RELATIONSHIP BETWEEN DARK TRIAD PERSONALITY,

MORAL DISENGAGEMENT AND CYBERBULLYING

AMONG UNDERGRADUATE STUDENT IN

UNIVERSITI TUNKU ABDUL RAHMAN

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE

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Relationship between dark triad personality, moral disengagement,

and cyberbullying among undergraduate student

in Universiti Tunku Abdul Rahman

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APPROVAL FORM

This research paper attached hereto, entitled ― Relationship between dark triad personality, moral disengagement, and cyberbullying among undergraduate student in Universiti Tunku Abdul Rahman prepared and submitted by Li Xin Yan, Hew Hui Teng, and Loh Shao Heng in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

_____ Date: ___28 AUG 2023___

Supervisor:

Dr. Siah Poh Chua

Abstract

While technology's rapid development grants easy and efficient access to social media platforms, it has also enabled negative consequences like cyberbullying. Therefore, the purpose of the current study was to investigate the relationship between cyberbullying, the dark triad personality, and moral disengagement. In this study, a quantitative cross-sectional design was used, and online questionnaires were adopted to collect data through various social media platforms. Moreover, a purposive sampling method was utilized to collect data from undergraduate students age between 18-24 who study in Universiti Tunku Abdul Rahman and 120 samples involve in this study. The Short Dark Triad Scale (SD3), the 10-item Mechanisms of Moral Disengagement Scale (MMDS-10), and the European Bullying Intervention Project Questionnaire (EBIPQ) were utilized to evaluate the study variables. Then, the collected data was analyzed using IBM SPSS Statistics (SPSS). Pearson's correlation results concluded that cyberbullying and Machiavellianism have a non-significant and positive relationship, while there is a significant and positive relationship between narcissism and psychopathy towards cyberbullying. In addition, a significant and positive relationship could be found between cyberbullying and moral disengagement. On the other hand, the two variables of narcissism and psychopathy are significantly positively correlated with moral disengagement, while Machiavellianism has a non-significant and positive relationship with moral disengagement. Besides that, the result of multiple linear regression analysis indicated that psychopathy and moral disengagement are the significant predictors of cyberbullying, but not Machiavellianism. Lastly, there has been limited prior research concerning this topic among undergraduate students in the region. Hence, this study aims to fill this research gap within the Malaysian context and serve as a resource to enhance the comprehension of cyberbullying predictors.

Keywords: undergraduates, dark triad personality, moral disengagement, cyberbullying

DECLARATION

Hereby, we declare that this project entitled — Relationship between dark triad personality, moral disengagement, and cyberbullying among undergraduate student in Universiti Tunku Abdul Rahman is a record of original work done by us under the guidance of Dr Siah Poh Chua, submitted to Universiti Tunku Abdul Rahman in the partial fulfilment of the requirements for Bachelor Degree of Social Science (HONS) Psychology. The due acknowledgement has been given in the bibliography and references to ALL sources, be it printed, electronic or personal.

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Abbreviations	
UNICEF	United Nations Children's Fund
UTAR	Universiti Tunku Abdul Rahman
KKMM	Communications and Multimedia Ministry
MCMC	Communications and Multimedia Commission
ABCD	Adolescents Brain Cognitive Development
FMT	FreeMalaysiaToday
DT	Dark Triad
MD	Moral Disengagement
SD-3	The Short Dark Triad scale
MMDS-10	10-items Mechanisms of Moral Disengagement Scale
EBIPQ	European Bullying Intervention Project Questionnaire
SES	Socioeconomic Status
SERC	Scientific and Ethical Review Committee
SPSS	Statistical Package for Social Science
K-S test	Kolmogorov-Smirnov test
P-P plot	Probability–probability plot
PPMC	Pearson Product-Moment Correlation
MLR	Multiple Linear Regression

Chapter I

Introduction

Background of Study

Bullying can be defined as deviant behaviour that involves targeted intimidation or humiliation in which a physically or socially strong person uses their power to frighten or hurt others (Juvonen & Graham, 2014). There are many types of bullying in different contexts, including school and workplace bullying. However, the advancement of digital technology has enabled bullying to take a new form, extending from physical to virtual bullying (Ang, 2015). The advancement of digital technology results in an increasing number of internet users. According to Statista (2022), the number of internet users in Malaysia in 2022 has achieved 28.38 million, and it is also predicted that internet users will be around 30 million in the following years. It is undeniable that the rapid development of technology has brought many conveniences to individuals. Individuals can easily access social media using smartphones, laptops, or tablets anytime and anywhere. Also, it enabled many individuals to access social media efficiently and use any platform to comment or speak on any topic. However, the utilization of communication on social media has caused various inappropriate consequences, typically cyberbullying (Jun, 2020). Cyberbullying can take various forms, such as by phone calls, texting messages, emailing, or posting or sending humiliating photos or videos (Marées & Petermann, 2012).

A Dark Triad can be defined as three socially destructive traits which seem undesirable (Paulhus & Williams, 2002). It included Machiavellianism, narcissism, and psychopathy (Paulhus & Williams, 2002). Jonason and Krause (2013) mentioned that DT is related to emotional deficits such as a lack of empathy. Past studies found that DT is related to cyberbullying (Goodboy & Martin, 2015; Safaria et al., 2020; Wright et al., 2020).

Moral disengagement (MD) refers to individuals who tend to redefine destructive behaviour as honourable through moral justification and preventing social comparison (Bandura, 2002). Bandura (2002) also mentioned that MD tend to reduce or exaggerate the damage caused by harmful actions, including degrading or blaming the victims for rationalizing the behaviour. When applying MD to cyberbullying context, MD can be defined as the process by which individuals who criticize cyberbullying, in general, bully others by disengaging their moral standards in bullying others so that they can bully without losing self-esteem (Bussey et al., 2015). Several studies have found that high level of moral disengagement is positively related to cyberbullying perpetration (Bussey et al., 2015; Marín-López et al., 2020; Wang & Ngai, 2020; Zeng et al., 2020).

As past researchers have not examined the relationship between DT, moral disengagement and cyberbullying, thus, it is vital to determine their relationship.

Problem Statement

The United Nations Children's Fund (UNICEF) (2019) poll found that young people in Malaysia are one of the countries that reported being the victims of cyberbullying. Also, Cybersecurity Malaysia, which is the national cybersecurity agency under the Communications and Multimedia Ministry (KKMM), reported that they had received 596 reports of cyberbullying or harassment compared to 201 reports in 2019. The Malaysian Communications and Multimedia Commission (MCMC) have received over 6000 complaints about cyberbullying and sexual harassment (Carvalho et al., 2021). Lai et al. (2017) surveyed 712 public and private colleges and universities in Malaysia to find out the prevalence of cyberbullying. They found that 66% of respondents reported that they had been bullied. Besides, the Malaysian government recently set up a portal for people who encounter bullying cases to report their experiences, which would directly report to the Ministry of

Education (Reporter, 2022). According to the Minister of Education, Dr Radzi Jidin, the portal received 28 complaints after launching one week (Ahmad, 2022).

Due to the development of technology, cyberbullying is gradually becoming a social problem as cyberbullying victimization and perpetration are increasing. Several studies have found that cyberbullying victimization and perpetration are common in adolescents 12-16 years old (Albdour et al., 2019; Fischer et al., 2020; Pichel et al., 2021). While in some other studies found that cyberbullying is common in young adults (18-25 years old) (Lai et al., 2017; Wang et al., 2019). This shows that cyberbullying victimization and perpetration are more prevalent among adolescents and young adults.

Cyberbullying can cause a significant impact on psychological distress (Albdour et al., 2019; Safaria, 2016) and social networking sites exhaustion which will lead users to avoid using social networking sites (Cao et al., 2020). Moreover, victims of cyberbullying are more likely to experience depressive symptoms, suicidal ideation, loneliness, and somatic symptoms (Benatov et al., 2021; Hammami & Katapally, 2022; Maurya et al., 2022; Nixon, 2014). Another Nikolaou (2017) study also revealed that cyberbullying is significantly related to all suicidal behaviours. Besides, not only would cyberbullying victims experience mental health problems, but the perpetrators of cyberbullying would also suffer from mental health problems. A study found that cyberbullying perpetrators reported severe suicidal ideation or attempt to suicide (Benatov et al., 2021).

The correlation between Dark Triad, moral disengagement and cyberbullying has yet to be investigated. A study by Zhou et al. (2018) investigated the mediating effect between personality traits and cyberbullying, but they mainly focused on the Big Five personality. There need to be more studies focusing on the Dark Triad in the Malaysian context, and most of the studies are carried out in Western and Eastern countries (Safaria et al., 2020; Geel et

al., 2017; Wright et al., 2020). In order to fill in this gap, it is crucial to conduct quantitative research to examine whether Dark Triad and moral disengagement are significant predictors of cyberbullying among undergraduate students in Malaysia.

Research Objectives

This study aims to investigate whether the Dark Triad personality (Machiavellianism, narcissism and psychopathy) and moral disengagement significantly predicted cyberbullying among undergraduate students in Malaysia. Before we look into the effects of Dark Triad personality and moral disengagement on cyberbullying, we need to investigate the relationship between the variables. So, in this case, we need to find out whether there is a significant relationship between (1) Dark Triad and cyberbullying, (2) Dark Triad and moral disengagement and (3) moral disengagement and cyberbullying.

Significant of Study

Cyberbullying is a social problem that needs to be paid attention to by society. Some cases have reported that adolescents commit suicide after being cyberbullied (Dearen, 2018; Kin, 2020). The U.S. News (2022) reported that the Adolescents Brain Cognitive Development (ABCD) study found that among 10,000 adolescents, 7.6% of them responded that they had experienced suicidal thoughts, while 8.9% of them reported being a target of cyberbullying. Cyberbullying occurs not only among adolescents or young adults. FreeMalaysiaToday (FMT) (2022) recently reported that a 44-year-old single mother committed suicide after being bullied on social media. It believes that she has been the target of hateful comments on her TikTok account (FMT, 2022). It can be seen that the issue of cyberbullying has become a prevalent problem that strongly affects individuals. By examining the factors of cyberbullying, this study is expected to provide a clearer picture of cyberbullying.

Besides, this study also hopes to contribute to the education field. Since the study on DT, moral disengagement, and cyberbullying is limited, this study hopes to provide some helpful information and data on the factors that might influence cyberbullying so that it can serve as a guideline for researchers for future development in the counselling and psychology field.

Apart from these, this study is expected to contribute to society and allow relevant parties to increase cyberbullying awareness. Many studies in Malaysia only focus on the occurrence of cyberbullying but lack intervention or prevention programs to reduce the occurrence. Relevant parties such as teachers, parents and students must be aware of cyberbullying cases and the severe impact of cyberbullying. Chan et al. (2020) study revealed that some students did not know their actions were considered bullying. Moreover, the lack of policy and standard operating procedures on cyberbullying made it difficult for school counsellors to differentiate between cyberbullying and other forms of cyber aggression (Chan et al., 2020). Some school counsellors in this study (Chan et al., 2020) also mentioned that this issue is out of their responsibilities since cyberbullying has occurred in the out-of-school context. While some of the counsellors stated that their responsibilities overburdened them, they did not have sufficient time to explore these unclear issues (Chan et al., 2020). Thus, it is crucial to raise awareness about cyberbullying as well as develop intervention and prevention programs for all responsible parties. Therefore, there is a necessity to study the issue of cyberbullying.

Research Questions

1. Is there any significant relationship between Dark Triad and cyberbullying among undergraduate students in Malaysia?

2. Is there any significant relationship between Dark Triad and moral disengagement among undergraduate students in Malaysia?

3. Is there any significant relationship between moral disengagement and cyberbullying among undergraduate students in Malaysia?

4. Whether Dark Triad and moral disengagement are significant predictors of cyberbullying among undergraduate students in Malaysia?

Hypotheses

H$_{1a}$: There is a significant positive relationship between Machiavellianism and cyberbullying among undergraduate students in Malaysia.

H$_{1b}$: There is a significant positive relationship between narcissism and cyberbullying among undergraduate students in Malaysia.

H$_{1c}$: There is a significant positive relationship between psychopathy and cyberbullying among undergraduate students in Malaysia.

H$_{2a}$: There is a significant positive relationship between Machiavellianism and moral disengagement among undergraduate students in Malaysia.

H$_{2b}$: There is a significant positive relationship between narcissism and moral disengagement among undergraduate students in Malaysia.

H$_{2c}$: There is a significant positive relationship between psychopathy and moral disengagement among undergraduate students in Malaysia.

H$_3$: There is a significant positive relationship between moral disengagement and cyberbullying among undergraduate students in Malaysia.

H$_{4a}$: Dark Triad is a significant predictor of cyberbullying among undergraduate students in Malaysia.

H_{4b}: Moral disengagement is a significant predictor of cyberbullying among undergraduate students in Malaysia.

Conceptual Definition

Dark Triad

DT can be characterized by three socially destructive characteristics: Machiavellianism, narcissism and psychopathology (Paulhus & Williams, 2002). Machiavellianism is described as interpersonal tactics emphasizing coldness, calculation, lying and manipulation (Geel et al., 2017). Narcissism comprises feelings of condescending, grandiosity, dominance and superiority (Geel et al., 2017). At the same time, psychopathy refers to high impulsivity and thrill-seeking, as well as a lack of empathy and anxiety (Paulhus & Williams, 2002).

Moral Disengagement

According to Bandura (2002), moral disengagement (MD) refers to redefining destructive behaviour as honourable through moral justification and preventing social comparison. Bandura (2002) also mentioned that MD tend to reduce or exaggerate the damage caused by harmful actions, including devaluing or blaming the victims for rationalizing the behaviour.

Cyberbullying

According to Smith et al. (2008), cyberbullying is a bullying behaviour committed repeatedly across time using digital means against a victim who is unable to adequately protect themselves. Olweus (1993) define the nature of bullying is a subcategory of hostility with three key features, which include intentionality describe as aggressor's desire to harm, the repetition of the conduct, and the imbalance of power between. Another two categories which include anonymity and publicity are added into the three categories above could help to define cyberbullying (Nocentini et al., 2010).

Operational Definition

Dark Triad

All personality traits (Machiavellianism, narcissism and psychopathy) will be measured through the Short Dark Triad (SD3) scale developed by Jones and Paulhus (2014) that is shorten from 41 to 27 items. In each dimension will consist of 9 items, sum up and average the scores obtained to determine their level of three personalities traits.

Moral Disengagement

The 10 items version of Mechanisms of Moral Disengagement Scale (MMDS-10) developed by Concha-Salgado et al. (2022) will be used to measure moral disengagement. By summing up the scores, the higher scores indicate a higher level of moral disengagement.

Cyberbullying

The perpetration subscale in European Bullying Intervention Project Questionnaire (EBIPQ) will be used to measure the occurrence of bullying in previous two months (Brighi et al., 2012). The items use a Likert scale with five options *(never, once or twice, once or twice a month, about once a week, more than once a week)* to characterize cyberbullying perpetration that may have occurred over the preceding two months (Rodríguez-Hidalgo et al., 2019).

Chapter II

Literature Review

Cyberbullying

Cyberbullying refers to any purposeful actions that deliberately make harm or discomfort to others by transmitting hostile or aggressive behaviors using the Internet (Zhao et al., 2022). Huang and Chou (2010) revealed that there were three different role groups in cyberbullying behavior which include victims, perpetrators, and bystanders. Slonje et al. (2013) described seven categories of cyberbullying such as flaming, online harassment; cyberstalking, denigration, masquerade, outing, and exclusion. The features of cyberspace such as anonymity and lack of parental supervision in turn exacerbate the adverse effects of cyberbullying (Ang & Goh, 2010). Most research findings found that cyberbullying was significantly linked with one's moral disengagement in which lower level of moral disengagement leading to higher cyberbullying perpetration (Gao et al., 2020; Marín-López et al., 2020; Wang & Ngai, 2020; Yang et al., 2021; Yang et al., 2018).

Dark Triad Personality

Paulhus and Williams (2002) proposed the Dark Triad (DT), which can be defined as three socially destructive traits, which are Machiavellianism, narcissism, and psychopathy. These three traits often will be seen as undesirable and aversive. Jonason and Krause (2013) mentioned that each trait in DT is linked to emotional deficits such as a lack of empathy.

Machiavellianism can be called cynical contempt for morality, and individuals tend to emphasize self-interest and personal gain (Madan, 2014; Muris et al., 2017). Individuals high in Machiavellianism tend to manipulate others to achieve their interests and goals. It also includes characteristics such as coldness, deceitfulness, and calculation (Geel et al., 2017; Jonasan & Krause, 2013). Narcissism refers to artificially exaggerated self-perceptions

(Crysel et al., 2012) consisting of entitlement, grandiosity, dominance and superiority (Paulhus & Williams, 2002; Geel et al., 2017). A study by Wright et al. (2020) stated that teenagers with a high degree of narcissism tend to believe they as special and unique. At the same time, psychopathy can be defined as a lack of empathy or guilt (Crysel et al., 2012). It emphasizes low self-control, interpersonal hostility, callousness and lack of affection (Jonasan & Krause, 2013; Madan, 2014). DT has been known as an overlapping but distinct construct (Paulhus & Williams, 2002). These three traits share several common characteristics, such as deceitfulness, hostility, coldness and self-promotion (Paulhus & Williams, 2002). Moreover, another study by Jones and Figueredo (2013) revealed that the shared hostile elements in DT are manipulation and callousness.

Muris et al. (2017) conducted a meta-analysis that identified 50 studies and discovered that compared to women, men exhibit higher levels of narcissism, Machiavellianism and psychopathy. They also emphasized that psychopathy seems to be the most strongly related trait in men (Muris et al., 2017). Moreover, they also found that DT is a set of traits opposite to the Five Factor Model traits, especially agreeableness. This would explain individuals high in DT face difficulties in establishing relationships with others (Muris et al., 2017).

Rauthmann and Kolar (2012) examined the perceived darkness of the DT traits. They have found that as compared to Machiavellianism and psychopathy, narcissism is "brighter" (Rauthman & Kolar, 2012). As in previous research, narcissistic attributes like relatively higher conscientiousness and achievement motivation may change individuals' perceptions of narcissism (Rauthman & Kolar, 2012). This seems can explain why narcissism is perceived as more favorable than Machiavellianism and psychopathy. Another study also mentioned that Machiavellianism and psychopathy are closely related and could even be viewed as one construct (Rogoza & Cieciuch, 2018). However, psychopathy is considered a more

comprehensive construct than Machiavellianism (Rogoza & Cieciuch, 2018), which includes thrill and adventure seeking (Glenn & Sellbom, 2015).

Moral Disengagement

Moral disengagement is a socio-cognitive mechanism introduced by Bandura (1986). It explains that people use this mechanism to rationalize immoral and harmful behaviors to maintain their self-image (De Caroli & Sagone, 2014). People tend to use this mechanism to avoid inconsistency between their moral beliefs and behaviour to avoid cognitive dissonance (Egan et al., 2015). Eight cognitive mechanisms help reduce the number of uncomfortable behaviors that trigger self-censorship and allow one to act unethically while maintaining internal moral standards (Moore, 2015). The eight cognitive mechanisms include moral justification, euphemistic language, advantageous comparison, displacement of responsibility, diffusion of responsibility, distorting consequences, attribution of blame, and dehumanization.

Moral justification used to present harmful action as fulfilling a socially beneficial purpose or other good deeds (De Caroli & Sagone, 2014). Euphemistic language refers to the use of language to lessen the impression of brutality and seriousness caused by acts (De Caroli & Sagone, 2014). By utilizing advantageous comparison with more horrific behaviour, it can deflect attention from the negative impacts of individuals' results, or it will appear to be of little concern (Bandura, 1996). The diffusion and displacement of responsibility for undesirable behaviour will be utilized by minimizing or avoiding one's duty out of respect for higher power and a group obligation (Hymel et al., 2015). Distorting consequences refers to someone who does things that hurt others for their gain, they will try to avoid or minimize the harm they cause. It is also presented when the person can remember easily what they were told about the possible benefits of the behaviour, but they forget about how it could hurt other

people (Bandura, 1996). The last two mechanisms of dehumanization and attribution of blame describe how the victim may be perceived as either deserving of these destructive acts or as having been responsible for the blame and abuse, all of which may decrease the moral effect of bad conduct (Hymel et al., 2015).

Killer et al. (2019) found that moral disengagement is positively associated with bullying behaviour. Another study done by Wang et al. (2017) conducted a longitudinal study and found that the predictive effect of moral disengagement on bullying behaviour still exists six months later. Moreover, Thornberg and Jungert (2014) reveal that the two mechanisms of moral justification and attribution of blame have a strong connection with bullying. In short, moral disengagement is related to negative behaviour because it allows people to rationalize their behaviour and engage in the negative behaviour without the feeling of shame.

Dark Triad and Cyberbullying

Several researchers (Çelik et al., 2012; Zhong et al., 2021) have studied the factors that contribute to cyberbullying, and they have found that personality traits contribute to cyberbullying perpetration and victimization. Several studies have investigated the relationship between DT and cyberbullying (Goodboy & Martin, 2015; Hossain et al., 2022; Safaria et al., 2020). They have proved that DT has a significant positive relationship with cyberbullying; when individuals have a higher level of DT, they are more likely to engage in cyberbullying behaviours. Although all three traits play the same role in the tendencies of cyberbullying, the connections were different in degree (Goodboy & Martin, 2015).

When looking into each trait, studies have found that psychopathy is the strongest and unique predictor in predicting cyberbullying behaviours (Gibb & Deveruex, 2014; Goodboy & Martin, 2015). Another study from Hossain et al. (2022) revealed that psychopathy is a

necessary condition for committing cyber bullying. Besides, a study by Moor and Anderson (2019) shows that psychopathy is significantly related to all antisocial online behaviour, including cyberbullying. In the same way, Pabian et al. (2015) demonstrated that psychopathy is the only significant predictor in cyber-aggression, which encompasses cyberbullying. As psychopathy is characterized by interpersonal hostility and lack of empathy, and these traits allow individuals with psychopathy to disregard the emotional and psychological harm they cause to others (Hossain et al., 2022). Geel et al. (2016) studied personality traits related to traditional bullying and cyberbullying. They have found that psychopathy, as well as narcissism, are only slightly significant in predicting cyberbullying.

Machiavellian individuals tend to engage in cyberbullying when they intend to achieve or gain something from others (Goodboy & Martin, 2015). Safaria et al. (2020) study show that Machiavellianism is the strongest predictor of cyberbullying, followed by psychopathy and narcissism. This is possible because Machiavellianism tends to manipulate others and have a cynical worldview (Safaria et al., 2020). Besides, Kicaburun et al. (2018) found that Machiavellianism is directly associated with cyberbullying. As online communication enables individuals easier to manipulate others (Kicaburun et al., 2018). In contrary to previous research, a study by Geel et al. (2017) found that Machiavellianism was not a significant predictor of cyberbullying.

Few studies showed that narcissism is the weakest predictor in predicting cyberbullying (Moor & Anderson, 2019; Safaria et al., 2020). Nevertheless, a study in Malaysia (Panatik et al., 2022) investigated the effect of DT on cyberbullying among undergraduate students and found that although narcissism is related to cyberbullying, it does not influence cyberbullying. This might be due to narcissism being more of a self-centred trait. Narcissists tend to focus more on themselves than others (Panatik et al., 2022). Another

study mentioned that cyberbullying is a kind of retaliation used by narcissists for face restoration (Goodboy & Martin, 2015). Nevertheless, a study by Wright et al. (2020) found that narcissism is related to cyberbullying perpetration, specifically in Chinese and Indian adolescents.

Moral Disengagement and Cyberbullying

A recent three-year longitudinal study was conducted by Yang et al. (2022) to explore the association between peer pressure and cyberbullying perpetration while moral disengagement as a mediator, but family socioeconomic status (SES) and gender as the moderators of the study. A positive relationship between peer pressure and cyberbullying perpetration was found among adolescents and the relationship was mediated by moral disengagement, in which one's perceived peer pressure would subsequently increase greater moral disengagement and ultimately lead to cyberbullying perpetration. With regard to moderating effects of SES and gender, the relationship between peer pressure and moral disengagement were stronger among adolescents with poor family SES (Yang et al., 2022).

Moreover, another study researched by Gao et al. (2020) that aimed at studying the relationship between moral disengagement and cyberbullying perpetration given that student-student relationship and gender were the moderators. Based on the result, a positive correlation was observed between moral disengagement and cyberbullying perpetration which was also in light with the past findings (Marín-López et al., 2020; Wang & Ngai, 2020; Yang et al., 2018; Yang et al., 2021). Specifically, individuals with higher levels of moral disengagement and negative student-student relationships were more likely to engage in cyberbullying perpetration as compared to positive student-student relationships (Gao et al., 2020). In addition, traditional bullying was studied to have positive relationship with moral disengagement and cyberbullying perpetration, but negatively for student-student relationship

(Gao et al., 2020). Also, cyberbullying perpetration could be due to greater experiences in cyber victimization and traditional bullying perpetration. But traditional victimization was not linked to cyberbullying perpetration. The moderating effects of gender and student-student relationships on cyberbullying perpetration found males' student-student relationships negatively predict cyberbullying perpetration whereas females have no effect on the relationship. The moderating effect of gender differences between moral disengagement and cyberbullying was supported by past research (Wang et al., 2016).

Furthermore, another study conducted by Zeng et al. (2020) which examined the linkage between gratitude and cyberbullying perpetration while considering the mediating roles of self-compassion and moral disengagement. In view of the result, the moral disengagement was positively related to cyberbullying perpetration (Zeng et al., 2020).

Dark Triad Personality and Moral Disengagement

Brugués & Caparrós (2021) discovered a positive association between three Dark Triad (DT) personalities and eight moral disengagement (MD) mechanisms, with psychopathy having the highest relationship with moral disengagement compared to the other two traits. They also found that the three Dark Triad personalities are associated with the eight moral disengagement mechanisms in a different manner. The results indicate that psychopaths have a substantial link with five moral disengagement mechanisms, including moral justification, euphemism labelling, advantageous comparison, blame attribution, and dehumanisation (Brugués & Caparrós, 2021). While Machiavellianism is associated with advantageous comparison and dehumanisation, and the result is overlap with mechanisms related to psychopathy (Brugués & Caparrós, 2021). People with Machiavellian and psychopath traits will employ a similar moral disengagement mechanism to justify and reframe their immoral behaviour, as they want to maximize their gains, although it may bring

harm to others and maintain their positive self-concept (Erzi, 2020; Paulhus & Williams. 2002). Lastly, narcissism is related to two mechanisms of shifting of responsibility and distortion of consequences which are distinct from psychopathy and Machiavellianism-related mechanisms because narcissistic people are more concerned with protecting their moral integrity than blaming others (Brugués & Caparrós, 2021).

Furthermore, the study by Navas et al. (2021) aimed to investigate the contributions of the Dark Triad to moral disengagement among incarcerated and persons in the community. The findings show that incarcerated individuals had greater levels of DT and MD than community adults (Navas et al., 2021). There were direct and substantial connections between the three DT personalities and MD mechanisms in incarcerated people. For example, incarcerated adults with a psychopathic personality will have a higher level of moral disengagement because they tend to use the MD mechanism and do not feel shame and guilt about their harmful actions (Navas et al., 2021). For community adults, only the association between Machiavellianism and MD is significant (Navas et al., 2021). These findings may imply that incarcerated individuals are more likely than others to use MD to preserve a good self-perception, so they have a higher chance of engaging in negative behaviour.

Next, another study by Egan et al. (2015) examined the prediction between Dark Triad personality and moral disengagement. According to their findings, Machiavellianism and psychopathy can influence moral disengagement significantly; however, narcissism does not indicate moral disengagement significantly (Egan et al., 2015). Machiavellians and psychopathics may be more prone to moral disengagement and act unethically since the moral disengagement mechanism allows them to pursue negative behaviour that is in line with their self-interest with justification and enables them to keep a good self-image without feeling shame (DeLisi et al., 2014; Moore et al., 2012).

Dark Triad Personality, Moral Disengagement and Cyberbullying

According to a recent finding conducted by Nocera et al., (2022) to examine the predictive effects of dark personality traits which include psychopathy, sadism, and anger to cyber aggression behavior and moral disengagement (MD) as a mediator among emerging adults in the United States. The findings revealed that sadistic traits, psychopathic traits, and trait anger positively predicted cyber aggression perpetration while the moral disengagement partially mediated the relationships. In other words, individuals with higher dark personality traits are more likely to commit cyber aggression while this relationship can be understood by moral disengagement (Nocera et al., 2022).

In addition, another study conducted by Hoareau et al. (2019) which aimed at investigating the roles of psychopathic traits and moral disengagement to cyberbullying among adolescents while the sex and age were the moderators of the study. The result revealed a positive correlation between moral disengagement and cyberbullying, and positive correlation between psychopathy and moral disengagement. In addition, due to the properties in cyberspace such as anonymity, lack of established feedback or sanctions and parental monitoring, people have a higher tendency in moral disengagement to validate their behaviours (Ang & Goh, 2010). Another study done by Fang et al. (2020) that focused on the relationship between callous-unemotional traits and cyberbullying perpetration while taking into account that moral disengagement as a mediator and empathy as a moderator of the study. The result revealed that callous-unemotional traits positively correlated with cyberbullying perpetration, while moral disengagement partially mediated this relationship (Fang et al., 2020).

Theoretical Framework

Personality-coping-outcome Theory

The personality-coping-outcome theory proposed by Gallagher in 1996 will support the prediction of Dark Triad personality and moral disengagement in cyberbullying. According to this theory, an individual's personality plays a role in influencing the choice of the coping method of pressure in a particular manner (Gallagher, 1996). As a result, individuals with varying personalities will use different coping methods. Whether or not a coping strategy properly and successfully manages or solves a circumstance will determine the outcome (Gallagher, 1996).

In this study, the coping strategies are represented as the eight moral disengagement mechanisms introduced by Bandura in 1996. Tillman et al. (2017) believed that moral disengagement is a multi-functional regulatory mechanism since it could be used as a coping method to enable a person who engages in immoral behaviour to regulate the unpleasant feelings that result from the behaviour. It can be predicted that a person with a higher level of moral disengagement will use the mechanism to cope with the unpleasant feelings and rationalize their harmful behaviour, which will increase the likelihood of engaging in those negative behaviour like cyberbullying as the outcome. It is supported by a study done by Gao et al. (2020), which indicate a positive prediction of moral disengagement in cyberbullying. Besides that, Runions and Bak (2015) imply that moral disengagement is related to cyberbullying in that the greater availability for utilizing moral disengagement mechanism would enhance cyberbullying. In addition, adolescents who supported morally disengaged beliefs regarding cyber violence were more likely to participate in cyberbullying (Meter & Bauman, 2016).

The Dark Triad personality is associated with the coping strategy that is moral disengagement. It was supported by the study from Brugués & Caparrós (2021), in which

different Dark Triad personalities use different moral disengagement mechanisms. Also, the Dark Triad personality will determine the likelihood of an individual using a moral disengagement mechanism. DeLisi et al. (2014) and Moore et al. (2012) argue that those high in psychopathy and Machiavellianism tend to use more moral disengagement mechanisms. After engaging in antisocial behaviour, narcissistic individuals who fear losing acceptance from others are more likely to employ the moral disengagement mechanism to cope with the negative emotion being triggered (Matosic et al., 2018; Petruccelli et al., 2017).

Conceptual Framework

In this study, a conceptual framework model is proposed as presented in Figure 1. According to the model, it demonstrated the predictive effects of Dark Triad personality and moral disengagement to cyberbullying. Specifically, Dark Triad personality and moral disengagement are the predictors or independent variables whereas cyberbullying is the dependent variable or outcome variable in this study. With regard to the literature review, numerous research studies have found that Dark Triad personality traits have a significant correlation with cyberbullying while moral disengagement mediated this relationship (Nocera et al., 2022). Likewise, the majority of the studies have also demonstrated the positive association between moral disengagement and cyberbullying (Gao et al., 2020; Marín-López et al., 2020; Wang & Ngai, 2020; Yang et al., 2021; Yang et al., 2018). However, there is insufficient study in the Malaysian context, as such, further study is highly recommended. Therefore, this study is proposed to investigate the predictive effects of Dark Triad personality and moral disengagement to cyberbullying among undergraduate students in Malaysia.

In addition, another conceptual framework model is proposed as shown in Figure 2 based on the personality-coping-outcome theory mentioned. Based on this theory, Dark Triad

personality and moral disengagement predict positively or negatively to cyberbullying.

Hence, this study is proposed to determine the correlation between Dark Triad personality

and moral disengagement to cyberbullying among undergraduate students in Malaysia.

Figure 1

Predictive Effects of Dark Triad Personality and Moral Disengagement to Cyberbullying Among Undergraduate Students in Malaysia.
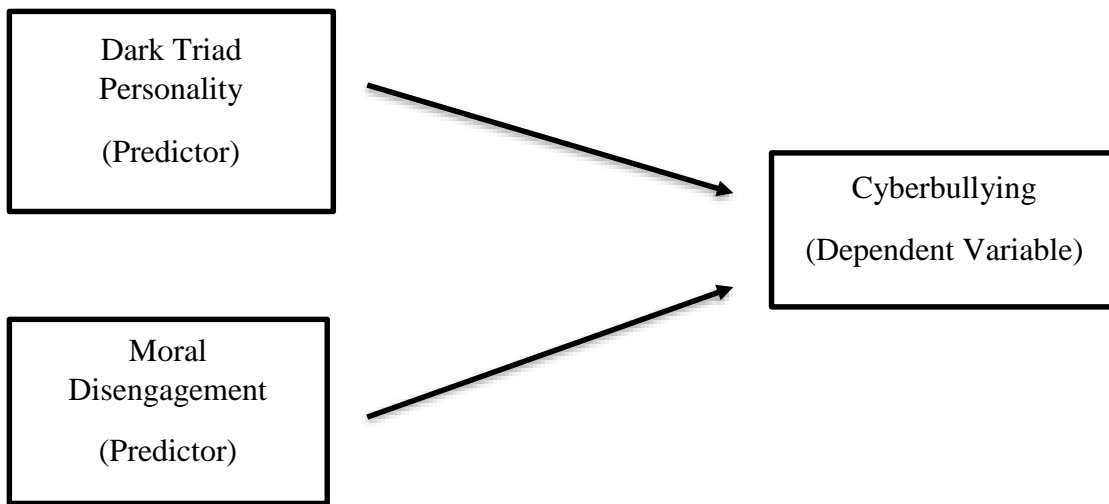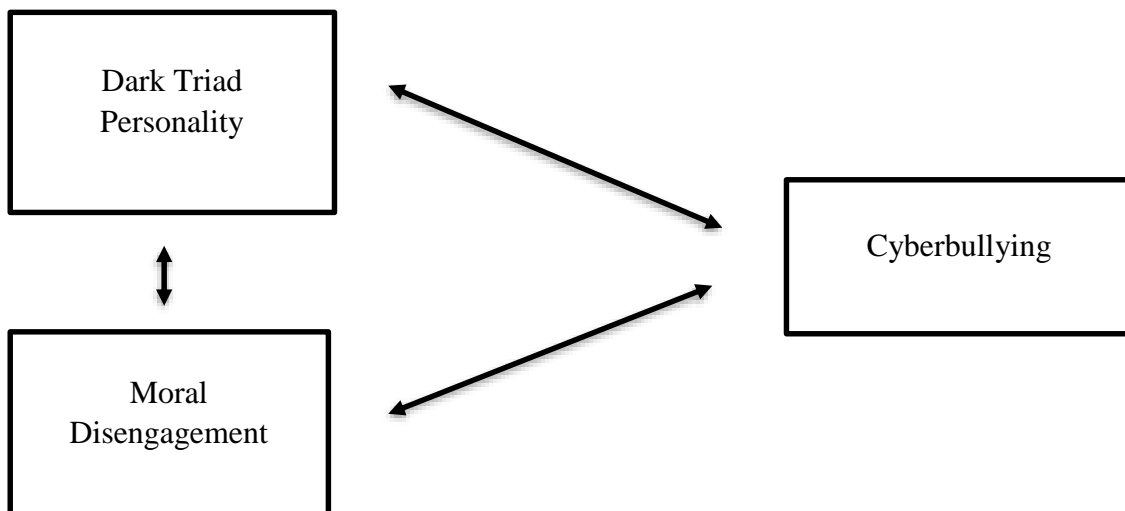

Figure 2

Correlation Between Dark Triad Personality and Moral Disengagement to Cyberbullying Among Undergraduate Students in Malaysia.

Chapter III

Methodology

Research Design

This study adopted quantitative and cross-sectional surveys to collect data. A set of questionnaires was distributed online to collect data, enabling the collection of information about feelings, thoughts, perceptions, and behavioural intentions in a relatively short time (Johnson & Christensen, 2013; Price et al., 2015). Furthermore, the online survey is most likely to take over as a predominant method for collecting data due to its low affordability and the fact that more and more people are using the Internet (Price et al., 2015). To examine the relationship between DT, moral disengagement, and cyberbullying, a cross-sectional design was used as it allowed the examination of variables and outcomes at the same time point (Pandis, 2014). Due to a lack of resources and time, this research design was chosen as it was budget-friendly and time-saving.

Research Sample

Sample Size. G*Power was used for this study; the minimum requirement of the sample size is 108 samples to run the study (Faul et al., 2009). The effect size of .1812 was calculated by using the formula, $f^2 = \frac{R^2}{(1-R^2)}$,, introduced by Cohen (1988). The number of predictors of this study is 4 which include Machiavellianism, Psychopathy, Narcissism and moral disengagement. Then, the effect size and the number of predictors insert in G*Power software to calculate the minimum sample size. It showed a minimum level of 108 participants; however, more participants were recruited to avoid an insufficient sample size caused by missing data or unqualified sample data.

Participants. A total of 177 participants were recruited from the UTAR Kampar campus. The target samples all are undergraduate students on the UTAR Kampar campus that are aged between 18-24 years old. Most of the participants were from different courses and faculty.

After the data screening, all the responses are met the inclusion criteria that is one must be Malaysian who age 18-24 and study in UTAR, and also accessible to Internet. However, 57 responses with missing data were removed and only 120 participants' data were used to run the analysis. The response rate in this study is 67.8%. These participants include 29 male participants and 91 female participants. 112 participants were Chinese, 1 participant was Malays, and 7 participants were Indians. All participants are currently studying in UTAR and are accessible to the internet.

Sampling method. Purposive sampling which is non-probability sampling was used in this study. The selection of the participants was based on the judgement of the researchers (Showkat & Parveen, 2017). Besides, by using purposive sampling, it enables the collection of information from participants who possess the characteristics set by the researchers (Etikan et al., 2015). Also, purposive sampling does not require many costs, is easily accessible to the researchers and is convenient (Showkat & Parveen, 2017). The study is aimed to understand cyberbullying among undergraduate students from the UTAR Kampar campus, so it is important to set criteria in order to use purposive sampling to collect information. In this case, the criteria included: (1) one must be a Malaysian student who is currently studying at UTAR Kampar campus; (2) one must be age between 18 to 24; (3) one must be accessible to the internet.

Research Location. The study will be carried out on the UTAR Kampar campus. As the target participants of the study are undergraduate students, hence UTAR will be the most suitable location to collect data. Since, UTAR now has around 21,000 students in Kampar and Sungai Long campuses (WebWay E Services, n.d.), it should have students who meet the requirements of the study.

Pilot Study. A pilot study will be conducted after the information has been collected from 30 participants. According to Hill (1998), 10-30 sample size is sufficiently used in the pilot

study. A pilot study was used to determine how feasible a research study is before carrying out the main study in order to obtain high quality results (In, 2017). In other words, it was used to test the validity of a small-scale study before applying it to a larger-scale study (In, 2017).

Procedure

Initially, the research obtained approval from the UTAR Scientific and Ethical Review Committee (SERC) (U/SERC/02/2023) (refer to Appendix B). Then, the data of this study will be collected using an online survey administered to participants via a link or QR code. The pilot study will initially collect 30 data during the first and second weeks of the semester. Once it was determined that the results of the pilot test could be applied to the investigation, 120 additional data were collected over the next three weeks. Students who met the requirements for this study will be contacted via social media such as Facebook, WhatsApp, Microsoft Team, and others, as well as students' preferred gathering places such as Block D, Block E, the Library, Block N, and Block P.

To collect data, an online survey was formulated through Qualtrics and then shared with the intended participants using a QR code or a link accessible on social media platforms. The inclusion criteria for participants to be recruited are that they must be Malaysian students studying at UTAR Kampar, aged between 18 and 24, and have access to the Internet. Participants who are not within the specified age range, are not Malaysian, do not study at UTAR, or do not have access to the Internet will be excluded. On the first page of the survey, the detail about the personal data protection form and how participants' personal information would not be disclosed to third parties, as well as information on the purpose of the research will be shown (refer to Appendix C). Participants who agree with the consent form are required to fill out the demographics and the three questionnaires (SD3 scale, 10-item version

of MMDS, and perpetration subscale in EBIPQ). In addition, participants are informed that they may withdraw from the study at any moment with no consequences. The survey took around 10 minutes to complete. Participants would complete the questionnaires and researchers would answer any questions they have about the questionnaire while they were filling it out. After data collection, the Statistical Package for Social Science (SPSS) was used to analyse the data, and the results were written up within three weeks.

Data analysis

After the data collection is completed, the data will be used for analysis by using SPSS software. Before the actual data analysis, the pilot study will be conducted to ensure the scale is reliable. In the actual study, the assumption of normality will be tested by examining the five normality indicators (histogram, P-P plot, skewness, kurtosis, and Kolmogorov-Smirnov Test). Also, the assumption of Multiple Linear Regression (MLR) will be tested by examining the multicollinearity, interdependence of errors, homoscedasticity, normality of residual and linearity of residuals. After that, Pearson Product-Moment Correlation (PPMC) was conducted to investigate the relationship between Dark Triad personality or also refer to the variables of Machiavellianism, narcissism and psychopathy, moral disengagement and cyberbullying. While Multiple Linear Regression (MLR) will also be used to examine if the Dark Triad personality and moral disengagement could predict cyberbullying among undergraduate students.

Instruments

The Short Dark Triad Scale (SD3)

This instrument was initially developed by Jones and Paulhus (2014) and has a total number of items of 27 validated items aimed at measuring three dimension of socially aversive traits

of an individual which include Machiavellianism, psychopathic and narcissism. Items 1 to 9

correspond to the Machiavellianism dimension (e.g., "It's not wise to tell your secrets"), items

10 to 18 correspond to the Narcissism dimension (e.g., "People see me as a natural leader"),

and items 19 to 27 correspond to the Psychopathic dimension (e.g., "I like to get revenge on

authorities"). Items 11, 15, 17 and 20 are reversed items. Each construct was measured by a

five-point Likert scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). By summing

up and averaging the items for each dimension, a higher score means a higher level of the

particular personality trait. In this study, Machiavellianism has very good reliability with a

Cronbach's alpha value of .83, while narcissism and psychopathy have moderate reliability

and presented with Cronbach's alpha value at .61, and .62 respectively, as suggested by Daud

et al. (2018).

10-items Mechanisms of Moral Disengagement Scale (MMDS-10)

The 10-item Mechanisms of Moral Disengagement Scale (MMDS-10) developed by Concha-

Salgado et al. (2022) which has a total number of items of 10 items was aimed at measuring

the moral disengagement mechanism. An example of an item is "Slapping and shoving

someone is just a way of joking". The items used a Likert scale ranging from 1 (*strongly

disagree*) to 5 (*strongly agree*). By summing up the scores, a higher score indicates a higher

level of moral disengagement. In this study, the reliability of the scale of MMDS-10

presented a very good reliability with a Cronbach's alpha value of .89, as suggested by Daud

et al. (2018).

European Bullying Intervention Project Questionnaire (EBIPQ)

The European Bullying Intervention Project Questionnaire (EBIPQ) developed by Brighi et

al. (2012) which has a total number of items of 14 items was aimed at measuring violent

actions from the victim's and offender's perspectives in the last two months. Items 1 to 7

correspond to the victimization scale. While items 8 to 14 correspond to the perpetration

scale used in this study (e.g., "I have hit, kicked, or pushed someone"). Items 8 to 14 will be

used as items to measure the variables of cyberbullying in this study. The items using a Likert

scale ranged from 1 to 5 (*never, once or twice, once or twice a month, about once a week,*

more than once a week). In this study, the reliability of the perpetration scale of EBIPQ

presented very good reliability with a Cronbach's alpha value of .88, as suggested by Daud et

al. (2018).

Chapter IV

Results

Data cleaning

A total of 57 responses out of 177 responses collected were removed from this study because these responses reveal the missing data as the participants did complete the whole survey.

Normality Assumptions

In this study, the normality assumptions are tested through the five indicators which are histogram, P-P plot, skewness and kurtosis value and Kolmogorov-Smirnov test.

Skewness and Kurtosis Values

Table 4.1 presents the skewness and kurtosis values for each variable. All skewness and kurtosis values for the five variables fall within the acceptable range of ± 2, as suggested by (Field, 2009). In this study, the skewness values ranged from -.290 to 1.358, and kurtosis values ranged from .319 to 1.236. Thus, there is no violation in the skewness and kurtosis for these five variables.

Table 4.1

Skewness and Kurtosis Values

Variables	Skewness	Kurtosis
Machiavellianism	-.290	.864
Narcissism	.008	.319
Psychopathy	.171	.815
Moral disengagement	.924	.997
Cyberbullying	1.358	1.236

Kolmogorov-Smirnov test

In the Kolmogorov-Smirnov test, if the test showed a significant value of more than .05, it indicates that the sample distribution is not significantly different from a normal distribution. According to Table 4.2, the two variables which are narcissism, D (120) = .184, $p > .05$, and psychopathy, D (120) = .200, $p > .05$ showed a significant value of more than .05 which indicates these two variables were not significantly different from a normal distribution. For the other three variables which are Machiavellianism, D (120) = .025, $p < .05$, moral disengagement D (120) = .001, $p < .05$, and cyberbullying, D (120) = .000, $p < .001$ showed a significant value of lower than .05. This indicates that these variables were significantly different from a normal distribution. Thus, the variables of narcissism and psychopathy do not violate the Kolmogorov-Smirnov test, whereas the variables of Machiavellianism, moral disengagement, and cyberbullying violate the test.

Table 4.2

Kolmogorov-Smirnov Test

Variable	Kolmogorov-Smirnov test		
	Statistic	*df*	Sig.
Machiavellianism	.087	120	.025
Narcissism	.072	120	.184
Psychopathy	.069	120	.200
Moral disengagement	.112	120	.001
Cyberbullying	.206	120	< .001

Note. * is a lower bound of the true significance.

Histogram

The histograms of Machiavellianism, narcissism, and psychopathy displayed bell-shaped curves and an amazingly normal distribution, indicating that these three variables follow a normal distribution. While the histogram for the other two variables which are moral

disengagement and cyberbullying showed a bell-curved shaped with longer tail on the right side of the distribution and it is positively skewed. Thus, all variables showed no violation of the normality indicators of the histogram. (refer to Appendix D)

P-P plot

The P-P plots of the variables of four variables which are Machiavellianism, narcissism, psychopathy, and moral disengagement showed good normality as the observed values fall closely to the diagonal line. While the P-P plot of cyberbullying showed poor normality as the observed values do not fall closely to the diagonal line. Thus, the four variables of Machiavellianism, narcissism, psychopathy, and moral disengagement showed no violation of the normality indicators of the P-P plot, whereas cyberbullying violated the normality indicators of the P-P plot. (refer to Appendix D)

Summary of the assumptions of normality tests

The three indicators of skewness, kurtosis and histogram of each variable were examined, revealing no violations in the normality assumptions. However, the Kolmogorov-Smirnov test revealed violations in the assumptions for Machiavellianism, moral disengagement, and cyberbullying variables. Besides that, the variables of cyberbullying violated the normality indicators of the P-P plot. In conclusion, the normality assumptions are met for the all the variables, as they do not violate more than three indicators.

Descriptive Statistics

The total sample used in this study was 120 undergraduate students who study at Univerisiti Tunku Abdul Rahman. According to Table 4.3, the mean age of the samples was 21.08. In this study, the female respondent accounted for 75.8% ($n = 91$) and the male respondents accounted for 24.2% ($n = 29$). There are 93.3% of the samples are Chinese ($n = 112$),

followed by Indian with 5.8% ($n = 7$) and Malay with 0.8% ($n = 1$). Besides that, about 40%

of the samples come from the Faculty of Business and Finance ($n = 48$). Furthermore, about

15.8% of the sample from the Psychology course ($n = 19$) and 23.3% of the samples were in

year 1/trimester 3 ($n = 28$).

Table 4.3

Frequency Distribution of Participants in Demographic Variables (N = 120)

	n	*%*	*Mean*	*SD*
Age			21.08	1.274
Gender				
Male	29	24.2		
Female	91	75.8		
Ethnicity				
Malay	1	0.8		
Indian	7	5.8		
Chinese	112	93.3		
University				
Universiti Tunku Abdul Rahman	120	100		
Faculty				
Faculty of Accountancy and Management	6	5.0		
Faculty of Arts and Social Science	33	27.5		
Faculty of Business and Finance	48	40.0		
Faculty of Science	20	16.6		
Faculty of Engineering & Green Technology	8	6.7		
Faculty of Information and Communication Technology	5	4.2		
Courses				
Accounting	7	5.8		
Banking and finance	8	6.7		
Biomedical Science	5	4.2		
Biotechnology	4	3.3		
Business Administration	6	5.0		

Chemistry	1	0.8
Commerce Accounting	7	5.8
Communication Advertising	5	4.2
Computer Science	3	2.5
Dietetics	2	1.7
Electronic Engineering	8	6.7
English Language	2	1.7
Finance	6	5.0
Financial Economics	7	5.8
Food Science	2	1.7
Guidance and Counselling	1	0.8
Information System (Business)	1	0.8
Information System (Engineering)	1	0.8
International Business	1	0.8
Logistics and International Shipping	3	2.5
Logistics and Supply Chain Management	6	5.0
Marketing	8	6.7
Microbiology	1	0.8
Psychology	19	15.8
Public Relations	6	5.0
Year and Semester		
Year 1/Sem1	12	10
Year 1/Sem 2	7	5.8
Year 1/Sem 3	28	23.3
Year 2/Sem 1	16	13.3
Year 2/Sem 2	4	3.3
Year 2/Sem 3	16	13.3
Year 3/Sem 1	5	4.2
Year 3/Sem 2	5	4.2
Year 3/Sem 3	21	17.5
Year 4/Sem 1	4	3.3
Year 4/Sem 2	2	1.7

Note. n = Frequency; SD = Standard Deviation

Outliers

Multivariate Outliers

Mahalanobis Distance, Cook's Distance, and Centered Leverage Value (refer to Appendix D) tests have been conducted to detect the multivariate outlier and the result has been shown in Table 4.4. In this study, casewise diagnosis has been carried out and it showed that cases 28, 35 and 40 are outliers. According to Barnett and Lewis (1978), the acceptable cut-off value for Mahalanobis Distance is less than 15 and all the 3 cases have a value that is within 15. Thus, there is no violation in the Mahalanobis Distance. Furthermore, for Cook's distance, the suggested cut-off value is within 1 (Cook and Weisberg, 1982). The value of all 3 cases was within 1, thus all 3 cases do not show violation in the Cook's Distance. In addition, the cutoff point of the Centered Leverage Value should be calculated by using the formula of Hoaglin and Welsch (1978) which is $\frac{(p+1)}{n} = \frac{(4+1)}{120} = 0.042$. Then, multiply the value by 2 (0.042 × 2) to get the cut-off value which is 0.084 (Hoaglin and Welsch, 1978). From Table 4.3, it shows that all 3 cases are within the value of 0.084. In conclusion, all the cases do not show any violation in the Mahalanobis Distance, Cook's Distance and Centered Leverage Value. Thus, all 3 cases were not removed.

Table 4.4

Multivariate Outliers Test

Variables	Case ID		Mahalanobis Distance	Cook's Distance	Centered Leverage Value
	1	28	.41830	.01724	.00352
	2	35	4.50077	.04209	.03782
	3	40	8.13935	.15354	.06840
Total N			3	3	3

Correlations

Table 4.5 shows the results of Pearson correlation analysis among variables. A Pearson's correlation coefficient analysis was done to examine the relationship between the dependent variable of cyberbullying and the four independent variables of Machiavellianism, narcissism, psychopathy, and moral disengagement.

Pearson's correlation results concluded that cyberbullying and Machiavellianism have a non-significant and positive relationship, $r (118) = .16, p > .05$. Furthermore, the result indicated that there is a significant and positive relationship between cyberbullying and narcissism, $r (118) = .21, p < .05$. Additionally, the results indicated that there is a significant and positive relationship between cyberbullying and psychopathy, $r (118) = .50, p < .05$. Moreover, there is a significant and positive relationship between cyberbullying and moral disengagement, $r (118) = .49, p < .05$.

Next, Pearson's correlation coefficient analysis is also being used to investigate the relationship between moral disengagement and the other three variables of Machiavellianism, narcissism and psychopathy. The result indicates that moral disengagement and Machiavellianism have a non-significant and positive relationship, $r (118) = .16, p > .05$. On the other hand, the result indicated a significant and positive relationship between moral disengagement and narcissism, $r (118) = .42, p < .05$. Besides that, the results also indicated that there is a significant and positive relationship between moral disengagement and psychopathy, $r (118) = .55, p < .05$.

Table 4.5

Correlation matrix of all variables (cyberbullying, Machiavellianism, narcissism, psychopathy, and moral disengagement.)

Variable	1	2	3	4	5
1. Cyberbullying	-				
2. Machiavellianism	.16	-			
3. Narcissism	.21*	.27**	-		
4. Psychopathy	.50**	.51**	.47**	-	
5. Moral disengagement	.49**	.16	.42**	.55**	-

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

Multiple Linear Regression Assumptions

Multicollinearity

To assess the correlation between the independent variables, the multicollinearity test was done to examine the collinearity statistics, namely Tolerance and Variance Inflation Factor (VIF). Table 4.6 had revealed the collinearity statistics which are the tolerance value and variance inflation factor value (VIF) of the four independent variables. The threshold values for Tolerance and VIF are greater than 0.10 and less than 10 respectively, as indicated by Hair et al. (2010). The result showed that the Tolerance value and VIF value of all the variables are in the acceptable range. Therefore, it can be concluded that the assumption of multicollinearity was met and indicates low collinearity among four independent variables.

Table 4.6

Collinearity Statistics

	Tolerance	VIF
Machiavellianism	.720	1.388
Narcissism	.737	1.356
Psychopathy	.489	2.044
Moral disengagement	.646	1.547

Independence of Errors

Table 4.7 indicate the result of the Durbin-Watson test. According to Champion et al. (1998), the suggested value of the Durbin Watson test needs to fall within the range of 1 to 3 in order to avoid violating the assumption. In this study, the value of Durbin Watson was 1.711 which is between 1 to 3. Thus, it can be concluded that there is no violation of the assumption of independence of errors.
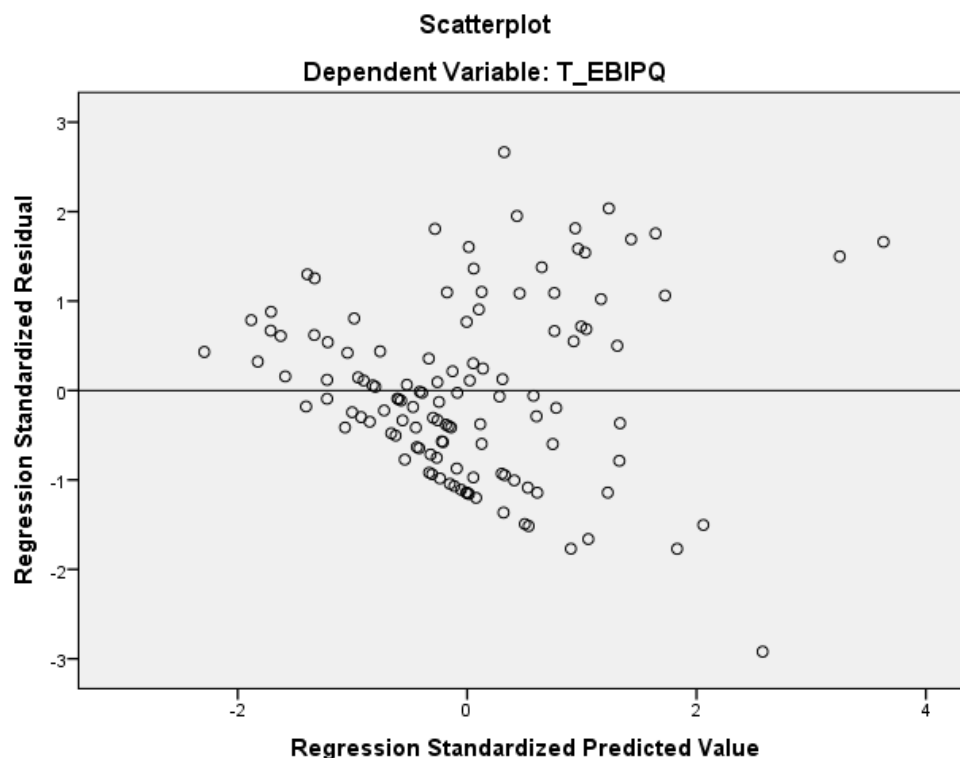
Table 4.7

Independence of Errors Test

Model	Durbin-Watson
1	1.711

Homoscedasticity, Normality of Residual and Linearity of Residuals

Figure 4 presents a scatterplot of standardized predicted values against standard residuals, facilitating a test of the assumptions of homoscedasticity, normality of residual and linearity of residuals. The scatterplot showed an oval shape and residuals were evenly and randomly distributed in an oval shape along the zero line. Thus, it can be concluded that the three assumptions of homoscedasticity, normality of residual and linearity of residuals were met.

Figure 4.1

Scatterplot Showed Homoscedasticity, Normality of Residual and Linearity of Residuals among Variables

Scatterplot
Dependent Variable: T_EBIPQ

Multiple Linear Regression Analysis

Table 4.8 and 4.9 show the result Multiple Linear Regression model analysis of this study. Multiple Linear Regression analysis was used to test if Machiavellianism, narcissism, psychopathy, and moral disengagement significantly predict undergraduate students' cyberbullying behaviour in Malaysia. Preliminary analyses were conducted to ensure no violation of the assumption of normality of residuals, linearity of residuals, multicollinearity, homoscedasticity, independence of residuals and multivariate outliers. According to Table 4.8, the model was statistically significant, $F(4,115) = 14.104$, $p < .001$, and accounted for 30.6% of the variance. According to Table 4.9, the result indicated that psychopathy ($\beta = .408$, $p < .001$) and moral disengagement ($\beta = .316$, $p = .001$) are the significant predictors of cyberbullying, but not Machiavellianism ($\beta = -.068$, $p = .454$) and narcissism ($\beta = -.095$, $p = .288$).

Table 4.8

Result of Regression Model

	df	F	p	Adj. R^2
Regression	4	14.104	< .001	.306
Residual	115			
Total				

Note. Dependent Variable: Cyberbullying. Predictors: Machiavellianism, narcissism, psychopathy, and moral disengagement.

Table 4.9

Result of Regression Coefficient

	Std. β	t	p
Machiavellianism	-.068	-.751	.454
Narcissism	-.095	-1.068	.288
Psychopathy	.408	3.738	< .001
Moral disengagement	.316	3.329	.001

Note. Dependent Variable: Cyberbullying.

Chapter V

Discussion and Conclusion

Dark Triad and cyberbullying

In this study, the results show that all three Dark Triad traits are positively correlated with cyberbullying, which is consistent with the findings of a previous study (Goodboy & Martin, 2015). The results also indicate that only narcissism and psychopathy have a significant positive correlation with cyberbullying among undergraduate students in Malaysia, which aligns with the results of previous studies, also H_{1b} and H_{1c} is supported (Panatik et al., 2022; Safaria et al., 2020; Balakrishnan et al., 2019; Gibb & Devereux, 2014; Pabian et al., 2015; Goodboy & Martin, 2015). However, a study focusing on Dark Triad traits and Facebook intensity to measure cyber-aggression found that narcissism has no significant relationship with Facebook intensity, indicating that narcissism is unrelated to cyber-aggression (Pabian et al., 2015). The current study also indicates that Machiavellianism has a positive but not significant relationship with cyberbullying, so H_{1a} is not supported. This result contradicts previous studies that have shown a significant positive relationship between Machiavellianism and cyberbullying (Safaria et al., 2020; Pabian et al., 2015; Panatik et al., 2022).

H_{4a} is not fully achieved, as the results of this study show that among the three Dark Triad traits, only psychopathy is a significant predictor of cyberbullying. Psychopathy also exhibits a significant positive relationship with cyberbullying behaviours in this study, consistent with findings from previous research (Goodboy & Martin, 2015; Moor & Anderson, 2019; Balakrishnan et al., 2019; Pabian et al., 2014; Gibb & Devereux, 2014; Kircaburun et al., 2018). This suggests that individuals with higher levels of psychopathy are more likely to engage in cyberbullying behaviours. Psychopathy, characterized by

interpersonal hostility, lack of affection, empathy, coldness, and low self-control (Jonasan & Krause, 2013; Madan, 2014), enables them to derive immediate satisfaction from potentially harming others, reinforcing such behaviour and increasing the likelihood of repeating similar actions in the future (Gibb & Devereux, 2014).

However, earlier research focusing on Big Five, Dark Triad, and sadism in relation to traditional bullying and cyberbullying found that psychopathy, as well as narcissism, showed only a slightly significant relationship with cyberbullying, and Machiavellianism was not a significant predictor of cyberbullying (Van Geel et al., 2016). The possible reason for this discrepancy could be the inclusion of sadism as a factor, as sadism was discovered to be a more potent predictor of antisocial online behaviour when contrasted to Dark Triad traits. (Van Geel et al., 2016; Buckels et al., 2014). Since this study did not include sadism as one of the predictors, psychopathy appears to be a significant predictor of cyberbullying.

This study indicates that Machiavellianism and narcissism are not significant predictors of cyberbullying, which is consistent with several previous studies (Gibb & Devereux, 2014; Balakrishnan et al., 2019; Moor & Anderson, 2019; Goodboy & Martin, 2015; Pabian et al., 2015). A study by Balakrishnan et al. (2019) stated that individuals with Machiavellianism are more inclined to harm others when they believe the potential gains are substantial and the personal repercussions are low. Therefore, if Machiavellians perceive that they can't gain any benefits from cyberbullying, they are unlikely to engage in it. The same study mentioned that narcissistic individuals are more likely to harm others when they perceive a threat to their self-image or sense of self. Similarly, if they do not feel threatened by their self-image, they are unlikely to engage in cyberbullying. In another study by Panatik et al. (2022), it was revealed that although all three Dark Triad traits have a significant positive relationship with cyberbullying, narcissism does not influence cyberbullying behaviors. The researchers mentioned that after taking psychopathy into account, the

influence of narcissism on interpersonal violence may diminish (Panatik et al., 2022). The possible reason for this could be that the narcissistic trait encompasses self-centred and arrogant thoughts and behaviors, a lack of concern for others, and an excessive need for admiration, which leads individuals to primarily focus on themselves rather than directing their actions towards others (Panatik et al., 2022).

Machiavellianism is not a significant predictor in this study; however, a study by Safaria et al. (2020) indicates that Machiavellianism is the strongest predictor of cyberbullying instead of psychopathy. Another study (Wright et al., 2020) also found a correlation between Machiavellian traits and cyberbullying perpetration among Indian adolescents. They stated that the caste-based system in India fosters attitudes encouraging the bullying perpetration (Cornell & Shukla, 2018, as cited in Wright et al., 2020). They also mentioned that due to the large disparities in social status, bullying often occurs within social groups (Wright et al., 2020). This can be used to explain the differences between this study and past studies, as the current study, although it included individuals from India, but the Chinese population still constitute the vast majority, which may lead to cultural differences in the expression of Dark Triad traits.

Moreover, several studies (Panatik et al., 2022; Kircaburun et al., 2018; Buckels et al., 2014) also found Machiavellianism to be one of the predictors of cyberbullying, while narcissism was not significantly associated. Machiavellianism, with its characteristics of readily giving up moral values and lacking remorse, serves as a unique predictor of antisocial online behaviour, including cyberbullying (Kircaburun et al., 2018). Although Machiavellianism shares some aversive traits with psychopathy, it is considered a less comprehensive construct than psychopathy (Rogoza & Cieciuch, 2018), as psychopathy includes traits like thrill-seeking and adventure-seeking (Glenn & Sellborn, 2015). So,

although the current study shows that Machiavellianism is significantly related to cyberbullying, but it is not a significant predictor of cyberbullying.

Dark Triad and Moral Disengagement

This study demonstrates that all three Dark Triad traits are positively correlated with moral disengagement, which is consistent with previous research (Navas et al., 2021; Brugués & Caparrós, 2021; Egan et al., 2015). This suggests that individuals with higher Dark Triad traits are also more likely to exhibit a higher level of moral disengagement. The findings also reveal that only narcissism and psychopathy exhibit a significant positive relationship with moral disengagement, so, H_{2b} and H_{2c} is achieved. Whereas H_{2a} is not achieved as current results demonstrates that Machiavellianism, although positively related, does not reach significance.

However, a study focusing on Dark Triad traits and moral disengagement in incarcerated offenders found significant and positive correlations between all three Dark Triad traits and moral disengagement (Brugués & Caparrós, 2021). The inconsistent results might stem from differences in participant selection, as past studies included incarcerated offenders, while the current study recruited university students.

In another study (Navas et al., 2021) investigating the contributions of Dark Triad traits to moral disengagement among incarcerated adults and community adults, only Machiavellianism was significantly related to moral disengagement among the community adults. This result contradicts the findings of the current study. The inconsistency in results could also be attributed to differences in participant demographics. While the previous study included community adults, all participants were men aged 18-75 years. In contrast, the current study focused on university students aged 18-24, with a majority being female. These

demographic variations could contribute to the disparities between the current study's results and those of the past study.

Moral Disengagement and Cyberbullying

The current study's results show a significant positive relationship between moral disengagement and cyberbullying, which aligns with previous research, also shows that H_3 is supported (Gao et al., 2020; Hoareau et al., 2019; Wang & Ngai, 2020; Wang et al., 2016; Marín-López et al., 2020; Yang et al., 2021; Jeong et al., 2022). This indicates that individuals with a higher level of moral disengagement are more likely to engage in cyberbullying behaviors.

Furthermore, the results of this study also indicate that moral disengagement is a significant predictor of cyberbullying and H_{4b} is achieved. This finding is consistent with several past studies (Gao et al., 2020; Hoareau et al., 2019; Wang & Ngai, 2020; Wang et al., 2016; Marín-López et al., 2020; Yang et al., 2021; Jeong et al., 2022). According to Bandura's (1996) social-cognitive mechanism, moral disengagement plays a critical role in driving the aggressive actions of individuals engaged in cyberbullying behaviours. Another study mentioned that individuals tend to use moral disengagement as a means to adopt antisocial behaviour without experiencing negative feelings such as guilt (Hoareau et al., 2019). Moral disengagement is more accessible in the online environment due to the unique aspects of cyberspace, including anonymity, limited parental supervision, and the absence of immediate feedback or consequences (Ang & Goh, 2010, as cited in Hoareau et al., 2019). The anonymity provided by the online environment greatly expands the potential group of individuals who could engage in cyberbullying (Zhao & Yu, 2021). Nevertheless, another study (Gao et al., 2020) also mentioned that it is crucial to acknowledge that not all individuals with a high level of moral disengagement are involved in cyberbullying, as there

might be moderators that can weaken the connection between moral disengagement and cyberbullying perpetration. A meta-analysis (Zhao & Yu, 2021) that focuses on moral disengagement and cyberbullying found that age, gender, and cultural background are able to moderate the relationship between moral disengagement and cyberbullying. For example, the relationship between moral disengagement and cyberbullying among adolescents and adults was higher compared to younger students (Zhao & Yu, 2021). This can be used to explain moral disengagement is a significant predictor of cyberbullying, as current study focuses on young adults which age from 18-24.

Conclusion

In a nutshell, the research objectives of this study have been accomplished, and the relationship between dark triad personality, moral disengagement, and cyberbullying among undergraduate students in Malaysia has become clearer. Interestingly, the result demonstrated that both dark triad personality (psychopathy) and moral disengagement are significant predictors of cyberbullying, which are consistent with the theoretical and conceptual framework proposed earlier.

Implications

Theoretical Implication

The theory proposed in the present research is the personality-coping-outcome theory pioneered by Gallagher (1996). This theory has provided a strong relationship between one's personality patterns (dark triad personality) and the coping strategies (moral disengagement) of stressful events that will eventually lead to a particular outcome (cyberbullying) in this study. The findings of this study are congruent with the proposed theory in the Malaysian context, in which different personality traits will contribute to a variety of outcomes. In line

with the result of this study, the significant predictors of cyberbullying are psychopathy and moral disengagement, which further supported the theory in Malaysian contexts.

In addition to the result, the positive predictors of cyberbullying are psychopathy and moral disengagement among undergraduate students in Malaysia. As the theory suggests, individuals with different personality types are likely to choose distinct coping mechanisms. In this study, the results showed a significant relationship between narcissism and psychopathy with moral disengagement. This suggests that individuals possessing these two personality traits are more inclined to adopt moral disengagement as their coping mechanism. However, Machiavellianism did not show a significant relationship with moral disengagement, indicating that individuals with this trait are less likely to employ moral disengagement as a coping mechanism. Furthermore, the study's findings revealed that moral disengagement significantly influences cyberbullying. Therefore, individuals who employ moral disengagement as a coping mechanism to alleviate the guilt associated with engaging in negative behaviour may be more prone to increased participation in cyberbullying.

Thus, consistency between theory and result is observed, which further provides a deeper literature contribution to future studies regarding the understanding of the personality-coping-outcome theory and fills in the research gap of potential factors that cause cyberbullying in Malaysian context.

Practical Implication

The present study has contributed to the literature about the predicting effects and relationships between dark triad personalities, moral disengagement, and cyberbullying among undergraduate students in Malaysia. The findings found that psychopathy and moral disengagement are positive predictors of cyberbullying. In general, these findings allow

people to have some basic understanding of how their internal factors (personalities) influence their reaction (coping mechanism) to behave in certain situations (outcome). Hence, by understanding how the theory works out, people can realise their internal factors so as to regulate their behaviour to avoid committing cyberbullying.

Meanwhile, these findings serve as a guideline for policymakers to take into consideration when making decisions to eliminate the deleterious effects of cyberbullying. On the other hand, this study revealed that dark triad personalities (narcissism and psychopathy) showed a significant positive relationship with moral disengagement and cyberbullying. Thus, with the understanding that personality influences one's coping mechanisms, mental health practitioners may have general ideas about patients' personality patterns and can focus on providing designated interventions to resolve the issues that maximise the effectiveness of the intervention and provide assessments to measure patients' personality types for further assurance.

In addition, educators also play a critical role in teaching their students and parents regarding the issues of cyberbullying and cybersecurity through organising talks and workshops, which in turn ameliorate people's lives. Experts in the technological industry are dedicated to combating cyberbullying with their knowledge and power by providing couches and consultations so as to eliminate illegal perpetrators who commit cybercrime by taking advantage of technology. With the general knowledge people hold about cybersecurity, it can step forward to foster the importance of protecting victims from dangers on the Internet. Lastly, to combat cyberbullying issues effectively, parents also play a vital role in monitoring their children's online activities, especially those under 18 years old, who are more likely to be victimised than those who are more capable of protecting themselves.

Limitations

There are several limitations to this study. One of the limitations detected in this study was monolingualism, which was adopted in the questionnaire. The primary language used in the questionnaire was English. It was a limitation because participants were implicitly expected to know only one language to answer the questionnaire. It meant that participants had limited opportunity to select other different languages, such as Malay, as a national language in the Malaysian context. In this case, there was a lack of flexibility and convenience in terms of the language used for the participants to select their own preferred language. Therefore, some participants may not feel confident to answer the questions, which would produce biased data and outliers that affect the accuracy of research analyses, and eventually invalid data will be removed.

Another limitation presented in this study was the length of the questionnaires and the number of questions. This will possibly lead participants to quit responding due to the factors of feeling bored, time-consuming, and the desire to avoid trouble halfway through the questionnaire. This will also cause missing data or information, which in turn makes the responses insufficient and invalid. In this case, low response rates are observed, and more data collection needs to be done to achieve targeted sample sizes.

On the other hand, a non-probability sampling method, a purposive sampling technique, was used for data collection among undergraduate students. In accordance with Sharma (2017), it was elucidated that this purposive sampling method was unable to guarantee the sample chosen exactly represented population data. It is because this sampling method is used relied on the subjective opinion of the researchers to decide who their targeted participants are, which often results in biased findings. Thus, it was challenged to generalise the findings since the samples were not representative of the population.

Moreover, the next limitation in this study is that a cross-sectional research design was adopted to investigate the predictive effects of moral disengagement and dark triad personality on cyberbullying. It is a limitation because cross-sectional research only collects data at one point at a time, which means that this research design cannot assure that the outcome variable (cyberbullying) happens in advance before the predictors (dark triad personality and moral disengagement). To elaborate further on this statement, cyberbullying can be caused by various other factors, such as revenge on a particular person, but that does not mean that dark triad personality and moral disengagement necessitate the predicting effects of cyberbullying. It is important to note that the predicting effects might have changed and need to be observed over time to assure the accuracy of the predictive effect on the outcome variable. On the other hand, the cross-sectional research design cannot study causality between the variables, instead, it focuses more on the association between variables.

Besides, another limitation of this study is the self-reported questionnaire. According to Caputo (2017), it is hypothesised that because some individuals have the strong desire to feel enjoyment about themselves, protecting their self-esteem and escapism from reality, their general well-being influences their decision to reveal factual information to others. It is possible to believe that biased data can be observed in this natural phenomenon. Not only that, some people may have overrated themselves due to higher self-esteem and underrated themselves due to lower self-esteem. Such behaviours may lead to a situation where respondents provide inaccurate answers that influence the reliability and validity of the measurements and thus cause detrimental effects on the research analyses and findings.

Lastly, the present study is conducted in the Malaysian context. It is important to highlight that different countries demonstrate multiethnicity and multiculturalism by sharing different beliefs, perspectives, religious norms, politics, values, practises, and cultural

environments that implicitly influence a person's perception and behaviour. Current research findings are unable to fill in the research gap on cultural diversity in the context of cyberbullying. It is difficult to generalise the findings to other nations as they hold different values.

Recommendations

To address the limitations mentioned earlier, a few recommendations are identified. Firstly, future research can take into consideration adopting bilingualism or multilingualism to take advantage of multiple languages in different versions of the survey, such as Chinese, English, and Malay, especially in the Malaysian context, to ease participant's flexibility to choose their own preferred language in completing the survey. By doing so, the researchers can increase the accuracy of the data as participants are offered the choice of their preferred language. The participants may also feel happier answering the survey in a way that makes them feel more comfortable and confident using their own preferred languages.

Secondly, to resolve lengthy survey questions that cause participants to feel bored and quit the study and eventually cause a lower response rate and missing data, it is suggested that researchers reconsider providing a brief and short version of the questionnaire that saves time for both participants and the researchers themselves so that their interest in participating will not be diminished gradually due to struggling to answer lengthy questions. Instead, a brief version of the questionnaire can maintain participants' interest in completing the survey and be more convenient than time-consuming. Thus, it is clear that the response rate will dramatically increase due to the shorter time to complete the survey.

Thirdly, to ensure the generalizability of the findings, a random sampling method can be considered, such as stratified sampling, whereby participants are divided into groups based

on their characteristics, such as gender and age, and then a random selection is made by the researchers from each group. This ensures that each group is represented in the sample, as all kinds of characteristics of the participants have been considered. Thus, it will not cause biases in any of the groups, and the result can be generalised.

Fourthly, future research could consider adopting a longitudinal research design to test the predictive effects of the outcome variables rather than a cross-sectional research design. The main difference is that longitudinal research typically focuses on the observation of a phenomenon over a period of time to collect data, such as after a week, a month, a year, and so forth. As highlighted earlier on, it allows the researchers to detect whether the predictors cause the outcome variable to be consistent across the board as compared to the data collected earlier or the opposite. Thus, it can increase the accuracy of the tested predictors for the outcome variable.

Fifthly, to minimize biased data occurring in self-reporting questionnaires, the researchers may consider rephrasing the questions that focus on other people instead of the participants themselves. For instance, questions like "I avoid dangerous situations" can be rephrased to "How have others viewed your reaction to threatened life events?" Modifying the way of ask questions may influence how participants respond to us. It can somewhat encourage the honesty of the participants to provide as honest a response as they can. It is also crucial to highlight those sensitive questions about participants, such as private information or mental health issues, are meaningful to the participants, and that is the reason why biased data can be collected when asking sensitive questions, as some of them may escape from reality or keep it unknown to avoid negative judgement, biases, and discriminations from others.

Lastly, for the researchers to resolve settings or location boundaries, they may also consider collecting data from other participants from different countries. By doing so, the researchers can compare the new findings to previous findings to determine whether the results are reliable and valid. Thus, the results can be generalized if consistency is observed.

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Appendices

Appendix A

Sample Size Calculation

Dark Triad personality and Cyberbullying

Machiavellianism and cyberbullying

$$f^2 = \frac{R^2}{(1 - R^2)}$$

$$f^2 = \frac{(0.417)^2}{1 - (0.417)^2}$$

$$= 0.2105$$

Psychopathy and Cyberbullying

$$f^2 = \frac{R^2}{(1 - R^2)}$$

$$f^2 = \frac{(0.376)^2}{1 - (0.376)^2}$$

$$= 0.1647$$

Narcissism and Cyberbullying

$$f^2 = \frac{R^2}{(1 - R^2)}$$

$$f^2 = \frac{(0274)^2}{1 - (0.274)^2}$$

$$= 0.0812$$

Table 4.3. Relationship between dark triad personality traits and cyberbullying behaviour

Dimension	Cyberbullying Behaviour	
	r	p
Machiavellianism	0.417**	<0.001
Psychopathy	0.376**	<0.001
Narcissism	0.274**	<0.001

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

Moral Disengagement and Cyberbullying

$$f^2 = \frac{R^2}{(1 - R^2)}$$

$$f^2 = \frac{(0.46)^2}{1 - (0.46)^2}$$

$$= 0.2684$$

Table 1. Descriptive Statistics and Correlations among Variables of Interest.

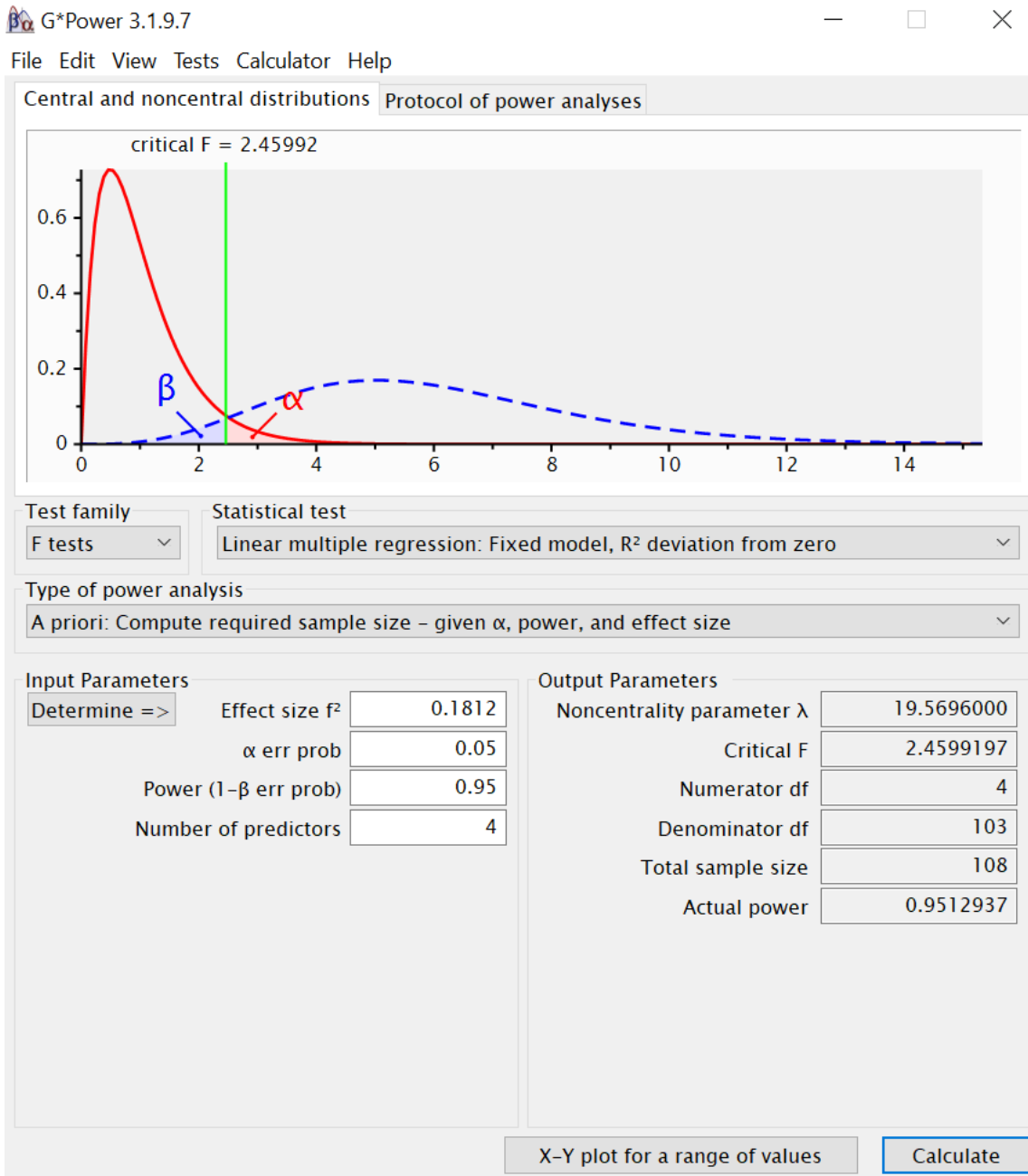| Variable	M	SD	1	2	3	4	5	6
1. Parental phubbing	2.72	.83	1					
2. Moral disengagement	1.70	.61	.15***	1				
3. Cyberbullying perpetration	1.21	.50	.06**	.46***	1			
4. Online disinhibition	2.51	.74	.11***	.27***	.24***	1		
5. Age	12.75	.58	.02	.07**	.10***	.04	1	
6. Gender	–	–	.001	–.12***	–.11***	–.09***	–.07**	1

Note. *p < .05. **p < .01. ***p < .001.

Gender was dummy coded such that 1 = girl and 0 = boy.

Effect Size

$$f^2 = \frac{0.2105 + 0.1647 + 0.0812 + 0.2684}{34} = 0.1812$$

G*Power Calculation

Appendix B

Ethical Clearance Approval form

UNIVERSITI TUNKU ABDUL RAHMAN DU012(A)

Wholly owned by UTAR Education Foundation   Co. No. 578227-M

Re: U/SERC/02/2023

10 January 2023

Dr Pung Pit Wan
Head, Department of Psychology and Counselling
Faculty of Arts and Social Science
Universiti Tunku Abdul Rahman
Jalan Universiti, Bandar Baru Barat
31900 Kampar, Perak.

Dear Dr Pung,

Ethical Approval For Research Project/Protocol

We refer to the application for ethical approval for your students' research project from Bachelor of Social Science (Honours) Psychology programme enrolled in course UAPZ3013/UAPZ3023. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

No	Research Title	Student's Name	Supervisor's Name	Approval Validity
15.	Loneliness and Perceived Social Support as the Predictor of Internet Addiction Among Undergraduates in Malaysia	1. Tan Jia Chyi 2. Tan Tong Yen 3. Vong Yang Yi	Dr Pung Pit Wan	10 January 2023 – 9 January 2024
16.	Depression and Self-efficacy as Predictor to Academic Procrastination Among Undergraduate Students in Malaysia	1. Ricken Chung Li Ken 2. Tay Chong Leng 3. Joel Lee Xin Wei		
17.	Parenting Style as Predictors of Prosocial Behaviours Among Undergraduates in Malaysia	1. Wendy Tan Syn Yao 2. Liong Chu Lam		
18.	Relationship Among Self-control, Grit and Academic Procrastination Among Undergraduates in Malaysia	1. Cheow Pui Kei 2. Lim Jo Yee 3. Yap Yee Qi	Dr Siah Poh Chua	
19.	Dark Triad Personality and Moral Disengagement as the Predictors of Cyberbullying Among Undergraduate Students in Malaysia	1. Li Xin Yan 2. Hew Hui Teng 3. Loh Shao Heng		
20.	The Relationship Between Self-control, Coping Strategy and Online Game Addiction Among Undergraduate Students in Malaysia	1. Lim Chia Huey 2. Lim Shu Yee 3. Tan Shi Wei		

Questionnaire

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ARTS AND SOCIAL SCIENCE

BACHELOR OF SOCIAL SCIENCE (HONS) PSYCHOLOGY

UAPZ 3023 Final Year Project II

Year 3 Trimester 3 (202205)

Introduction

This research study is being conducted on "**Relationship between dark triad personality, moral disengagement, and cyberbullying among undergraduate student in Universiti Tunku Abdul Rahman**" a requirement for the subject UAPZ 3023 Final Year Project II. In order to collect the required information, your participation is needed for our research study.

Procedures

You will be asked to fill in your demographic details in the first section, following by completing the questionnaire which consists of 44 questions. You will take approximately 10-15 minutes to complete this survey.

Confidentiality

All information provided by the students will be subjected as private and confidential. The information use is solely for the purpose of this research. No personal identity and information will be revealed to a third party and only our group members have the access to the information.

Participation

You can voluntarily choose to participate or withdraw at any time without any penalty charged.

Contact information

If you have any questions or concerns, kindly contact our group member at 1906586@1utar.my (Li Xin Yan).

Herewith, I confirm that I have read and understood the information above.

(   )Yes, I **AGREE** to participate in this study.

(   )No, I **DISAGREE** to participate in this study

Section A-Demographic Information

Please fill in your personal details or choose **ONE** option.

a) Age: _____

b) Gender: 1. Male   2. Female

c) Nationality: 1. Malaysian   2. Non-Malaysian

d) Ethnicity: 1. Malay   2. Indian   3. Chinese

                 4. Others (*Specify:* _____)

e) Religion: 1. Muslim   2. Hindu   3. Buddhist   4. Christian

                 5. Other (Specify: _____)

f) Are you taking the undergraduate program in UTAR?

            1.Yes 2.No

g) Year of Study: Year_____ (Ex. Year 1 Semester 3, Y1S3)

h) Faculty (Eg. FAS): _____

i) Programme (Eg. Psychology): _____

j) Are you accessible to electronic gadget and Internet?

            1.Yes 2.No

Section B-The Short Dark Triad Scale

Please indicate how much you agree with each of the following statements. Please circle a number from "1" (Disagree strongly) to "5" (Agree strongly) to describe your degree of agreement with each item.

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

Machiavellianism						
1.	It's not wise to tell your secrets.	1	2	3	4	5
2.	I like to use clever manipulation to get my way.	1	2	3	4	5
3.	Whatever it takes, you must get the important people on your side.	1	2	3	4	5
4.	Avoid direct conflict with others because they may be useful in the future.	1	2	3	4	5
5.	It's wise to keep track of information that you can use against people later.	1	2	3	4	5
6.	You should wait for the right time to get back at people.	1	2	3	4	5
7.	There are things you should hide from other people to preserve your reputation.	1	2	3	4	5
8.	Make sure your plans benefit yourself, not others.	1	2	3	4	5
9.	Most people can be manipulated.	1	2	3	4	5
Narcissism						
1.	People see me as a natural leader.	1	2	3	4	5
2.	I hate being the center of attention.	1	2	3	4	5
3.	Many group activities tend to be dull without me.	1	2	3	4	5
4.	I know that I am special because everyone keeps telling me so.	1	2	3	4	5
5.	I like to get acquainted with important people.	1	2	3	4	5
6.	I feel embarrassed if someone compliments me.	1	2	3	4	5
7.	I have been compared to famous people.	1	2	3	4	5

8.	I am an average person.	1	2	3	4	5
9.	I insist on getting the respect I deserve.	1	2	3	4	5
Psychopathy						
1.	I like to get revenge on authorities.	1	2	3	4	5
2.	I avoid dangerous situations.	1	2	3	4	5
3.	Payback needs to be quick and nasty.	1	2	3	4	5
4.	People often say I'm out of control.	1	2	3	4	5
5.	It's true that I can be mean to others.	1	2	3	4	5
6.	People who mess with me always regret it.	1	2	3	4	5
7.	I have never gotten into trouble with the law.	1	2	3	4	5
8.	I enjoy having sex with people I hardly know.	1	2	3	4	5
9.	I'll say anything to get what I want.	1	2	3	4	5

Section C-10-items Mechanisms of Moral Disengagement Scale

Please indicate how much you agree with each of the following statements. Please circle a number from "1" (Disagree strongly) to "5" (Agree strongly) to describe your degree of agreement with each item.

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

1.	Slapping and shoving someone is just a way of joking.	1	2	3	4	5
2.	Damaging some property is no big deal when you consider that others are beating people up.	1	2	3	4	5
3.	It is okay to tell small lies because they don't really do any harm.	1	2	3	4	5
4.	To hit obnoxious classmates is just giving them "a lesson".	1	2	3	4	5
5.	Stealing some money is not too serious compared to those who steal a lot of money.	1	2	3	4	5
6.	Taking someone's bicycle without their permission is just "borrowing it".	1	2	3	4	5
7.	It is okay to insult a classmate because beating him or her is worse.	1	2	3	4	5
8.	Someone who is obnoxious does not deserve to be treated like a human being.	1	2	3	4	5
9.	Insults among children do not hurt anyone.	1	2	3	4	5
10.	Some people have to be treated roughly because they lack feelings that can be hurt.	1	2	3	4	5

Section D- European Bullying Intervention Project Questionnaire (EBIPQ)

Please read each statement and select an answer to indicates how much the statement applied to you. Please circle a number from "1" (No) to "5" (several times a week) to describe your degree of agreement with each item.

Have you ever experienced any of the following situations in the last two months?

1	2	3	4	5
Never	once or twice	once or twice a month	once a week	*more than once a week*

Bullying Perpetration scale						
1.	I have hit, kicked, or pushed someone.	1	2	3	4	5
2.	I have insulted someone or called them names.	1	2	3	4	5
3.	I said nasty things about someone to other people.	1	2	3	4	5
4.	I have threatened someone.	1	2	3	4	5
5.	I have stolen or broken something from someone.	1	2	3	4	5
6.	I have excluded or ignored someone.	1	2	3	4	5
7.	I spread rumours about someone.	1	2	3	4	5

Appendix D

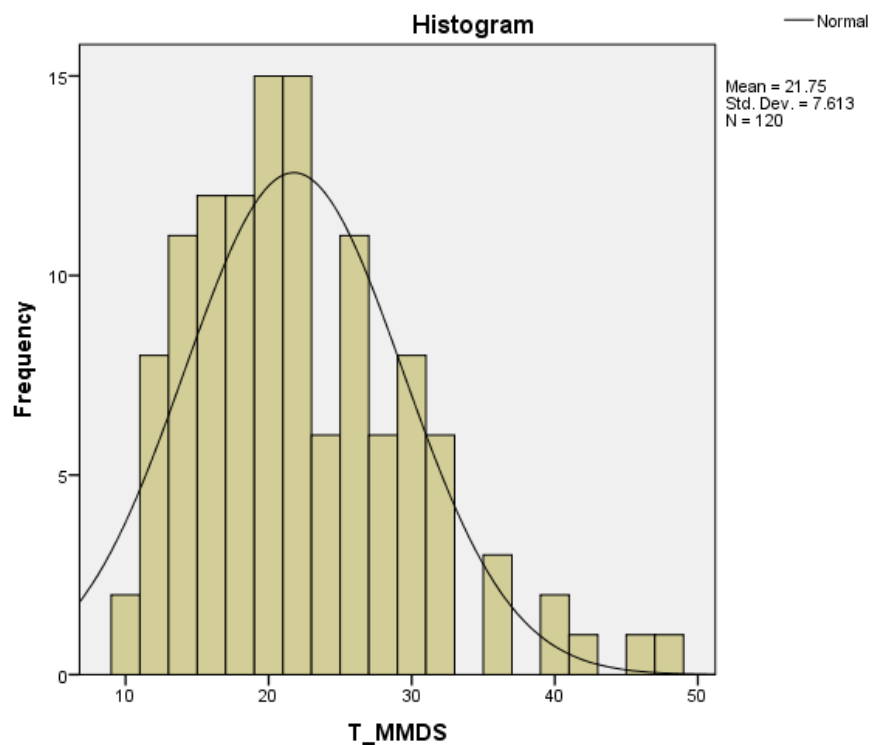**SPSS result for Normality Assumptions**

Histogram
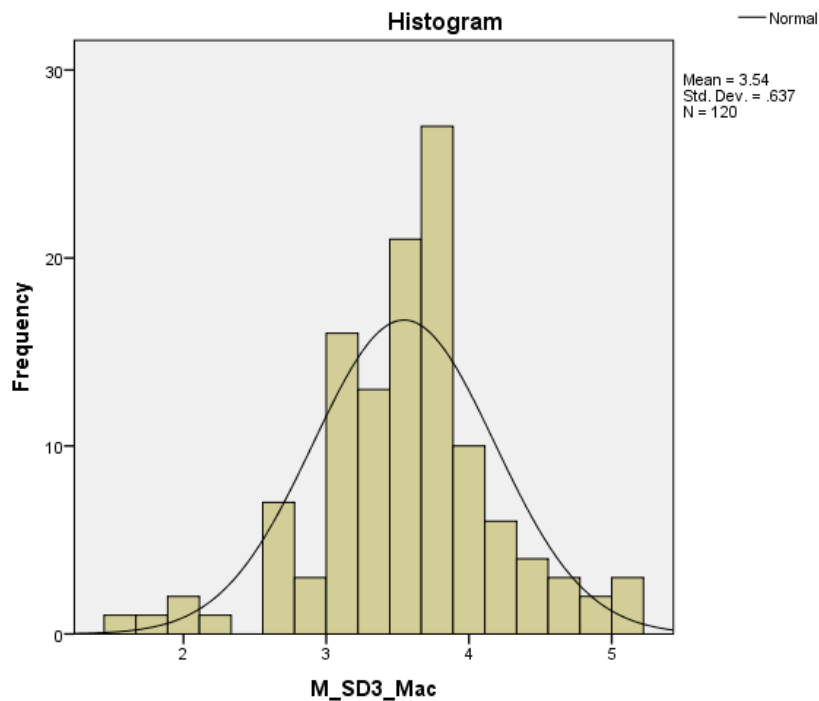
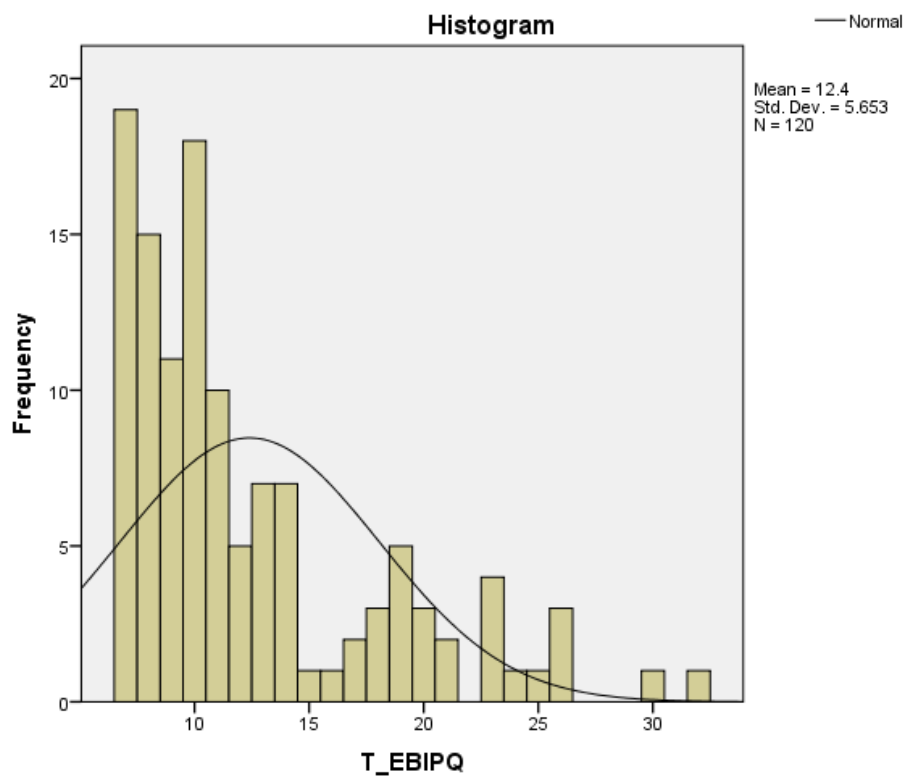Normality distribution for predictors of Machiavellianism
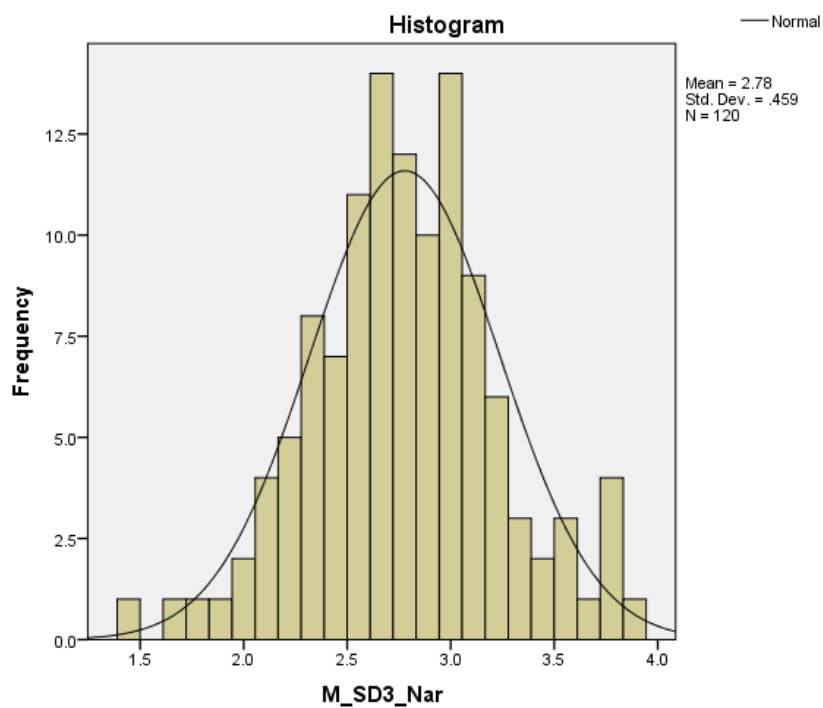
Normality distribution for predictors of narcissism
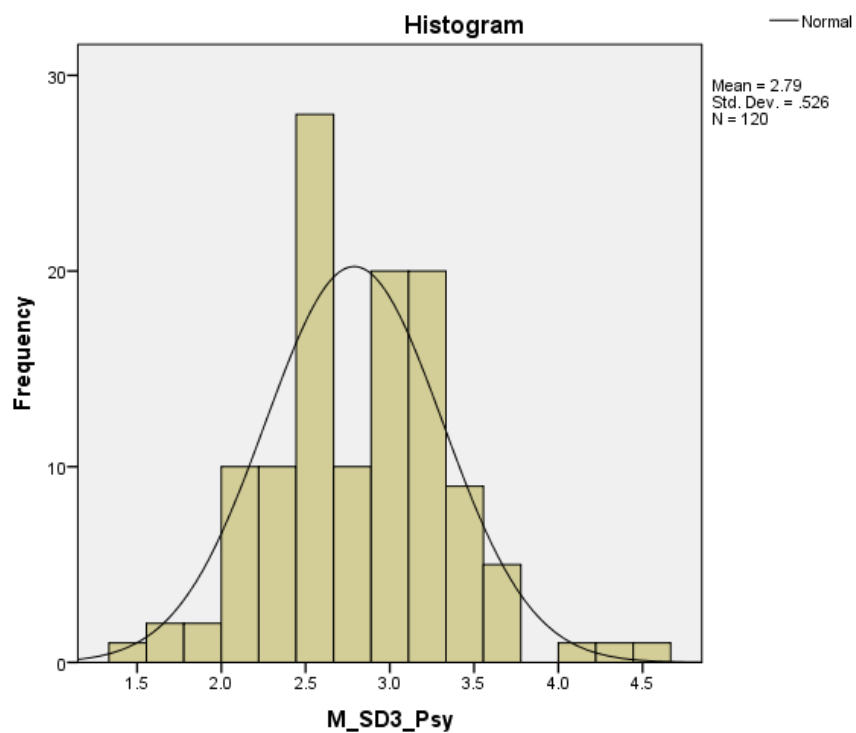
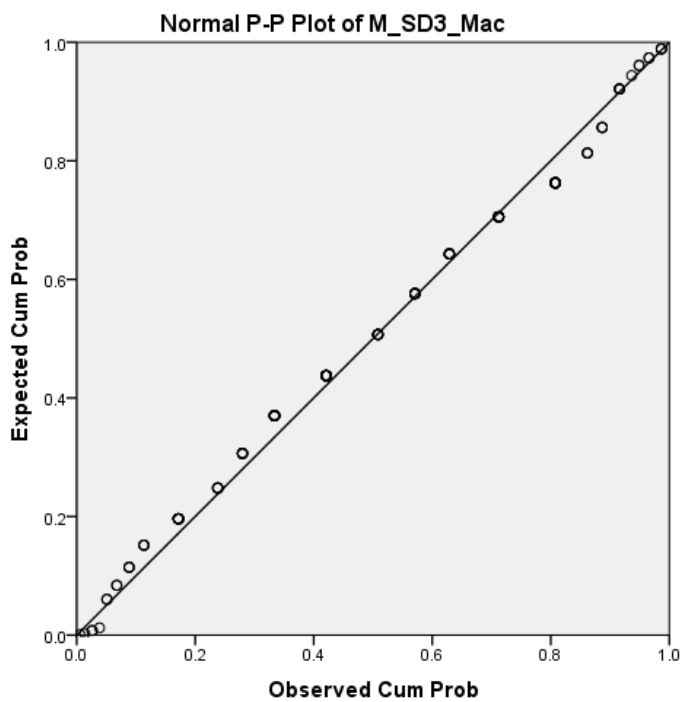Normality distribution for predictors of psychopathy

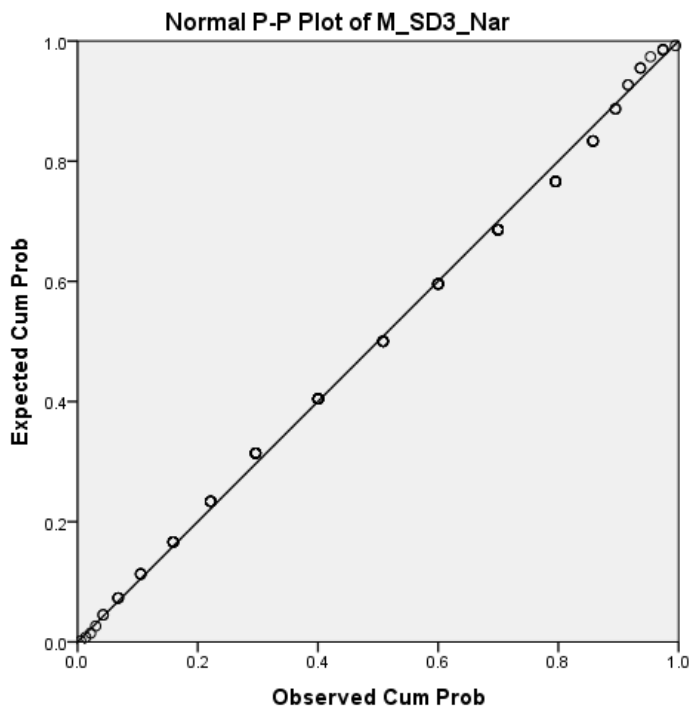Normality distribution for predictors of moral disengagement

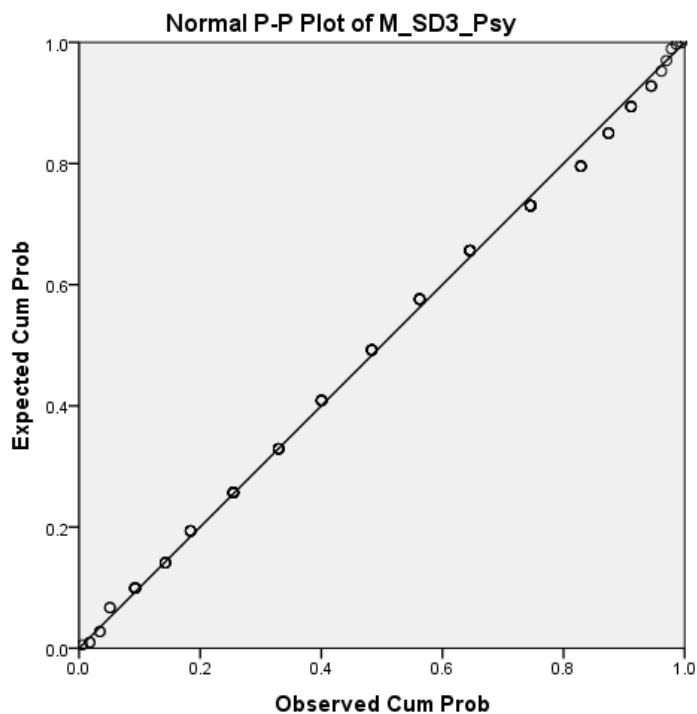Normality distribution for outcome variable of cyberbullying
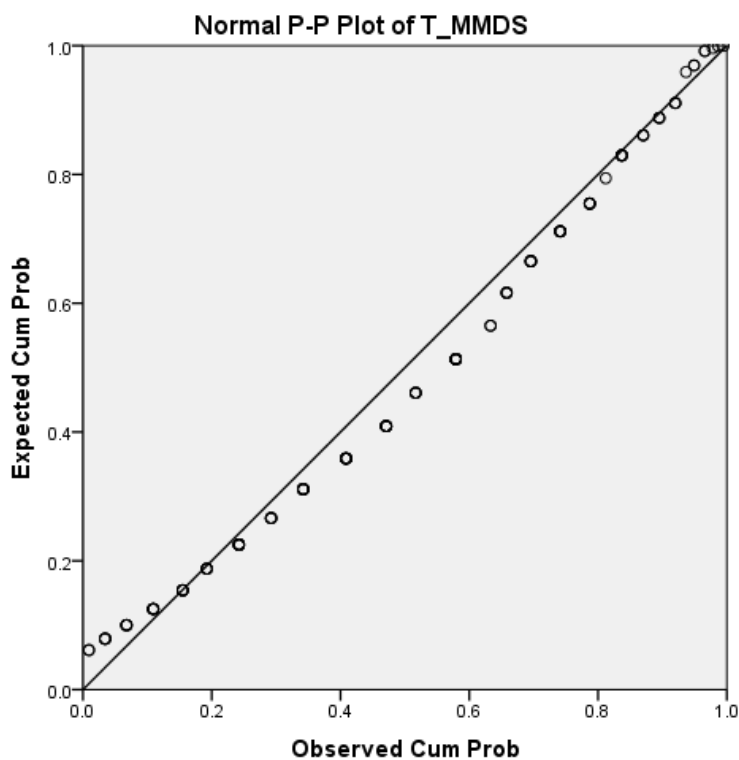
P-P Plot

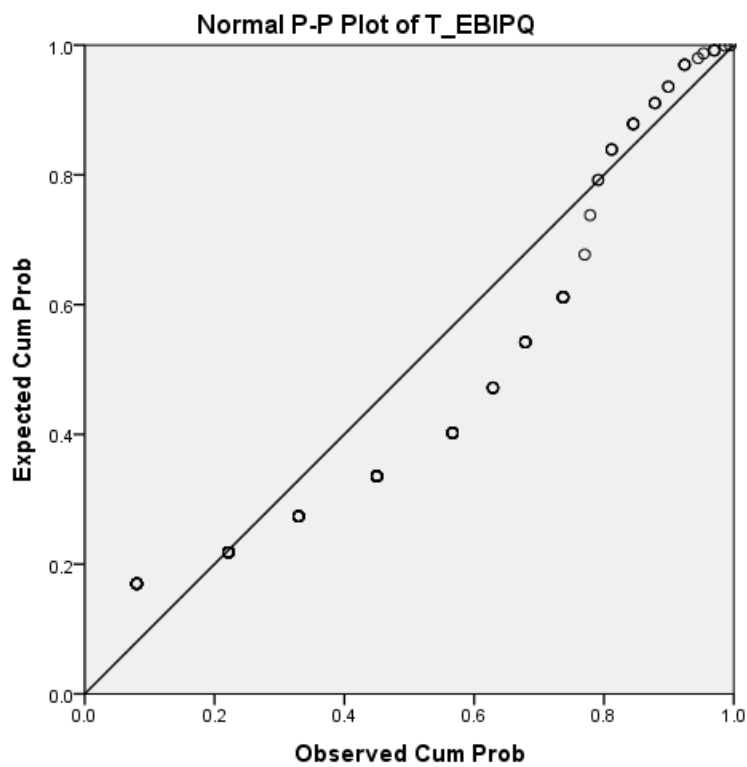P-P plot for the predictors of Machiavellianism

P-P plot for the predictors of narcissism

P-P plot for the predictors of psychopathy

P-P plot for the predictors of moral disengagement

P-P plot for the outcome variable of cyberbullying

Appendix E

SPSS result of Multivariate Outliers

Case Summaries^a

			Case Number	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
Group_IC	less than SD of 2	1	1	4.00026	.01031	.03362
		2	2	8.02970	.01059	.06748
		3	3	2.57215	.00413	.02161
		4	4	1.78799	.00071	.01503
		5	5	1.39519	.00174	.01172
		6	6	1.85738	.00006	.01561
		7	7	5.21885	.01960	.04386
		8	8	8.68672	.04355	.07300
		9	9	2.26013	.00499	.01899
		10	10	4.13458	.00350	.03474
		11	11	11.00445	.00465	.09247
		12	12	5.10929	.00119	.04294
		13	13	7.64524	.01283	.06425
		14	14	9.43570	.00403	.07929
		15	15	5.07375	.00954	.04264
		16	16	1.55031	.00004	.01303
		17	17	.03022	.00002	.00025
		18	18	.08141	.00029	.00068
		19	19	3.46068	.00026	.02908
		20	20	1.17387	.00167	.00986
		21	21	3.97348	.00562	.03339
		22	22	2.00716	.00091	.01687
		23	23	.61811	.01059	.00519
		24	24	2.14737	.00007	.01805
		25	25	.57726	.00046	.00485
		26	26	2.23537	.01088	.01878
		27	27	1.88356	.00127	.01583
		28	29	2.93243	.00012	.02464
		29	30	1.90964	.00675	.01605
		30	31	1.90949	.01414	.01605
		31	32	1.27642	.00141	.01073
		32	33	4.39954	.02496	.03697

33	34	9.39450	.04984	.07895
34	36	3.16682	.00353	.02661
35	37	3.16634	.00016	.02661
36	38	2.73657	.00257	.02300
37	39	.61244	.00617	.00515
38	41	5.50852	.00073	.04629
39	42	9.12751	.02468	.07670
40	43	3.21299	.00003	.02700
41	44	4.20437	.00562	.03533
42	45	.99684	.00003	.00838
43	46	12.77266	.02292	.10733
44	47	1.94884	.00676	.01638
45	48	1.97792	.00046	.01662
46	49	1.05866	.00014	.00890
47	50	11.66421	.05988	.09802
48	51	1.25240	.00055	.01052
49	52	3.26861	.02375	.02747
50	53	4.05468	.00056	.03407
51	54	2.25823	.00099	.01898
52	55	9.03336	.02893	.07591
53	56	6.56846	.00006	.05520
54	57	9.22771	.03241	.07754
55	58	11.04635	.01550	.09283
56	59	1.45593	.00219	.01223
57	60	3.39281	.02271	.02851
58	61	3.26033	.00006	.02740
59	62	.77000	.00360	.00647
60	63	2.79110	.00557	.02345
61	64	1.89274	.00000	.01591
62	65	2.10219	.00219	.01767
63	66	7.15034	.00202	.06009
64	67	2.93954	.00738	.02470
65	68	2.06135	.00473	.01732
66	69	4.96049	.00197	.04168
67	70	.09721	.00009	.00082
68	71	6.03643	.00012	.05073
69	72	2.41632	.01901	.02031
70	73	2.36022	.00008	.01983

	71	74	6.77706	.01624	.05695
	72	75	2.43719	.00051	.02048
	73	76	1.01114	.00398	.00850
	74	77	1.54773	.00252	.01301
	75	78	1.07440	.00082	.00903
	76	79	15.37276	.10214	.12918
	77	80	2.67321	.02157	.02246
	78	81	6.36761	.00001	.05351
	79	82	2.45135	.00068	.02060
	80	83	5.51749	.00000	.04637
	81	84	5.33908	.00132	.04487
	82	85	2.64058	.00032	.02219
	83	86	2.79810	.00641	.02351
	84	87	4.06749	.01728	.03418
	85	88	7.12107	.00474	.05984
	86	89	8.50404	.02456	.07146
	87	90	3.03012	.01664	.02546
	88	91	.33604	.00220	.00282
	89	92	4.85797	.00317	.04082
	90	93	1.83433	.00600	.01541
	91	94	2.23406	.01474	.01877
	92	95	4.92339	.01299	.04137
	93	96	1.70585	.00002	.01433
	94	97	12.03548	.03281	.10114
	95	98	1.37028	.00539	.01151
	96	99	1.06862	.00006	.00898
	97	100	.95143	.00626	.00800
	98	101	3.33682	.00281	.02804
	99	102	3.77454	.01071	.03172
	100	103	11.42166	.08151	.09598
	101	104	1.15749	.00002	.00973
	102	105	.40109	.00242	.00337
	103	106	1.38819	.00051	.01167
	104	107	1.13215	.01208	.00951
	105	108	6.78470	.00003	.05701
	106	109	1.18400	.00508	.00995
	107	110	6.23529	.00707	.05240
	108	111	2.44173	.00057	.02052

	109		112	4.63206	.00346	.03892
	110		113	5.72782	.00411	.04813
	111		114	7.61247	.00042	.06397
	112		115	3.45449	.00108	.02903
	113		116	4.46452	.00257	.03752
	114		117	7.33863	.00726	.06167
	115		118	1.61467	.00016	.01357
	116		119	4.75924	.00958	.03999
	117		120	1.70846	.00044	.01436
	Total	N		117	117	117
more than SD of 2	1		28	.41830	.01724	.00352
	2		35	4.50077	.04209	.03782
	3		40	8.13935	.15354	.06840
	Total	N		3	3	3
Total		N		120	120	120

a. Limited to first 150 cases.

Appendix F

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