–207. <https://doi.org/10.1016/j.paid.2009.10.007>
- De Souza, L. K., & Hutz, C. S. (2016). Self-compassion in relation to self-esteem, self-efficacy, and demographical aspects. *Paidéia (Ribeirão Preto)*, 26(64), 181–188. <https://doi.org/10.1590/1982-43272664201604>
- Decety, J., & Ingvar, D. H. (1990). Brain structures participating in mental simulation of motor behavior: A neuropsychological interpretation. *Acta Psychologica*, 73(1), 13–34. [https://doi.org/10.1016/0001-6918\(90\)90056-L](https://doi.org/10.1016/0001-6918(90)90056-L)
- DeYoung, C. G. (2011). Impulsivity as a personality trait. In K. D. Vohs & R. F. Baumeister (Eds.), *Handbook of self-regulation: Research, theory, and applications* (2nd ed., pp. 485–502). The Guilford Press.
- Dixon, M. R., Marley, J., & Jacobs, E. A. (2003). Delay discounting by pathological gamblers. *Journal of Applied Behavior Analysis*, 36(4), 449–458. <https://doi.org/10.1901/jaba.2003.36-449>
- Doyle, J. R. (2013). Survey of time preference, delay discounting models. *Judgment and Decision Making*, 8(2), 116–135. <https://doi.org/10.1017/s1930297500005052>
- Duan, J., Wu, S. J., & Sun, L. (2017). Do the Powerful Discount the Future Less? The Effects of Power on Temporal Discounting. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.01007>

- Dubois, D., Rucker, D. D., & Galinsky, A. D. (2010). The accentuation bias. *Social Psychological and Personality Science*, 1(3), 199–205.
<https://doi.org/10.1177/1948550610365170>
- Dufner, M., Gebauer, J. E., Sedikides, C., & Denissen, J. J. A. (2018). Self-enhancement and psychological adjustment: A meta-analytic review. *Personality and Social Psychology Review*, 23(1), 48–72. <https://doi.org/10.1177/1088868318756467>
- Epstude, K., & Roese, N. J. (2008). The functional theory of counterfactual thinking. *Personality and Social Psychology Review*, 12(2), 168–192.
<https://doi.org/10.1177/1088868308316091>
- Farah Iqbal, F., Amena Zehra, A., & Rubina Feroze, R. (2012). Relationship among narcissism, self-esteem, and body esteem. *Journal of Social Sciences and Humanities*, 51(1), 85–96.
<https://jsshuok.com/oj/index.php/jssh/article/view/232>
- Fast, N. J., Gruenfeld, D. H., Sivanathan, N., & Galinsky, A. D. (2009). Illusory control. *Psychological Science*, 20(4), 502–508. <https://doi.org/10.1111/j.1467-9280.2009.02311.x>
- Festinger, L. (1954). Motivation leading to social behavior. In M. R. Jones (Ed.), *Nebraska Symposium on Motivation* (Vol. 2, pp. 191–218). University of Nebraska Press.
- Foster, J. D., & Trimm, R. F. (2008). On being eager and uninhibited: Narcissism and approach–avoidance motivation. *Personality and Social Psychology Bulletin*, 34(7), 1004–1017.
<https://doi.org/10.1177/0146167208316688>

Foster, J. D., Shenese, J. W., & Goff, J. S. (2009). Why do narcissists take more risks? Testing the roles of perceived risks and benefits of risky behaviors. *Personality and Individual Differences*, 47(8), 885–889. <https://doi.org/10.1016/j.paid.2009.07.008>

Gençtanırım, D. (2014). Riskli Davranışlar Ölçeği Üniversite Formu: Geçerlik ve Güvenirlik Çalışmaları. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi*, 5(1). <https://doi.org/10.21031/epod.67191>

Gervais, S., & Odean, T. (2001). Learning to be overconfident. *Review of Financial Studies*, 14(1), 1–27. <https://doi.org/10.1093/rfs/14.1.1>

Gibbons, F. X., Lane, D. J., Gerrard, M., Reis-Bergan, M., Lautrup, C. L., Pexa, N. A., & Blanton, H. (2002). Comparison-level preferences after performance: Is downward comparison theory still useful? *Journal of Personality and Social Psychology*, 83(4), 865–880. <https://doi.org/10.1037/0022-3514.83.4.865>

Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin*, 136(3), 351–374. <https://doi.org/10.1037/a0018807>

Green, L., & Myerson, J. (2004). A discounting framework for choice with delayed and probabilistic rewards. *Psychological Bulletin*, 130(5), 769–792. <https://doi.org/10.1037/0033-2909.130.5.769>

Grijalva, E., & Zhang, L. (2015). Narcissism and self-insight. *Personality and Social Psychology Bulletin*, 42(1), 3–24. <https://doi.org/10.1177/0146167215611636>

- Grijalva, E., Newman, D. A., Tay, L., Donnellan, M. B., Harms, P. D., Robins, R. W., & Yan, T. (2014). Gender differences in narcissism: A meta-analytic review. *Psychological Bulletin*, 141(2), 261–310. <https://doi.org/10.1037/a0038231>
- Grundmann, F., Smallman, R., & Epstude, K. (2022). Grandiose narcissism shapes counterfactual thinking (and regret): Direct and indirect evidence. *Journal of Research in Personality*, 99, 104235. <https://doi.org/10.1016/j.jrp.2022.104235>
- Hart, W., Adams, J., Burton, K. A., & Tortoriello, G. K. (2016). Narcissism and self-presentation: Profiling grandiose and vulnerable narcissists' self-presentation tactic use. *Personality and Individual Differences*, 104, 48–57. <https://doi.org/10.1016/j.paid.2016.06.062>
- Hassnain, S., Zaman, A. T., Rizwan, A., Ahmed, Z., Khalid, A., Ali, M., Riaz, M. A., Alam, R. S., Ali, S., Zahid, M. T., Ali, M. A., & Akhter, N. U. A. (2023). Trends of narcissism among medical and non-medical undergraduate students of Lahore. *Pakistan Journal of Medical Research*, 61(4), 160–165. <https://pjmr.org.pk/index.php/pjmr/article/view/319>
- Haushofer, J., Jain, P., Musau, A., & Ndeti, D. (2021). Stress may increase choice of sooner outcomes, but not temporal discounting. *Journal of Economic Behavior & Organization*, 183, 377–396. <https://doi.org/10.1016/j.jebo.2020.12.024>
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280–1300. <https://doi.org/10.1037/0003-066x.52.12.1280>

- Holt, D. D., Green, L., & Myerson, J. (2003). Is discounting impulsive? *Behavioural Processes*, 64(3), 355–367. [https://doi.org/10.1016/s0376-6357\(03\)00141-4](https://doi.org/10.1016/s0376-6357(03)00141-4)
- Hyde, J. S., Mezulis, A. H., & Abramson, L. Y. (2008). The ABCs of depression: Integrating affective, biological, and cognitive models to explain the emergence of the gender difference in depression. *Psychological Review*, 115(2), 291–313. <https://doi.org/10.1037/0033-295x.115.2.291>
- Hymes, R. W., & Akiyama, M. M. (1991). Depression and self-enhancement among Japanese and American students. *The Journal of Social Psychology*, 131(3), 321–334. <https://doi.org/10.1080/00224545.1991.9713859>
- Iftikhar, K., & Iftikhar, R. (2024). Dark triad personality traits impulsivity and aggression in adolescents. *Foundation University Journal of Psychology*, 8(2), 11–20. <https://doi.org/10.33897/fujp.v8i2.519>
- Imran, H., Rehman, S., Khanum, S., & Shahzadi, M. (2024). Association of self-esteem, narcissistic tendencies, and selfie-posting behavior among young adults. *Pakistan Journal of Health Sciences*, 26–31. <https://doi.org/10.54393/pjhs.v5i01.1266>
- Jakobwitz, S., & Egan, V. (2005). The dark triad and normal personality traits. *Personality and Individual Differences*, 40(2), 331–339. <https://doi.org/10.1016/j.paid.2005.07.006>
- Jarwan, N. D. a. S., Frehat, N. D. M. A., Hawari, N. D. a. F., & Ali, N. F. M. (2024). Emotional manipulation and its relationship with symptoms of narcissistic personality disorder

among couples. *Evolutionary Studies in Imaginative Culture*, 242–257.

<https://doi.org/10.70082/esiculture.vi.684>

John, O. P., & Robins, R. W. (1994). Accuracy and bias in self-perception: Individual differences in self-enhancement and the role of narcissism. *Journal of Personality and Social Psychology*, 66(1), 206–219. <https://doi.org/10.1037/0022-3514.66.1.206>

Johnson, D. D. P., Weidmann, N. B., & Cederman, L. (2011). Fortune favours the bold: An agent-based model reveals adaptive advantages of overconfidence in war. *PLOS ONE*, 6(6), e20851. <https://doi.org/10.1371/journal.pone.0020851>

Johnson, M. W., Bickel, W. K., Baker, F., Moore, B. A., Badger, G. J., & Budney, A. J. (2010). Delay discounting in current and former marijuana-dependent individuals. *Experimental and Clinical Psychopharmacology*, 18(1), 99–107. <https://doi.org/10.1037/a0018333>

Johnson, M. W., Johnson, P. S., Herrmann, E. S., & Sweeney, M. M. (2015). Delay and probability discounting of sexual and monetary outcomes in individuals with cocaine use disorders and matched controls. *PLOS ONE*, 10(5), e0128641. <https://doi.org/10.1371/journal.pone.0128641>

Jonason, P. K., & Ferrell, J. D. (2016). Looking under the hood: The psychopathic trait of fearless dominance and its implications for effective and adaptive functioning. *Personality and Individual Differences*, 101, 463–470. <https://doi.org/10.1016/j.paid.2016.06.040>

- Jonason, P. K., & Webster, G. D. (2010). The dirty dozen: A concise measure of the dark triad. *Psychological Assessment*, 22(2), 420–432. <https://doi.org/10.1037/a0019265>
- Jones, D. N., & Paulhus, D. L. (2011). The role of impulsivity in the Dark Triad of personality. *Personality and Individual Differences*, 51(5), 679–682. <https://doi.org/10.1016/j.paid.2011.04.011>
- Kahneman, D., & Miller, D. T. (1986). Norm theory: Comparing reality to its alternatives. *Psychological Review*, 93(2), 136–153. <https://doi.org/10.1037/0033-295x.93.2.136>
- Kalenscher, T., & Pennartz, C. M. (2007). Is a bird in the hand worth two in the future? The neuroeconomics of intertemporal decision-making. *Progress in Neurobiology*, 84(3), 284–315. <https://doi.org/10.1016/j.pneurobio.2007.11.004>
- Kasimatis, M., & Wells, G. L. (1995). Individual differences in counterfactual thinking. In N. J. Roese & J. M. Olson (Eds.), *What might have been: The social psychology of counterfactual thinking* (pp. 81–101). Lawrence Erlbaum.
- Kaufman, S. B., Weiss, B., Miller, J. D., & Campbell, W. K. (2020). Clinical and personality correlates of narcissism. *Personality Disorders: Theory, Research, and Treatment*, 11(6), 447–456. <https://doi.org/10.1037/per0000383>
- Kausel, E. E., Culbertson, S. S., Jackson, A. T., Leiva, P. I., & Reb, J. (2013). The role of narcissism and should counterfactual thinking in the hindsight bias. *Academy of Management Proceedings*, 2013(1), 17624. <https://doi.org/10.5465/ambpp.2013.80>

- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265–284. <https://doi.org/10.1037/0033-295x.110.2.265>
- Khan, A., Alvi, S. M., & Khan, Z. (2023). Analysis of university students' narcissism, affiliation, intimacy, and power motive. *Journal of Management Practices Humanities and Social Sciences*, 7(3). <https://doi.org/10.33152/jmphss-7.3.6>
- Kirby, K. N., & Maraković, N. N. (1995). Modeling myopic decisions: evidence for hyperbolic delay-discounting within subjects and amounts. *Organizational Behavior and Human Decision Processes*, 64(1), 22–30. <https://doi.org/10.1006/obhd.1995.1086>
- Kirby, K. N., & Maraković, N. N. (1996). Delay-discounting probabilistic rewards: Rates decrease as amounts increase. *Psychonomic Bulletin & Review*, 3(1), 100–104. <https://doi.org/10.3758/bf03210748>
- Kirby, K. N., Winston, G. C., & Santiesteban, M. (2005). Impatience and grades: Delay-discount rates correlate negatively with college GPA. *Learning and Individual Differences*, 15(3), 213–222. <https://doi.org/10.1016/j.lindif.2005.01.003>
- Krizan, Z., & Bushman, B. J. (2010). Better than my loved ones: Social comparison tendencies among narcissists. *Personality and Individual Differences*, 50(2), 212–216. <https://doi.org/10.1016/j.paid.2010.09.031>
- Krizan, Z., & Herlache, A. D. (2017). The narcissism spectrum model: A synthetic view of narcissistic personality. *Personality and Social Psychology Review*, 22(1), 3–31. <https://doi.org/10.1177/1088868316685018>

- Kwan, V. S. Y., John, O. P., Kenny, D. A., Bond, M. H., & Robins, R. W. (2004). reconceptualizing individual differences in self-enhancement bias: An interpersonal approach. *Psychological Review*, 111(1), 94–110. <https://doi.org/10.1037/0033-295x.111.1.94>
- Lakey, C. E., Rose, P., Campbell, W. K., & Goodie, A. S. (2007). Probing the link between narcissism and gambling: The mediating role of judgment and decision-making biases. *Journal of Behavioral Decision Making*, 21(2), 113–137. <https://doi.org/10.1002/bdm.582>
- Lam, H. C. (2021). *Relationship between impulsivity, approach-avoidance motivation, and grandiose narcissists and vulnerable narcissists* [Master's thesis, University of Hong Kong]. HKU Scholars Hub. <https://hub.hku.hk/handle/10722/308578>
- Langer, E. J. (1975). The illusion of control. *Journal of Personality and Social Psychology*, 32(2), 311–328. <https://doi.org/10.1037/0022-3514.32.2.311>
- Leary, M. R. (2007). Motivational and emotional aspects of the self. *Annual Review of Psychology*, 58, 317–344. <https://doi.org/10.1146/annurev.psych.58.110405.085658>
- Liao, K. Y., Stead, G. B., & Liao, C. (2021). A meta-analysis of the relation between self-compassion and self-efficacy. *Mindfulness*, 12(8), 1878–1891. <https://doi.org/10.1007/s12671-021-01626-4>

- Littrell, S., Fugelsang, J., & Risko, E. F. (2019). Overconfidently underthinking: Narcissism negatively predicts cognitive reflection. *Thinking & Reasoning*, 26(3), 352–380.
<https://doi.org/10.1080/13546783.2019.1633404>
- Loewenstein, G. F. (1988). Frames of mind in intertemporal choice. *Management Science*, 34(2), 200–214. <https://doi.org/10.1287/mnsc.34.2.200>
- Loewenstein, G., & Thaler, R. H. (1989). Anomalies: Intertemporal choice. *Journal of Economic Perspectives*, 3(4), 181–193. <https://doi.org/10.1257/jep.3.4.181>
- MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review*, 32(6), 545–552. <https://doi.org/10.1016/j.cpr.2012.06.003>
- MacKillop, J., Amlung, M. T., Few, L. R., Ray, L. A., Sweet, L. H., & Munafò, M. R. (2011). Delayed reward discounting and addictive behavior: A meta-analysis. *Psychopharmacology*, 216(3), 305–321. <https://doi.org/10.1007/s00213-011-2229-0>
- Madden, G. J., Petry, N. M., & Johnson, P. S. (2009). Pathological gamblers discount probabilistic rewards less steeply than matched controls. *Experimental and Clinical Psychopharmacology*, 17(5), 283–290. <https://doi.org/10.1037/a0016806>
- Madden, G. J., Petry, N. M., Badger, G. J., & Bickel, W. K. (1997). Impulsive and self-control choices in opioid-dependent patients and non-drug-using control patients: Drug and monetary rewards. *Experimental and Clinical Psychopharmacology*, 5(3), 256–262.
<https://doi.org/10.1037/1064-1297.5.3.256>

- Mahalingam, V., Stillwell, D., Kosinski, M., Rust, J., & Kogan, A. (2013). Who can wait for the future? A personality perspective. *Social Psychological and Personality Science*, 5(5), 573–583. <https://doi.org/10.1177/1948550613515007>
- Malesza, M., & Kaczmarek, M. C. (2018). Grandiose narcissism versus vulnerable narcissism and impulsivity. *Personality and Individual Differences*, 126, 61–65. <https://doi.org/10.1016/j.paid.2018.01.021>
- Malesza, M., & Kalinowski, K. (2019). Willingness to share, impulsivity and the Dark Triad traits. *Current Psychology*, 40(8), 3888–3896. <https://doi.org/10.1007/s12144-019-00351-5>
- Malik, N. I., Zafar, J., & Saleemi, A. (2020). Narcissism and self-esteem as predictors of selfitis among youth. *Rawal Medical Journal*, 45(2), 331–333.
- Mandel, D. R., & Dhami, M. K. (2005). “What I did” versus “what I might have done”: Effect of factual versus counterfactual thinking on blame, guilt, and shame in prisoners. *Journal of Experimental Social Psychology*, 41(6), 627–635. <https://doi.org/10.1016/j.jesp.2004.08.009>
- Maner, J. K., Gailliot, M. T., Menzel, A. J., & Kunstman, J. W. (2012). Dispositional anxiety blocks the psychological effects of power. *Personality and Social Psychology Bulletin*, 38(11), 1383–1395. <https://doi.org/10.1177/0146167212453341>

- Manning, J., Hedden, T., Wickens, N., Whitfield-Gabrieli, S., Prelec, D., & Gabrieli, J. D. (2014). Personality influences temporal discounting preferences: Behavioral and brain evidence. *NeuroImage*, 98, 42–49. <https://doi.org/10.1016/j.neuroimage.2014.04.066>
- Markman, K. D., Gavanski, I., Sherman, S. J., & McMullen, M. N. (1993). The mental simulation of better and worse possible worlds. *Journal of Experimental Social Psychology*, 29(1), 87–109. <https://doi.org/10.1006/jesp.1993.1005>
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253. <https://doi.org/10.1037/0033-295x.98.2.224>
- Mazur, J. E. (1987). The effect of delay and of intervening events on reinforcement value. In M. L. Commons, J. E. Mazur, J. A. Nevin, & H. Rachlin (Eds.), *Quantitative analyses of behavior* (Vol. 5, pp. 55–73). Erlbaum.
- Mezulis, A. H., Abramson, L. Y., Hyde, J. S., & Hankin, B. L. (2004). Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychological Bulletin*, 130(5), 711–747. <https://doi.org/10.1037/0033-2909.130.5.711>
- Miller, J. D., Hoffman, B. J., Gaughan, E. T., Gentile, B., Maples, J., & Campbell, W. K. (2010). grandiose and vulnerable narcissism: A nomological network analysis. *Journal of Personality*, 79(5), 1013–1042. <https://doi.org/10.1111/j.1467-6494.2010.00711.x>

- Miller, J. D., Lynam, D. R., Hyatt, C. S., & Campbell, W. K. (2017). Controversies in narcissism. *Annual Review of Clinical Psychology*, 13(1), 291–315.
<https://doi.org/10.1146/annurev-clinpsy-032816-045244>
- Mintz, T. M., Hamre, B. K., & Hatfield, B. E. (2011). The role of effortful control in mediating the association between maternal sensitivity and children’s social and relational competence and problems in first grade. *Early Education and Development*, 22(3), 360–387. <https://doi.org/10.1080/10409289.2011.569317>
- Mishra, S., & Lalumière, M. L. (2016). Associations between delay discounting and risk-related behaviors, traits, attitudes, and outcomes. *Journal of Behavioral Decision Making*, 30(3), 769–781. <https://doi.org/10.1002/bdm.2000>
- Moreira, D., & Barbosa, F. (2019). Delay discounting in impulsive behavior. *European Psychologist*, 24(4), 312–321. <https://doi.org/10.1027/1016-9040/a000360>
- Morf, C. C., Horvath, S., & Torchetti, L. (2011). Narcissistic self-enhancement: Tales of (successful?) self-portrayal. In M. D. Alicke & C. Sedikides (Eds.), *The handbook of self-enhancement and self-protection* (pp. 399–424). Guilford Press.
- Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, 12(4), 177–196.
https://doi.org/10.1207/s15327965pli1204_1
- Nagler, U. K., Reiter, K. J., Furtner, M. R., & Rauthmann, J. F. (2014). Is there a “dark intelligence”? Emotional intelligence is used by dark personalities to emotionally

- manipulate others. *Personality and Individual Differences*, 65, 47–52.
<https://doi.org/10.1016/j.paid.2014.01.025>
- Nayyar, K., Munir, M., & Samuel, I. S. (2023). Narcissism and self-perceived flourishing. *Global Sociological Review*, 8(1), 155–165. [https://doi.org/10.31703/gsr.2023\(viii-i\).14](https://doi.org/10.31703/gsr.2023(viii-i).14)
- Neff, K. D. (2016). The self-compassion scale: Reliability and validity. *Journal of Personality Assessment*, 88(2), 168–177. <https://doi.org/10.1080/00223891.2006.9651420>
- Neff, K. D., Rude, S. S., & Kirkpatrick, K. L. (2006). An examination of self-compassion in relation to positive psychological functioning and personality traits. *Journal of Research in Personality*, 41(4), 908–916. <https://doi.org/10.1016/j.jrp.2006.08.002>
- Niedenthal, P. M., Tangney, J. P., & Gavanski, I. (1994). “If only I weren’t” versus “If only I hadn’t”: Distinguishing shame and guilt in counterfactual thinking. *Journal of Personality and Social Psychology*, 67(4), 585–595. <https://doi.org/10.1037/0022-3514.67.4.585>
- O’Mara, E. M., Gaertner, L., Sedikides, C., Zhou, X., & Liu, Y. (2012). A longitudinal-experimental test of the panculturality of self-enhancement: Self-enhancement promotes psychological well-being both in the West and the East. *Journal of Research in Personality*, 46(2), 157–163. <https://doi.org/10.1016/j.jrp.2012.01.001>
- Odum, A. L. (2011). Delay discounting: Trait variable? *Behavioural Processes*, 87(1), 1–9.
<https://doi.org/10.1016/j.beproc.2011.02.007>
- Ogunyemi, A. O., & Mabekoje, S. O. (2007). Self-efficacy, risk-taking behavior, and mental health as predictors of personal growth initiative among university undergraduates.

Electronic Journal of Research in Educational Psychology, 5(12), 349–362.

https://repositorio.ual.es/bitstream/handle/10835/596/Art_12_132.pdf?sequence=1

Papageorgiou, K. A., Wong, B., & Clough, P. J. (2017). Beyond good and evil: Exploring the mediating role of mental toughness on the Dark Triad of personality traits. *Personality and Individual Differences*, 119, 19–23. <https://doi.org/10.1016/j.paid.2017.06.031>

Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74(5), 1197–1208. <https://doi.org/10.1037/0022-3514.74.5.1197>

Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556–563. [https://doi.org/10.1016/s0092-6566\(02\)00505-6](https://doi.org/10.1016/s0092-6566(02)00505-6)

Petrides, K. V., Vernon, P. A., Schermer, J. A., & Veselka, L. (2011). Trait emotional intelligence and the dark triad traits of personality. *Twin Research and Human Genetics*, 14(1), 35–41. <https://doi.org/10.1375/twin.14.1.35>

Pincus, A. L., & Lukowitsky, M. R. (2009). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology*, 6(1), 421–446. <https://doi.org/10.1146/annurev.clinpsy.121208.131215>

Pincus, A. L., & Lukowitsky, M. R. (2009). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology*, 6(1), 421–446. <https://doi.org/10.1146/annurev.clinpsy.121208.131215>

- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A. G. C., & Levy, K. N. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment*, 21(3), 365–379. <https://doi.org/10.1037/a0016530>
- Pyszczynski, T., Greenberg, J., & LaPrelle, J. (1985). Social comparison after success and failure: Biased search for information consistent with a self-serving conclusion. *Journal of Experimental Social Psychology*, 21(2), 195–211. [https://doi.org/10.1016/0022-1031\(85\)90015-0](https://doi.org/10.1016/0022-1031(85)90015-0)
- Qadir, A., Naz, L., Samia Mushtaq, & Nazneen Zehra. (2019). Prevalence of narcissism in adolescents of Karachi. *Advances in Social Sciences Research Journal*, 6(3). <https://doi.org/10.14738/assrj.63.6285>
- Qiu, X. (2018). Self-esteem, motivation, and self-enhancement presentation on WeChat. Digital Commons @ University of South Florida. <https://digitalcommons.usf.edu/etd/7221>
- Rachlin, B. M. (2019). Relations between subclinical narcissism, effortful control, and well-being in emerging adulthood (*Honors thesis*). The University of Tennessee at Chattanooga. *Honors Theses*. <https://scholar.utc.edu/cgi/viewcontent.cgi?article=1204&context=honors-theses>
- Raskin, R. N., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports*, 45(2), 590–590. <https://doi.org/10.2466/pr0.1979.45.2.590>

- Raskin, R., & Hall, C. S. (1981). The Narcissistic Personality Inventory: Alternative form reliability and further evidence of construct validity. *Journal of Personality Assessment*, 45(2), 159–162. https://doi.org/10.1207/s15327752jpa4502_10
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54(5), 890–902. <https://doi.org/10.1037/0022-3514.54.5.890>
- Regan, P. C., Snyder, M., & Kassin, S. M. (1995). Unrealistic optimism: self-enhancement or person positivity? *Personality and Social Psychology Bulletin*, 21(10), 1073–1082. <https://doi.org/10.1177/01461672952110008>
- Reynolds, B., Ortengren, A., Richards, J. B., & De Wit, H. (2005). Dimensions of impulsive behavior: Personality and behavioral measures. *Personality and Individual Differences*, 40(2), 305–315. <https://doi.org/10.1016/j.paid.2005.03.024>
- Rhodewalt, F. (2012). Contemporary perspectives on narcissism and the narcissistic personality type. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (2nd ed., pp. 571–586). The Guilford Press.
- Richards, J. B., Zhang, L., Mitchell, S. H., & De Wit, H. (1999). Delay or probability discounting in a model of impulsive behavior: Effect of alcohol. *Journal of the Experimental Analysis of Behavior*, 71(2), 121–143. <https://doi.org/10.1901/jeab.1999.71-121>

- Riis-Vestergaard, M. I., Van Ast, V., Cornelisse, S., Joëls, M., & Haushofer, J. (2017). The effect of hydrocortisone administration on intertemporal choice. *Psychoneuroendocrinology*, 88, 173–182. <https://doi.org/10.1016/j.psyneuen.2017.10.002>
- Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality traits from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin*, 126(1), 3–25. <https://doi.org/10.1037/0033-2909.126.1.3>
- Roese, N. J. (1997). Counterfactual thinking. *Psychological Bulletin*, 121(1), 133–148. <https://doi.org/10.1037/0033-2909.121.1.133>
- Roese, N. J., & Epstude, K. (2017). The functional theory of counterfactual thinking: New evidence, new challenges, new insights. In *Advances in experimental social psychology* (pp. 1–79). <https://doi.org/10.1016/bs.aesp.2017.02.001>
- Roese, N. J., & Olson, J. M. (1995). Counterfactual thinking: A critical overview. *Psychological Bulletin*, 121(1), 133–148. <https://doi.org/10.1037/0033-2909.121.1.133>
- Roese, N. J., & Olson, J. M. (1995). Outcome controllability and counterfactual thinking. *Personality and Social Psychology Bulletin*, 21(6), 620–628. <https://doi.org/10.1177/0146167295216008>
- Roese, N. J., & Olson, J. M. (Eds.). (1995). *What might have been: The social psychology of counterfactual thinking*. Psychology Press. <https://doi.org/10.4324/9781315806419>

- Roese, N. J., & Olson, J. M. (1997). Counterfactual thinking: the intersection of affect and function. In *Advances in experimental social psychology* (pp. 1–59).
[https://doi.org/10.1016/s0065-2601\(08\)60015-5](https://doi.org/10.1016/s0065-2601(08)60015-5)
- Rogers, C. R. (1959). A theory of therapy, personality, and interpersonal relationships: As developed in the client-centered framework. In S. Koch (Ed.), *Psychology: A study of a science. Formulations of the person and the social context* (Vol. 3, pp. 184-256). McGraw Hill.
- Rushton, J. P. (2009). The genetics and evolution of the general factor of personality [Journal of Research in Personality, 42 (2008), 1173–1185]. *Journal of Research in Personality*, 43(3), 532. <https://doi.org/10.1016/j.jrp.2009.01.005>
- Saha, A. (2020). *Self-construal as a moderator in the relationship between self-enhancement/protection and psychological well-being* (Master's thesis, Eastern Illinois University). *Masters Theses*, 4820. <https://thekeep.eiu.edu/theses/4820>
- Sanna, L. J. (1998). Defensive pessimism and optimism: The bitter-sweet influence of mood on performance and prefactual and counterfactual thinking. *Cognition & Emotion*, 12(5), 635–665. <https://doi.org/10.1080/026999398379484>
- Sanna, L. J., Meier, S., & Wegner, E. A. (2001). Counterfactuals and motivation: Mood as input to affective enjoyment and preparation. *British Journal of Social Psychology*, 40(2), 235–256. <https://doi.org/10.1348/014466601164830>

- Sanna, L. J., Turley-Ames, K. J., & Meier, S. (1999). Mood, self-esteem, and simulated alternatives: Thought-provoking affective influences on counterfactual direction. *Journal of Personality and Social Psychology*, 76(4), 543–558. <https://doi.org/10.1037/0022-3514.76.4.543>
- Schimel, J., Arndt, J., Pyszczynski, T., & Greenberg, J. (2001). Being accepted for who we are: Evidence that social validation of the intrinsic self reduces general defensiveness. *Journal of Personality and Social Psychology*, 80(1), 35–52. <https://doi.org/10.1037/0022-3514.80.1.35>
- Sedikides, C., & Alicke, M. D. (2012). Self-enhancement and self-protection motives. In *The Oxford handbook of personality and social psychology* (pp. 303–322). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195399820.013.0017>
- Sedikides, C., & Gregg, A. P. (2008). Self-enhancement: Food for thought. *Perspectives on Psychological Science*, 3(2), 102–116. <https://doi.org/10.1111/j.1745-6916.2008.00068.x>
- Sedikides, C., Herbst, K. C., Hardin, D. P., & Dardis, G. J. (2002). Accountability as a deterrent to self-enhancement: The search for mechanisms. *Journal of Personality and Social Psychology*, 83(3), 592–605. <https://doi.org/10.1037/0022-3514.83.3.592>
- Sedikides, C., Rudich, E. A., Gregg, A. P., Kumashiro, M., & Rusbult, C. (2004). Are normal narcissists psychologically healthy? Self-esteem matters. *Journal of Personality and Social Psychology*, 87(3), 400–416. <https://doi.org/10.1037/0022-3514.87.3.400>

- See, K. E., Morrison, E. W., Rothman, N. B., & Soll, J. B. (2011). The detrimental effects of power on confidence, advice taking, and accuracy. *Organizational Behavior and Human Decision Processes*, 116(2), 272–285. <https://doi.org/10.1016/j.obhdp.2011.07.006>
- Shah, M., Sarfraz, M., Khawaja, K. F., & Tariq, J. (2020). Does narcissism encourage unethical pro-organizational behavior in the service sector? A case study in Pakistan. *Global Business and Organizational Excellence*, 40(1), 44–57. <https://doi.org/10.1002/joe.22062>
- Shajumon, S. P., & Luke, J. M. (2024). Self-efficacy, risk-taking attitude, and stress coping behaviour among first-born and second-born children. *International Journal of Indian Psychology*, 12(1), 877–894. <https://doi.org/10.25215/1201.082>
- Skinner, B. F. (1953). *Science and human behavior*. The Macmillan Company.
<https://doi.org/10.1002/sce.37303805120>
- Smallman, R., Becker, A., & Roese, N. J. (2018). Downward counterfactual thinking and narcissism. *Social Psychological and Personality Science*, 9(5), 523–531.
<https://doi.org/10.1177/1948550617714589>
- Smallman, R., Ramos, A., Dickey, K., Dowd, S., & Fields, S. (2018). If only I wasn't so impulsive: Counterfactual thinking and delay-discounting. *Personality and Individual Differences*, 135, 212–215. <https://doi.org/10.1016/j.paid.2018.07.023>
- Snider, S. E., DeHart, W. B., Epstein, L. H., & Bickel, W. K. (2018). Does delay discounting predict maladaptive health and financial behaviors in smokers? *Health Psychology*, 38(1), 21–28. <https://doi.org/10.1037/hea0000695>

- Souchon, N., Maio, G. R., Hanel, P. H. P., & Bardin, B. (2016). Does spontaneous favorability to power (vs. universalism) values predict spontaneous prejudice and discrimination? *Journal of Personality*, 85(5), 658–674. <https://doi.org/10.1111/jopy.12269>
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In *Advances in experimental social psychology* (pp. 261–302). Academic Press.
[https://doi.org/10.1016/s0065-2601\(08\)60229-4](https://doi.org/10.1016/s0065-2601(08)60229-4)
- Steward, T., Mestre-Bach, G., Fernández-Aranda, F., Granero, R., Perales, J. C., Navas, J. F., Soriano-Mas, C., Baño, M., Fernández-Formoso, J. A., Martín-Romera, V., Menchón, J. M., & Jiménez-Murcia, S. (2017). Delay discounting and impulsivity traits in young and older gambling disorder patients. *Addictive Behaviors*, 71, 96–103.
<https://doi.org/10.1016/j.addbeh.2017.03.001>
- Stinson, F. S., Dawson, D. A., Goldstein, R. B., Chou, P., Huang, B., Smith, S. M., Ruan, W. J., Pulay, A. J., Saha, T. D., Pickering, R. P., & Grant, B. F. (2008). Prevalence, correlates, disability, and comorbidity of DSM-IV narcissistic personality disorder. *The Journal of Clinical Psychiatry*, 69(7), 1033–1045. <https://doi.org/10.4088/jcp.v69n0701>
- Stucke, T. S. (2003). Who's to blame? Narcissism and self-serving attributions following feedback. *European Journal of Personality*, 17(6), 465–478.
<https://doi.org/10.1002/per.497>

- Sulaman, M., & Qayyum, S. (2020). Self-esteem, goal orientation, and narcissism in employees. *Journal of Public Value and Administrative Insight*, 3(2), 40–49.
<https://doi.org/10.31580/jpvai.v3i2.1458>
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103(2), 193–210. <https://doi.org/10.1037/0033-2909.103.2.193>
- Taylor, S. E., & Brown, J. D. (1994). Positive illusions and well-being revisited: Separating fact from fiction. *Psychological Bulletin*, 116(1), 21–27. <https://doi.org/10.1037/0033-2909.116.1.21>
- Campbell, W. K., & Miller, J. D. (Eds.). (2011). *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments*. Wiley.
<https://doi.org/10.1002/9781118093108>
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96(3), 506–520. <https://doi.org/10.1037/0033-295x.96.3.506>
- Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K., & Bushman, B. J. (2008). Egos inflating over time: A cross-temporal meta-analysis of the narcissistic personality inventory. *Journal of Personality*, 76(4), 875–902. <https://doi.org/10.1111/j.1467-6494.2008.00507.x>

Vazire, S., & Funder, D. C. (2006). Impulsivity and the self-defeating behavior of narcissists.

Personality and Social Psychology Review, 10(2), 154–165.

https://doi.org/10.1207/s15327957pspr1002_4

Weidmann, R., Chopik, W. J., Ackerman, R. A., Allroggen, M., Bianchi, E. C., Brecheen, C., Campbell, W. K., Gerlach, T. M., Geukes, K., Grijalva, E., Grossmann, I., Hopwood, C. J., Hutteman, R., Konrath, S., Küfner, A. C. P., Leckelt, M., Miller, J. D., Penke, L., Pincus, A. L., . . . Back, M. D. (2023). Age and gender differences in narcissism: A comprehensive study across eight measures and over 250,000 participants. *Journal of Personality and Social Psychology*, 124(6), 1277–1298.

<https://doi.org/10.1037/pspp0000463>

Weidmann, R., Ledermann, T., & Grob, A. (2023). Age differences in narcissism: Testing the maturational hypothesis. *Journal of Research in Personality*, 108, 104113.

<https://doi.org/10.1016/j.jrp.2023.104113>

White, K., & Lehman, D. R. (2005). Looking on the bright side: Downward counterfactual thinking in response to negative life events. *Personality and Social Psychology Bulletin*, 31(10), 1413–1424. <https://doi.org/10.1177/0146167205276064>

Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, 90(2), 245–271. <https://doi.org/10.1037/0033-2909.90.2.245>

Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology*, 61(4), 590–597. <https://doi.org/10.1037/0022-3514.61.4.590>

- Wong, C. C. Y., & Mak, W. W. S. (2012). Differentiating the role of three self-compassion components in buffering cognitive-personality vulnerability to depression among Chinese in Hong Kong. *Journal of Counseling Psychology*, 60(1), 162–169.
<https://doi.org/10.1037/a0030451>
- Yarnell, L. M., Neff, K. D., Davidson, O. A., & Mullarkey, M. (2018). Gender differences in self-compassion: Examining the role of gender role orientation. *Mindfulness*, 10(6), 1136–1152. <https://doi.org/10.1007/s12671-018-1066-1>
- Yarnell, L. M., Stafford, R. E., Neff, K. D., Reilly, E. D., Knox, M. C., & Mullarkey, M. (2015). Meta-analysis of gender differences in self-compassion. *Self and Identity*, 14(5), 499–520. <https://doi.org/10.1080/15298868.2015.1029966>
- Yoon, J. H., Higgins, S. T., Heil, S. H., Sugarbaker, R. J., Thomas, C. S., & Badger, G. J. (2007). Delay discounting predicts postpartum relapse to cigarette smoking among pregnant women. *Experimental and Clinical Psychopharmacology*, 15(2), 176–186.
<https://doi.org/10.1037/1064-1297.15.2.186>
- Zessin, U., Dickhäuser, O., & Garbade, S. (2015). The relationship between self-compassion and well-being: A meta-analysis. *Applied Psychology Health and Well-Being*, 7(3), 340–364.
<https://doi.org/10.1111/aphw.12051>

Appendix A

Informed Consent & Demographic Sheet

Informed Consent

میں نیشنل یونیورسٹی آف ماٹرن لینگویجز، اسلام آباد میں ایم فل نفسیات کی طالبہ ہوں اور بالغ افراد میں مخصوص نفسیاتی خصوصیات اور رویوں پر ایک ریسرچ کر رہی ہوں۔ آپ کی اس ریسرچ میں رضاکارانہ شرکت کی قدر کی جاتی ہے۔ فراہم کردہ تمام معلومات کو رازدارانہ رکھا جائے گا اور صرف ریسرچ کے لئے استعمال کیا جائے گا۔ کسی بھی قسم کی تکلیف اور تھکن کی صورت میں آپ ریسرچ سے دستبردار ہو سکتے ہیں۔ آپ کا تعاون بہت قیمتی ہے۔ آپ کی شرکت کا شکریہ۔

(Demographic Sheet) ذاتی کوائف

جنس: (1) مرد (2) عورت

عمر (سالوں میں): _____

تعلیم:

(1) میٹرک	(2) ایف اے	(3) بی اے	(4) ایم اے	(5) اس سے زیادہ
-----------	------------	-----------	------------	-----------------

کام کی حیثیت: (1) برسرروزگار (2) بے روزگار

خاندانی نظام: (1) انفرادی (2) مشترکہ

ازدواجی حیثیت:

(1) غیر شادی شدہ	(2) تعلق میں	(3) شادی شدہ	(4) علیحدہ/طلاق یافتہ	(5) بیوہ/رنڈوہ	(6) دوبارہ شادی
------------------	--------------	--------------	-----------------------	----------------	-----------------

Appendix B

Narcissistic Personality Inventory

Narcissistic Personality Inventory

ذیل میں دیے گئے بیانات میں سے اس جواب کا انتخاب کریں جو آپ کی اپ کی شخصیت کی بہترین وضاحت کرتا ہو
کوئی بھی جواب صحیح یا غلط نہیں ہے۔

نمبر شمار	بیانات	مکمل طور پر	کافی حد تک	کچھ حد تک	بہت کم	بالکل نہیں
1	میں ایک پیدائشی لیڈر ہوں۔	5	4	3	2	1
2	میں با اختیار بننے کے لئے مضبوط ارادہ رکھتا / رکھتی ہوں۔	5	4	3	2	1
3	لوگ ہمیشہ میرے اختیار کو تسلیم کرتے ہیں۔	5	4	3	2	1
4	مجھے دوسرے لوگوں سے بہت توقعات ہیں۔	5	4	3	2	1
5	مجھے معلوم ہے کہ میں اچھا / اچھی انسان ہوں کیونکہ سب کا یہی کہنا ہے۔	5	4	3	2	1
6	مجھے خود کو اُٹینے میں دیکھنا پسند ہے۔	5	4	3	2	1
7	مجھے اپنے آپ کو دیکھنا پسند ہے۔	5	4	3	2	1
8	مجھے اپنی جسمانی خوبصورتی دکھانا پسند ہے۔	5	4	3	2	1
9	مجھے دوسرے لوگوں پر حکمرانی کرنا (اتھارٹی رکھنا) پسند ہے۔	5	4	3	2	1
10	میرے لئے لوگوں کا ذہن قابو کرنا آسان ہے۔	5	4	3	2	1
11	اگر مجھے موقع ملے تو میں دکھاوا کرونگا/کرونگی۔	5	4	3	2	1
12	میں وہ عزت حاصل کرنے کے لئے با ضد ہوں جسکا/جسکی میں حقدار ہوں۔	5	4	3	2	1
13	میں تب تک مطمئن نہیں ہونگا/ہونگی جب تک کہ میں وہ حاصل نہ کر لوں جسکا /جسکی میں حقدار ہوں۔	5	4	3	2	1

Appendix C

Self-enhancement scale

Self-enhancement scale

یہ پیمانہ آپ کے خود کے بارے میں مثبت بیانات کی پیمائش کرتا ہے تو اس جواب کا انتخاب کریں جو آپ کی شخصیت کی بہترین وضاحت کرے کوئی بھی جواب صحیح یا غلط نہیں ہے۔

نمبر شمار	بیانات	مکمل طور پر	کافی حد تک	کچھ حد تک	بہت کم	بالکل نہیں
1	یقین کرنا کے دوسروں کی نسبت آپ (بطور ایک شخص) زیادہ بدل رہے ہیں، بڑھ رہے ہیں اور ترقی کر رہے ہیں۔	5	4	3	2	1
2	خود کے بارے میں سوچنا کہ آپ میں دوسروں کے مقابلے میں زیادہ مثبت خصوصیات اور صلاحیتیں ہیں۔	5	4	3	2	1
3	یقین کرنا کے زیادہ تر لوگوں کی نسبت آپ مستقبل میں زیادہ خوش اور کامیاب ہونگے/ہونگی۔	5	4	3	2	1
4	یہ سوچنا کہ کامیابی اور اچھے گریڈز آپ کی صلاحیتوں کی بدولت ہیں۔	5	4	3	2	1
5	جب کوئی آپ کے بارے میں مبہم (غیر واضح) بات کرے تو آپ اسے مثبت تبصرہ اور تعریف سمجھتے/سمجھتی ہیں (مثلاً آپ یقینی طور پر اپنے دماغ میں ائی بات کہتے / کہتی ہیں کیا ایسا نہیں ہے؟) آپ کو لگتا ہے وہ آپ کی ایمانداری کی تعریف کر رہے ہیں آپ کی سمجھ بوجھ کی کمی کی توہین نہیں کر رہے۔	5	4	3	2	1
6	عام طور پر (آپ) منفی رائے کے تجربے پر تیزی سے قابو پا لیتے/ پا لیتی ہیں اس لیے اس منفی واقعے کے چند گھنٹوں، دنوں اور ہفتوں بعد آپ کو برا نہیں لگتا (مثلاً امتحان میں بری کارکردگی، دوست کی تنقید)۔	5	4	3	2	1
7	اچھے گریڈز اور کامیابی حاصل ہونے پر سوچنا کہ یہ آپ کی شخصیت کے بارے میں بہت کچھ بتاتا ہے۔	5	4	3	2	1
8	جب آپ اچھے گریڈز اور کامیابی حاصل کرتے ہیں/کرتی ہیں تو یہ آپ کی قابلیت اور زندگی کے اس شعبے کی اہمیت کو ظاہر کرتا ہے۔	5	4	3	2	1
9	آپ ان لوگوں کے ساتھ وقت گزارتے/گزارتی ہیں جو آپ کے لیے زیادہ سوچتے ہیں، اچھی باتیں کرتے ہیں اور آپ کے بارے میں اچھا محسوس کرواتے ہیں۔	5	4	3	2	1
10	اس وقت رائے طلب کرنا جب آپ کو مثبت رائے کی توقع ہو (مثلاً دوست سے پوچھنا (کیا میں ٹھیک لگ رہا/ رہی ہوں؟) جب ظاہری خوبصورتی پر محنت کی ہو، یا استاد اور سینئرز کے پاس جانا جب اچھا کام کیا ہو)۔	5	4	3	2	1

Appendix D

Impulsivity Scale

Impulsivity Scale

ذیل میں دیے گئے بیانات میں سے اس جواب کا انتخاب کریں جو آپ کی اپ کی شخصیت کی بہترین وضاحت کرتا ہو
کوئی بھی جواب صحیح یا غلط نہیں ہے۔

نمبر شمار	بیانات	ہمیشہ	اکثر	کبھی کبھار	بہت کم	کبھی نہیں
1	میں کبھی کبھار جلدبازی میں وہ کام کر جاتا ہوں / جاتی ہوں جو میں نہیں کرنا چاہتا/چاہتی -	5	4	3	2	1
2	میں خود کو خوش کرنے کے لئے ایسی چیزیں کر جاتا / جاتی ہوں جن پر بعد میں مجھے پچھتاوا ہوتا ہے۔	5	4	3	2	1
3	میں اپنے شیڈول کی منصوبہ بندی اسطرح کرتا/کرتی ہوں کہ سب کچھ مجھے وقت پر مکمل ملے۔	5	4	3	2	1
4	میں عموماً کام کرنے سے پہلے احتیاط سے سوچتا /سوچتی ہوں -	5	4	3	2	1
5	میں عموماً اپنا ذہن بنانے سے پہلے چیزوں کو بہت احتیاط اور منطقی انداز سے دیکھتا /دیکھتی ہوں -	5	4	3	2	1
6	میں ہمیشہ اُسے مکمل کرتا /کرتی ہوں جس کا میں آغاز کرتا /کرتی ہوں۔	5	4	3	2	1
7	میں (بے وجہ) خطرہ مول لینے کے لیے تیار رہتا ہوں/رہتی ہوں -	5	4	3	2	1
8	میں (بغیر سوچے سمجھے) چانس لے کر خوش ہوتا/ہوتی ہوں -	5	4	3	2	1

Appendix D

Counterfactual Thinking Negative Events Scale

Counterfactual Thinking Negative Events Scale

یہ پیمانہ کسی فیصلے کے بعد کے بیانات (اگر ایسا کیا ہوتا\ ہوا ہوتا) کی پیمائش کرتا ہے تو اس جواب کا انتخاب کریں
جو آپ کی شخصیت کی بہترین وضاحت کرے۔

نمبر شمار	بیانات	ہمیشہ	اکثر	کبھی کبھار	بہت کم	کبھی نہیں
1	میں اس بارے میں سوچتا/سوچتی ہوں کہ چیزیں کتنی بدتر ہو سکتی تھیں۔	5	4	3	2	1
2	میں اپنی نعمتوں کا شمار کرتا/کرتی ہوں جب میں یہ سوچتا/سوچتی ہوں کہ چیزیں کتنی بدتر ہو سکتی تھیں۔	5	4	3	2	1
3	میں اطمینان محسوس کرتا /کرتی ہوں جب میں سوچتا /سوچتی ہوں کہ چیزیں اس سے بھی بدتر ہو سکتی تھیں۔	5	4	3	2	1
4	اگرچہ جو بھی ہوا وہ برا تھا، پر واضح طور پر اس سے بھی بدتر ہو سکتا تھا۔	5	4	3	2	1

Appendix E

Self-compassion Scale– Short Form

Self-compassion Scale– Short Form

ذیل میں دیے گئے بیانات کو غور سے پڑھیں اور وہ جواب منتخب کریں جو آپ کی شخصیت کی بہترین وضاحت کرے
کوئی بھی جواب صحیح یا غلط نہیں ہے۔

نمبر شمار	بیانات	ہمیشہ	اکثر	کبھی کبھار	بہت کم	کبھی نہیں
1	اگر میں کسی ایسے کام کو کرنے میں ناکام ہو جاؤں جو کہ میرے لیے اہم ہو تو نااہل ہونے کا احساس مجھ پر حاوی ہو جاتا ہے۔	5	4	3	2	1
2	اپنی ذات کے وہ پہلو جو مجھے ناپسند ہے میں ان کو سمجھنے اور حوصلے سے برداشت کرنے کی کوشش کرتا/کرتی ہوں۔	5	4	3	2	1
3	اگر کوئی تکلیف دہ صورتحال پیدا ہو تو میں اس کا متوازن پہلو دیکھنے کی کوشش کرتا/کرتی ہوں۔	5	4	3	2	1
4	جب میں اچھا محسوس نہیں کر رہا ہوتا/رہی ہوتی تو مجھے ایسا لگتا ہے کہ دوسرے لوگ شاید مجھ سے زیادہ خوش ہیں۔	5	4	3	2	1
5	میں اپنی ناکامیوں کو انسانی زندگی کی حقیقتوں کے طور پر دیکھتا/دیکھتی ہوں۔	5	4	3	2	1
6	میں جب کسی بہت ہی مشکل وقت سے گزر رہا ہوتا/رہی ہوتی ہوں تو میں خود سے اس توجہ اور نرمی کا برتاؤ کرتا/کرتی ہوں جسکی مجھے ضرورت ہوتی ہے۔	5	4	3	2	1
7	جب مجھے کوئی چیز پریشان کرتی ہے تو میں اپنے جذبات کو متوازن رکھنے کی کوشش کرتا/کرتی ہوں۔	5	4	3	2	1
8	جب میں کسی ایسے کام میں ناکامی کا شکار ہو جاؤں جو کہ میرے لیے اہم ہو تو میں خود کو تنہا محسوس کرتا/کرتی ہوں۔	5	4	3	2	1
9	جب میں اچھا محسوس نہیں کر رہا ہوتا/رہی ہوتی تو میرے اوپر ہر غلط چیز کو فوری طور پر ٹھیک کرنے کا جنون سا سوار ہو جاتا ہے۔	5	4	3	2	1
10	جب میں کسی وجہ سے ناکامی سے دوچار ہوتا/ہوتی ہوں تو میں خود کو باور کرواتا / کرواتی ہوں کہ ناکامی کے احساس سے اکثر ہی لوگ دوچار ہو جاتے ہیں۔	5	4	3	2	1
11	اپنی ذات کی کمیوں اور خامیوں کو میں نہ صرف ناقابل قبول سمجھتا/سمجھتی ہوں بلکہ ان پر کڑی تنقید بھی کرتا/کرتی ہوں۔	5	4	3	2	1
12	اپنی ذات کے وہ پہلو جو مجھے ناپسند ہیں ان کے لیے میرا رویہ عدم برداشت اور بے صبری کا ہوتا ہے۔	5	4	3	2	1

Appendix F

Authors' Permissions

Narcissistic Personality Inventory



Subject: Permission to Use Narcissistic Personality Inventory (NPI-13) for Research Study

1 message

W. Keith Campbell <wkeithcampbell@gmail.com>
To: moneeba bukhari <moneeba.bukhari02@gmail.com>

Tue, 19 Mar 2024 at 7:54 pm

You have my permission to use the scale. Good luck with your research.

All the best,
Keith

W. Keith Campbell
www.wkeithcampbell.com
[Quoted text hidden]

Self-enhancement scale



Subject: Request for Permission and Access to Self-Enhancement Subscale of the Self-Enhancement and Self-Protection Scale (SESP)

1 message

Constantine Sedikides <C.Sedikides@soton.ac.uk>
To: moneeba bukhari <moneeba.bukhari02@gmail.com>

Thu, 16 May 2024 at 4:39 pm

Dear Moneeba,

You do not need my permission to use the scale. It can be used by all. Good luck with your research.

Best,
Constantine

From: moneeba bukhari <moneeba.bukhari02@gmail.com>

Sent: 16 May 2024 00:35

To: Constantine Sedikides <C.Sedikides@soton.ac.uk>

Subject: Subject: Request for Permission and Access to Self-Enhancement Subscale of the Self-Enhancement and Self-Protection Scale (SESP)

You don't often get email from moneeba.bukhari02@gmail.com. [Learn why this is important](#)

CAUTION: This e-mail originated outside the University of Southampton.

[Quoted text hidden]

Impulsivity-8 scale



moneeba bukhari <moneeba.bukhari02@gmail.com>

Subject: Permission to Use Impulsivity-8 Scale English Adaptation for Research Study

Beierlein, Constanze <Constanze.Beierlein@hshl.de>
To: moneeba bukhari <moneeba.bukhari02@gmail.com>

Wed, Mar 20, 2024 at 12:35 AM

Dear Ms. Bukhari and Dr. Mushtaq,

thank you very much for your interest in the scale. We are pleased that you will use it in your study. If you have developed a translation into Urdu, we would appreciate if you send us the items for our scale translation collection.

All the best for your study and for the use of the scale.

Best regards,
Constanze Beierlein

Von: moneeba bukhari
<moneeba.bukhari02@gmail.com>

Gesendet: Dienstag, 19. März 2024 20:17

An: Beierlein, Constanze

Betreff: Subject: Permission to Use Impulsivity-8 Scale English Adaptation for Research Study

[Quoted text hidden]

Counterfactual Thinking Negative Events Scale



Subject: Permission to Use Counterfactual Thinking Negative Events Scale (CTNES) for Research Study

1 message

Mark Rye <mrye@skidmore.edu>
To: moneeba bukhari <moneeba.bukhari02@gmail.com>

Tue, 19 Mar 2024 at 8:51 pm

Greetings!

Yes, you are welcome to use the CTNES in your research. Best wishes with your project!

Mark

On Mar 19, 2024, at 4:10 AM, moneeba bukhari <moneeba.bukhari02@gmail.com> wrote:

You don't often get email from moneeba.bukhari02@gmail.com. [Learn why this is important](#)
[Quoted text hidden]

Self-compassion Scale – Short Form



1912 Speedway, STE 504, Austin, Texas, 78712-1289 • Mail Code: D5800 • (512) 471-4155 • Fax (512) 471-1288

To Whom It May Concern:

Dr. Kristin Neff grants permission to use the Self-Compassion Scale Short Form (Raes et al., 2011) for any purpose whatsoever, including research, clinical work, teaching, etc. Please cite:

Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy*. 18, 250-255.

Permission is also given to translate the Self-Compassion Scale Short Form using the analytic approach to validate the factor structure that was established in:

Neff, K. D., Tóth-Király, I., Yarnell, L., Arimitsu, K., Castilho, P., Ghorbani, N.,... Mantios, M. (2019). Examining the Factor Structure of the Self-Compassion Scale using exploratory SEM bifactor analysis in 20 diverse samples: Support for use of a total score and six subscale scores. *Psychological Assessment*, 31 (1), 27-45.

Best wishes,

Kristin Neff, PhD