



**DARK TRIAD TRAITS PREDICTS ACADEMIC DISHONESTY
WITH THE MEDIATING ROLE OF HYPERCOMPETITIVENESS
AMONG UNDERGRADUATE UNIVERSITY STUDENTS**

A thesis

Presented to School of Professional Psychology

Bahria University, Islamabad Campus

In Partial Fulfillment
of the Requirement for the
Degree of Bachelor of Sciences
(BS) Psychology

By
Marwa Aamir
Rumsha Kashif

JUNE 2023

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1. The candidate presented at a pre-completion seminar, an overview and synthesis of major findings of the thesis and that the research is of a standard and extent appropriate for submission as a research project.
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DECLARATION OF AUTHENTICATION

We certify that the work presented in this research project, to the best of our knowledge and is our own. All the sources used, and any help received in the preparation of this thesis have been acknowledged. We hereby declare that we have not submitted this material, either in whole or in part, for any other degree at this or any institution.

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DEDICATION

This dissertation is dedicated to our parents, siblings, friends, teachers, and our supervisor Mr. Shaf Ahmed—all of whom have demonstrated their love and support throughout the arduous process of undergrad school. Without these people, we would not have had the resolve to finish this monumental milestone. They have taught us how to be consistent in life and to never give up on our dreams. Their love and reinforcement are what made this easy for us.

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ACRONYMS

SD3	Short Dark Triad Scale
Narcsm	Narcissism
Machv	Machiavellianism
Psypth	Psychopathy
ADS	Academic Dishonesty Scale
CE	Cheating in Examination
PL	Plagiarism
OH	Outside Help
PC	Prior Cheating
FF	Falsification
LyA	Lying about Assignment
HIA	Hypercompetitiveness in Academia

ABSTRACT

Academic cheating has become an increasingly pervasive concern in educational institutions, posing critical challenges to academic integrity and its effectiveness. The purpose of this study was to investigate Academic Dishonesty in undergraduate students and its relationship with Dark Triad Traits i.e., Narcissism, Machiavellianism and Psychopathy with the mediating role of Hypercompetitiveness in Academia. There is minimum research on this phenomenon. The study was conducted on 420 Pakistani universities 'undergraduates, age ranges (18 to 25 years). Results suggest that academic dishonesty was significantly positively related to dark triad traits and hypercompetitiveness was found to have a mediating role in these study variables. Similarly, it was revealed that males have more Machiavelli and psychopath traits than females and females are more likely to engage in outside help, plagiarism, cheating in examination, prior cheating, falsification as well as lying about assignments. Some significant difference in family system were found such as students with nuclear family system have more narcissistic and psychopath traits than a joint family student and lower economic status students have more Machiavelli and psychopath traits than others. This research provides additional information about the impact of dark triad traits on examination cheatings, plagiarism, lying about assignments, prior cheating, outside help in students and has implications for the development of educational policies and interventions regarding academic cheating. It would be beneficial if future research continues exploring the relationship between the study variables, by finding other contributing factors across different cultures.

Key words: Academic Dishonesty, Dark triad traits, Narcissism, Machiavellianism, Psychopathy, Hypercompetitiveness in Academia, Undergraduate students

CHAPTER 1

INTRODUCTION

1.1. Academic Dishonesty

Academic dishonesty such as cheating in examinations, plagiarism, copying the work of others without their consent comes under the definition of academically dishonest conduct and is considered an insidious and global problem. Approximately between 60% and 95% of undergraduate students engage in dishonest tactics in their university life at some point (Burton et al., 2011). The increased usage of the internet has also highly influenced students to employ academically dishonest behaviors because the material is easily accessible. Hesley et al., (2013) has stated that academic dishonesty is a “maladaptive response to academic challenge”.

Research conducted by Eriksson and McGee (2015) in an Australian university has illustrated that 55.56% of people had taken someone else’s assignment and has shown it as their own work, another 48.61% were involved in unapproved partnership on assignments, whereas another 44.44% had engaged in plagiarizing someone else’s work. A few studies were carried out in Kenyan universities which has shown that up to 82% of respondents had admitted to cheating behavior during their examinations (Musau & Boibanda, 2018). These statistics are high, given that the purpose of examinations is meant to assess what one has learnt.

Academic dishonesty is one of the major concerns of the researchers as it’s not only exerting influence on the morality principle of the individual, but it also affects the practical implications of what one has learned in university and whether he/she will be able to use that knowledge in practical life. If a student lacks the knowledge that has been taught in university, he or she will not be able to imply it on his/her career. Despite the efforts to avert it, academic dishonesty has persisted over a long-time period and its prevalence has escalated. If this behavior is continued outside the educational setting specifically in a scientific career can have an appalling consequence for science, which can also cost a life as clinical decision will jeopardize patients’

health, a misuse of already scarce resources on unproductive research, and eventually lack of public trust in science. Specifically, the fabrication of data, research fraud (copying someone's research work and claiming it as their own work), and the usage of problematic and questionable research practices has highly affected the trustworthiness of empirical research practices. (Anvari & Lakens, 2019; Fanelli, 2009; John et al., 2012; Stürmer et al., 2017). Subsequently, research integrity is crucial for the credibility of science, therefore understanding that which personality trait can better predict these kinds of unethical academic practices is extremely crucial to develop constructive and effective interventions.

As academic dishonesty is considered an undesirable behavior in the academic setting, it can be hypothesized that personality traits may contribute to the academically dishonest behavior. The last decade has seen a dramatic increased interest in investigating the role of personality factors in explaining academically dishonest behavior.

As per the findings of Jurdi et al., although Canada is a fully developed country yet academic dishonesty (especially in higher education) in the form of plagiarism and cheating prevails in high rate. Moreover, he stated that the 80% of his respondents were agreed on the fact that age, time, hour's management, learning strategies have essential role in academic dishonesty and concluded that 81.0% respondents confirmed that doing assignments or exam for others as academically dishonest and a lot of respondents accepted that they purchased research papers and published the same by their her/his name. According to Warinda (2016), cheating in examinations and plagiarism were found to be the main indicators of academic dishonesty. Many Previous studies have shown correlations between the personality traits and antisocial behaviors such as stealing, delinquency, violence and general law breaking (Ulloa et al., 2016; Van der Linden et al., 2015; Ljubin – Golub et al., 2017).

While we are familiar with the prevalence, consequences, and nature of academically dishonest behavior, comparatively the cause of this academically dishonest attitude is an understudied construct (Simkin & McLeod, 1970). In previous studies, the Big Five factors (neuroticism, extraversion, and openness to experience, agreeableness, and conscientiousness) have been considered the most dominant. On the other hand, some researchers have found out that the dimensions of agreeableness and conscientiousness (Giluk & Postlethwaite, 2015) are

significantly correlated with academic dishonesty while others studies have discovered that extraversion, openness to experience and conscientiousness (Masood & Mazahir, 2015) to be more significant traits in predicting academic dishonest behavior in people whilst others found out that only extraversion (Zhang et al., 2018) trait will be a predictor to engage in dishonest behavior.

However, the Big Five model has been criticized on the failure to sufficiently describe antisocial behaviors which is how research began to take interest in exploring dark triad traits relationship with academically dishonest behavior. There are opportunities to make an “individual” the focus of our attention instead of the environmental explanation of this behavior. When it comes to academic dishonesty, it is important to understand why some individuals choose to violate laws (cheat) while others do not. Research suggests that students who cheat in school are more likely to engage in unethical and dishonest behavior in the workplace as well (Grimes, 2004; Rakovski & Levy, 2007; Hardling et al., 2004; Lawson, 2004). Fida et al., (2018) found that cheating behavior during college predicts cheating in the workplace.

Surveys have shown a significant increase in the number of students engaging in cheating behaviors during exams from 23% to 84% between 1940 and 1982, with students at rural colleges cheating more frequently (Robinson et al., 2004; Ogilby, 1995). The use of technology has also contributed to an increase in academic dishonesty due to easy access to materials (Scanlon & Neumann, 2002).

As the number of educational institutions continues to grow, it is crucial to assess the impact of academic dishonesty on future professionals and develop appropriate policies to minimize these practices in the education sector.

1.2. Dark triad traits

The Dark Triad of personality is a cluster of three socially aversive personality dispositions (Narcissism, Machiavellianism and Psychopathy; Paulhus and Williams 2002). Regardless of the assumption that all three Dark Triad traits are distinct dimensions of personality, some evidence suggests that all of them are overlapping on a “Dark Core” (Bertl et al., 2017; Book et al., 2015; Jones & Figueredo, 2013; Moshagen et al., 2018; Tran et al., 2018). This Dark Core and its traits are defined by the tendency to maximize one’s status, monetary values, as well as the feelings of

superiority, even if they are at a cost of others (Moshagen et al., 2018). Some studies shows that Individuals whose Machiavelli trait is dominant, they carefully plan their cheating (Williams et al., 2010), and individuals high in Narcissism trait tend to take risky decisions (e.g. cheat in examinations) (Chatterjee & Hambrick, 2007) and they often lie in selection interviews (Paulhus et al., 2013).

1.2.1. Narcissism

Narcissistic personality disorder (NPD) is a pattern of grandiosity, need for admiration, and lack of empathy per the Diagnostic and Statistical Manual of Mental Disorders (DSM–5). According to American Psychological association, Narcissism is the excessive self-love or egocentrism. Subclinical or normal Narcissism emerged from Raskin and Hall’s (1979) attempt to describe a subclinical version of the DSM-defined personality disorder. Some research conducted in North America discovered that Narcissism is characterized by inflated, positive self-views (Brunell et al., 2011); a desire for admiration, intolerance for failure and negative feedback from anyone (Paulhus, 2014). It is also connected to deviant, risk taking behavior, and an aspiration to win at all costs (Watts et al., 2013).

According to Ackerman et al., (2011), there are two models of Narcissism: a three-dimensional model proposed by Ackerman et al., (2011) and a two-dimensional model suggested by Back et al. (2013). Ackerman et al., (2011) model describes adaptive and maladaptive Narcissism. Adaptive Narcissism refers to self-perceived leadership abilities, while maladaptive Narcissism includes two traits: Grandiose Exhibitionism and Entitlement/Exploiteness. Grandiose Exhibitionism involves self-absorption, vanity, and exhibitionistic tendencies, while Entitlement/Exploiteness encompasses entitled beliefs and manipulative behaviors.

Within maladaptive Narcissism, the Entitlement/Exploiteness trait is considered socially toxic and aversive. On the other hand, Grandiose Exhibitionism has both negative and positive aspects, as found by Ackerman et al., (2011).

1.2.2. Machiavellianism

The phenomenon of Machiavellianism originates from the renowned personality Niccolò Machiavelli, 16th-century politician and a diplomat from Italy. According to a research, Machiavellianism is a personality trait characterized by individuals who prioritize maintaining their resources and privileges, regardless of the cost. People with this trait tend to be practical, tactical, and strategic in their approach, but they can also display immoral, manipulative, and cynical behaviors (Christie & Geis, 1970; Jones & Paulhus, 2009). Machiavellianism is described by having disregard for moral values as well as manipulating and exploiting others (Dahling et al., 2012). A desire of a person whose Machiavellian trait is dominant tends to represent self-interest e.g. (self-promoting and self-protecting), agentic orientations as well as impulse control. The cognitions of a Machiavellian can be described into a negative world view (e.g., cynicism, immorality) and negative view of people (e.g., showing suspiciousness, instrumentalism). The affect domain of a Machiavellian involves a low level of remorse and emotional attachment towards others.

One of the comprehensive aspects is Machiavellian behavior, which has anti-social tendencies, bi-strategic tactics, self-beneficial and antagonistic behavior (opposite), detachment issues, exploitation and manipulation of other people. Manipulation is one of the significant elements of a Machiavellian personality, which can be analyzed into some more specific behavioral patterns, that includes tactical manipulation, presentation management, adapting the environment flexibly, deceit and duplicity, concealment of the whole personality (agenda, their imperfections, state-related), and specific manipulative tendencies for instance emotionally manipulate others, ingratiation, persuading someone for something even if it's very little, supplication, intimidation, showing dominance and power over others, or self-disclosure.

1.2.3. Psychopathy

Psychopathy is a term used to describe individuals who exhibit cold and uncaring behavior, showing little empathy towards others. This lack of empathy often leads to inappropriate interpersonal aggression (Jonason et al., 2012). Psychopathy is characterized by high levels of impulsivity and thrill-seeking, coupled with low levels of empathy (Hare, 1985; Lilienfeld &

Andrews, 1996). Psychopathy is characterized by making impulsive decisions, manipulating others, a lack of guilt, and disregard for others' well-being (O'Boyle et al., 2015). Hare and Neumann (2008) described four dimensions of Psychopathy: Firstly, there is an interpersonal dimension that includes (superficial charm, grandiose self-worth, pathological deception, and manipulative), then the second domain is affective which has these characteristics such as (lack of remorse and empathy, shallow affect), the third dimension is antisocial conduct (poor behavioral control, criminal versatility, and juvenile delinquency), and lastly there is lifestyle domain that has (stimulation seeking, impulsivity, and irresponsibility) these characteristics.

A person may engage in dishonest academic behavior if he/she feels and perceives that there is competition between them and their peers. He/she will feel the constant urge to perform better than others so that they can prove that they are ambitious, competitive and can perform better than others which eventually leads them to copy other's work (plagiarism) and engage in cheating behavior.

1.3. Academic Competitiveness

It's a measure of a person's aspiration to surpass others. A competitive individual is more likely to perceive a situation as a competition, albeit there is no explicit winner or a loser. Academic competitiveness is an aspiration to excel academically and outperform others, which is a very prevalent trait among students. Academic competitiveness is a significant concern in our educational system. Our educational system encourages and promotes competition in students at a young age. They feel pressurized from both internal and external sources to perform better in school. This pressure may arise from peer group, parent's high expectation, teachers, expectations from own self, or to maintain their self-image (Matthew Aaron Cretsinger, 2003).

If a student perceives a learning environment as competitive, it will form the thinking pattern of him, can shape how he/she feels, and behaves (Ames & Archer, 1988; Deutsch, 1949). Students who perceive competition among their classmates tend to focus on goals and activities that involve comparing and regulating their performance, aiming to outperform their peers (Bardach et al., 2019). This emphasis on competition can have important consequences for their education, including academic performance and access to post-secondary education (Elliot &

Hulleman, 2017). Competition can be considered as a quest for status emerging from a need for societal acceptance (Balsamo et al., 2015).

Although the dark triad personality traits are considered a negative and offensive part of the personality, they are present and can be analyzed in normal populations (Furnham et al., 2013). There is a huge gap between the research that is specifically based on dark triad traits relationship with academic dishonesty. Particularly, we conducted this research on a Pakistani culture to grasp better why they engage in such behavior so that the researchers will be able to develop strategies according to this culture context. Based on these perspectives, a study inspecting the relationship between the dark triad traits and tendency for engaging in academically dishonest behavior in a non-clinical population was deemed necessary.

Muris et al., (2017) proposed the need to investigate other variables along with the dark triad personality traits, to better understand deviant behaviors. By comprehending the relationship between the Dark Triad traits, academic competitiveness, and academic dishonesty, organizations can come out with different interventions and provide help to students who may be at risk of engaging in this behavior therefore this current study aimed to investigate the relationship between Dark Triad traits and academic dishonesty, with the mediating role of academic competitiveness.

1.4. Literature Review

The concepts of Academic Dishonesty and Academic Competitiveness are highly relevant to our academic system. According to research studies, students engage in these behaviors due to various factors, but this research study will investigate its relationship with negative personality traits i.e., Dark Triad traits (Narcissism, Machiavellianism, and Psychopathy). In this chapter, appropriate literature related to the Dark Triad traits, Academic Dishonesty and Academic Competitiveness will be discussed.

1.4.1. Academic dishonesty

Academic dishonesty is widely spread among students all over the world. As per definition, it includes any act of plagiarism, cheating on tests, exchanging work with other students, buying assignments/any other work from students or the Internet, and having other students write assignments or even examinations (Underwood & Szabo, 2003). The problem of academic

dishonesty has increased over the period, and it has drawn the attention of researchers towards itself.

Empirical evidence from different research studies shows that there are various factors which can lead a person to academic dishonesty such as desperation to obtain good grades to secure a good job without spending much time in the labor market (Nnam & Otu, 2015; Saana et al., 2016), socio-demographic characteristics (e.g., age, gender etc.) (Nnam & Inah, 2015; Saana et al., 2016), cultural context (Blachnio et al., 2021) etc.

Researchers conducted a study to understand the frequency of academic dishonesty and the characteristics of students who engage in different forms of cheating. They surveyed a sample of 292 undergraduate students at a large public university in the USA. The study revealed that 57.19% of the students reported engaging in some form of academic dishonesty in the previous six months (Hensley et al., 2013). The most common form of cheating reported was cheating on tests, with 51.71% of the students admitting to it. The study also found that male students and students enrolled in a study strategies course had significantly higher rates of plagiarism and making false excuses compared to their female counterparts and students in a science course, respectively. Furthermore, the research indicated that students with low grades were more likely to provide false excuses for their academic dishonesty (Hensley et al., 2013).

A qualitative study conducted by McCabe et al., (1999) who is a leading researcher on academic dishonesty in higher education, aimed to understand the factors that contribute to academic dishonesty. The study identified various factors that can lead students to engage in dishonest behavior, such as the pressure to achieve high grades, parental expectations, a strong desire for success, the need to secure a job, laziness, lack of responsibility, lack of personal character, poor self-image, lack of pride in doing a good job, and a lack of personal integrity (McCabe et al., 1999). These factors may arise due to the intense competition for top positions in the job market and limited spots available in prestigious business, law, and medical schools, placing significant pressure on today's undergraduate students to excel. Research suggests that these pressures often contribute to students making the decision to engage in various forms of academic dishonesty (McCabe et al., 1999).

A study was conducted to examine learning demands and personal functioning as predictors of academic dishonesty and the sample size was 289 participants (Amaka et al., 2022).

Findings show that personal functioning predicted academic dishonesty but learning demands did not predict academic dishonesty individually (Amaka et al., 2022). However, the learning demands and personal functioning jointly predicted academic dishonesty among students and the research also showed the prevalence of academic dishonesty as quite high (44.6%), confirming the research outcome of Alsuwaileh et al., (2016). According to a study conducted by Alsuwaileh et al., (2016) it was found that academic dishonesty is quite common among students. The researchers used a mixed method approach to investigate this issue. The findings indicated that academic dishonesty is widespread among students at the College of Basic Education. This is because the perceived benefits of engaging in dishonest behavior are high, while the chances of being caught and the severity of the consequences are relatively low. In other words, students believe that cheating or engaging in academic dishonesty can provide them with advantages, and they feel that the risk of getting caught and facing severe penalties is not significant (Alsuwaileh et al., 2016).

According to a study conducted by the Josephson Institutes (2012) with 20,000 secondary students, it was discovered that a significant number of students engaged in academic dishonesty. The study found that 32% of students plagiarized content from the internet, 51% cheated on exams, and 74% copied their peers' homework assignments (Josephson Institutes, 2012). Similarly, at the postsecondary level, research conducted by Schmelkin et al., (2008) indicated that a considerable percentage of undergraduate students, ranging from 50 to 70%, admitted to some form of academic dishonesty during their coursework (Schmelkin et al., 2008). These findings confirm that academic dishonesty has been a prevalent and normalized behavior among students for many years.

A study conducted by Balbuena and Lamela (2015) aimed to understand the prevalence, motives, and perspectives on academic dishonesty in higher education. The study used both quantitative and qualitative methods and involved a sample of 30 third-year students in a four-year bachelor's program. The findings revealed that cheating on assignments or homework was the most reported form of academic dishonesty, with 80% of participants admitting to engaging in this behavior multiple times. This was followed by cheating during tests or exams, reported by 67% of the participants, working in groups on individual assignments (57%), and plagiarizing from printed materials (37%) (Balbuena & Lamela, 2015). The study also indicated that students perceived these dishonest behaviors as normal activities in school. They attributed their actions to various factors, including the incompetence of teachers and students, an unfavorable learning environment,

and lenient enforcement of school policies. The findings also revealed ethical dilemmas, such as differing opinions on the morality of unfair academic practices and the relative importance of deceit compared to achieving success (Balbuena & Lamela, 2015).

In 2021, a cross-sectional study was conducted across nine countries to investigate the relationship between personal and cultural factors and academic dishonesty (Blachnio et al., 2021). The study included a total of 2,586 participants from Pakistan, Israel, Italy, India, the USA, Peru, Romania, Ghana, and Poland. The researchers hypothesized that variables such as perfectionism, self-control, distress, and independent self-construal could influence the occurrence of academic dishonesty among students from different cultures. The findings revealed that the research model was well-suited and provided a good fit for six countries: Pakistan, the United States, Romania, Ghana, Israel, and Poland. However, the model did not fit well for Italy, India, and Peru (Blachnio et al., 2021).

Additional research has been conducted to examine the cultural differences in academic dishonesty, particularly in terms of collaborative cheating. The findings suggest that countries traditionally seen as collectivistic, where the emphasis is on group cohesion and cooperation, tend to have a higher prevalence of collaborative cheating compared to countries identified as individualistic cultures (McCabe et al., 2008; Zhang & Yin, 2019). This means that in cultures where collaboration and working together are highly valued, there may be a higher occurrence of students engaging in cheating behaviors as a group.

A research study was conducted in Pakistan to investigate the factors contributing to the prevalence of academic dishonesty among undergraduate students in HEC recognized universities. The study focused specifically on students studying education in institutions located in Punjab (Quraishi & Aziz, 2017). The sample consisted of 1000 undergraduate students randomly selected from eight different institutes. The findings of the study revealed a significant and high prevalence of academic dishonesty among students in higher education in Punjab. Both male and female students reported engaging in academically dishonest behaviors, but it was observed that male students were more likely to engage in academic dishonesty due to parental pressure to maintain a high GPA (Quraishi & Aziz, 2017).

However, in Pakistan, most research on academic dishonesty focuses on its prevalence, demographic factors, and situational factors. However, a different research study was conducted

to investigate the influence of individual factors, situational factors, and ethical factors on the behavior of academic dishonesty among students (N=500) across four universities (Ellahi et al., 2013). The findings of the study indicated that individual, situational, and ethical factors have an impact on how students rationalize academic dishonesty. These rationalizations then lead to actual engagement in academic dishonesty. Additionally, the absence of well-defined policies regarding academic dishonesty in higher education contributes to the occurrence of such behaviors among students (Ellahi et al., 2013).

This shows that there is a high prevalence of academic dishonesty among the students but the reasons behind the behavior are different. However, we have the scarcity of local literature in this regard and to address that issue, which is somehow underrated, there is an immense need of research.

1.4.2. Personality Factors

Researchers have explored the connection between academic dishonesty and personality traits, as well as other factors that contribute to this behavior. In a recent study conducted by Wang and Zhang (2022), they focused on the HEXACO model, which is a newer personality model that expands on and replaces the Big Five personality model. The researchers surveyed 370 university students to examine the link between personality traits (according to the HEXACO model) and general attitudes towards following rules. They found that both personality traits and attitudes towards rules significantly predicted academic dishonesty among the participants (Wang & Zhang, 2022).

In a meta-analysis conducted by Lee et al., (2020) predictors of academic dishonesty were examined. The researchers discovered a strong relationship between agreeableness and academic dishonesty, indicating that individuals who scored low on agreeableness were more likely to engage in dishonest behaviors. They also found that openness was associated with self-efficacy and personal ability, which were negatively related to academic dishonesty. On the other hand, neuroticism was positively associated with academic procrastination, which in turn increased the likelihood of engaging in cheating behaviors (Lee et al., 2020).

1.4.3. Dark Triad Traits

Other than these models, about ten years ago, Paulhus and Williams (2002) introduced the concept of the 'Dark Triad,' which refers to a combination of three distinct but related negative personality traits. Since then, the unique characteristics of the Dark Triad have captured the attention of researchers, leading to numerous studies and extensive citations (Furnham et al., 2013). The Dark Triad comprises three traits: Machiavellianism, Narcissism, and subclinical Psychopathy. These traits are associated with individuals exhibiting socially undesirable and maladaptive behaviors (Paulhus & Williams, 2002).

Research studies have shown a connection between academic dishonesty and the first trait of the Dark Triad, which is Machiavellianism. People with high levels of Machiavellianism are often opportunistic and self-centered (Gunnthorsdottir et al., 2002). They are more likely to cheat if they believe the chances of getting caught are low and if there is a rational argument that justifies their actions (Cooper & Peterson, 1980).

The second trait of the Dark Triad, Narcissism, is characterized by an excessive focus on maintaining a positive self-image. Individuals with high levels of Narcissism may disregard ethical norms to uphold their inflated self-views. Some studies suggest that individuals with high Narcissism scores tend to engage in impulsive and risky decision-making (Chatterjee & Hambrick, 2007) and fraudulent behaviors (Johnson et al., 2013). They may prioritize impressing others and preserving their self-image over adhering to ethical standards.

The third trait of the Dark Triad, subclinical Psychopathy, is characterized by a lack of empathy and a tendency towards thrill-seeking behavior (Paulhus & Williams, 2002). Individuals with subclinical Psychopathy may have a reduced ability to understand or care about the feelings of others. This trait increases the likelihood of engaging in acts of academic dishonesty. They may be more inclined to take risks and engage in unethical behavior for the sake of personal gain without considering the impact on others (Paulhus & Williams, 2002). A research study finding indicated disinhibition aspect of Psychopathy predicts the frequency of students' academic dishonesty (Baran & Jonason, 2020). However, recent research provides contrary findings (Esteves et al., 2021).

In a recent study conducted by Lima Esteves et al., (2020) in Brazil, the researchers examined the relationship between the Dark Triad personality traits and self-reported academic cheating among 343 undergraduate students. They found that both Machiavellianism and Narcissism were positively associated with self-reported academic cheating behaviors. However, Psychopathy was not linked to self-reported academic cheating behaviors. Interestingly, the study did not find a significant difference in self-reported academic cheating behaviors between men and women. These findings contribute to our understanding of how personality traits can influence academic cheating (Esteves et al., 2020).

Paulhus et al. conducted a study involving undergraduate students to explore the connection between the Dark Triad traits (Narcissism, Machiavellianism, and Psychopathy) and deception in various contexts, including academic dishonesty and mating. The study included 462 participants. The results indicated that Psychopathy and Machiavellianism were associated with a higher likelihood of lying in different situations, including academic dishonesty, and mating. Additionally, Psychopathy was linked to experiencing more positive emotions when lying, while Machiavellianism was associated with increased cognitive effort required for deception. Furthermore, the study found that men scored higher than women on Machiavellianism and Psychopathy within the Dark Triad traits. In the academic context, men reported experiencing more positive emotions when lying compared to women (Paulhus et al., 2014).

Similarly in a study conducted by Srirejeki et al. (2022), the researchers investigated the impact of individual factors based on the dark triad of personality and three situational factors (academic integrity culture, academic fraud ambiguity, and pressure) on students' intention to engage in academic fraud. The survey included 259 students from three universities. The findings revealed that the dark triad traits significantly influenced students' intention to commit academic fraud (Srirejeki et al., 2022). Specifically, Psychopathy had the most significant influence among the dark triad traits. The study also found significant effects of academic integrity culture and pressure on students' intention to engage in academic fraud. These findings are consistent with previous studies conducted by Zhang and Yin (2019) and Esteves et al., (2021).

In a study conducted by Vedel et al., (2017) the researchers explored the presence of Dark Triad traits (Narcissism, Machiavellianism, and Psychopathy) across different academic majors. They collected data from 487 newly enrolled students in majors such as psychology,

economics/business, law, and political science. The mean scores of the Dark Triad traits were compared among these majors. The results showed that Dark Triad traits were present across all academic majors, with notable differences in scores. The largest differences were observed between economics/business students, who had higher Dark Triad scores, and psychology students, who had lower Dark Triad scores. These findings suggest that Dark Triad traits can influence students' choices of academic majors (Vedel et al., 2017).

In a recent study by Smith et al., (2022) they investigated online cheating among business students. They argued that advancements in technology, easy access to information, competitive pressures, and the rise of websites offering shortcuts to learning have contributed to an increased potential for academic misconduct. The researchers examined the interaction between Dark Triad personality traits (Narcissism, Machiavellianism, and Psychopathy) and elements of the Fraud Diamond (capability, opportunity, motivation, and rationalization) to understand how they influence students' decisions to use these websites. The findings revealed that each Dark Triad trait had a significant impact on at least one element of the Fraud Diamond. These elements, in turn, had a direct or indirect positive association with students' intentions to utilize and reported usage of these websites for academic purposes (Smith et al., 2022). This study sheds light on the complex interplay between personality traits, contextual factors, and students' inclination towards engaging in online cheating activities.

In Pakistan, a study conducted by Anwar and Zubair (2019) aimed to understand the relationship between the dark triad of personality, social skills, and lying behavior in adolescents. The study involved 450 participants. The findings revealed that the dark triad traits (Machiavellianism, Narcissism, and Psychopathy) had a negative impact on social skills and a positive impact on lying behavior among adolescents. Additionally, lying behavior was found to be positively associated with social skills, indicating that those who engaged in more lying behavior exhibited better social skills. The study also found gender differences, with boys showing higher levels of dark triad traits and lying behavior compared to girls (Mubeen Anwar & Aisha Zubair, 2019). It is important to note that this study does not provide sufficient evidence to determine whether academic dishonesty predicts dark triad traits in Pakistan. Further research and literature are necessary to explore this relationship in more detail.

1.4.4. Academic Competitiveness

As mentioned above, other than models of personality traits (dark triad), there are some other traits or factors that also facilitates/mediates academic dishonesty. According to a study by Emerson and Smith (2021), the issue of academic dishonesty is influenced not only by personality traits such as the dark triad but also by other factors. The researchers suggest that competitive pressures play a significant role in exaggerating the problem of academic dishonesty. It is important to note that individuals displaying dark triad traits, which include Narcissism, Machiavellianism, and Psychopathy, tend to exhibit competitiveness as well (Emerson & Smith, 2021).

A study conducted by Serenko and Choo (2020) examined the influence of Dark Triad personality traits (Narcissism, Machiavellianism, and Psychopathy) and co-worker competitiveness on knowledge sabotage behavior among coworkers. The research involved 150 participants. The findings revealed that all three personality traits, namely Narcissism, Machiavellianism, and Psychopathy, significantly predicted individual knowledge sabotage behavior. Among these traits, Psychopathy had the strongest impact. Additionally, the study found that co-worker competitiveness was associated with the perception that colleagues engage in knowledge sabotage, which in turn had a direct positive effect on individual knowledge sabotage behavior (Serenko & Choo, 2020).

Vaughan and Madigan (2020) conducted a study to investigate the relationship between Dark Triad traits, sport task performance, and competitiveness. The findings revealed that individuals with Dark Triad traits exhibited better performance in sports tasks. This effect was mediated by the athletes' competitive orientations, indicating that their competitive mindset played a role in translating the Dark Triad traits into improved performance (Vaughan & Madigan, 2020).

The relationship of Machiavellianism and academic competitiveness has not been studied directly. However, Mudrack and his colleagues (2011) conducted a study with 263 senior-level undergraduate business students to investigate the relationship between Machiavellianism, competitiveness, and ethical implications. The findings revealed that individuals who displayed high levels of competitiveness also tended to exhibit high levels of Machiavellianism. However, these individuals were not characterized by ethical idealism. On the other hand, individuals who

were focused on personal development and growth displayed ethical idealism but did not exhibit Machiavellian traits (Mudrack et al., 2011).

The relationship of Narcissism and competitiveness has been studied. A study conducted by Chan and Cheung (2020) examined the relationship between Narcissism, competitiveness, and mental health problems among college students, considering gender differences. The findings showed that males had higher levels of Narcissism and competitiveness compared to females. Additionally, Narcissism was associated with competitiveness in both genders. In terms of mental health problems, both hypercompetitiveness and covert Narcissism were positively related to mental health problems in females. However, hypercompetitiveness was independently associated with mental health problems only in females (Chan & Cheung, 2020).

Westerman et al., (2011) conducted a study comparing Narcissism levels between undergraduate business students and psychology students. They found that Narcissism levels were significantly higher among business students. The study also explored whether business schools contribute to the reinforcement of Narcissism in the classroom and examined the potential influence of Narcissism on students' salary and career expectations, which in turn may induce competitiveness among the students (Westerman et al., 2011). And as mentioned earlier, this competitiveness leads them to use dishonest means to get their way.

The last trait of the Dark Triad, Psychopathy has not been directly linked with academic competitiveness. However, in a study by Lilienfeld et al., (2000) the relationship between psychopathic attributes and competitiveness was examined. They found that hypercompetitiveness and personal development competition were the strongest predictors of primary Psychopathy. It is important to note that Psychopathy, as a trait of the Dark Triad, has not been directly linked to academic competitiveness in the research (Lilienfeld et al., 2000).

According to Ames and Archer (1988), when students view their learning environment as competitive, it affects their thoughts, emotions, and actions. In such situations, students tend to focus on outperforming their classmates (Bardach et al., 2019). This emphasis on competition can sometimes lead students to resort to inappropriate methods to achieve better performance.

Recently, a recent study conducted by L. Weissman et al., (2022) aimed to explore the factors that contribute to students' perception of academic competitiveness. They examined three

key factors: trait competitiveness, fear of failure, and general self-efficacy. The study involved 700 undergraduate students and their findings were also generalized using a larger sample of approximately half a million secondary school students from 73 countries. The results showed that students who scored higher in trait competitiveness, fear of failure, and general self-efficacy tended to perceive a more competitive learning environment. Interestingly, this relationship held true across different cultural contexts (L. Weissman et al., 2022).

Shimotsu-Dariol et al., (2017) conducted a study to explore the connection between students' academic competitiveness and their engagement in various academic behaviors. They hypothesized that academically competitive students, driven by the desire to outperform their peers, would exhibit higher levels of involvement in activities such as communicating with their instructors, engaging in out-of-class discussions with instructors, and active participation in the classroom. The findings of the study supported their hypothesis, indicating that students with a competitive mindset were more likely to engage in these involvement behaviors, which have been linked to positive learning outcomes (Shimotsu-Dariol et al., 2017). This can also be related to the communication styles of Machiavelli and narcissists as they manipulate others and do it for their personal gains or benefits (Paulhus & Williams, 2002).

However, there is a less research conducted on the academic competitiveness in Pakistan but there are some studies in which it is discussed alongside with other variables and their outcomes. Some of the research studies indicated that Pakistan has relatively highly competitive environment in education system as of many different reasons behind it (Sheikh A. et al., 2012; Khan et al., 2020). But there is a gap of research to give us the clear picture about the academic competitiveness and its role in Pakistan.

In literature, we can't find any direct associations between Dark triad traits, Perceived academic competitiveness and Academic dishonesty. Also, having undergraduate students as a population needed to be studied to get a better understanding and some practical implications. However, in Pakistan we lack literature in this regard to fill the gap. Although the variables have been studied separately but they aren't studied altogether to check their relationship with each other among students. After reviewing literature, we are determined that our study will address these gaps and will be helpful for future research and implications.

1.5. Theoretical Framework

1.5.1. Achievement Goal Theory

Achievement goal theory is one of the frameworks that explains the motivations behind individuals' achievement-related behaviors. According to Dr. Carol Dweck and Dr. Elliot Elliot (1980s), individuals' motivation and behavior are influenced by their achievement goals in various settings, including academic context, or the reasons why they engage in a task (Dweck & Elliot, 1980s). Specifically, achievement goal theory distinguishes between two main types of goals: mastery goals and performance goals (Dweck & Elliot, 1980s).

According to Elliot and McGregor (2001), individuals can have either mastery or performance goals. Mastery goals refer to the desire to develop one's abilities and improve one's competence. Individuals with mastery goals are typically motivated by a desire to learn and improve, rather than by external factors such as social comparison or competition with others. While on the other hand, performance goals refer to the desire to demonstrate one's abilities and outperform others. Individuals with performance goals are typically motivated by the desire for recognition, approval from others and to prove themselves in the competition, rather than by the intrinsic satisfaction of learning and improving (Elliot & McGregor, 2001).

Now, academic dishonesty refers to any behavior that violates academic integrity, including cheating, plagiarism, and fabrication of data. According to a study conducted by McCabe and Trevino (1993), they discovered that individuals who focus on achieving high grades and performance in their academics are more prone to engaging in academic dishonesty compared to those who prioritize learning and mastering the material. This is because individuals with a performance goal orientation prioritize their grades and accomplishments over the actual process of learning and comprehending the subject matter (McCabe & Trevino, 1993). They may feel pressure to succeed at all costs, even if it means cheating or engaging in other unethical behaviors. So, they may easily take risks to engage in dishonest behaviors to prove themselves in the perceived competition with others.

On the other hand, the dark triad traits refer to three personality traits i.e., Narcissism, Machiavellianism, and Psychopathy, that are mostly associated with unethical and manipulative behavior. A study conducted by Jones and Paulhus (2014) revealed that people who exhibit high

levels of Narcissism and Machiavellianism are more prone to engaging in academic cheating compared to those with lower levels of these traits. In other words, individuals who possess these personality traits are more likely to cheat in academic settings (Jones & Paulhus, 2014). Additionally, individuals with high levels of Psychopathy may cheat because they lack empathy, engage in risky behaviors, and do not feel guilty about their actions (Jonason et al., 2012). And as mentioned earlier people with the performance goals are motivated by desire for recognition, approval from others and to prove themselves in the competition are also turn out to be the characteristics of people exhibiting the dark triad traits.

As desire for recognition, approval, and the need to prove themselves in competition can be seen as characteristics of people with Dark Triad traits. For instance, individuals high in Narcissism have a strong desire for admiration and attention, seeking to be recognized as superior and exceptional (Campbell & Campbell, 2009) and this need for recognition often leads them to pursue activities that bring them attention and recognition, such as winning competitions or being praised for their achievements. While individuals with Machiavelli traits tend to be strategic in their approach to relationships and social interactions (Jonason et al., 2012). They may seek recognition and approval from others to an end, using social approval to gain power and control over others and they may also engage in competitive behaviors to prove their worth and gain an advantage over others. Psychopathic individuals are often impulsive and thrill-seeking and may engage in competitive behaviors to satisfy their need for excitement and stimulation (Boddy, 2014) and they may also seek recognition and approval from others as a way to gain social status and power.

Overall, the achievement goal theory provides a useful framework for understanding the relationship between academic dishonesty and goal orientations. Additionally, the dark triad traits may further contribute to this relationship by influencing individuals' motivation and values. And academic competitiveness plays the mediating role in their relationship.

1.5.2. Moral Disengagement Theory

Another theory that explains the relationship between dark triad traits and academic dishonesty with academic competitiveness is moral disengagement theory. Moral Disengagement Theory, introduced by Albert Bandura, suggests that people can mentally detach themselves from moral principles and find ways to justify or excuse their unethical actions (Bandura et al., 1996).

This theory proposes that individuals can employ various cognitive strategies to distance themselves from the consequences of their behavior. These strategies include dehumanizing their victims, downplaying the harm caused, rationalizing their actions, or attributing blame to external factors rather than taking responsibility for their own behavior. In simpler terms, this theory explains how individuals can mentally disconnect from moral standards to justify their immoral actions (Bandura et al., 1996).

The dark triad traits, which include Machiavellianism, Narcissism, and Psychopathy, have been linked to academic dishonesty. Moral disengagement theory suggests that individuals with these traits may be more inclined to engage in dishonest behavior if they can find ways to justify it to achieve their goals. Research conducted by Muraven and Baumeister (2000) found that individuals with high levels of Narcissism were more likely to engage in unethical behavior when they believed it would benefit them. Similarly, studies have shown that individuals with high levels of Narcissism are more prone to cheating in academic settings, and this relationship is partially explained by moral disengagement (Wright et al., 2018). Likewise, research has indicated that individuals with high levels of Machiavellianism are more likely to engage in academic dishonesty, and moral disengagement plays a role in this relationship (Kong et al., 2018). Lastly, Psychopathy has also been associated with academic dishonesty, and moral disengagement has been found to facilitate this association (Jonason et al., 2014).

Furthermore, there is some evidence to suggest that individuals who are highly academically competitive may be more likely to engage in moral disengagement processes to justify their competitive behavior (Pekrun et al.; 2009). For instance, they may rationalize cheating in examinations or plagiarizing papers as a means of achieving academic success, or they may dehumanize their peers and view them as hindrance to their own success. While research has also shown that exposure to highly competitive academic environments can increase the likelihood of moral disengagement (Wolters & Hussain, 2015). This may be because competition is often framed as a zero-sum game, where one person's success necessarily comes at the expense of others, which can lead to a more ruthless and morally flexible mindset so, these research evidence suggests that moral disengagement theory explains the relationship between dark triad traits, academic competitiveness, and academic dishonesty.

1.5.3. Social Facilitation Theory

Another theory known as Social Facilitation theory suggests that the presence of others can influence an individual's performance on a task, either enhancing or impairing their performance, depending on the nature of the task and the individual's level of skill (Zajonc, 1965). In the context of academic dishonesty, Social Facilitation theory may help explain how the presence of others can affect an individual's likelihood of engaging in cheating behavior.

People who possess dark triad traits, such as Machiavellianism, Narcissism, and Psychopathy, are more prone to engaging in academic dishonesty. This is because these individuals may be easily influenced by Social Facilitation, where their desire to impress or outperform others in an academic setting motivates them to cheat (Jonason et al., 2013).

Furthermore, academic competitiveness has been shown to mediate the relationship between dark triad traits and academic dishonesty (Jonason et al., 2013). Individuals who are highly competitive in an academic context may be more likely to engage in cheating or unethical behavior, particularly if they perceive that others are also engaging in such behavior. Social Facilitation theory suggests that the presence of others who are also highly competitive in an academic context may increase an individual's motivation to engage in such behavior, as they seek to outperform their peers. Conversely, the presence of others who are less competitive may decrease an individual's motivation to cheat, as they may feel less pressure to perform at a high level in that environment.

Overall, Social Facilitation theory may help explain how the presence of others and academic competitiveness can influence an individual's likelihood of engaging in academic dishonesty, particularly for individuals exhibiting dark triad traits. However, further research is required to fully understand the complex interplay between these factors.

1.6. Conceptual Framework

The conceptual framework is a formal way of presenting the relationship between the variables of the study. We assume based on the conceptual framework that there is a significant relationship between dark triad traits and academic dishonesty while academic competitiveness plays the mediating role in the relationship.

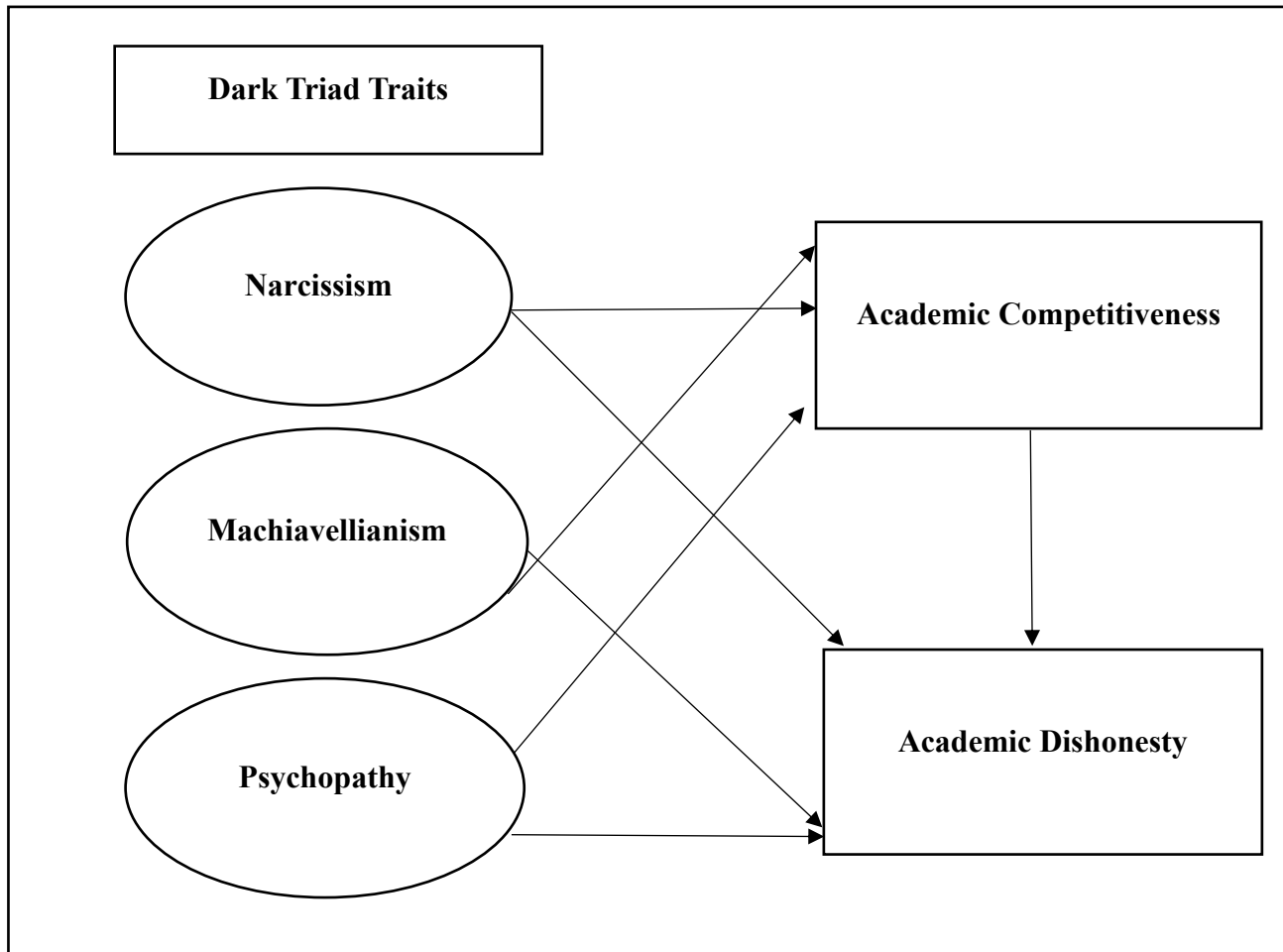


Figure 1.1. Conceptual Framework of the study.

1.7. Statement of the Problem

Academic dishonesty is considered one of the most problematic yet prevalent behaviors in university students. It's a threat to the legitimacy of quality education to produce highly qualified and skilled individuals as human resource which can consequently produce adverse effects for instance it can be a threat to life if a medical student engages in this behavior. According to Burton et al., (2011), approximately between 60% and 95% undergraduate students indulge themselves in certain dishonest behavior in their university life at some point therefore it's very significant to research about the cause behind this behavior. Researchers have discovered the associations between dark triad traits (Narcissism, Machiavellianism, and Psychopathy) and academic dishonesty however most work is based on western samples. Furnham et al., (2013) stated that although dark triad traits are considered aversive, they are still easily found in normal populations. The literature to find association between dark triad traits, academic dishonesty and academic competitiveness is sparse specifically in Pakistan and there is evidently a huge gap in this area.

The mediating role of academic competitiveness hasn't been widely studied .Therefore, due to dearth of sufficient evidence and research in this field of study, it's a necessity to investigate association between dark triad traits, academic dishonesty with the mediating role of academic competitiveness on undergraduate university students of both genders (male and female) as it's still not clear that whether sex of an individual moderates the relationship between dark triad traits, academic dishonesty and academic competitiveness.

There is a scarcity of sufficient research on this phenomenon and our research will provide relevant evidence and background to better understand the associations and respond to this deficiency in knowledge regarding these three variables.

1.8. Rationale of the study

Academic dishonesty occurs when there is a maladaptive response to an academically challenging environment (Hesley et al., 2013). Academic integrity is the base of educational institutions, that focuses on honesty and fairness. However, academic dishonesty remains a concerning problem across all educational settings. Pakistan, as a developing nation, encounters significant challenges in tackling academic dishonesty within the educational institutions. With

respect to Pakistani culture, we are more inclined to compare our children with each other that ultimately fosters hypercompetitiveness amongst children and as a result, they engage in academic dishonesty to win.

On the other hand, Dark triad trait has been considered the trio of negative personality traits and as the dark triad traits have been discovered to be linked with a range of negative consequences, including all types of unethical and aggressive behavior, manipulation, as well as antisocial behavior therefore, it is crucial to explore whether these traits are also associated with academically dishonest behavior. Dark triad traits include (Narcissism, Machiavellianism, and Psychopathy) has been investigated previously whether they predict academic cheating and the results indicated correlation between the traits and academic cheating (Lima Esteves et al., 2020).

According to L.Weissmana et al., 2022, the dispositional factors have an effect on perceived academic competitiveness and the findings supported that. This further leads us to contemplate whether dispositional factors (i.e., dark triad) have any relationship with academic dishonesty and whether perceived competitiveness can predict academically dishonest behavior as no research in our knowledge has discovered it's relationship.

Academically dishonest behavior can have consequential implications for the integrity of the education system worldwide and can eventually cause negative consequences for both the students as well as the institutions they attend. Moreover, academic competitiveness is a very common trait amongst university students, and it has been discovered to be linked with academic achievement. Hence, it is significant to investigate whether academic competitiveness is involved in the relationship between dark triad traits and academic dishonesty. We need to find in-depth evidence to investigate the base of this problematic and negative behavior in undergraduate university students.

Although dark triad traits and academic cheating have received considerable amount of attention as they are extensively studied separately therefore this research tends to reflect the link between these variables as there is no sufficient work on it. According to the literature review, there are research gaps in this regard even though it's a very prevalent phenomenon. We cannot find the direct link between academic dishonesty, dark triad traits with the mediating role of perceived academic competitiveness in undergraduate students. This study will fill in those gaps.

In the present research, we will examine how individual differences can have an influence on the likelihood to conduct academically dishonest behavior in terms of personality traits. This study will be assessing the dark triad traits along with the mediating role of perceived academic competitiveness on academic dishonesty.

Consequently, to discover the relationship amongst these three variables, this study will shed light on how they are interlinked. This research will provide us with preliminary knowledge and sufficient evidence which will eventually pave the path for further information and research. Similarly, this research will elucidate the role of gender in relation with these variable (i.e., dark triad) and whether genders will have different approach towards academic dishonesty and perceived competitiveness. Now we need to explore the causes of academically dishonest behavior to make solutions for that problematic behavior.

1.9. Research Objectives

- To check the relationship between dark triad traits, academic competitiveness, and academic dishonesty among the undergraduate university students.
- To find out that if dark triad traits and academic competitiveness predicts academic dishonesty among the undergraduate university students.
- To investigate the mediating role of academic competitiveness in between the relationship of dark triad and academic dishonesty among the undergraduate university students.
- To check the gender differences on the variables of academic dishonesty, academic competitiveness, and dark triad traits among the undergraduate university students.
- To find the socio-economic status differences on the variables of academic dishonesty, academic competitiveness, and dark triad traits among the undergraduate university students.

1.10. Research Hypotheses

- There will be an association between the academic dishonesty, dark triad traits and academic competitiveness among the undergraduate university students.

- Dark triad traits will be the predictor academic dishonesty among the undergraduate university students.
- Academic competitiveness will be the predictor of academic dishonesty among undergraduate university students.
- Academic competitiveness plays mediating role between dark triad and academic dishonesty among the undergraduate university students.
- There will be gender differences on the study variables i.e., academic dishonesty, academic competitiveness, and dark triad traits among the undergraduate university students.
- There will be socio-economic status differences on the study variables i.e., academic dishonesty, academic competitiveness, and dark triad traits among the undergraduate university students.

CHAPTER 2

METHOD

2.1. Study Design

Correlational study design was used.

2.2. Sample

Sample size calculated was 275 participants using G-Power (version 3.1.9.7.). However, data was collected from the 420 participants. Study participants are undergraduate university students whose age ranges from 18 years to 25 years studying at different universities of Pakistan. The data was collected by using convenient sampling technique.

2.2.1. Inclusion Criteria

Individuals with the following characteristics will be eligible to be part of this study.

- The participant must be willing to be part of the research and have given his/her informed consent.
- The participant must be enrolled as an undergraduate student in any university, within the age range between 18 years to 25 years.
- The participant must have a sufficient level of proficiency in the English language and the language of the research materials (e.g., questionnaires, surveys) to ensure accurate understanding and meaningful responses.

2.2.2. Exclusion Criteria

Individuals with the following characteristics will be excluded from the study.

- Any individual who is not currently enrolled as an undergraduate student or not enrolled in any university, but in other private institutes was excluded.
- Participants pursuing a higher-level degree, such as a master's or doctoral degree, or part of lower educational level such as secondary or higher secondary level were excluded.

- Participants with significant physical or mental health conditions that may interfere with their ability to fully participate in the study were excluded.

2.3. Operational definitions

2.3.1. Dark triad traits

The dark triad of personality is a constellation of three socially malevolent personality traits known as Narcissism, Machiavellianism, and Psychopathy (Paulhus and Williams 2002). These traits predict a range of socially undesirable outcomes such as academic dishonesty, plagiarism, anger etc.

2.3.2. Narcissism

Narcissism is characterized by inflated and positive self-views (Brunell et al.,2011), the extreme desire for admiration from others, intolerance for any kind of negative feedback or failure (Paulhus,2014). It is also associated with different kinds of risk-taking behavior and a desire to win from others (Watts et al.,2013).

2.3.3. Machiavellianism

Machiavellianism is characterized by disregard for the moral values of others, manipulation and exploiting behavior (Dahling et al.,2012). Individuals who exhibit high levels of Machiavellianism tend to engage in strategic and calculated planning when it comes to cheating (Williams et al., 2010). A Machiavellian has a strong desire that represents self-interest, agentic aspect, and impulse control. It is also characterized as showing antagonistic behavior, detachment, self-beneficial behavior, and deceit.

2.3.4. Psychopathy

Psychopathy is characterized by lack of remorse, manipulating others, impulsive decision-making process as well as disregard for others wellbeing (O'Boyle et al., 2015). There are four dimensions of Psychopathy (interpersonal, affective, antisocial conduct and lifestyle) (Hare & Neumann.,2008).

2.3.5. Academic dishonesty

Academic dishonesty includes plagiarized work, cheating in exams or copying other's work without giving them credit or asking for permission to use it. Academic dishonesty is a maladaptive response to academic challenge (Hesley et al. 2013). According to Warinda (2016), cheating in examinations and plagiarism were found to be the main indicators of academic dishonesty.

2.3.6. Academic competitiveness

Academic competitiveness is a measure of a person's aspiration to surpass others. It is an aspiration to excel academically and outperform other students. Competition can be considered as a quest for status emerging from a need for societal acceptance, especially for the students. (Balsamo et al., 2015) The students face constant pressure from their environment, or it can be their trait to be more competitive from their peers.

2.4. Instruments

2.4.1. Demographic Sheet

After the individuals agreed to be part of the research and signed the informed consent, they were provided with the demographic sheet. The participants were asked to respond the following items in the demographic questionnaire: gender, age, name of the degree/programme, current semester/year, any extracurricular or co-curricular activities, socioeconomic status, family income (monthly), family system, father's level of education, mother's level of education, any physical disability, and any mental health issue/disability.

2.4.2. Short Dark Triad Scale (SD3; Jones & Paulhus, 2014)

Short Dark Triad (SD3) is a brief proxy measure developed and validated by Jones & Paulhus. The Short Dark Triad (SD3) is a psychometric tool designed to assess three personality traits that have been linked to negative outcomes in various domains of life: Machiavellianism, Narcissism, and Psychopathy. The SD3 was developed by Jones and Paulhus (2014) as a shortened version of the Dark Triad Personality Scale (Paulhus & Williams, 2002), which had 27 items with 9 items measuring each of the three dark personality traits. The responses will be rated on 5-point Likert Scale (1= Disagree strongly, 2=Disagree, 3=Neither agree nor disagree, 4=Agree and 5=Agree strongly). The Cronbach's alpha coefficients for the SD3 were .71 for Machiavellianism, .74 for Narcissism, and .77 for Psychopathy, indicating good internal consistency for each of the

three subscales. Jones and Paulhus (2014) also reported high test-retest reliability for the SD3, with correlations ranging from .71 to .84 across the three subscales.

2.4.3. Hypercompetitiveness in Academia Scale (HIA scale; Bing, 1999)

The Hypercompetitiveness in Academia Scale was developed and validated by Mark N. Bing. It consists of 18 items that measure the extent to which the respondents strive to out-perform themselves and other students (Bing, 1999). One of the sample items includes the following, “Sometimes, I view a test as an opportunity to prove that I am intellectually superior to others”. Responses will be rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Bing (1999) reported an overall good psychometric property of the scale. The 18-item HIA scale’s internal consistency indicators were as follows: Cronbach’s $\alpha = .86$, mean item-total correlation = .47, and mean interitem correlation = .26.

2.4.4. Academic Dishonesty Scale (ADS; Bashir & Bala, 2018)

In 2018, Hila Bashir and Ranjan Bala developed a scale measuring academic dishonesty. The scale consists of 23 items and the six factors associated to academic dishonesty scale (ADS) i.e., Cheating in examination, Plagiarism, outside help, Prior cheating, Falsification and lying about academic assignments (Bashir & Bala, 2018). The responses will be rated on 5-point Likert format that is ranging on a 5=always, 4= Frequently, 3= Sometimes, 2= Rarely and 1 =never. The scale has been overall good psychometric properties with the Cronbach’s Alpha for overall scale was found to be .831. However, the factor loading values of the items varied between .413 to .780 and explained 55.67% of the total variance.

2.5. Procedure

The study was sent to the research committee of Bahria University Islamabad campus for approval. Once the study was approved, the process of data collection started. Before the procedure of data collection began, the researchers made informed consent and survey form (questionnaires) for the participants to which they had to respond anonymously in order to keep their identity confidential. It was explicitly mentioned in comprehensible words that participants are willingly taking part in the research study without any kind of pressure or coercion and afterwards given their consent to use the data of the participants for research purpose. The contact information of the researchers was also given so that if any participant had any query, or if they are interested in

knowing the result of the study, they can contact the researchers. The survey questionnaires included a demographic sheet, Short Dark Triad Scale (SD3; Jones & Paulhus, 2013), Hypercompetitiveness in Academia Scale (HIA scale; Bing, 1999) and Academic Dishonesty Scale (ADS; (Bashir & Bala, 2018). The permission to use all these scales was taken beforehand via email to the authors of the scales.

The data was collected from different university students using the questionnaire. Participants were invited to take part in the research study and were provided with a questionnaire. They were asked to read the questionnaire carefully and answer the questions honestly and accurately. It was explained to them that their responses were important for the study's results. Before participating, the participants were required to sign an informed consent form. If they chose not to participate or did not meet the inclusion criteria, they were thanked for their time and asked not to complete the questionnaire. Those who agreed to participate and met the criteria were given the questionnaire to fill out, which took approximately 15 to 20 minutes. Once they finished, they were thanked for their time. The collected data was then analyzed to draw meaningful results.

2.5. Ethical considerations

Before starting the research, the participants were given all the necessary information about the study and what it involved. They were told the purpose of the research and who could participate. The privacy of the participants was highly valued, and they were assured that their information would be kept confidential. The participants were not required to provide any personal details that could identify them. After receiving this information, they were given a consent form to read and sign if they agreed to participate. The study was conducted with transparency and honesty, and the participants were informed about the goals and objectives of the study. They were also told that they had the right to withdraw from the study at any time without facing any consequences. The well-being of the participants was prioritized, and no harm was caused to them during the research. The study was conducted under the supervision of a research supervisor.

RESULTS

3.1. Analytical Strategies

The purpose of this research was to investigate the academic dishonesty among university students and its relationship with the dark triad traits and hypercompetitiveness in academia. To analyze and conclude the research results in quantitative form statistical package of social sciences SPSS (V 27.0) was used. Descriptive statistics were used to compute frequency, percentage, mean and standard deviation for demographic variables. The psychometric properties were analyzed by using Cronbach alpha reliability. The direction and strength of the relationship between the variables were analyzed by using Pearson Product Moment correlation. While multiple regression analysis was applied to examine the causal relationship between the variables. Independent T-test analysis and one-way anova analysis were used to find out the differences among groups. However, to check out the mediating effect of the variable on other variables, mediation analysis was examined.

Table 3.1*Descriptive Statistics of the Participants (N=420)*

Sample Characteristics	Categories	<i>f</i>	(%)	<i>M</i>	<i>SD</i>
Gender	Male	210	50		
	Female	210	50		
Age	18-21	201	47.9	21.47	1.635
	22-25	219	52.1		
Current Semester	1 st	26	6.2		
	2 nd	42	10		
	3 rd	22	5.2		
	4 th	47	11.2		
	5 th	18	4.3		
	6 th	79	18.8		
	7 th	50	11.9		
	8 th	124	29.5		
	9 th	2	0.5		
	10 th	10	2.4		
Programmes	Computer Sciences	97	23.1		
	Psychology	80	19		
	Business Studies	76	18.1		
	Law studies	38	9		
	Media Sciences	20	4.8		
	Medical Sciences	26	6.2		
	Social Sciences	28	6.7		
	Engineering studies	15	3.6		
	Management related Studies	16	3.8		
	Other Majors	24	5.7		
Extra-Curricular Activities	None	271	64.5		
	Sports	74	17.6		
	Clubs' memberships	36	8.6		
	Other activities	39	9.3		
SES	Lower	14	3.3		
	Middle	358	85.2		
	Upper	48	11.4		
Monthly Income (Family)	Below 95000	128	30.5	226488.1	281337.8
	96000 - 350000	213	50.7		
	Above 350000	79	18.8		
Family System	Nuclear	295	70.2		

Father's Level of Education	Joint	125	29.8
	Not educated	19	4.5
	Matric/O-levels	45	10.7
	Intermediate/A-levels	67	16
	Graduated/BS	176	41.9
	Post-Graduated/MS	104	24.8
Mother's Level of Education	Doctorate/PhD	9	2.1
	Not educated	58	13.8
	Matric/O-levels	78	18.6
	Intermediate/A-levels	98	23.3
	Graduated/BS	120	28.6
	Post-Graduated/MS	57	13.6
	Doctorate/PhD	9	2.1

Note: SES, Socioeconomic status; f, Frequency; %, Percentage; M, Mean; SD, Standard Deviation.

Table 1 shows the frequency and percentage of the demographic characteristics of the sample of our study (n=420). Equal number of female and male students i.e., 50% (n=210) each participated in our study. 47.9% (n=201) were of age ranged in between 18 years to 21 years while 52.1% (n=219) were of age ranged in between the 22 years to 25 years (M=21.47, SD=1.63). Out of 420 students, 23.1% belonged to Computer Sciences, 19% from Psychology, 18.1% from Business Studies, 9% from Law, 6.2% for Medical Sciences while 24.6% are from other majors. However, 29.5% of the participants were in 8th semester, 11.9% in 7th semester, 18.8% in 6th semester, 11.2% in 4th semester whereas 28.6% are in the other semesters respectively. 64.5% of the participants had no extracurricular activities while 17.6% of the participants were involved in sports, 8.6% had been members of different clubs and 9.3% performed other activities. Out of 420 participants, 85.2% were from middle class, 11.4% were from upper class and 3.3% were from lower class. Most of the participants' family monthly income ranged from 96000 to 350000 (50.7%, n=213) and (M=226488.1, SD=281337.8). 70.2% (n=295) of the participants belonged to the nuclear family system while 29.8% (n=125) belonged to the joint family system. Most of the participants had their fathers and mothers graduate i.e., 41.9% (n=176) and 28.6% (n=120) respectively.

Table 3.2*Psychometric properties of the study variables (N=420)*

Scale	No. of items	<i>M</i>	<i>SD</i>	<i>Range</i>	α
SD3	27	3.01	0.45	2-4	0.76
Machv	9	3.29	0.62	1-5	0.69
Narcsm	9	3.05	0.52	1-5	0.73
Psyph	9	2.70	0.65	1-5	0.64
ADS	23	3.79	0.82	1-5	0.93
CE	5	3.76	0.94	1-5	0.79
PL	4	3.44	0.94	1-5	0.70
OH	4	3.70	0.99	1-5	0.74
PC	3	3.90	1.07	1-5	0.73
FF	3	4.03	1.05	1-5	0.73
LyA	4	3.99	0.99	1-5	0.78
HIA	18	3.80	0.63	1-5	0.62

Note: *M*; Mean, *SD*; Standard deviation, *R*; Range, α ; Cronbach's alpha reliability, SD3; Short Dark Triad Scale, Machv; Machiavellianism, Narcsm; Narcissism, Psyph; Psychopath, ADS; Academic Dishonesty Scale, CE; Cheating in Examinaton, PL; Plagiarism, OH; Outside Help, PC; Prior Cheating, FF; Falsification, LyA; Lying about Assignment, HIA; Hypercompetitiveness in Academia.

Table 2 shows the psychometric properties of study variables. The reliability of the whole scale of Short Dark triad is 0.76 and the reliability of subscales of Short Dark triad ranges between 0.64-0.73 indicating average to good psychometric properties of the scale. The alpha reliability of whole scale Academic Dishonesty Scale is 0.93 which is considered a high reliability whereas the subscales of Academic Dishonesty Scale have reliability ranges 0.73-0.79 showing good

psychometric properties of the scale. The reliability of Hypercompetitiveness in Academia is 0.62 and as per the value, it has average psychometric properties. These properties of scale confirm that they have adequate reliability.

Table 3.3

Pearson Product Moment correlation analysis between Dark Triad Traits, Academic Dishonesty and Hypercompetitiveness in Academia (N=420)

	1	2	3	4	5	6	7	8	9	10	11
1. Machv	-	.370**	.359**	0.094	.114*	0.034	0.075	0.033	0.093	.105*	.307**
2. Narcsm		-	.278**	0.033	0.017	-0.021	0.051	0.039	0.039	0.042	.345**
3. Psyph			-	.251**	.192**	.261**	.210**	.190**	.215**	.181**	.314**
4. ADS				-	.844**	.759**	.854**	.837**	.838**	.829**	.163**
5. CE					-	.576**	.696**	.630**	.607**	.586**	.105*
6. PL						-	.600**	.527**	.522**	.532**	.109*
7. OH							-	.655**	.669**	.599**	.121*
8. PC								-	.712**	.693**	.173**
9. FF									-	.723**	.174**
10. LyA										-	.145**
11. HIA											-

Note: Machv; Machiavellianism, Narcsm; Narcissism, Psyph; Psychopath, ADS; Academic Dishonesty Scale, CE; Cheating in Examinaton, PL; Plagiarism,

OH; Outside Help, PC; Prior Cheating, FF; Falsification, LyA; Lying about Assignment, HIA; Hypercompetitiveness in Academia, *p<0.05, **p<0.01.

Table 3 shows the correlation between the study variables. The subscales of Short Dark Triad Scale i.e., Machiavellianism, Narcissism and Psychopathy have shown significant positive correlation. Subscales of Machiavellianism and Narcissism show positive correlation with the Academic Dishonesty Scale and its subscales, out of them cheating in examinations and lying in assignment shows significant positive relationship. Psychopathy subscale shows significant positive correlation with the Academic Dishonesty Scale and its subscales. The subscales of SD3 and Hypercompetitiveness in Academia Scale have a significant positive correlation between them. On the other side, academic dishonesty scale and its subscales have significantly positive correlation with each other and shows medium to high bonding. While the correlation of Academic Dishonesty Scale and its subscale with the Hyper-competitiveness in Academia Scale is significantly positive. Overall, this table shows that the increase in SD3 traits and hypercompetitiveness, also increases academic dishonesty among the students.

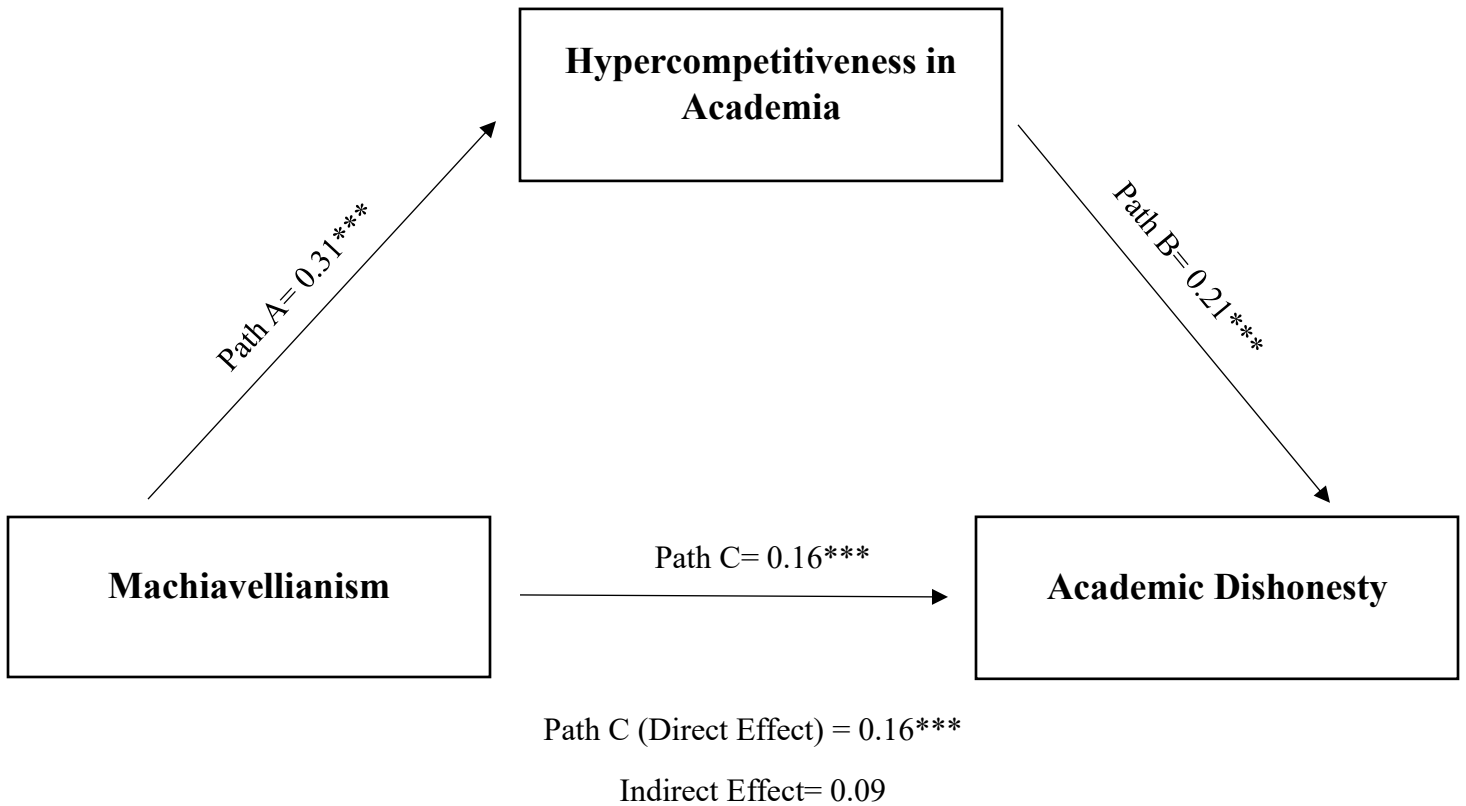
Table 3.4.1

Mediational Analysis on the Machiavellianism of Dark Triad Traits and Academic Dishonesty through Hypercompetitiveness in Academia (N= 420)

Antecedent	Consequent					
	Hypercompetitiveness			Academic Dishonesty		
	<i>Coeff</i>	<i>SE</i>	<i>p</i>	<i>Coeff</i>	<i>SE</i>	<i>p</i>
Constant	2.78	0.16	0.00	4.14	0.28	0.00
Machiavellianism	0.31	0.05	0.00	0.21	0.07	0.00
Hypercompetitiveness	-	-	-	0.27	0.07	0.00
	<i>R</i> ² =0.09			<i>R</i> ² =0.05		
	<i>F</i> = 43.62, <i>p</i> <0.000			<i>F</i> = 10.84, <i>p</i> <0.000		
	<i>ΔR</i> ² = 0.04					

Note: Coeff; unstandardized coefficient, SE; Standard Error, p, significance, R; Regression, R²; Regression square, F; value of anova, ΔR²; Delta Regression square, β; standardized coefficient, CI; Confidence Interval, ADS; Academic Dishonesty Scale, HIA; Hypercompetitiveness in Academia.

This table indicates the mediation analysis between Machiavellianism, ADS, and the mediator, HIA. It shows that Machiavellianism significantly predicts HIA and ADS, while HIA also significantly predicts ADS. The direct effect of Machiavellianism on ADS is significant with the β value of 0.16, along with the indirect effect through HIA (β= 0.21, Boot [LLCI -0.13, ULCI -0.04]) resulting in full mediation. That shows the mediator, HIA has greater impact on the ADS than the Machiavellianism, which means that HIA working as a mediator has increased the effect of Machiavelli traits on academic dishonesty. The mediating model accounts for 4% of the variance and F value for both model fits are 43.62 and 10.84 respectively and are significant and impactful.



Note: * $p < 0.05$, *** $p < .000$

Figure 3.1. Pathway model of mediation process for Machiavellianism and Academic Dishonesty

The model illustrates the mediating effect of hypercompetitiveness in academia on the relationship between Machiavellianism and academic dishonesty. Machiavellianism has a significant impact on the mediator, HIA and on the outcome variable ADS. The model shows full mediation that means the mediator, HIA strengthens the relationship between Machiavellianism and ADS.

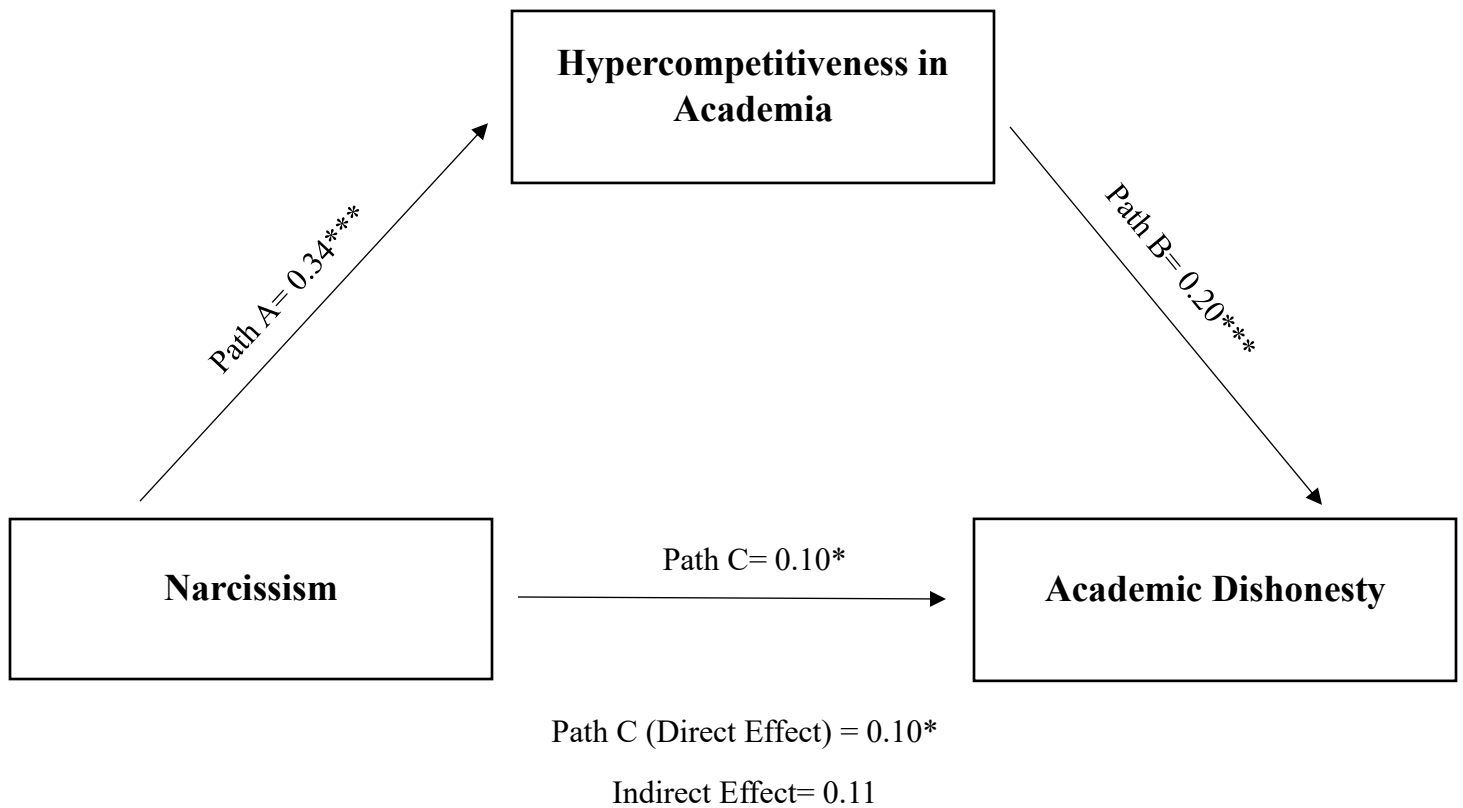
Table 3.4.2

Mediational Analysis on the Narcissism of Dark Triad Traits and Academic Dishonesty through Hypercompetitiveness in Academia (N= 420)

Antecedent	Consequent					
	Hypercompetitiveness			Academic Dishonesty		
	<i>Coeff</i>	<i>SE</i>	<i>p</i>	<i>Coeff</i>	<i>SE</i>	<i>p</i>
Constant	2.53	0.17	0.00	4.28	0.29	0.00
Narcissism	0.42	0.06	0.00	0.16	0.08	0.05
Hypercompetitiveness	-	-	-	0.26	0.07	0.00
	<i>R</i> ² =0.12			<i>R</i> ² =0.04		
	<i>F</i> = 56.47, <i>p</i> <0.000			<i>F</i> = 7.65, <i>p</i> <0.000		
	<i>ΔR</i> ² = 0.08					

Note: Coeff; unstandardized coefficient, SE; Standard Error, p, significance, R; Regression, R²; Regression square, F; value of anova, ΔR²; Delta Regression square, β; standardized coefficient, CI; Confidence Interval, ADS; Academic Dishonesty Scale, HIA; Hypercompetitiveness in Academia.

This table indicates the mediation analysis between Narcissism, ADS, and the mediator, HIA. It shows that Narcissism significantly predicts HIA and ADS, while HIA also significantly predicts ADS. The direct effect of Narcissism on ADS is significant with the β value of 0.10, along with the indirect effect through HIA (β= 0.20, Boot [LLCI -0.17, ULCI -0.05]) resulting in full mediation. That shows the mediator, HIA has greater impact on the ADS than the Narcissism, which means that HIA working as a mediator has increased the effect of narcissistic traits on academic dishonesty. The mediating model accounts for 8% of the variance and F values for both model fits are 56.47 and 7.65 respectively and are significant and impactful.



Note: * $p < 0.05$, *** $p < .000$

Figure 3.2. Pathway model of mediation process for Narcissism and Academic Dishonesty

The model illustrates the mediating effect of hypercompetitiveness in academia on the relationship between Narcissism and academic dishonesty. Narcissism has a significant impact on the mediator, HIA and on the outcome variable ADS. The model shows full mediation that means the mediator, HIA strengthens the relationship between Narcissism and ADS.

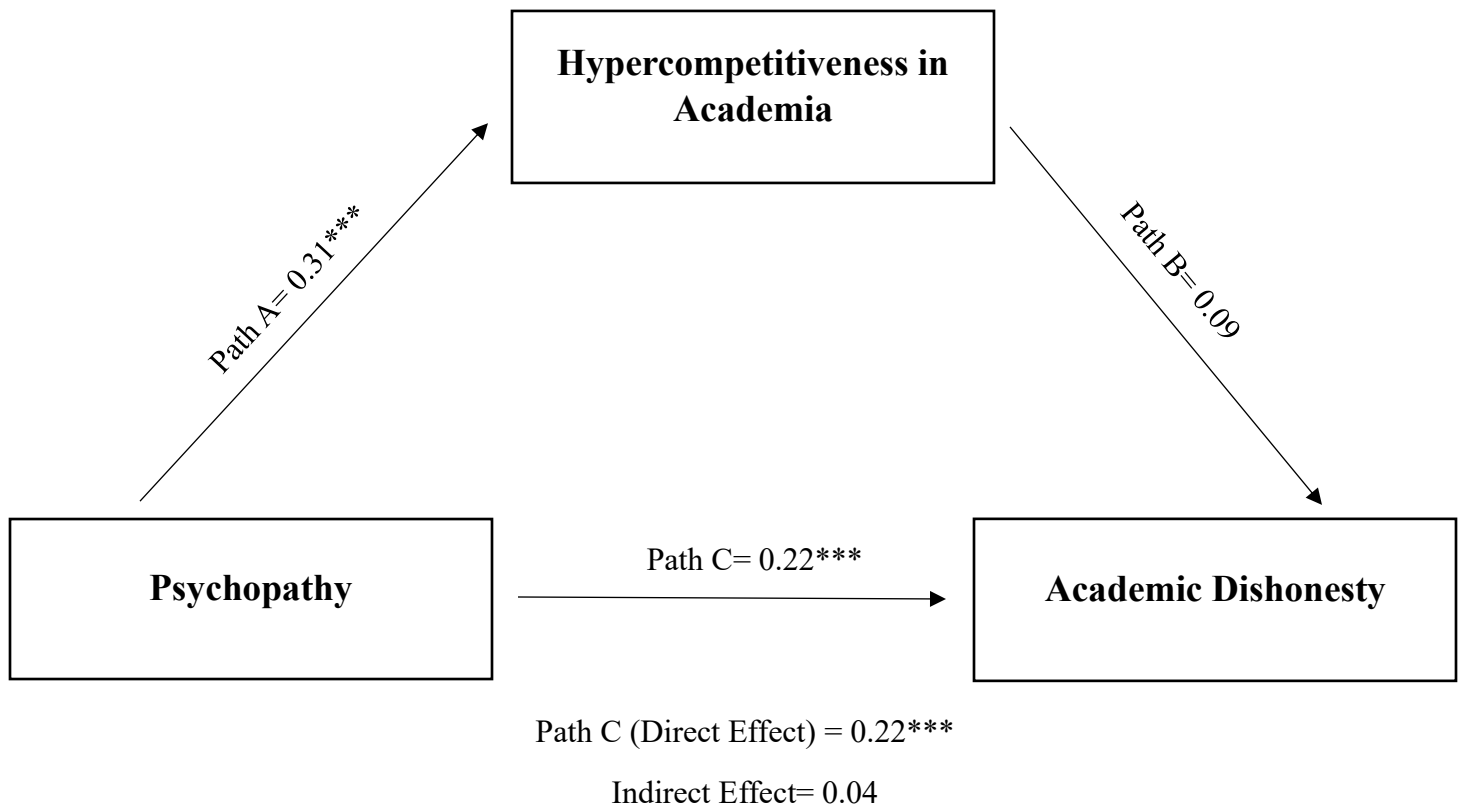
Table 3.4.3

Mediational Analysis on the Psychopathy of Dark Triad Traits and Academic Dishonesty through Hypercompetitiveness in Academia (N= 420)

Antecedent	Consequent					
	Hypercompetitiveness			Academic Dishonesty		
	<i>Coeff</i>	<i>SE</i>	<i>p</i>	<i>Coeff</i>	<i>SE</i>	<i>p</i>
Constant	2.97	0.13	0.00	5.00	0.25	0.00
Psychopathy	0.31	0.05	0.00	0.28	0.06	0.00
Hypercompetitiveness	-	-	-	0.12	0.06	0.06
	$R^2=0.10$			$R^2=0.07$		
	$F= 45.73, p<0.000$			$F= 15.91, p<0.000$		
	$\Delta R^2= 0.03$					

Note: Coeff; unstandardized coefficient, SE; Standard Error, p, significance, R; Regression, R^2 ; Regression square, F; value of anova, ΔR^2 ; Delta Regression square, β ; standardized coefficient, CI; Confidence Interval, ADS; Academic Dishonesty Scale, HIA; Hypercompetitiveness in Academia.

This table indicates the mediation analysis between Psychopathy, ADS, and the mediator, HIA. It shows that Psychopathy significantly predicts HIA and ADS, while HIA insignificantly predicts ADS. The direct effect of Psychopathy on ADS is significant with the β value of 0.22, along with the indirect effect through HIA ($\beta= 0.09, p<0.06$, Boot [LLCI -0.08, ULCI 0.00]) resulting in partial mediation. That shows Psychopathy has a greater impact on the ADS than the mediator, HIA. The mediating model accounts for 3% of the variance and F values for both model fits are 45.73 and 15.91 respectively and are significant and impactful.



Note: * $p < 0.05$, *** $p < .000$

Figure 3.3. Pathway model of mediation process for Psychopathy and Academic Dishonesty

The model illustrates the mediating effect of hypercompetitiveness in academia on the relationship between Psychopathy and academic dishonesty. Psychopathy has a significant impact on the mediator, HIA and on the outcome variable ADS but HIA does not have significant impact on ADS. The model shows partial mediation that means the mediator, HIA doesn't impact or strengthen the relationship between Psychopathy and ADS.

Table 3.4.4

Indirect effect of Hypercompetitiveness in Academia between the Dark Triad Traits and Academic Dishonesty (N=420)

Predictor	β	Boot SE	Boot CI 95%	
			Boot LL	Boot UL
Machiavellianism	0.09	0.02	-0.13	-0.04
Narcissism	0.11	0.03	-0.17	-0.05
Psychopathy	0.04	0.02	-0.08	0.00

Note: β ; Standardized Indirect Effect, *Boot SE*; Bootstrap Standard Error, *Boot CI*; Bootstrap Confidence Interval,

Boot LL; Bootstrap Lower Limit, *Boot UL*; Bootstrap Upper Limit

The results of indirect effect show that hypercompetitiveness in academia was found to be significant mediator between Machiavellianism, Narcissism and academic dishonesty which means increase in Machiavelli and Narcissistic traits tends to increase hypercompetitiveness which tends to increase academic dishonesty.

Table 3.5

Independent sample t-test analysis between gender on the variables of Short Dark Triad Scale (SD3), Academic Dishonesty Scale (ADS) and Hypercompetitiveness in Academia Scale (HIA) (N=420)

Variables	Male (n=210)		Female (n=210)		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
SD3	3.08	0.43	2.95	0.45	3.02	0.003	0.44
Machv	3.36	0.62	3.21	0.62	2.54	0.012	0.62
Narcsm	3.04	0.49	3.05	0.55	0.12	0.909	
Psypth	2.83	0.64	2.58	0.63	3.92	0.000	0.64
ADS	3.58	0.85	3.99	0.73	5.27	0.000	0.79
CE	3.58	0.98	3.94	0.86	4.03	0.000	0.92
PL	3.29	0.96	3.6	0.90	3.37	0.001	0.93
OH	3.48	1.01	3.92	0.91	4.68	0.000	0.96
PC	3.67	1.15	4.12	0.94	4.38	0.000	1.05
FF	3.82	1.09	4.24	0.97	4.20	0.000	1.03
LyA	3.74	1.04	4.23	0.86	5.24	0.000	0.96
HIA	3.8	0.61	3.8	0.65	0.01	0.993	

Note: M; Mean, SD; Standard deviation, p; significance, LL; Lower limit, UL; Upper limit, t; T test, SD3; Short Dark Triad Scale, Machv; Machiavellianism, Narcsm; Narcissism, Psypth; Psychopath, ADS; Academic Dishonesty Scale, CE; Cheating in Examination, PL; Plagiarism, OH; Outside Help, PC; Prior Cheating, FF; Falsification, LyA; Lying about Assignment, HIA; Hypercompetitiveness in Academia.

Table 5 illustrates the results of independent sample t-test, used to find out gender difference on the variables of short dark Triad, academic dishonesty scale and hypercompetitiveness in academia. Analysis reveals significant differences among the variables of the scales with respect to the gender differences. The whole scale of SD3 shows mean (3.08) and standard deviation (0.43) for males and mean (2.95) and standard deviation (0.45) for females depicting more dark triad traits in males. While Machiavellianism and Psychopathy show means (3.36 and 2.83) and standard deviation (0.62 and 0.63) respectively for males which indicates that

males have more Machiavelli and psychopath traits than females. The mean values of the subscales of ADS shows that females are more likely to engage in outside help, plagiarism, cheating in examination, prior cheating, falsification as well as lying about assignments. However, these are the significant differences between the means of the variables of scales among both genders while others aren't significant.

Table 3.6

Independent sample t-test analysis between the Family system on the variables of Short Dark Triad Scale (SD3), Academic Dishonesty Scale (ADS) and Hypercompetitiveness in Academia Scale (HIA) (N=420)

Variables	Joint FS (n=125)		Nuclear FS (n=295)		<i>t</i>	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
SD3	2.97	0.45	3.00	0.40	1.24	0.22	
Machv	3.23	0.62	3.31	0.62	1.26	0.21	
Narcsm	2.99	0.46	3.07	0.54	1.42	0.16	
Psypth	2.70	0.68	2.71	0.63	0.19	0.85	
ADS	3.64	0.89	3.85	0.78	2.48	0.01	0.81
CE	3.66	0.97	3.80	0.92	1.41	0.16	
PL	3.35	0.92	3.48	0.95	1.34	0.18	
OH	3.54	1.04	3.77	0.96	2.24	0.03	0.98
PC	3.72	1.20	3.97	1.01	2.16	0.03	1.07
FF	3.84	1.20	4.12	0.97	2.47	0.01	1.05
LyA	3.78	1.13	4.08	0.91	2.85	0.01	0.98
HIA	3.76	0.59	3.82	0.65	0.92	0.36	

Note: M; Mean, SD; Standard deviation, p; significance, LL; Lower limit, UL; Upper limit, t; T test, FS; Family System, Machv; Machiavellianism, Narcsm; Narcissism, Psypth; Psychopath, ADS; Academic Dishonesty Scale, CE; Cheating in Examination, PL; Plagiarism, OH; Outside Help, PC; Prior Cheating, FF; Falsification, LyA; Lying about Assignment, HIA; Hypercompetitiveness in Academia, *p<0.05, **p<0.01

Table 6 illustrates the results of independent sample t-test, used to find out the family system differences on the variables of dark triad traits, academic dishonesty, and hypercompetitiveness in academia. Analysis reveals significant differences among the variables of the scales with respect to the family system differences. Academic Dishonesty Scale shows mean

(3.85) and standard deviation (0.78) for nuclear family system depicting more academic dishonesty among students living in nuclear family system. The mean values of subscales of ADS i.e., outside help (M= 3.77), prior cheating (M= 3.97), falsification (M= 4.12) and lying about assignments (M= 4.08) shows that students who live in a nuclear family system are more likely to involves in all these activities as compared to students who are living in a joint family system. However, these are the significant differences among means in both family systems while others aren't significant.

Table 3.7

Means, Standard Deviations, and One-Way Analyses of Variance in Short Dark Triad Scale (SD3), Academic Dishonesty Scale (ADS) and Hypercompetitiveness in Academia Scale (HIA) among Socio-economic Status of university students (N=420)

Measure	Lower class (n=14)		Middle Class (n=358)		Upper Class (n=48)		F	η^2
	M	SD	M	SD	M	SD		
SD3	3.22	0.50	2.99	0.43	3.13	0.51	3.59*	0.02
Machv	3.45	0.77	3.27	0.62	3.36	0.63	0.89	
Narcsm	2.92	0.54	3.02	0.51	3.26	0.57	4.96**	0.02
Psypth	3.29	0.53	2.67	0.62	2.76	0.76	6.52**	0.03
ADS	3.60	0.68	3.81	0.80	3.65	0.96	1.25	
CE	3.86	0.87	3.77	0.92	3.65	1.09	0.41	
PL	3.21	0.97	3.45	0.92	3.50	1.07	0.50	
OH	3.46	0.72	3.73	0.98	3.53	1.10	1.36	
PC	3.57	1.07	3.93	1.05	3.72	1.21	1.47	
FF	3.60	0.94	4.06	1.05	3.97	1.08	1.43	
LyA	3.80	0.65	4.04	0.98	3.63	1.07	4.03**	0.02
HIA	3.94	0.67	3.78	0.64	3.90	0.54	1.19	

Note: M; Mean, SD; Standard deviation, η^2 ; Eta square, F; Anova values, Machv; Machiavellianism, Narcsm;

Narcissism, Psypth; Psychopath, ADS; Academic Dishonesty Scale, CE; Cheating in Examinaton, PL; Plagiarism,

OH; Outside Help, PC; Prior Cheating, FF; Falsification, LyA; Lying about Assignment, HIA;

Hypercompetitiveness in Academia, *p<0.05, **p<0.01

Table 7 shows the One-Way Analyses of Variance in SD3, ADS and HIA of lower, middle, and upper class indicating some significant differences. The lower class has the highest mean (M= 3.22) in SD3 scale showing that the students with lower economic status possess more dark triad traits than other students of socioeconomic classes. However, Psychopathy in lower class students has the highest mean (M= 3.29) which indicates that the students who belong to lower economic

status have more psychopathic traits than others. While upper class has the highest mean score in Narcissism subscale ($M= 3.26$ and $SD= 0.57$) depicting more narcissistic traits among upper class students than others. Students from middle class socioeconomic status are most likely to lie about their assignments ($M= 4.04$) as they show high mean values indicating their involvement in such behaviors. The F values of SD3 ($p<0.05$), Narcissism ($p<0.01$), Psychopathy($p<0.01$) and lying in examinations ($p<0.01$) shows significance and are impactful while other differences are not significant.

Table 3.8*Post-hoc analysis among Socioeconomic statuses (N=420)*

Variables	Groups		<i>MD (I-J)</i>	<i>SE</i>	<i>95% CI</i>	
	<i>I</i>	<i>J</i>			<i>LL</i>	<i>UL</i>
SD3	Upper class	Middle Class	0.14*	0.07	0.00	0.27
Narcsm	Upper class	Lower class	0.34*	0.16	0.03	0.65
		Middle Class	0.24*	0.08	0.08	0.39
Psypth	Lower class	Middle Class	0.62*	0.17	0.28	0.96
		Upper class	0.54*	0.19	0.16	0.92
LyA	Middle Class	Upper class	0.41*	0.15	0.12	0.71

Note: SD3; Short Dark Triad Scale, Narcsm; Narcissism, Psypth; Psychopath, LyA; Lying about Assignment, MD; Mean Deviation, SE; Standard Error, LL; Lower limit, UL; Upper limit, CI; Confidence Interval.

Table 8 illustrates the Post Hoc Analysis in SD3, Narcissism, Psychopathy and lying about assignment in lower, middle, and upper class. Upper class students have shown significantly higher dark triad traits than middle class students. Moreover, upper-class students also exhibit more narcissistic traits than the other students who belong to middle class and lower class respectively. However, lower class depicts significantly more psychopathic traits than middle class and upper-class students. While students from middle class show significantly higher involvement in behaviors like lying about assignment than the upper-class students.

Table 3.9

Means, Standard Deviations, and One-Way Analyses of Variance in Short Dark Triad Scale (SD3), Academic Dishonesty Scale (ADS) and Hypercompetitiveness in Academia Scale (HIA) among Extra-curricular Activities of university students (N=420)

Measure	Sports (n= 74)		Club Memberships (n=36)		Other activities (n=39)		F	η^2
	M	SD	M	SD	M	SD		
SD3	3.07	0.38	3.22	0.57	2.84	0.43	6.98***	0.09
Machv	3.30	0.53	3.29	0.72	3.14	0.60	0.97	
Narcsm	3.11	0.44	3.43	0.58	2.86	0.40	13.60***	0.16
Psypth	2.80	0.57	2.94	0.80	2.52	0.68	4.04*	0.05
ADS	3.72	0.81	3.89	0.69	4.03	0.60	2.41	
CE	3.71	0.83	3.82	1.06	3.97	0.81	1.17	
PL	3.39	0.97	3.22	0.96	3.67	0.83	2.35	
OH	3.62	0.98	4.01	0.81	4.04	0.77	3.89*	0.05
PC	3.82	1.16	4.09	0.98	4.03	0.87	0.96	
FF	3.99	1.06	4.15	0.86	4.38	0.77	2.23	
LyA	3.86	0.96	4.18	0.81	4.17	0.72	2.42	
HIA	3.83	0.55	3.93	0.65	3.44	0.65	7.52***	0.09

Note: M; Mean, SD; Standard deviation, F; Value of Anova, η^2 ; eta square, Machv; Machiavellianism, Narcsm; Narcissism, Psypth; Psychopath, ADS; Academic Dishonesty Scale, CE; Cheating in Examinaton, PL; Plagiarism, OH; Outside Help, PC; Prior Cheating, FF; Falsification, LyA; Lying about Assignment, HIA; Hypercompetitiveness in Academia, *p<0.05, **p<0.01.

Table 9 shows the One-Way Analyses of Variance in SD3, ADS and HIA scales of extracurricular activities. The club memberships have the highest mean of SD3 scale (M=3.22 and SD= 0.57) and its subscales i.e., Narcissism (M= 3.43) and Psychopathy (M= 2.94) indicating students with these traits are more likely to be part of the different clubs in universities. Whereas students involved in other extracurricular activities are most likely to seek outside help (M= 4.04) while performing academic dishonesty than other students. While students with club memberships exhibit more hypercompetitiveness in academia (M=3.93) than students involved in different other activities. The F values of SD3 ($p<0.000$), Narcissism ($p<0.000$), Psychopathy ($p<0.05$), outside help ($p<0.05$) and HIA ($p<0.000$) shows significance and are impactful while other differences are not significant.

Table 3.10*Post Hoc Analysis among the Extracurricular Activities (N=420)*

Variables	Groups		MD (I-J)	SE	95% CI	
	I	J			LL	UL
SD3	Sports	Other activities	0.23*	0.09	0.06	0.40
	Club membership	Other activities	0.38*	0.10	0.17	0.58
Narcsm	Sports	Other activities	0.25*	0.09	0.07	0.44
	Club membership	Sports	0.31*	0.10	0.12	0.50
		Other activities	0.57*	0.11	0.35	0.78
Psyphth	Sports	Other activities	0.28*	0.13	0.02	0.54
	Club membership	Other activities	0.42*	0.15	0.12	0.72
OH	Club membership	Sports	0.39*	0.18	0.03	0.75
	Other activities	Sports	0.42*	0.18	0.07	0.77
HIA	Sports	Other activities	0.39*	0.12	0.16	0.63
	Club membership	Other activities	0.49*	0.14	0.21	0.76

Note: SD3; Short Dark Triad Scale, Narcsm; Narcissism, Psyphth; Psychopath, LyA; Lying about Assignment, MD; Mean Deviation, SE; Standard Error, LL; Lower limit, UL; Upper limit, CI; Confidence Interval.

Table 10 illustrates the Post Hoc Analysis in SD3, Narcissism, Psychopathy, outside help in academic dishonesty and hypercompetitiveness in academia in extracurricular activities (sports, club membership and other activities). Students who are more involved in sports and are part of the clubs are more likely to possess dark triad traits than students preferring other extracurricular activities. While students who are more involved in sports than other activities and students who are more into the club memberships than sports and other extracurricular activities exhibit significantly higher narcissistic traits in them. On the other hand, students who participate more in sports and/or have more club memberships show significantly higher psychopathic traits in them as compared to the students involved in other extracurricular activities. Moreover, the people who engage in club membership or other extracurricular activities more than sports are significantly more likely to take outside help while performing academic dishonesty. Students who actively

participate in sports and/or club membership than other activities show significantly higher hypercompetitiveness in academia.

CHAPTER 4

DISCUSSION

The aim of the study involved the examination of Academic Dishonesty among university students and its relationship with dark triad traits i.e., Machiavellianism, Narcissism, and Psychopathy and hypercompetitiveness in academia. The study analysis explored the relationship of academic dishonesty with demographic variables including gender, family system, socioeconomic status, and extra-curricular activities. The analysis also explored the relationship of academic dishonesty with the dark triad traits while hypercompetitiveness in academia played the mediating role. The sample of the study consisted of 420 undergraduate university students: 210 males and 210 females and data were collected from the different universities.

The psychometric properties of scales and subscales were examined using Cronbach's alpha reliability analysis (Table 3.2). The results indicated that the reliability value for academic dishonesty scale was 0.93 which is considered a high reliability whereas the subscales of academic dishonesty scale have reliability 0.79 of cheating in examinations, 0.70 of plagiarism, 0.74 of outside help, 0.73, 0.73 and 0.78 of prior cheating, falsification and lying about academic assignments respectively. Bashir & Bala (2018) in their research on the development and validation of this scale reported reliability for the scale to be 0.83 and the internal consistency score for each of the scales ranged from moderate to high, with the least Cronbach's alpha reliability reaching 0.621-0.73. So, the findings suggest that the psychometric properties of the Academic Dishonesty Scale are consistent with prior research. While the results indicated reliability of the whole scale of Short Dark triad is 0.76 and the reliability of subscales of Short Dark triad includes 0.69 of Machiavellianism, 0.73 of Narcissism and 0.64 of Psychopathy. Jones and Paulhus (2014) in their research on the development and validation of this scale reported the Cronbach's alpha coefficients for the SD3 were .71 for Machiavellianism, .74 for Narcissism, and .77 for Psychopathy. These findings suggest that the Short Dark Triad scale has average psychometric properties overall. Cronbach's alpha reliability of whole scale of Hypercompetitiveness in Academia is 0.62 while Mark N. Bing (1999) in his research on the development and validation of this scale reported

Cronbach's alpha reliability value of .86. That shows average psychometric properties of HIA in results.

To check the association of Academic Dishonesty with the Dark Triad Traits i.e., Machiavellianism, Narcissism and Psychopathy and Hypercompetitiveness in Academia among the undergraduate university students, Pearson Product Moment correlation analysis was conducted (Table 3.3). The correlation analysis provides valuable insights into the associations between personality traits, academic dishonesty, and hyper-competitiveness in the academic context. Firstly, it is worth noting that the subscales of the SD3, namely Machiavellianism, Narcissism, and Psychopathy, exhibit significant positive correlations with each other. This finding aligns with previous research that has consistently shown these dark personality traits to be interrelated with each other (Muris et al., 2017; Paulhus & Williams, 2002). The positive correlations among these subscales suggest that individuals who demonstrate one dark trait are also likely to demonstrate the others, highlighting a common underlying tendency towards manipulative and exploitative behavior among students.

Furthermore, the study also reveals positive correlations between the SD3 subscales of Machiavellianism and Narcissism with the ADS and its subscales, particularly in relation to cheating in examinations and lying in assignments to which they have shown significant positive relationship. These findings indicate that individuals with higher levels of Machiavellianism and Narcissism are more prone to engage in academic dishonesty, specifically cheating in examinations and lying about their assignments. This aligns with previous studies that have established associations between Machiavellianism, Narcissism, and unethical behavior in various contexts (Muris et al., 2017; Tang et al., 2019). The inflated self-importance and manipulative tendencies exhibited by individuals scored high in Machiavellianism and Narcissism may lead them to engage in academically dishonest practices to achieve personal gains. Also, these results resonate with studies that have demonstrated a positive relationship between Narcissism and academic dishonesty (Furnham et al., 2013; Thomaes et al., 2013). Similarly, the Psychopathy subscale of the SD3 shows a significant positive correlation with the ADS and its subscales. This finding suggests that individuals with higher psychopathic traits are more likely to engage in academic dishonesty and previous research confirms the link of Psychopathy with various forms of antisocial and unethical behavior (Hare, 2003; Muris et al., 2017). The callous, risk taking, and manipulative

nature of Psychopathy may drive individuals to disregard ethical considerations and engage in academically dishonest behaviors to fulfill their personal goals.

To support our findings in literature, a similar research study was conducted in 2020 by Lima Esteves and colleagues examined the relationship between dark triad traits and academic cheating among Brazilian undergraduate students. The study included a sample of 343 students. The findings revealed that both Machiavellianism and Narcissism were positively linked to self-reported academic cheating behaviors. However, no significant association was found between Psychopathy and self-reported academic cheating behaviors. These results align with our own findings, except for the Psychopathy aspect (Esteves et al., 2020).

Further, our study also shows a significant positive correlation between the subscales of SD3 and the Hypercompetitiveness in Academia Scale (HIA), indicating that individuals with higher SD3 traits are more likely to exhibit hyper-competitiveness in the academic setting. This finding conforms with the notion that dark traits are associated with a competitive and exploitative orientation (Jonason et al., 2012). The hyper-competitive nature of individuals high in dark triad traits may contribute to an environment that fosters academic dishonesty, as they may be more willing to engage in unethical practices to gain an advantage over their peers. Moreover, the ADS and its subscales demonstrate significant positive correlations with each other, indicating a strong internal consistency in the measurement of academic dishonesty that is corresponding to the findings of study of development and validation of ADS by Bashir & Bala (2018).

Lastly, the study reveals a significantly positive correlation between the ADS and its subscales with the HIA scale. This finding suggests that individuals who engage in academic dishonesty are also more likely to exhibit hyper-competitiveness in academia and the association implies that hyper-competitive environments may inadvertently contribute to the prevalence of academic dishonesty among students. The pressure to outperform peers and attain academic success may push students to utilize unethical means by compromising their integrity. In a study by McCabe & Trevino (1997), they found that students who perceived a highly competitive environment were more likely to engage in cheating. The seminal study by McCabe et al., (2001) provides an overview of research on academic dishonesty and identifies competitive educational environments as one of the factors contributing to cheating behaviors. Anderman & Murdock (2007) discussed how hypercompetitive academic cultures, characterized by excessive emphasis

on grades and rankings, can lead to increased instances of academic cheating. So, further literature also explores the relationship between competitiveness and academic cheating (Baird, 1980; Davis et al., 2009; Tang & Zuo, 2017) that conforms the findings of our study.

This study demonstrates that individuals with higher levels of SD3 traits and hypercompetitiveness are more likely to engage in academic dishonesty. The positive correlations are being observed between the SD3 subscales, ADS, and its subscales, as well as the HIA scale, suggest that these constructs are interconnected with each other and play a role in shaping unethical behavior in the academic context. So, the findings of the study supported the hypothesis of the study and are in line with the literature.

The results of the regression analysis indicates that traits such as Machiavellianism, Psychopathy, and hypercompetitiveness (measured by the HIA scale) have a significant positive influence on academic dishonesty among university students. This means that when these traits are higher, there is a notable increase in academic dishonesty. It is important to note that in this study, Narcissism did not show a significant effect on academic dishonesty as its beta value was not statistically significant. These findings are consistent with previous research that has examined the connection between personality traits and academic dishonesty. Machiavellianism, characterized by manipulative tendencies and self-interest, has consistently been associated with unethical behavior, including academic dishonesty (Jonason et al., 2012). Similarly, prior studies have also highlighted the link between Psychopathy and academic dishonesty, emphasizing the callous and manipulative nature of individuals with psychopathic traits (Boddy et al., 2010).

Moreover, the positive relationship between hypercompetitiveness and academic dishonesty is consistent with the literature on achievement-oriented individuals as well as the hypercompetitive individuals that may also utilizes unethical means, such as cheating or plagiarism, to gain a competitive advantage over their peers (Higgins et al., 2003) suggesting a strong desire to outperform others that may lead to engaging in academic dishonesty. The study provides evidence for the positive prediction of Machiavellianism, Psychopathy, and hypercompetitiveness on academic dishonesty among university students. These findings align with prior research and support the hypothesis of the study except for the Narcissism subscale.

Present study findings for mediation analysis (table 3.4.1) revealed that Machiavellianism significantly predicted both HIA and ADS, while HIA also significantly predicted ADS. Moreover,

the effect of Machiavellianism on ADS through HIA was found to be significant, indicating full mediation and suggests that HIA acts as a mediator, enhancing the influence of Machiavellian traits on academic dishonesty. The results of the study align with the previous research that has highlighted the detrimental effects of Machiavellianism on various aspects of individuals' behavior, including academic dishonesty (Jonason et al., 2013). Hypercompetitiveness in academia has been recognized as a significant factor in shaping student's attitudes and behaviors within academic environments and refers to an excessive drive to outperform others, often at the expense of ethical considerations (Kumar & Chaudhary, 2019). Present study demonstrates that HIA not only predicts academic dishonesty directly but also mediates the relationship between Machiavellianism and ADS. While this suggests that individuals with Machiavellian tendencies may rely on hypercompetitiveness to achieve their goals, including engaging in academic dishonesty. The finding is consistent with previous research that has highlighted the role of mediators in enhancing the relationship between personality traits and unethical behaviors (Kish-Gephart et al., 2010; Muris et al., 2017). This study contributes to the existing literature by shedding light on the underlying mechanisms through which Machiavellianism influences academic dishonesty by identifying hypercompetitiveness as a significant mediator, it emphasizes the importance of considering contextual factors, such as the competitive nature of academic environments, in understanding the manifestation of unethical behaviors like academic dishonesty.

Results of the mediation analysis (table 3.4.2) indicate that Narcissism significantly predicts both HIA and ADS, while HIA also significantly predicts ADS. Moreover, the effect of Narcissism on ADS through HIA was found to be significant, resulting in full mediation and findings suggest that HIA plays a crucial role in amplifying the impact of narcissistic traits on academic dishonesty. This finding is consistent with previous research that has highlighted Narcissism as a risk factor for unethical behaviors (Wink, 1992; Campbell et al., 2004) and narcissistic individuals tend to prioritize their own self-interests and may be more likely to engage in dishonest behaviors if they perceive it as advantageous to their goals or self-image (Brunell et al., 2008). However, the present study goes beyond examining the direct relationship between Narcissism and ADS by demonstrating the mediating role of HIA and the findings suggest that HIA serves as a pathway through which narcissistic traits influence academic dishonesty. The findings of the study are consistent with previous research that has highlighted the role of mediators in enhancing the relationship between personality traits and unethical behaviors e.g.,

studies have shown that personality traits such as Narcissism and Psychopathy can lead to unethical behavior through various mediators, including moral disengagement and self-serving cognitive distortions (Kish-Gephart et al., 2010; Muris et al., 2017). The greater impact of HIA as a mediator on ADS, compared to the effect of Narcissism, suggests that HIA amplifies the influence of narcissistic traits on academic dishonesty. This study contributes to the growing literature on the mechanisms underlying academic dishonesty.

Findings of the last mediation analysis (table 3.4.3) revealed significant associations between Psychopathy and both HIA and ADS, suggesting that Psychopathy plays a role in predicting these variables. However, while HIA did not significantly predict ADS, it partially mediated the relationship between Psychopathy and ADS. The significant effect of Psychopathy on ADS suggests that psychopathic traits have a direct impact on academic disengagement. And this finding aligns with previous research that has demonstrated the detrimental effects of Psychopathy on various aspects of functioning, including academic performance and engagement (Jones et al., 2018; Vize et al., 2020). However, the presence of an indirect effect through HIA suggests that hypercompetitiveness in academia partially explains the relationship between Psychopathy and ADS. Hypercompetitiveness refers to an excessive drive to outperform others and achieve success at all costs, often accompanied by a disregard for ethical norms and a focus on personal gain (Clark et al., 2021) so, Psychopathy may fuel this hypercompetitiveness, leading to increased academic dishonesty as individuals prioritize their own success over collaborative efforts and ethical considerations. Overall, this study sheds light on the relationships between Psychopathy, hypercompetitiveness in academia, and academic dishonesty and emphasizes the importance of considering psychopathic traits and hypercompetitive tendencies when examining factors contributing to academic dishonesty. So, findings conform to the hypothesis of the study and align with the literature.

The results of the independent sample t-test (table 3.5) indicate significant gender differences in the variables of the Short Dark Triad Scale (SD3), Academic Dishonesty Scale (ADS), and Hypercompetitiveness in Academia Scale (HIA). The overall scale of SD3 revealed that males exhibit higher mean scores compared to females, indicating a greater prevalence of dark triad traits in males and this aligns with previous research suggesting that males tend to display higher levels of Machiavellianism and Psychopathy, two of the dark triad traits, compared to

females (Jones & Paulhus, 2014; Jonason et al., 2013). Interestingly, Narcissism did not show a significant gender difference, suggesting that both males and females exhibit similar levels of narcissistic traits, but this finding is somewhat inconsistent with some previous studies that have reported higher Narcissism scores in males (Besser et al., 2013; Grijalva et al., 2015). However, it is important to note that the lack of significance may be attributed to the characteristics of the sample used in this study for instance, a study by Brummelman et al. (2016) found that gender differences in Narcissism were more prominent in older adults compared to younger individuals. It can also be the choice of measurement tools that impacts the observed gender differences in Narcissism as different measures may emphasize distinct facets of Narcissism, leading to variations in results. For instance, a study by Ackerman et al. (2011) suggested that gender differences might be more pronounced in measures focusing on overt grandiosity rather than covert Narcissism. Or it can also be the cultural influences can shape the manifestation and perception of Narcissism, potentially leading to different gender patterns across cultures. A cross-cultural study by Grijalva et al. (2015) indicated that gender differences in Narcissism were more substantial in Western countries compared to non-Western countries.

While the mean values of the subscales of ADS revealed that females were more likely to engage in various forms of academic dishonesty, including outside help, plagiarism, cheating in examination, prior cheating, falsification, and lying about assignments. And this finding is consistent with prior research indicating that females tend to report higher levels of academic dishonesty compared to males (Anderman et al., 2011; Diekhoff et al., 1996). But it has also been suggested that gender differences in academic dishonesty may be influenced by various other factors such as socialization, ethical beliefs, and contextual factors within educational settings (Kerkvliet & Sigmund, 1999; McCabe et al., 2012). The results revealed no significant gender difference in hypercompetitiveness in academia, for both males and females. Moreover, this finding contradicts with some previous studies suggesting that males tend to exhibit higher levels of competitiveness in academic settings (Hyde & Mertz, 2009). However, it is worth noting that the specific context of the study or the measurement instrument used for assessing hypercompetitiveness or the cultural context, for instance, a cross-cultural study by Chiu et al., (1997) found that gender differences in competitiveness were more pronounced in individualistic cultures compared to collectivistic cultures that suggests that the cultural context can moderate the expression of gender differences in competitiveness which may contribute to these disparate

findings. Overall, the results of this study contribute to the existing literature on gender differences in the domains of dark triad traits, academic dishonesty, and hypercompetitiveness in academia and partially conforms to the hypothesis of the study.

Additional findings of the independent sample t-test (table 3.6) revealed significant differences among the variables of academic dishonesty with respect to family system differences. Regarding academic dishonesty, students in nuclear family systems have shown more academic dishonesty compared to students in joint family systems. This suggests that students in nuclear family systems are more likely to engage in academically dishonest behaviors, such as seeking outside help, prior cheating, falsification and lying about assignments. While previous research has linked family factors, such as parenting style, parental expectations, and family values, to academic dishonesty among students (Anderman & Murdock, 2007; Roig, 1997). The findings of this study contribute to the existing literature by highlighting the role of family systems in shaping dark triad traits, academic dishonesty, and hyper-competitiveness in academia among students.

The findings from Table 3.7 indicate significant differences in the dark triad traits across different socioeconomic classes. Specifically, the results suggest that students from the lower socioeconomic class exhibit higher levels of dark triad traits compared to students from middle and upper classes. These findings align with existing literature that suggests a link between socioeconomic status and the manifestation of dark triad traits. Several studies have explored the association between socioeconomic factors and personality traits, including the dark triad. For instance, research by Jonason, Webster, & Schmitt (2012) found that individuals from lower socioeconomic backgrounds exhibited higher levels of dark triad traits, including Psychopathy and Narcissism. This finding also supports some other previous studies that have suggested a link between lower socioeconomic status and higher levels of dark personality traits (Jonason, 2019; Lee et al., 2013) and these traits are characterized by manipulative and exploitative tendencies, may be more prevalent among individuals who face economic hardships and perceive a need to navigate challenging social environments (Lee et al., 2013). Moreover, results also suggests that within the dark triad traits, Psychopathy stands out as the most prominent trait in lower class students. The higher levels of Psychopathy observed in lower class students may be influenced by various factors. Some researchers argue that economic adversity, limited opportunities, and exposure to stressful environments can contribute to the development of psychopathic traits

(Baskin-Sommers et al., 2016). The challenging circumstances faced by individuals from lower socioeconomic backgrounds may lead to a higher propensity for callous and manipulative behavior.

On the other hand, the findings also highlight the prevalence of narcissistic traits among students from the upper class that suggests that upper class students exhibit more narcissistic tendencies compared to their counterparts. This finding is consistent with previous research that has found a positive association between wealth and narcissistic traits (Piff et al., 2012). The privileged environment and increased access to resources among the upper class may contribute to a sense of entitlement and self-centeredness. Moreover, the emphasis on individual achievement and competition prevalent in upper-class environments may foster the development of narcissistic tendencies in individuals (Stieger et al., 2013). However interestingly, middle class students show a propensity for lying about their assignments. This finding suggests that students from the middle class are more likely to engage in dishonest behaviors related to academic performance and in line with prior research that has examined the relationship between socioeconomic status and academic dishonesty. For instance, studies have found that students from higher socioeconomic backgrounds tend to engage in more academic dishonesty compared to their lower socioeconomic counterparts (Bowers et al., 2014; Singg & Chandran, 2014) and this disparity may be attributed to factors such as increased access to resources and a stronger emphasis on success and achievement in middle-class families (Bowers et al., 2014). However, it is important to note that this study does not provide insights into the underlying reasons for this behavior. Overall, the findings align with prior research and support the hypothesis of the study. These findings also contribute to the existing literature on the relationship between socioeconomic status and personality traits, shedding light on the complex interplay between social factors and individual characteristics.

The additional findings of the One-Way Analyses of Variance (ANOVA) conducted on the SD3, ADS, and HIA scales of extracurricular activities provide interesting insights into the relationship between specific traits and students' involvement in different activities. There are higher dark triad traits among students with club memberships suggests that these individuals possess elevated levels of dark personality traits especially Narcissism and Psychopathy. This finding aligns with prior research that has shown a positive association between narcissistic and psychopathic tendencies and participation in clubs or similar group settings (Campbell, 2019;

Jonason et al., 2009). Individuals with narcissistic traits often seek attention, admiration, and opportunities for self-enhancement, which may make them more inclined to join clubs where they can showcase their abilities and receive recognition (Jonason et al., 2009). Similarly, individuals with psychopathic traits, characterized by a lack of empathy and manipulative tendencies, may find club memberships advantageous for achieving personal goals and exerting influence over others (Campbell, 2019).

Furthermore, the subscale analysis indicates that the narcissistic traits are more among those students who have club memberships. This finding is consistent with previous research that has suggested a stronger relationship between Narcissism and group involvement (Jonason et al., 2009). Narcissistic individuals often exhibit a desire for recognition, admiration, and leadership roles within social contexts, which may explain their greater inclination towards joining clubs and assuming prominent positions within these settings (Campbell, 2019; Jonason et al., 2009). In contrast, students involved in other extracurricular activities, as opposed to clubs and sports, appear to be more prone to seeking outside help when engaging in academic dishonesty. This finding suggests that these individuals may rely on external resources, such as tutoring or academic assistance services, when faced with challenges related to unethical academic behavior. This behavior could stem from a variety of factors, including a lack of confidence, the perception of a competitive academic environment, or a greater emphasis on performance outcomes rather than personal achievement (Ashforth & Mael, 1989; McCabe et al., 2012). Moreover, the analysis reveals that students with club memberships exhibit higher levels of hypercompetitiveness in academia compared to students involved in other activities. This finding suggests that club members may engage in a more intense form of academic competition, potentially driven by their narcissistic tendencies and desire for recognition. Previous research has highlighted the role of hypercompetitiveness in academic settings, emphasizing its potential negative impact on individual well-being and the overall learning environment (Urdan, 2012). However, these findings contribute to the growing literature on the intersection of personality, extracurricular activities, and academic behaviors, while emphasizing on the importance of considering individual differences when examining student engagement and integrity in educational settings.

4.1. Conclusion

The present study is conducted to explore the relationship between academic dishonesty and dark triad traits with the mediating role of hypercompetitiveness in undergraduate students. The findings of this study concludes that there is a positive relationship between academic dishonesty, dark triad traits and hypercompetitiveness in academia as presence of dark triad traits i.e., Narcissism, Machiavellianism and Psychopathy predicts academically dishonest behavior in undergraduate students. This study has found some significant gender differences on variables of academic dishonesty, dark triad trait and hypercompetitiveness. Other findings concluded that there is a difference between socioeconomic class difference on study variables and there is a significant difference with respect to the family system (joint and nuclear family system) as the results explains that Machiavelli traits are found more among students living in a joint family system whereas the students who live in a nuclear family system tend to have more narcissistic and psychopath traits. Furthermore, there was a significant difference in extracurricular activities of the undergraduate students such as students who are found to have Machiavelli traits are more involved in sports whereas students who have more narcissistic and psychopath traits tend to be involved in club memberships more as compared to others.

4.2. Implications

The findings of this research have provided empirical evidence that shows the relationship between dark triad trait and academic dishonesty with the mediating role of hypercompetitiveness in academia. The result has highlighted the need for educational institutions to prioritize and encourage a culture where students show academic integrity. This study will help apply comprehensive strategies such as disciplinary measures, awareness campaigns, captivating educational curriculum, which will help minimize the instances of academic cheating. Academic culture should emphasize the significance of ethical academic practices, through which educational institutions can foster a behavior that values honesty amongst students, integrity, and a commitment to seek knowledge. Education regarding ethics should not only show the negative aspects or repercussions of cheating behavior, but rather they can also focus on the positive consequences of academic integrity, such as personal growth, and scholarships.

Based upon the findings of the study, it is also suggested that training workshops and awareness seminars should also be organized for teachers so that they can learn ways how they can discourage competitions amongst undergraduate students and instead how the teachers can

foster positive competition .By introducing various strategies on how we can reduce academic cheating such as asking undergraduate students to perform practical work can help us overcome this problem. Additionally, encouraging a supportive learning environment where all the students feel comfortable seeking assistance from the teachers can dramatically help to reduce the motivation to cheat due to lack of academic stress or confidence. These initiatives by the faculty can enhance the student's sense of responsibility towards academic integrity. Since this study was conducted on 420 participants, the findings can be generalized on vast population. Overall, the findings can be used by the teachers to discourage academic cheating from childhood if they identify these traits amongst students.

4.3. Limitations and Future Recommendations

The measures that were used in this study is self-report in nature. Thus, there is a probability that the responses taken through these scales i.e. (Short Dark Triad Scale, Hypercompetitiveness in Academia Scale and Academic Dishonesty Scale) could be bias. The responses might have been consciously or unconsciously influenced by social desirability and they might be too embarrassed or shy to answer certain questions therefore the responses might have been a result of socially acceptable attitude. Therefore, additional research could be based on multi-informant method where responses can be taken not only from the participant themselves but with their surrounding family members, teachers, or friends etc. which will help us to resolve the issue of biased responses. Further research can also explore the relationship between dark triad trait, academic dishonesty with the mediating role of hypercompetitiveness in academia by measuring baselines and then providing scales to check the changes in response or simply conducting longitudinal research to measure whether there is a change in the responses of the participants. Further research could also use behavioral measures for a more objective assessment of academic cheating behavior.

This research was based on single method approach therefore subsequent studies could also benefit from mixed approaches such as exploring the phenomenon with the help of qualitative method first and then using quantitative method that can increase the validity of the findings.

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APPENDIXES

ANNEXURE A
PERMISSION FOR DATA COLLECTION



Bahria University
Discovering Knowledge

13-Mar-2023

TO WHOM IT MAY CONCERN

REQUEST FOR DATA COLLECTION

It is stated that **Ms. Marwa Aamir** Enrollment No. 01-171192-065 is a student of BS Psychology (8th Semester) Bahria University Islamabad Campus conducting research on "**Dark triad traits predicts academic dishonesty with the mediating role of academic competitiveness among undergraduate students**" under supervision of undersigned. It is requested that kindly allow her to collect the data from your esteemed institution.

Regards,

Shaf Ahmed

Lecturer

Department of Professional Psychology

Bahria University

E-8 Islamabad

Shaf Ahmed
Lecturer
Member Admissions Committee
Department of Professional Psychology
Bahria University, Islamabad

Department of Professional Psychology Shangrila Road E-8 Islamabad
Tel: 051-9260002 Ext No 1406 Fax: 051-9260889



Bahria University
Discovering Knowledge

13-Mar-2023

TO WHOM IT MAY CONCERN

REQUEST FOR DATA COLLECTION

It is stated that **Ms. Rumsha Kashif** Enrollment No. 01-171192-053 is a student of BS Psychology (8th Semester) Bahria University Islamabad Campus conducting research on "Dark triad traits predicts academic dishonesty with the mediating role of academic competitiveness among undergraduate students" under supervision of undersigned. It is requested that kindly allow her to collect the data from your esteemed institution.

Regards,

Shaf Ahmed
Lecturer
Member Admissions Committee
Department of Professional Psychology
Bahria University, Islamabad

Shaf Ahmed

Lecturer

Department of Professional Psychology

Bahria University

E-8 Islamabad

ANNEXURE B
EMAIL PERMISSIONS FOR SCALES

6/2/23, 2:17 AM

Gmail - Permission to use Short Dark Triad Scale (SD3)



marwa aamir <aamirmarwa7464@gmail.com>

Permission to use Short Dark Triad Scale (SD3)

3 messages

marwa aamir <aamirmarwa7464@gmail.com>
To: "Paulhus, Delroy" <dpaulhus@psych.ubc.ca>

Tue, May 23, 2023 at 2:36 PM

Dear Delroy Paulhus,

I hope this email finds you in good health. My purpose for writing this email is to request for your permission to use the Short Dark Triad Scale: A brief measure of Dark Personality Traits which was developed and validated by you in 2013 for my undergraduate research study related to Dark Triad Traits among undergraduate students. You suggested me to contact Mr. Daniel Jones, but I couldn't get any reply even after many days. I would be much obliged if you could provide the permission, scales and items along with the scoring manual as I am left with a less time period to submit my research. It would be really helpful for me.

Thank you for the consideration of this request.

Sincerely,
Marwa Aamir
BS Psychology
Bahria University Islamabad
Pakistan

Paulhus, Delroy <dpaulhus@psych.ubc.ca>
To: marwa aamir <aamirmarwa7464@gmail.com>

Tue, May 23, 2023 at 9:02 PM

Ok, here is the instrument. There is no manual, but scoring instructions are at the end of the file.

dp

From: marwa aamir <aamirmarwa7464@gmail.com>
Sent: Tuesday, May 23, 2023 2:36 AM
To: Paulhus, Delroy <dpaulhus@psych.ubc.ca>
Subject: Permission to use Short Dark Triad Scale (SD3)

[CAUTION: Non-UBC Email]

[Quoted text hidden]

 **SD3.1.1.doc**
49K

marwa aamir <aamirmarwa7464@gmail.com>
To: "Paulhus, Delroy" <dpaulhus@psych.ubc.ca>

Thu, May 25, 2023 at 10:47 AM

Thank you so so muchhhh. It means a lot to me.

[Quoted text hidden]

6/2/23, 2:19 AM

Gmail - Permission to use Academic Dishonesty Scale



marwa aamir <aamirmarwa7464@gmail.com>

Permission to use Academic Dishonesty Scale

3 messages

marwa aamir <aamirmarwa7464@gmail.com>

Wed, Feb 8, 2023 at 5:46 PM

To: "hilalbashir14@gmail.com" <hilalbashir14@gmail.com>, "ranjan.16366@lpu.co.in" <ranjan.16366@lpu.co.in>

Cc: shaf.ahmed05@gmail.com, rumsha.kashif2000@gmail.com

Dear Hilal Bashir and Ranjan Bala,

I hope this email finds you in good health. My purpose for writing this email is to request for your permission to use the Academic Dishonesty Scale (ADS): A Multidimensional Scale which is developed and validated by you for my undergraduate research study on Academic Dishonesty among undergraduate students. I would be much obliged if you could provide the scales and items along with the scoring manual.

Thank you for the consideration of this request.

Sincerely,
Marwa Aamir
BS Psychology
Bahria University Islamabad
Pakistan

Hilal Bashir <hilalbashir14@gmail.com>

Tue, Mar 7, 2023 at 6:53 AM

To: marwa aamir <aamirmarwa7464@gmail.com>

Thanks for your interest in our paper.

Of course, you can use/adapt/modify our developed scale as per the need of your context. The said scale can be downloaded from journal website "international Journal of Instruction". All details about scoring procedure are given in the paper.

Good luck.

[Quoted text hidden]

marwa aamir <aamirmarwa7464@gmail.com>

Wed, Mar 8, 2023 at 11:03 PM

To: Hilal Bashir <hilalbashir14@gmail.com>

Thankyou for your reply, It will help us a lot.

Regards,
Marwa

[Quoted text hidden]

6/2/23, 2:19 AM

Gmail - Permission to use Hypercompetitiveness in Academia Scale [ref:_00D0Y35Ji._5007TJdoiv:ref]



marwa aamir <aamirmarwa7464@gmail.com>

Permission to use Hypercompetitiveness in Academia Scale [ref:_00D0Y35Ji._5007TJdoiv:ref]

1 message

T&F Journal Permission Request <journalpermissions@tandf.co.uk>
To: "aamirmarwa7464@gmail.com" <aamirmarwa7464@gmail.com>

Fri, May 19, 2023 at 2:38 PM



Taylor & Francis Group
an **informa** business

19/05/2023

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ANNEXURE C
INFORMED CONSENT FORM

Informed Consent

We are conducting a research study entitled **“Dark Triad Traits predicts Academic Dishonesty with the mediating role of Academic Competitiveness among undergraduate students”**. The main purpose behind the research is to investigate the relationship between the Dark Triad Traits (i.e., Narcissism, Machiavellianism, and Psychopathy) and academic dishonesty with the role of academic competitiveness. So, we can propose some solutions to end this growing problem and contribute to the wellness of society.

The research study is conducted by Ms. Marwa Aamir and Ms. Rumsha Kashif, under the supervision of Mr. Shaf Ahmed, Department of Professional Psychology, Bahria University Islamabad Campus. We assure you that any information provided by you will be used for research purposes only and will be kept confidential and anonymous. The personal details recorded by us are used only to avoid the repetition of participants in the study and will not be linked to your answers to the questions. All you need to do is to choose the right option that fits your situation best. You can freely withdraw your participation from the study at any time without prejudice and penalty. In case of any concern or query, you can reach out to us at.

darktriadtraits@gmail.com

Do you want to be part of this research study?

YES	NO
------------	-----------

If yes, it is stated that I voluntarily agree to participate in the BS Psychology research entitled **“Dark Triad Traits predicts Academic Dishonesty with the mediating role of Academic Competitiveness among undergraduate students”** conducted by Ms. Marwa Aamir and Ms. Rumsha Kashif.

Participant’s Signature: _____

Date: _____

Researcher’s Signatures: _____

ANNEXURE D
DEMOGRAPHIC SHEET

Demographics

Gender

- Male
- Female

Age: _____

Name of Degree/Programme: _____

Current Semester/Year: _____

Any Extracurricular or Co-curricular Activity: _____

Socioeconomic Status:

- Upper Class
- Middle Class
- Lower Class

Income (Monthly): _____

Family System:

- Nuclear
- Joint

Father's level of Education:

- Not educated.
- Matric/O-levels
- Intermediate/A-levels
- Graduated/BS
- Post- Graduated/MS
- Doctorate/Ph.D.

Mother's level of Education:

- Not educated.
- Matric/O-levels
- Intermediate/A-levels
- Graduated/BS
- Post- Graduated/MS
- Doctorate/Ph.D.

Any Physical Disability: _____

Any Mental health issue/disorder: _____

ANNEXURE E
SCALES TO MEASURE VARIABLES

SHORT DARK TRIAD TRAITS SCALE (SD3)
MACHEVIALLINISM, NARCISSISM & PSYCHOPATHY

Scale 1

Instructions: Please indicate how much you agree with each of the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

Sr. no	Items	1	2	3	4	5
1.	It's not wise to tell your secrets.					
2.	I like to use clever manipulation to get my way.					
3.	Whatever it takes, you must get the important people on your side.					
4.	Avoid direct conflict with others because they may be useful in the future.					
5.	It's wise to keep track of information that you can use against people later.					
6.	You should wait for the right time to get back at people.					
7.	There are things you should hide from other people to preserve your reputation					
8.	Make sure your plans benefit yourself, not others.					
9.	Most people can be manipulated.					
10.	People see me as a natural leader.					
11.	I hate being the center of attention.					
12.	Many group activities tend to be dull without me.					
13.	I know that I am special because everyone keeps telling me so.					
14.	I like to get acquainted with important people.					
15.	I feel embarrassed if someone compliments me.					
16.	I have been compared to famous people.					
17.	I am an average person.					
18.	I insist on getting the respect I deserve.					

19.	I like to get revenge on authorities.					
20.	I avoid dangerous situations.					
21.	Payback needs to be quick and nasty.					
22.	People often say I'm out of control.					
23.	It's true that I can be mean to others.					
24.	People who mess with me always regret it.					
25.	I have never gotten into trouble with the law.					
26.	I enjoy having sex with people I hardly know.					
27.	I'll say anything to get what I want.					

ACADEMIC DISHONESTY SCALE (ADS)

Scale 2

Please read each phrase carefully and fill in the number that best reflects your actions.
Responders are scored on a five-point Likert scale as they reply in five points.

1	2	3	4	5
Always	Frequently	Sometimes	Rarely	Never

Sr.no	Items	1	2	3	4	5
1.	During examination I use signals to fetch answers from my friends.					
2.	I use prohibited things like hidden notes, calculators, and other electronic devices during examination.					
3.	I interchange my allotted book with other student to get better grade in examination.					
4.	During an examination, I solve answers on question paper and handover to my classmates.					
5.	During a test I try to copy from another student.					
6.	I copy summary of a story/poem/chapter from a textbook & claim it as completed by me.					
7.	For submitting assignment, I copy and change few sentences/lines/words and phrases from other sources.					
8.	I use online resources in my personal educational assignment/project without citing the author.					
9.	For personal comments I manipulate scientific information on internet and claim it as written by me.					
10.	I attempt to make special considerations to attain or getting favors i.e. (bribery)					
11.	In an individual work/assignment I take help from others to complete it.					
12.	I use unfair means to obtain information about the content of the test before it was given.					

13.	Before the examination I try to know questions asked on paper.					
14.	I write expected answers on table/wall/hand/paper etc. in prior time.					
15.	I interchange my allotted seat near efficient student to get better grade in examination.					
16.	Before the examination I encourage other classmates to cheat.					
17.	I submitted the assignment in my name after getting it prepared by my friends.					
18.	I damage library books so that classmates do not get the required content.					
19.	In a course I submit the same educational assignment more than one time.					
20.	I give false explanations when I miss the deadline of my educational project.					
21.	I buy a project/assignment/paper online & submit it as my individual effort.					
22.	Before the exam I pay someone to write a paper/homework for me.					
23.	I provide false excuses to the teacher, to gain extra time on project/assignment.					

HYPERCOMPETITIVENESS IN ACADEMIA SCALE (HIA)

Scale 3

Please read each statement carefully. There is no right or wrong option. Choose the option which you think best describes your situation.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly Agree

Sr. no	Items	1	2	3	4	5	6	7
1.	In school I compete with others even if they are not competing with me.							
2.	Sometimes I view a test as an opportunity to prove that I am intellectually superior to others.							
3.	Classmates, whether they admit it or not, are all competing with each other.							
4.	I can't stand to lose an academic argument.							
5.	I view class participation, when scored as a part of my final grade, as an opportunity to show the professor that I know more than my peers.							
6.	Academic competition inspires me to excel.							
7.	I hope that others will not do better than myself on tests.							
8.	I could care less about winning an academic debate so long as I learn something.							
9.	Success in an academic competition does not make me feel superior to others.							
10.	I sometimes resent students who perform better than I do.							
11.	Being competitive in class and other academic situations is healthy because it prepares one for the competition, they will find in the business world.							

12.	When I hear someone say something incorrect about an academic topic, I am quick to let them know that they are wrong.							
13.	It is not important to get the highest grade in the class.							
14.	People who drop out of school typically can't cut it.							
15.	When other students do better on a test, I typically do not experience any intense emotions about not having done as well.							
16.	Classmates are more like friends than opponents.							
17.	I believe academic cooperation fosters higher performance levels than competition.							
18.	I do not share my academic insights with others because they are more than likely to claim them as their own.							

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