

The Impact of Beauty Filter Usage on Body Dissatisfaction among Tertiary Students in Klang Valley

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ABSTRACT

This study explores how the use of beauty filters on social media impacts body image among university students in the Klang Valley, Malaysia. While the use of Augmented-Reality (AR) and Artificial-Intelligence (AI) driven filters are a common social media practice nowadays, its psychological effects on young adults within the Malaysian context remains under-searched. Using a quantitative design, the relationship between the independent variable (IV) of Beauty Filter Usage and dependent variable (DV) of Body Dissatisfaction has been investigated. A total of 236 students participated in a self-reported survey using a modified version of Appearance-Related Social Media Consciousness (ASMC-13) and Body Shape Questionnaire (BSQ-16) to ensure measurability of variables. Descriptive results indicated high levels of both filter usage and body dissatisfaction, with ($M=3.91$) and ($M=3.88$) respectively. Inferential analysis revealed a strong positive significant correlation ($r=0.976$, $p<0.001$), proving that increased filter dependency directly influence body dissatisfaction. To note, T-test showed that male students scored significantly higher than females in both filter usage and body dissatisfaction, challenging traditional assumptions of female-focused body image concern. Findings implicate that ongoing beauty trends from TikTok and Snapchat has reset beauty standards, leading to increased social withdrawal among students. This research also concludes that the “internalization of digital ideal” creates an impossible beauty benchmark. It recommends that universities implement gender-inclusive digital literacy programs to address this emerging mental health crisis among tertiary students of Klang Valley.

Keywords: Beauty Filters Usage, Body Dissatisfaction, Social Media , ASMC 13, BSQ-16

INTRODUCTION

In the modern digital landscape Nguyen, X. D. (2026) digitalization has penetrated almost every sphere of life, and the digital space has become an integral part of modern society and this includes social media. Social media platforms have swiftly transitioned from simple communication tools to mediums for self-discovery among tertiary students. Ideally, these platforms should foster healthy social connection, connecting people from all around the world as well as strengthening the social bonds among communities. However, the integration of Augmented Reality (AR) and Artificial Intelligence (AI) beauty filters has created these virtual standards of “perfection” that emerging adults have to comply to. While it is true that these tools offer beneficial aesthetic enhancement, there are negative effects that cannot be ignored.

One of the effects lie in the growing phenomenon of “Selfie Dysmorphia,” where young adults increasingly struggle to reconcile their natural physical appearance with their filtered pictures. If this relationship remains unaddressed, the persistent psychological distress may lead to higher risk of developing clinical disorders such as BDD and ED. Malaysia’s mental health scenery is already facing challenges where the rate of mental illness is reaching its highest recorded number compared to any other decades. Especially in urban areas such as the capital Kuala Lumpur, where a study found 40% of the population fulfilled the criteria for a mental disorder (Raaj et.al, 2021).

Based on the Global Digital Report 2024, 83.1% of Malaysia's population have a social media identity and users' engagement came to an average of 38 hours and 49 minutes per month on the TikTok app, coming in first in the category of "Time Spent using Social Media Apps" (Howe, 2024). Despite the high concentration of social media usage in urban Malaysia, there is a lack of localized research exploring how the behaviour and intensity of filter usage directly predict body dissatisfaction within the emerging adulthood demographic, especially those in a high-density community such as tertiary institutions. Moreover, the normalization of these digital enhancements has redefined the standard of attractiveness, whereby natural, unedited features are increasingly perceived as 'defective' as they do not match the ones in the edited pictures. For tertiary students in the high-density urban area of Klang Valley, the pressure to conform to these AR and AI generated beauty benchmark is constant. Existing research fail to address the mental shift from this harmless action of using beauty filters to this obsessive habit in monitoring their appearance to see if they meet the digital beauty standards mentioned above.

Many existing studies focus on a more general perspective of social media use and body image perception. For instance, (Gupta et.al, 2023) highlighted that the frequency of image-based social media use and appearance-driven motivations are primary predictors of body dysmorphic symptoms in their study of the association between social media use and body dysmorphic symptoms in young people. However, a significant portion of the existing research remains Western-centric, leaving the unique sociocultural beauty standard of Malaysian youth under-explored. Too add on, most studies group all social media activities together, failing to distinguish between the general usage and the specific intensive usage of beauty filters. This research aims to address these gaps by shifting the focus to the Malaysian context especially the local tertiary students and isolating beauty filter usage as a key behavioural catalyst for body dissatisfaction.

Additionally, the world of technology is constantly evolving at an incredible pace and it does not seem it will slow down anytime soon. This means that people's dependence on digital tools and application will also increase. Therefore, the significance of this research also lies in providing the empirical evidence needed to create a safe digital environment. By understanding the link between beauty filter usage and body dissatisfaction, it can be ensured that policy makers have the psychological frameworks ready to protect the mental health of users as these tools become more immersive. In doing so, the study contributes directly to the United Nations Sustainable Development Goals 3 (SDG 3) which calls for good health and well being and in this context, committing member states to promote mental health and wellbeing.

This article addresses these gaps. The main objective of this article is to examine the impact of beauty filter usage in the context of social media on one's body image dissatisfaction among tertiary students in Klang Valley. Specifically the study focuses on these three objectives: (1) To examine the extent of beauty filter usage among tertiary students in Klang Valley, (2) to assess the level of body dissatisfaction among students of tertiary level education in Klang Valley and (3) to examine the relationship between beauty filter usage and the level of body dissatisfaction.

LITERATURE REVIEW

Theoretical Foundations: The Tripartite Influence Model

The Tripartite Influence Model (TIM) developed by (Berg et.al, 2002) is one of the most widely used frameworks when it comes to research in body image. This model proposes that there are three main core of influence that contribute to the development of body image and eating disturbances which are media, peers, and parents. One of the core influences which is media, plays a role as a sociocultural influence that transmits ideals of attractiveness to individuals. However, it does not always cause body dissatisfaction directly and it is instead often mediated by two critical psychological processes which is the internalization of media information and appearance comparison (Berg et.al, 2002). At the base, media plays the part in setting a norm by saturating one's environment with specific images that the public would be conditioned to perceive as attractive. This exposure will then lead to internalization of the idea by media consumers that specific features will bring specific rewards. For example, social media posts often link beauty with popularity and success.

Once the idea is transmitted and internalized, the individual will begin using it as a benchmark for beauty trends and standards. This influence is increasingly significant with an apparent growth of the use of image-based social media especially in teen girls as they are more likely than teen boys to engage with platforms like TikTok, Instagram and Snapchat (Vogels, et.al., 2022). Research by (Yao et.al., 2024) provides empirical evidence on how social media in the context of ideals exposure is significantly associated with thin-ideal internalization within the sample of Chinese female undergraduates. Within the TIM, this proves that internalization is a powerful psychological process. It shows that once an individual buys into the standard, the effects can still play in their mind despite the use of any media.

Alongside media, peers are also identified to be one of the main cores of influence mentioned in the model. (Laursen & Veenstra, 2021) describes peer influence as an important tool to increase similarity between friends and affiliates which will reduce the social risks that comes from differences and dissimilarity. This explains the urge of individuals to align with ongoing trends, be it social media, beauty and so on. This is because peer influence can serve as the primary motivation behind the conformity to digital beauty standards for individuals as a means of seeking a sense of belonging and social validation particularly within the tertiary institutions. Berg et.al. (2002) also describes that peers act as a reinforcer for beauty standards through interpersonal interactions where teasing, conversations and social reinforcement take place among peers which allows for internalization of a certain beauty standard.

Furthermore, recent research by (Ito et.al, 2025) highlights that exposure to thin-ideal images such as the viewing pictures and videos of slim women has a significantly deeper impact on the internalization of beauty standards rather than conversations or verbal “body talk”. These findings provide empirical support for the ‘internalization of media information’ as a critical mediating process within the TIM. Lastly, TIM proposes that parents are the third core source of influence on the occurrence of body image and eating disturbances. While media provides the standard, and peers provide the social trends, parents often provide the foundational attitude toward body image. The model emphasizes that parents can influence their children’s body image directly or indirectly. For instance, direct parental influence can occur through verbal commentary such as weigh-related teasing and encouragement to diet while indirect influence can be seen when parents themselves model their own body dissatisfaction (Berg et al., 2002).

Recent research has also supported this claim as they identify that direct parental influence such as criticism and teasing of offspring’s weight is a powerful predictor of body dissatisfaction that lasts well into adulthood (Athaide et.al., 2025). According to (Bandura, 1977) in his Social Learning theory, individuals learn social behaviors through observational learning, where they watch and imitate the actions of influential models such as parents. Therefore, if a parent frequently critiques their own appearance in the presence of their child, they are more likely to internalize these behaviors. Simultaneously, modeling can be a powerful tool in decreasing body dissatisfaction as a study found that young adults would prefer parents to be role models and provide the foundations of healthy habits surrounding food and body at home (Staviss, 2024).

As mentioned above, the TIM posits that the media, peers, and parents do not cause body dissatisfaction directly. It is instead being mediated through two psychological processes. First, internalization occurs when an individual adopts sociocultural beauty standards as their own personal goals. Once these ideas are internalized, they trigger the second mediator which is appearance comparison. Research shows that upward appearance comparisons which is the tendency to make comparisons with others that are considered more superior was reported in greater numbers than any other directions (Coelho, 2023). In this digital age, this process is intensified as beauty filters provide a constant stream of superior images, which triggers this psychological mechanism leading individuals to frequently compare their natural appearance against a digitally ideal concept which once again highlights the importance of this study.

Theoretical Foundations: The Self Discrepancy Theory

The Self Discrepancy Theory by (Higgins, 1987) provides a psychological framework for understanding the emotional vulnerabilities that arise from the gap between how individuals perceive themselves and how they wish to be. According to Higgins (1987) individuals possess three core domains of the self which is the Actual self, the Ideal self and also the Ought self. To elaborate, the Actual self is the real representation of

an individual's current state, the Ideal Self represents the attributes that someone would ideally like to possess, such as hopes and aspirations meanwhile the Ought Self represents the attributes that an individual feels they should possess based on duties, obligations, or sociocultural requirements.

(Higgins, 1987) posits that the larger the gap between the actual and ideal self, the more likely the individual is to experience adverse emotions such as disappointment, sadness, and dissatisfaction. Recent research has provided empirical evidence that self-discrepancy is a mechanism that mediates the impact of perceived media-transmitted body ideals on body dissatisfaction (Möri et.al., 2022). The study also confirms that the thinner or more muscular the viewers perceive the ideal body in the media, the stronger their body dissatisfaction (Möri et.al., 2022). From this, it is understood that the bigger the gap is between the ideal body and their own body, the bigger the body dissatisfaction is; which supports the Self Discrepancy Theory. Building on the concept of the 'Actual-Ideal' gap, the experience of adverse feelings when there is discrepancy between the domains can be related to the Cognitive Dissonance Theory by (Festinger, 1957). In the context of body image, an individual will face dissonance when their Actual self contradicts the 'Ideal Self'. This contradiction creates a state of psychological tension or discomfort which will manifest into bigger emotions such as disappointment, dissatisfaction, or unhappiness.

While the Ideal self focuses on personal desires, the Ought self represents the version of the individual that is shaped by external expectations and social obligations such as the pressure to look professional, polished or socially acceptable according to local beauty standards. Slightly different from the 'Actual-Ideal' gap, a discrepancy between the Actual and Ought self typically produces agitation related emotions such as anxiety, guilt, and self-contempt (Higgins, 1987). Unfortunately, most research focus more on the 'Actual-Ideal' gap and more efforts need to be made to explore the impact of 'Actual-Ought' discrepancy. All in all, the discrepancies between the 'self' domains provides an insightful explanation on the psychological distress that an individual might feel when perceiving their own self. Ultimately, this study utilizes Self-Discrepancy Theory to investigate whether the 'Actual-Ideal' gap created by beauty filters serves as a primary driver for body satisfaction among tertiary students.

The Psychosociological Effects of Body Dissatisfaction

Body dissatisfaction refers to the negative evaluation of one's physical body (Heider et al., 2018). This is understood to be stemming from a perceived discrepancy between the Actual self which is the natural state of their body and also the Ideal self which is the ideal body and features that they aspire to possess. When remained unsolved, this constant psychological distress and pressure will manifest into behaviours that may disrupt an individual's daily functioning.

The most prevalent effects of body dissatisfaction is the development of Eating Disorders (EDs). EDs are referred to as a behavioural condition characterized by a consistent disturbance to feeding or eating patterns that affect the consumption or absorption of food which causes impairment in their physical and psychosocial functioning. The relationship between body dissatisfaction and EDs has long been discussed with existing studies showing that body image concerns and self-criticism is persistently standing as one of the main features that contribute to the maintenance and execution of disordered eating behaviors (Dover & Clements, 2025). Recent reports also found that body dissatisfaction is a mediating factor in cognitive restraint eating among Chinese female adolescents (Chen, 2020) and that body dissatisfaction is positively associated with restrained eating, emotional eating as well as external eating which can be mediated through smartphone addiction (Yang et al., 2022).

A persistent state of body dissatisfaction can also cause Body Dysmorphic Disorder (BDD). BDD is said to be the only other diagnosis in the DSM-5 to that is characterized by a disturbed body image (Rosen & Ramirez, 1998) which points at the direct correlation between body dissatisfaction and BDD. In a social context, body dissatisfaction can also impact an individual's social functioning. Studies have found that body dissatisfaction is significantly associated with social anxiety where feeling of inferiority and family cohesion were found to play a pivotal mediating role in the relation (Dou et al, 2023). Beyond social anxiety, body dissatisfaction is also found to have a positive correlation with the development social physique anxiety which is defined as the type of anxiety experienced when individuals feel that their

physical appearance are being criticized by other people especially in a university setting where students are exposed to increased academic demands, new social norms and body image standard. (Tsartsapakis, 2025).

The psychological pressure to maintain or achieve a certain ideal standards due to body dissatisfaction often forces individuals into a state of heightened Impression Management. In his book of *The Presentation of Self in Everyday Life*, (Goffman, 1959) publicized the concept of perception management. In the same concept, Goffman defines impression management to a goal-directed conscious or unconscious attempt to influence other people's perspective on a person, object or event by controlling the information during social interaction (Nickerson, 2024). In the context of body dissatisfaction, impression management is used as a defensive mechanism to bridge the perceived gap caused by the (Actual-Ideal) discrepancy. Impression management can manifest into different types of compulsive behaviour such as constant checking of themselves in the mirror, excessive touch-ups and so on.

Media Literacy and Body Image

In the Malaysian context, the media consumption is on par with the global trend where Malaysians ranked number sixth worldwide for daily online time in 2022, with an average of 9 hours and 4 minutes daily (Chuah, 2024). With the constant evolvement of media platforms, it is found that individuals find it hard to make proper choices regarding technology which hints at a decline in media literacy (Rios, 2024). Not only that, an increasing reliance on social media as a source of news and instances of unverified news are being spread on social media (Jasin et al., 2022). This high-speed consumption also significantly challenges an individual's media literacy.

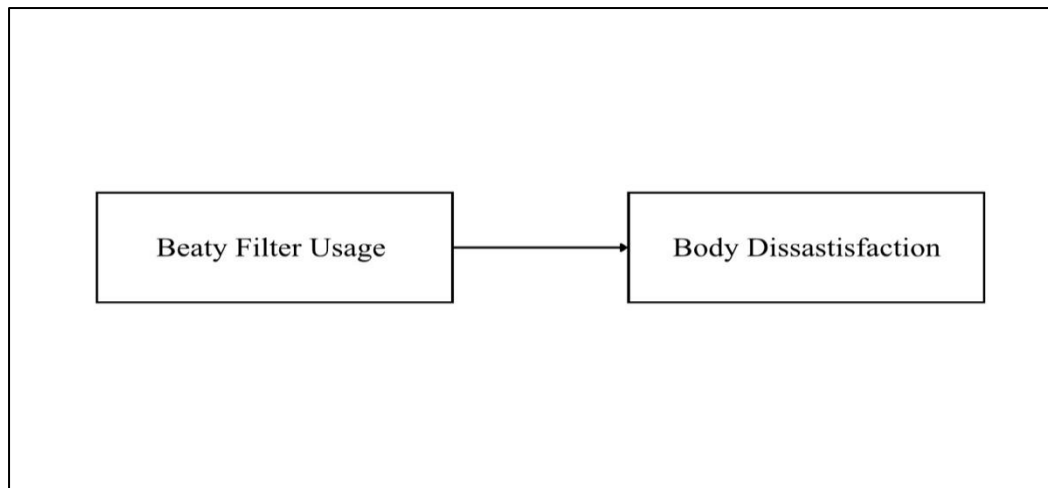
This means that the Malaysian population are vulnerable to the effects of lack of media literacy. At the base, media literacy refers to the practice of comprehending media messages and understanding its influence on one's thoughts, feelings and behaviors (Syversen-Mark, 2025). When an individual lack this specific skill set, they may fail to deconstruct digital manipulation, particularly in the context of body image. With the emergence of new and advance beauty standards and beauty features in the digital world, digital manipulation may occur to individuals with low level of media literacy. For instance, instead of recognizing a beauty filter as just a digital tool, an individual with low media literacy may internalize the perfection as a personal standard.

Consequently, it creates a loop of Self-Objectification which refers to the psychological process in which an individual perceives themselves as a physical object first then a human second which results in increasing hypercriticality about their body (Chan, 2026). In Malaysia, studies shown that female students who performs self-objectification by viewing their bodies from an external observer's perspective, they are more likely to experience higher levels of anxiety about their appearance (Wong & Moh Sani, 2025). Additionally, studies also found significant relationship between self-objectification and body image where they correlate with each other (Piercey, et al., 2023). Subsequently, when an individual's body image is compromised through this self-evaluation, it often leads to appearance-related anxiety as it involves the cognitive process of constant body surveillance such as monitoring how one looks in social or academic settings (Wong & Moh Sani, 2025).

In conclusion, the intersection of rapid media consumption and a lack of media literacy creates a significant vulnerability in how individuals perceive their physique. When the ability to critically deconstruct digital manipulation is absent, it increases the state of body image awareness, where an individual is constantly critiquing their own appearance.

Figure 1 illustrates the conceptual framework of this study. The Independent Variable (IV) is defined as the Beauty Filter Usage and the Dependent Variable (DV) refers to Body Dissatisfaction. This framework allows for a clear investigation of the relationship between the two variables and to what extent does the usage of beauty filter actually influence body dissatisfaction.

Figure 1. Conceptual Framework



METHODOLOGY

Research Design

This study employs a quantitative research design utilizing a cross sectional survey method with the objectives of examining the relationship between beauty filter usage and level of body dissatisfaction. By quantifying variables and relationships, researchers will be allowed to measure data objective and methodically which highlights the accuracy, objectivity, and capacity for generalization of quantitative research (Munther et al., 2024). Additionally, a cross-sectional survey method is used where data is collected at one specific point in time to capture the habits and feelings of the participants right now, rather than following them over years. This is because technology is surely to advance more and more in the future, so it is a crucial to study the impacts of the technology the generation is currently utilizing which is AR and AI-driven beauty filters. For the survey, two different questionnaires which are reliable and valid has been chosen to be employed which are the Appearance-Related Social Media Consciousness Scale (ASMC-13) and the Body Shape Questionnaire (BSQ-16). The items are then modified to better fit the variables which are beauty filter usage for (IV) and body dissatisfaction for (DV). Data is then collected through an online survey platform which is Google Forms. This quantitative research design aligns directly with the objective of determining the statistical relationship between beauty filter usage and body dissatisfaction with precision, providing clear and measurable evidence of how beauty tools influence the mental well-being of tertiary students in the area of Klang Valley.

Participants and Sampling

In this research, the target population is identified to be students who currently enrolled in any tertiary institutions in the area of Klang Valley. This demographic is chosen because they exhibit the highest frequency of social media engagement and beauty filter usage as social media is more than just a way of communication for them, it is also a medium for self-discovery. To ensure that the target population has an equal and independent chance of being selected for the sample, a non-probability, convenience sampling method has been employed. This method allows the researcher to announce the study while participants can self-select whether they are willing to participate (Stratton, 2021). The research has collected a total of 236 respondents which particularly focused on tertiary student in Klang Valley. Respondents who were outside of Klang Valley and if they have already graduated is excluded from the sample.

Instrument and Data Collection

Data was collected using a structured questionnaire that was developed through literature on beauty filter usage and individuals perception on their body image. The questionnaire contains 37 items which is divided

into three main sections which are, Section A to collect basic demographic information, Section B to measure Beauty Filter Usage and Section C to measure Body Dissatisfaction. For section A, there are 7 items that covers the basic information of the participants to have a clear demographic of the targeted population. The items include age, gender, basic university information such as their enrollment status, current year of study as well as the area where their institution is located. The last two questions focus more on the aspects of social media such as the average daily usage and preferred social media platform.

Next, Section B consists of 13 questions to measure the IV, which is the beauty filter usage. The items are adapted from the Appearance-Related Social Media Consciousness Scale by (Choukas-Bradley et al., 2020). While the original scale assesses the extent of an individual's thoughts and behaviors reflect the persistent awareness of whether they might appear attractive to a social media audience (Choukas-Bradley et al., 2020), the items in this study were specifically modified to reflect the frequency as well as the psychological preoccupation of applying beauty filters to one's image. For instance, the original item from the ASMC-13, 'When people take pictures of me, I think about how I will look if the pictures are posted on social media,' was refined to 'When people take pictures of me, I think about how I will look if the pictures are posted without any filters on social media'. This adaptation was done to explicitly capture the reliance on AR and AI driven filters that are embedded on social media application nowadays such as TikTok, Instagram and Snapchat. Participants respond to these items using a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strong Agree). A higher score in this section indicates a heightened state of consciousness regarding digital (AR and AI) driven facial manipulation and a greater dependence on it to appear attractive online.

Moving on, Section C is made up of 16 questions in order to measure the DV which is Body Dissatisfaction. Adapted from the Body Shape Questionnaire (BSQ-16). BSQ-16 is a shortened version derived by (Evans & Dolan, 1993) from the original BSQ which contains 34 items. While the BSQ is generally used to assess negative body image, the items in this study were specifically adapted to reflect the influence of digital beauty standards. For instance, BSQ-16's original item, 'Have you been so worried about your shape that you have been felling you ought to diet?', was modified to the statement 'I have been so worried about my shape that I felt I should diet to meet the physical ideals I see in beauty filters'. Furthermore, the scoring for the items has been generalized in this study to follow a 5-point Likert scale by replacing the question items to 'I' statements. This adjustment is crucial to maintain consistency with the ASMC-13 used in section B. By standardizing the scales, the researcher ensures that the measurement framework is uniform across the entire instrument as well as allowing participants to navigate the survey with greater ease.

Validity and Reliability of Instrument.

The internal consistency of the modified ASMC-13 and BSQ-16 scales was assessed using Cronbach's Alpha (α) using the IBM SPSS statistics version 29 during the initial pilot study of this research. The data mentioned was yielded from a total of 22 number of respondents as the sample. The pilot study for section B yielded a Cronbach's Alpha value of 0.926. This high coefficient confirms that all 13 items are highly cohesive and provides a stable measurement of the independent variable which is this case is the beauty filter usage. For section C (Body Satisfaction Questionnaire – 16), alpha value was 0.971 which indicates an exceptional level of internal consistency and indicates that the 16 items are high reliable in measuring the construct of body dissatisfaction within the context of this study.

Face validity was established by assessing the clarity and readability of the survey from the perspective of the respondents. The instrument was reviewed by the researcher and academic supervisor to ensure that the questions were direct and easily interpretable to avoid any sorts of confusion Not only that, the validity of this instrument is also supported by existing validity analysis of the original instrument. For instance, the ASMC-13 has been proven to demonstrate strong internal consistency, convergent and incremental validity as well as test-retest reliability (Choukas-Bradley, 2020). Similarly, the BSQ-16 also has empirical evidence that shows good concurrent validity which supports that it is a valid and reliable measure of body image (Rosen et al., 1996). Ultimately, the integration of these validated measures provides a highly credible framework for examining the correlation between the variables.

Data Analysis

Data analysis was done using the IBM SPSS version 29. Both descriptive and inferential analysis was done to achieve the objectives of this study. The descriptive analysis phase involves summarizing the primary characteristic of the dataset, for the demographic profiles, frequencies and percentages were utilized. Furthermore, a Mean Score Analysis was also conducted for both the IV and the DV. This allows the researcher to understand the average level of beauty filter usage and body dissatisfaction, providing a baseline to discuss the sample's psychological level. In addition to that, an inferential analysis was conducted which includes the normality test, correlation test as well as the T-test. The normality test was conducted to basically evaluate the distribution of the data, allowing a more accurate correlation and comparison test. For correlation, the Pearson Correlation Test was used to examine the relationship between the IV and the DV where the strength and direction of the link between the two variables were tested.

RESULTS

Demographic Profile

Table 1 summarises the basic demographic profile of the respondents involved in the research. For the age group, majority of the respondents fall within the 21-23 age group representing a total of 57.6% of the total sample. This is then followed by the age group of 18-20 with a percentage of 21.2% and 17.8% from the 24-26 age group. The 27 and above age group recorded the lowest frequency with only 8 respondents which cover only 3.4% of the total population. This is consistent with the typical age of undergraduate students in the Malaysian context. In terms of gender, the sample consists of 125 male respondents which stands at (53%) and 111 total female respondents (47.0%).

Table 1. Frequency Table for Age and Gender

Category	Description	Frequency	Percentage (%)
Age	18-20	50	21.2
	21-23	136	57.6
	24-26	42	17.8
	27 and above	8	3.4
Gender	Female	111	47.0
	Male	125	53.0

Table 2 looks into the distribution of the participants based on their academic characteristic which are the area of their tertiary institutions as well as their current year of study. From the table, it is seen that the largest group of participants are students at universities located in Petaling Jaya with a total of 46 respondents out of the 236, which makes up the 19.5%. In a decreasing order, the areas are then followed by Shah Alam with 16.5%, Klang at 15.3%, Subang Jaya at (11.9%), Cyberjaya / Sepang with (11%) and similarly at Gombak/ Ampang with (11%). The remaining respondents of (7.6%) are situated in Cheras / Kajang as well as (7.2%) at Kuala Lumpur. This wide distribution indicates that the study has quite a far reach among the student community in Klang Valley.

In terms of academic years, the sample is well distributed across different stages of tertiary education. The highest percentage of respondents are senior students in Year 4 and above at with 63 respondents covering (26.7%) of the sample, closely followed by Year 2 students at (24.3%) and Year 3 students at (22.9%) as well as Year 1 students making up the 20.3%. Meanwhile, those in Foundation/ Pre-University and Postgraduate levels are on the lower margin with only presenting (5.1%) and (0.8%) of the population respectively

Table 2. Frequency Table for Study Area and Year of Study

Category	Description	Frequency	Percentage (%)
Study area	Kuala Lumpur	17	7.2

	Petaling Jaya	46	19.5
	Shah Alam	39	16.5
	Subang Jaya	28	11.9
	Cyberjaya / Sepang	26	11.0
	Klang	36	15.3
	Gombak / Ampang	26	11.0
	Cheras / Kajang	18	7.6
Year of study	Foundation / Pre-University	12	5.1
	Year 1	48	20.3
	Year 2	57	24.2
	Year 3	54	22.9
	Year 4 & above	63	26.7
	Postgraduate (Master's PhD)	2	0.8

For section A, Table 3 represents that frequency table for daily social media usage and the social media platform used. For the daily usage, nearly half of the respondents 48.3% spends 8 hours and above on social media daily which are 114 total respondents. Furthermore, 12.3% spend 6-8 hours while 19.5% spend 4-6 hours on these digital platforms. Only 5.5% of the respondents spend less than 2 hours a day on social media.

This indicates that vast majority of this sample are heavy social media users. Out of all the social media platform, TikTok received the highest votes with (36.0%) percent, followed closely by Snapchat with (33.5%). Meanwhile, Instagram and Facebook have a fair share of users with 38% and 33% each. On the other end, Youtube recorded the lowest percentage with 0.4% as only 1 respondent has chosen it as their preferred platform of social media.

Table 3. Frequency table for Social Media Characteristics

Category	Description	Frequency	Percentage (%)
Average Daily Social Media Usage	Less than 2 hours	13	5.5
	2-4 hours	34	14.4
	4-6 hours	46	19.5
	6-8 hours	29	12.3
	8 hours and above	114	48.3
Social Media Platform	Instagram	38	16.1
	TikTok	85	36.0
	Snapchat	79	33.5
	Facebook	33	14.0
	Youtube	1	0.4

Beauty Filter Usage and Levels of Body Dissatisfaction (Research Objective 1 And 2)

Before looking into the relationship between beauty filter usage and body dissatisfaction, the levels of body dissatisfaction and the extent of beauty filter usage were measured. Table represents the mean score and standards deviation for both variables. Based on the table, the scores indicate that tertiary students in the Klang Valley exhibits a high level of beauty filter usage.

This is because a mean score of 3.91 with a standard deviation of 0.96 is evidence that most participants frequently utilize digital enhancement tools which are AR and AI driven filters when engaging with social media. As for the body dissatisfaction, it is also recorded at a high level with a mean score of 3.88 and a standard deviation of 1.01. This score suggests that tertiary students in the Klang Valley region are experiencing significant psychological preoccupation with their physical appearance and body shape.

Table 4. Mean (M) and Standard Deviation of Beauty Filter Usage and Body Dissatisfaction

Category	N	Mean (M)	Std. Deviation (SD)
Beauty Filter Usage	236	3.91	0.96
Body Dissatisfaction	236	3.88	1.01

Table 5 below provides a detailed breakdown of the 13 measurement items for beauty filter usage. The item with the highest mean score is item 11 with a score of 4.11, which hints at a higher level of dependance on beauty filters. This is then followed closely by the concern regarding social events with item 7 at a score of 4.06. Both these items touch on the social aspects of beauty filter dependence where the digital version of the self actually takes priority over real-time experience with friends and the community.

Not only that, but students also reported a high tendency to worry about their digital standing, with items 3 and 4. Both items have a score of 4.00 and 4.03 respectively, this highlights the constant monitoring and comparison of themselves with the digitally altered version of themselves. This uncovers how the use of beauty filters has moved beyond a simple aesthetical tool to a continuous internal cognitive process as the item indicates “Even when I’m alone, ...”. For lower-scoring items such as item 10 remain well above the moderate threshold with the score of (M=3.69). The numbers across all 13 items confirms that beauty filter usage is a deeply integrated behavior for tertiary students embedded in their daily social media engagement.

Table 5. Frequency and Mean of Beauty Filter Usage items

Items	Descriptions					
	S.D (%)	D (%)	N (%)	A (%)	S.A (%)	Mean
1. When people take pictures of me, I think about how I will look if the pictures are posted without any filters on social media.	4.7	10.2	18.2	38.6	28.4	3.76
2. I evaluate how specific parts of my body will look when people see the filtered pictures of me on social media.	8.5	9.3	3.8	46.6	31.8	3.85
3. Even when I’m alone, I imagine how my body would look in a social media picture after I apply a filter or edit it.	5.9	9.7	6.4	34.3	43.6	4.00
4. Even when I use filters, I still worry about whether I look as good as other people in the photos I post	7.6	7.6	6.4	31.4	47.0	4.03
5. I try to guess how people on social media will react to my physical appearance in the edited / filtered pictures.	5.1	10.6	4.7	50.4	29.2	3.88
6. I try to make sure my appearance is as close to beauty standards as possible using filters and editing tools.	5.9	11.9	17.4	32.6	32.2	3.73
7. When I go to social events, I care more about looking attractive in pictures people might post on social media than I care about having a fun time.	2.5	11.0	8.9	33.5	44.1	4.06
8. If an unfiltered picture of me is posted on social media, I feel bad about myself.	5.1	12.3	2.5	33.1	4.7	4.05
9. I look at filtered pictures of myself on social media again and again.	6.8	9.7	5.1	50.4	28	3.83
10. I zoom into filtered pictures of me to see what specific parts of my body look like.	8.5	9.7	17.8	32.6	31.4	3.69
11. If someone takes a picture of me that might be posted on social media, I ask to look at it first to assess whether I need to apply filters.	2.1	8.5	10.6	33.9	44.9	4.11

12. Before I post pictures on social media, I crop them or apply filters to make myself look better.	5.9	10.2	5.5	30.9	47.5	4.04
13. If someone takes a picture of me that might be posted on social media, I ask to put on a specific filter so that I'll look as attractive as possible.	8.9	10.6	4.2	46.2	30.1	3.78

To note: (S.D = Strongly disagree, D = Disagree, N = Neutral, A = Agree, S.A = Strongly Agree)

On the other hand, Table 6 below presents the frequency and mean for each item of the Body Dissatisfaction variable. From the table, it is known that the item 11 and 2 has received the higher mean score with 4.03 and 4.01 respectively. This shows that the highest level of distress relates to the fear of weight and social surveillance. Not only that, but the data also shows that body dissatisfaction has tangible consequences when it comes to social occasions or interactions. As seen in item 8, the item states “I have not gone out to social occasions because I have felt bad about my shape...” has achieved a mean score of 4.00. Students have also reported a strong tendency to avoid situations where others could see their “real body” without any digital enhancement as seen in item 10, with a mean of 3.96. This indicates that social withdrawal is indeed influenced by the level of body dissatisfaction among tertiary students in Klang Valley.

To add on, a significant number of students also reported intrusive thoughts about physically changing their bodies to match the digitally altered version of themselves that they present on social media. For instance, a mean of 3.97 respondents reported to “imagined cutting off fleshy areas of my body or face to match the ideal shape that I can achieve with filters” in item 7. This once again highlights a deeply integrated dissatisfaction towards their natural form

Table 5. Frequency and Mean of Body Dissatisfaction items

Items	Descriptions					
	S.D (%)	D (%)	N (%)	A (%)	S.A (%)	Mean
1. I have been so worried about my shape that I felt I should diet to meet the physical ideals I see in beauty filters.	5.1	9.7	17.8	37.7	29.7	3.77
2. I have been afraid that I might become fat (or fatter) compared to the digitally slimmed faces that I see in beauty filters.	8.1	7.6	5.9	31.8	46.6	4.01
3. Feeling full (e.g. after eating a large meal) has made me feel fat, making me think about how I would look like in the camera.	8.5	9.7	5.1	31.4	45.3	3.95
4. I have noticed the shape of other people online and felt that my own shape compared unfavorably to their filtered pictures.	4.7	11.9	5.5	47.0	30.9	3.88
5. Thinking about my shape has interfered with my ability to concentrate (e.g. while watching television, reading, listening to conversations)?	8.9	8.1	4.2	51.7	27.1	3.80
6. Being naked, such as when taking a bath has made me feel fat, leading me to wish I could apply an editing tool to my real body.	5.9	10.6	16.5	34.7	32.2	3.77
7. I have imagined cutting off fleshy areas of my body or face to match the ideal shape that I can achieve with filters.	9.3	7.2	5.1	33.5	44.9	3.97
8. I have not gone out to social occasions because I have felt bad about my shape, worrying about unattractive pictures being taken or posted.	7.2	11.4	3.4	30.5	47.5	4.00
9. I have felt excessively large and rounded, after	8.5	8.1	3.4	51.3	28.8	3.84

comparing my body / face to the filtered images of myself.						
10. I have thought that my current body shape is because I lack self-control, believing this is why I need to rely on digital filters to look good.	8.9	10.6	14.8	34.3	31.4	3.69
11. I have worried about other people seeing rolls of fat around my waist or stomach, since I usually conceal them with filters in my photos.	6.8	10.2	3.8	31.4	47.9	4.03
12. When in company, I have worried about taking up too much room, worrying about how big I appear in pictures taken at that event.	10.6	10.2	5.5	30.9	47.5	3.72
13. Seeing my reflection has made me feel bad about my shape, especially after viewing my digitally enhanced photos.	8.9	10.6	4.2	46.2	30.1	3.89
14. I have pinched areas of my body to see how much fat there is.	8.1	7.2	3.8	50.0	30.9	3.89
15. I have avoided situations where people could see my real body (without any digital enhancement).	6.8	12.3	3.0	34.3	43.6	3.96
16. I have been particularly self-conscious about my shape when in the company of other people because I know they have seen my digitally perfected images online.	10.2	8.9	4.2	30.1	46.6	3.94

To note: (S.D = Strongly disagree, D = Disagree, N = Neutral, A = Agree, S.A = Strongly Agree)

Relationship between beauty filter usage and body dissatisfaction (Research Objective 3)

To achieve the main and third objective, pearson correlation analysis was conducted. As presented in Table 7 below, the results indicated a very strong and positive correlation between beauty filter usage and body dissatisfaction as the scores are $r = 0.976$, with a significance of $p < 0.001$. According to the guidelines by (Burns & Bush, 2020), when $0.8 \leq r \leq 1.0$, the value is indicated to have very high correlation.

Table 7. Pearson Correlation Coefficient (R) and P-Value

		Beauty Filter Usage	Body Dissatisfaction
Beauty Filter Usage	Pearson Correlation Sig (2-tailed)	1	0.976** <0.001
Body Dissatisfaction	Pearson Correlation Sig (2-tailed)	0.976** <0.001	1

Overall, for the demographics, the sample where primarily 21-23 years old, with a balance between gender distribution and high levels of social media engagement especially on TikTok and Snapchat. The results of the analysis also indicated that both beauty filter usage and body dissatisfaction was high in tertiary students (research objective 1 and 2). Furthermore, the inferential analysis from this research showed that there was a significant relationship between beauty filter usage and body dissatisfaction.

DISCUSSION

Level of Beauty Filter Usage

As proven, the descriptive results showed a high level of beauty filter usage ($M = 3.91$, $SD = 0.96$). This suggests that users, which are tertiary students in this case, filter usage is no longer an occasional tool used for casual purposes, this behavior is mainly motivated by the need of social interactions and also creative content curation as suggested by (Javornik, et.al, 2022).

It was derived that the participants indeed have a high level of beauty filter usage from the behavior and attitude towards filters during social media interactions. For instance, one of the items states that “Before I post pictures on social media, I crop them or apply filters to make myself look better” which yielded a mean score of ($M=4.04$). This highlights the high dependence of beauty filters for participants as they perceive beauty filter as a ‘must’ in their social media engagement. This finding shows similar global trends where Snapchat found that more than 90% of the youth in the United States, United Kingdom and France use filters (Well, 2024). Meta has also reported that more than 600 million people have engaged with filters on the platform of Facebook or Instagram (Ryan-Mosley, 2021)

In the context of Klang valley, this trend is likely intensified by the highly urbanized and image-conscious nature of the region. Furthermore, a large portion of the sample spends over 8 hours a day on an image-centric platforms which allows for the use of beauty filters to evolve from a conscious habit into an automatic habitual behavior. Not forgetting to mention, participants are part of a community that shares the same traits and characteristics for being in a tertiary institution, this might also trigger the conformity to trends due to peer influence which aligns with The Tripartite Model of Influence (Berg et al., 2002).

In the same context, the high level of beauty filter usage has reinforced the internalization of an ideal such as suggested in the TIM. As the students, spend more time on the platforms, they are exposed to more digitally idealized images that encapsulates unattainable beauty standards such as poreless glass skins, high nasal bridge which might not necessarily align with the Malaysian characteristics such as olive and tan skin, dark-brown eyes and so on. As they internalize this concept of beauty benchmark, they might also be triggered to compare their appearance to the standards.

Level of Body Dissatisfaction

Parallel to the high usage of digital tools, the descriptive results for body dissatisfaction were recorded at a high level of ($M=3.88$, $SD=1.01$). This score suggests that body image anxiety is not merely a small concern, but it has become a normative experience for tertiary students in Klang Valley. The data indicates that students are experiencing beyond a mere dislike of certain features, they are instead developing a persistent sense of inadequacy when comparing their physical selves to the “perfected” digital versions that they portray online.

To highlight, this study has shown a high score related to social withdrawal or avoidance where participants indicated tendency to avoid social gatherings or events due to feeling of unattractive or dissatisfaction with their appearance. This aligns directly with the psychological association of body dissatisfaction with the development of social physique anxiety, where it is said that body image concerns and physique-related anxieties are highly contributed by the increase of appearance -based social comparisons (Tsartasapakis, & Zafeiroudi (2025). However, the comparison target has shifted in this study, where individuals are evaluating their physical bodies against digitally curated version of themselves rather than other social figures such as peers or celebrities. In general, social physique anxiety (SPA) is defined as an individual’s emotional state in regards of their concern on how their body may be observed or judged by others (Zartaloudi & Christopoulos, 2021). This constant sense of awareness might trigger their urge to stay isolated from any public and social spaces. Especially in the context of tertiary institutions, where students are expected to partake in campus social events such as Gala dinners, festive celebrations and so much more.

Not only that, but this dissatisfaction is also compounded by the psychological process mentioned in the TIM where students have internalized an appearance ideal of themselves forcing them to compare their physical bodies to their own digitally manipulated avatars. The item analysis revealed a significant fear of physical imperfection such as in the item “I have been afraid that I might become fat (or fatter) compared to the digitally slimmed faces that I see in beauty filters” which scored a high mean score of ($M=4.01$). Ultimately, this cycle of high dissatisfaction and social withdrawal highlights a growing mental health crisis where advanced technological tools are heightening students’ sensitivity to their natural appearance causing a disturbance in their body image.

Relationship between Beauty Filter and Body Dissatisfaction

The Pearson Correlation analysis yielded a score of ($r=0.976$) and significance score of ($p<0.001$) between the two variables. This score indicates a strong, significant positive relationship between the variables where if the intensity of beauty filter usage increases, there is a corresponding rise in body dissatisfaction.

This finding is strongly validated by the Social Comparison Theory (Festinger, 1954) where he posits that individuals have an innate drive to evaluate themselves by comparing their own abilities and opinion to others. In the modern and advanced landscape of Klang Valley, this upward comparison has become constant. However, students are not just comparing themselves to influences, but to their own filtered versions. This constant comparison allows them to notice the discrepancy that is between their natural state and the digitally enhanced ones. This also aligns with the Self Discrepancy Theory (Festinger, 1957), which states the bigger the ‘Actual-Ideal’ gap is, the bigger the cognitive dissonance that they might feel, causing adverse emotions that may impact their daily lives.

There is interesting relationship between the two variables where they can both become the catalyst as they are correlated in a continuous loop. When students feel dissatisfied with their appearance, they utilize beauty filters as an immediate solution to tweak their perceived flaws. While this provides a temporary boost in digital confidence, it ultimately only reinforces the belief that their natural face is inadequate which subsequently increases the “Actual-Ideal” gap within themselves. The significant relationship between the variables proves that this is not a random occurrence but a systemic psychological that is embedded within the student population in Klang Valley.

The intensity of this correlation can also be attributed to the high social media consumption recorded in this study, with 48.3% of the respondents spend 8+ hours daily on TikTok and Snapchat. Continuous exposure to AI-enhanced facial features such as sharp jawline, poreless skin and pale white tone will disrupt the baseline of internal beauty. This can be explained using the ‘visual diet’ mechanism where it is a cognitive adaptation effect, in which visual exposure to a certain variety of given stimulus will induce a change in preference (Boothroyds et al., 2012). Therefore, constant exposure to these altered versions of themselves or anyone else on social media, may allow them to prefer the characteristics that are portrayed in the images, causing dissatisfaction when they do not have the ‘ideal’ features.

This behavioral pattern is supported by an experimental study on social media and body dissatisfaction in young adults (Silva & Steins, 2023). Their findings demonstrated that the sample group has increased body dissatisfaction after visual exposure to images representing standard, highly idealized beauty norms where both the female and male participants experienced a negative mood impact after looking at the Instagram photos. Additionally, this psychological impact was even more adverse on individuals who already had a strong habit of upward social comparison (Silva & Steins, 2023). In a similar research on the psychological impact of TikTok facial filters on undergraduate students, (Caravelli, et al., 2025) has provided empirical evidence that both “goofy” and beauty-enhancing filters correlate with body dissatisfaction with appearance-improving filters being the primary driver for body image concerns and localized facial dissatisfaction. This heavily supports the result of this research where the intensity of beauty filter usage is directly proportional to the level of body dissatisfaction. On a side note, this also confirms that the undergraduate demographic are uniquely vulnerable to the psychological pressures of digital conformity which will create a continuous loop of physical self-comparison which leads to the undermining of their body confidence.

IMPLICATION OF FINDINGS

The findings of this study are believed to have offer significant insights into the interplay of digital media and psychological well-being. By establishing a clear link between the use of beauty filter and the level of body dissatisfaction among tertiary students in Klang Valley, several theoretical and practical implications emerge. In a practical context, this study can be used as a foundation to employ real-world applications for educators, mental health professionals, as well as policymakers. Firstly, this study can be a steppingstone in encouraging higher levels of digital literacy in Higher Education. Universities can organize “Body Neutrality” campaigns that will be impactful when the male demographic is targeted which this study

identified as highly vulnerable. By normalizing the conversation around male body image and digital pressure, institutions can lower the stigma that often prevents male students from seeking psychological help. To add on, university can integrate the modified ASMC-13 questionnaire that was used in this research as part of their routine mental health screening protocols which is in line with SDG 3 in maintaining good health and mental well being. By incorporating this specific scale into intake assessments, institutions can proactively identify individuals who demonstrate high levels of dependence on digital alteration tools and their respective social media consciousness.

CONCLUSION

The findings of this study have provided a clear and statistically significant evidence that the rise of AR and AI tools on social media platforms are not merely an innocent trend in photography, it is instead a powerful catalyst for causing psychological distress in the context of body image. With a correlation of $r=0.976$, this study concludes that beauty filter engagement is indeed a primary predictor of body dissatisfaction. This simultaneously reflects how students are trapped in a constant cycle of self-evaluation and aesthetic correction.

One aspect worth highlighting is the shift of socio-cultural paradigm in Malaysia in regards to body image. This is because the results suggests that male students experience significantly higher levels of filter dependency and body dissatisfaction. To add, the high levels of social withdrawal also underlines the real-world consequences of this digital crisis, indicating that the search for an ideal online persona is hindering the social and physical development of the student population at the key regions of Klang Valley.

Subsequently, this study serves as an framework for educators and authorities. As the boundary between the physical self and digital personal continues to blur, it is essential to foster a generation that is understand digital scepticism and embraces their natural beauty. While technology will continue to evolve, the findings of this research provide a vital foundation for ensuring that the mental well-being of the next generation remains a priority.

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REFERENCES

1. American Psychiatric Association (2013) Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Arlington, VA, American Psychiatric Association.
2. American Society of Plastic Surgeons (2024) Procedural Statistic Release.
<https://www.plasticsurgery.org/documents/news/statistics/2024/plastic-surgery-statistics-report-2024.pdf>
3. Athaide, Y., Miles, S., Tan, E. J., & Phillipou, A. (2025). Direct and indirect parental influences on body image dissatisfaction in adult offspring. *Early Intervention in Psychiatry*, 19(10), e70093. <https://doi.org/10.1111/eip.70093>
4. Bandura, A. (1977) Social Learning Theory. Prentice – Hall.
https://www.asecib.ase.ro/mps/Bandura_SocialLearningTheory.pdf
5. Berg, P.V.D., Thompson, J.K., Ombreski-Brandon, K., Coover, M. (2002) The Tripartite Influence model of body image and eating disturbance A covariance structure modeling investigation testing the mediational role of appearance comparison. *Journal of Psychomatic Research*. 53, p1007-1020 .
<http://jkthompson.myweb.usf.edu/articles/The%20Tripartite%20Influence%20Model%20of%20Body%20Image.pdf>
6. Birigazzi, L., Gregoire, T., Finegold, Y., Golec, R.D.C., Sandker, M., Donegan, E., Gamarra, J.G.P. (2019) Data quality reporting : Good practice for transparent estimates forest and land cover surveys. *Environmental Science & Policy*. 96, p85-94.
<https://www.sciencedirect.com/science/article/abs/pii/S1462901118309110>

7. Bispo Júnior J. P. (2022). Social desirability bias in qualitative health research. *Revista de saude publica*, 56, 101. <https://doi.org/10.11606/s1518-8787.2022056004164>
8. Boothroyd, L., Tovée, M.J., Pollet, T. (2012) Visual Diet versus Associative Learning as Mechanisms of Change in Body Size Preferences. *PLoS ONE* 7(11): e48691 doi: <https://doi.org/10.1371/journal.pone.0048691>
9. Burns, A.C., & Bush, R.F. (2000). *Marketing Research*. 3rd ed. Prentice Hall. https://www.researchgate.net/figure/Scale-of-Pearsons-Correlation-Coefficient_tbl4_341443523
10. Silva, C.R., & Steins, G. (2023). Social media and body dissatisfaction in young adults: An experimental investigation of the effects of different image content and influencing constructs. *Frontiers in Psychology*, 14, Article 1037932. <https://doi.org/10.3389/fpsyg.2023.1037932>
11. Cambridge Dictionary, (n.d.) Tertiary Education. <https://dictionary.cambridge.org/dictionary/english/tertiary-education>
12. Cambridge Dictionary, (n.d.) Students. <https://dictionary.cambridge.org/dictionary/english/student?q=students>
13. Caravelli, N. S., Henriksen, H., & Blashill, A. J. (2025). Associations between TikTok facial filter use and body image variables. *Body Image*, 53, Article 101877. <https://doi.org/10.1016/j.bodyim.2025.101877>
14. Chan, K. (2025) Self Objectification in Women. *Verywellmind.com* <https://www.verywellmind.com/what-is-self-objectification-5441926>
15. Chen, X., Luo, Yj. & Chen, H. Body Image Victimization Experiences and Disordered Eating Behaviors among Chinese Female Adolescents: The Role of Body Dissatisfaction and Depression. *Sex Roles* **83**, 442–452 (2020). <https://doi.org/10.1007/s11199-020-01122-4>
16. Choukas-Bradley, S., Nesi, J., Widman, L., & Galla, B. M. (2020). The Appearance-Related Social Media Consciousness Scale: Development and validation with adolescents. *Body Image*, 33, 164–174. <https://doi.org/10.1016/j.bodyim.2020.02.017>
17. Chuah, J.N. (2024) Social Media in Malaysia : 2024 Insights and Trends. *kiteleads.com*. <https://kiteleads.com/malaysia-social-media-statistics-and-key-trends-for-2024/#:~:text=Social%20Media%20Habits%20of%20Malaysian,pandemic%20restrictions%20and%20digital%20fatigue>.
18. Coelho, C., Machado, P., Machado, B. C., & Gonçalves, S. (2023). Appearance Comparisons, Affect, Body Dissatisfaction and Eating Pathology in Portuguese Female University Students. *Nutrients*, 15(11), 2484. <https://doi.org/10.3390/nu15112484>
19. Demopoulos, A. (2022) The term ‘heroic chic’ needs to die -even if skinny-worship rages on. *Theguardian.com*. <https://www.theguardian.com/fashion/2022/nov/20/heroin-chic-fashion-skinny-worship>
20. Dimitrov, D. & Kroumpouzous (2023) Beauty perception : A historical and contemporary review. *Clinics in Dermatology*. 41(1), p33-40. <https://doi.org/10.1016/j.clindermatol.2023.02.006>
21. Dou, Q., Chang, R. & Xu, H. (2023) Body Dissatisfaction and Social Anxiety among Adolescents: A Moderated Mediation Model of Feeling of Inferiority, Family Cohesion and Friendship Quality. *Applied Research Quality Life* **18**, (1469–1489) . <https://doi.org/10.1007/s11482-023-10148-1>
22. Evans, C., & Dolan, B. (1993). Body Shape Questionnaire: derivation of shortened "alternate forms". *The International journal of eating disorders*, 13(3), 315–321. [https://doi.org/10.1002/1098-108x\(199304\)13:3<315::aid-eat2260130310>3.0.co;2-3](https://doi.org/10.1002/1098-108x(199304)13:3<315::aid-eat2260130310>3.0.co;2-3)
23. Festinger, L. (1954) A theory of social comparison process. *Human Relations*, 7(2), 117 – 140. <https://doi.org/10.1177/001872675400700202>
24. Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.
25. Filho, S.L. C., Batista, R. F. L., Cardoso, V. C., Simões, V. M. F., Santos, A. M., Coelho, S. J. D. D. A. C., & Silva, A. A. M. (2020). Body image dissatisfaction and symptoms of depression disorder in adolescents. *Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas*, 54(1), e10397. <https://doi.org/10.1590/1414-431X202010397>
26. Ganti, A. (2026) What is the Central Limit Theorem (CLT)?. *Investopedia*. https://www.investopedia.com/terms/c/central_limit_theorem.asp

27. Garzón, J. & Acevedo, J. (2019) meta-analysis of the impact of Augmented Reality on students' learning gains. *Educational Research Review*. 27, p244-260.
<https://doi.org/10.1016/j.edurev.2019.04.001>
28. Goffman, E. (1959). *The presentation of self in everyday life*. New York, NY: Anchor Books.
<https://www.simplypsychology.org/impression-management.html>
29. Griffiths, S., Murray, S. B., Bentley, C., Gratwick-Sarll, K., Harrison, C., & Mond, J. M. (2017). Sex Differences in Quality of Life Impairment Associated With Body Dissatisfaction in Adolescents. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 61(1), 77–82. <https://doi.org/10.1016/j.jadohealth.2017.01.016>
30. Gupta, M., Jassi, A., & Krebs, G. (2023). The association between social media use and body dysmorphic symptoms in young people. *Frontiers in psychology*, 14, 1231801.
<https://doi.org/10.3389/fpsyg.2023.1231801>
31. Hair, J.F., Risher, J.J., Sarstedt, M., Ringle, C.M. (2019) When to use and how to report the results of PLS-SEM. *European Business review*, 31(1), p2-24.
https://www.researchgate.net/publication/329443894_When_to_use_and_how_to_report_the_results_of_PLS-SEM
32. Heider, N., Spruyt, A., & De Houwer, J. (2018). Body Dissatisfaction Revisited: On the Importance of Implicit Beliefs about Actual and Ideal Body Image. *Psychologica Belgica*, 57(4), 158–173.
<https://doi.org/10.5334/pb.362>
33. Higgins, E.T. (1987) Self-Discrepancy : A Theory Relating Self and Affect. *Psychological Review*. 94 (3),p319-340.https://www.researchgate.net/profile/E-Higgins-2/publication/19545638_Self-Discrepancy_A_Theory_Relating_Self_and_Affect/links/545b9c460cf249070a7a77de/Self-Discrepancy-A-Theory-Relating-Self-and-Affect.pdf
34. Howe, S. (2024) Social Media Statistics for Malaysia. Meltwater.com.
<https://www.meltwater.com/en/blog/social-media-statistics-malaysia>
35. Hu, C., Cao, R., Huang, J., & Wei, Y. (2022). The Effect of Self-Discrepancy on Online Behavior: A Literature Review. *Frontiers in psychology*, 13, 883736. <https://doi.org/10.3389/fpsyg.2022.883736>
36. Hunt, E. (2019) Faking it: how selfie dysmorphia is driving people to seek surgery. *Theguardian.com*. <https://www.theguardian.com/lifeandstyle/2019/jan/23/faking-it-how-selfie-dysmorphia-is-driving-people-to-see-surgery>
37. Hussain, B., Aslam, S., Imran, A. (2025) Manufacturing beauty : How AI and Social media are redefining aesthetic norms in emerging digital cultures. *Acta Psychologica* 260. 105734. <https://doi.org/10.1016/j.actpsy.2025.105734>
38. Hyde, J.S. (2005) The Gender Similarities Hypothesis. *American Psychologist*. 60 (6), p581-592. <https://www.apa.org/pubs/journals/releases/amp-606581.pdf>
39. Ito, N., Hasegawa, A., Adachi, M. Oura, S., Yamamoto, T., Matsuda, Y., Tomita, T. (2025). Body talk and the internalization of the ideal body image: examination based on the tripartite influence model. *Journal of Eating Disorder*. 13(263). <https://doi.org/10.1186/s40337-025-01444-2>
40. Jasin, D., Saad, H. S., Hansaram @ Rammilah Hansaram, S. K., & Chong, K. L. (2022). To share or not: Intention to verify news before sharing to social media. *Asian Journal of Social Science Research*, 4(1), 32–43. <https://doi.org/10.5281/zenodo.8062445>
41. Javornik, A., Marder, B., Barhorst, J. B., McLean, G., Rogers, Y., Marshall, P., & Warlop, L. (2022). ‘What lies behind the filter?’ Uncovering the motivations for using augmented reality (AR) face filters on social media and their effect on well-being. *Computers in Human Behavior*. 128. 107126. <https://doi.org/10.1016/j.chb.2021.107126>
42. Kang, W. H., Loo, M. Y., Leong, X. M., Ooi, Y. F., Teo, W. Q., Neoh, T. J., & Ling, W. C. (2022). Body dysmorphic disorder and depression among male undergraduate students in a Malaysian University. *Frontiers in psychiatry*, 13, 977238. <https://doi.org/10.3389/fpsyg.2022.977238>
43. Laursen, B., & Veenstra, R. (2021). Toward understanding the functions of peer influence: A summary and synthesis of recent empirical research. *Journal of research on adolescence : the official journal of the Society for Research on Adolescence*, 31(4), 889–907. <https://doi.org/10.1111/jora.12606>
44. McCreary, D. R. (2007). The Drive for Muscularity Scale: Description, Psychometrics, and Research Findings. In J. K. Thompson & G. Cafri (Eds.), *The muscular ideal: Psychological, social, and*

- medical perspectives (pp. 87–106). American Psychological Association. <https://doi.org/10.1037/11581-004>
45. McLeod, S. (2025) Informed Consent in Psychology. Simplypsychology.org. <https://www.simplypsychology.org/informed-consent-in-psychology.html>
 46. Miller, M.K., Clark, J.D., Jehle, A., (2015) Cognitive Dissonance Theory (Festinger). The Blackwell Encyclopedia of Sociology. 1. https://www.researchgate.net/publication/291356571_Cognitive_Dissonance_Theory_Festinger
 47. Möri, M., Mongillo, F., & Fahr, A. (2022). Images of bodies in mass and social media and body dissatisfaction: The role of internalization and self-discrepancy. *Frontiers in psychology*, 13, 1009792. <https://doi.org/10.3389/fpsyg.2022.1009792>
 48. Nguyen, X. D. (2026). Online dating through a sociological lens: A systematic review. *Asian Journal of Social Science Research*, 8(1), 1–23. <https://doi.org/10.5281/zenodo.20807438>
 49. Oxford University Press (n.d). Beauty. In Oxford's learner's dictionary of American English. https://www.oxfordlearnersdictionaries.com/definition/american_english/beauty#google_vignette
 50. Piercey, C., White, G., Fernandez, A.M. (2023) Body Image, Self-Objectification and Appearance Maintenance Among College-Aged Women. *Research Directs in Psychology and Behavior*. 3(1):6. https://www.researchgate.net/publication/370241898_Body_Image_Self_Objectification_and_Appearan-ce_Maintenance_Among_College-Aged_Women_Direct_Original_Research
 51. Raaj, S., Navanathan, S., Tharmaselan, M., & Lally, J. (2021). Mental disorders in Malaysia: an increase in lifetime prevalence. *BJPsych international*, 18(4), 97–99. <https://doi.org/10.1192/bji.2021.4>
 52. Repke, L., Birkenmaier, L., Lechner, C.M. (2024). Validity in Survey Research - From Research Design to Measurement Instruments. Mannheim, GESIS – Leibniz-Institute for the Social Sciences (GESIS – Survey Guidelines). DOI: 10.15465/gesis-sg_en_048
 53. Rios, A.J.A. (2024) The decline of media literacy and how to navigate the ocean information. *Andrews.edu*.109(9).https://www.andrews.edu/life/student-movement/issues/2024-11-22/id_medialiteracy.html
 54. Rosen, J. C., Jones, A., Ramirez, E., & Waxman, S. (1996). Body Shape Questionnaire: Studies of validity and reliability. *International Journal of Eating Disorders*, 20(3), 315–319. [https://doi.org/10.1002/\(SICI\)1098-108X\(199611\)20:3<315::AID-EAT11>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1098-108X(199611)20:3<315::AID-EAT11>3.0.CO;2-Z)
 55. Rosen, J.C. & Ramirez, E. (1998) A comparison of eating disorders and body dysmorphic disorder on body image and psychological adjustment. *Journal of Psychosomatic Research*. 44 (3-4), p441-449. <https://www.sciencedirect.com/science/article/abs/pii/S0022399997002699>
 56. Ryan-Mosley, T. (2021) Beauty filters are changing the way young girls see themselves. *MIT Technology Review*. <https://www.technologyreview.com/2021/04/02/1021635/beauty-filters-young-girls-augmented-reality-social-media/#:~:text=Filters%20are%20now%20common%20across,but%20would%20not%20elaborate%20further.>
 57. Staviss, R., Evans, E.W., Klar, R.L., Kale, R., Staviss, M., M. Lajaunie, A., Aulakh, J., R. Sonnevile, K. (2024) “Be more positive and more kind to your own bodies”: Adolescent and young adult preferences for how parents can support their children with weight-related pressures. *Body Image*. 50. <https://doi.org/10.1016/j.bodyim.2024.101725>.
 58. Stratton, S. J. (2021). Population Research: Convenience Sampling Strategies. *Prehospital and Disaster Medicine*, 36(4), 373–374. doi:10.1017/S1049023X21000649
 59. Swaen, B. & George, T. (2022) What Is a Conceptual Framework? Tips & Example. *Scribbr.com*. <https://www.scribbr.com/methodology/conceptual-framework/>
 60. Syversen-Mark, A. (2025) What is Media Literacy? *Snhu.edu*. <https://www.snhu.edu/about-us/newsroom/liberal-arts/what-is-media-literacy>
 61. Toms, J. A., Fritsch, A. M., O'Neill, E., Adepoju, J., & Raj, M. S. (2025). Artificial Intelligence Beauty Filters and Aesthetic Surgery: Insights from TikTok's Bold Glamour Filter. *Plastic and reconstructive surgery*. Global open, 13(10), e7133. <https://doi.org/10.1097/GOX.00000000000007133>

62. Tsartsapakis, I., Zafeiroudi, A., Vanna, G., Gerou., M. (2025). Relationships of Body Dissatisfaction and Self-Esteem with Social Physique Anxiety among University Students in Different Study Programs. *Trends in Psychol.* **33**, 1175–1188. <https://doi.org/10.1007/s43076-023-00329-0>
63. Varkey B. (2021). Principles of Clinical Ethics and Their Application to Practice. *Medical principles and practice : international journal of the Kuwait University, Health Science Centre*, 30(1), 17–28. <https://doi.org/10.1159/000509119>
64. Vogels, E. A., Gelles-Watnick, R., & Massarat, N. (2022, August 10). Teens, social media and technology 2022. Pew Research Center. <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/>
65. Well, T. (2024) Beauty Filters as a Gateway to Cosmetic Procedures. *Psychology Today*. <https://www.psychologytoday.com/us/blog/the-clarity/202403/beauty-filters-as-a-gateway-to-cosmetic-procedures>
66. Wong, J.E., Moh Sani, M.R.M. (2025) The Relationship between Self-Objectification, Appearance Anxiety and Psychological Well-Being among Female University Students in Malaysia. *International Journal of Academic Research in Business & Social Sciences*. 15 (9). https://www.researchgate.net/publication/396041257_The_Relationship_between_Self_Objectification_Appearance_Anxiety_and_Psychological_Well_Being_among_Female_University_Students_In_Malaysia
67. Yao, L., Niu, G., Sun X.(2024) A longitudinal study on the relationships between social media ideals exposure and thin-ideal internalization, social appearance anxiety, and cosmetic surgery consideration. *Body Image*. 51:101813. <https://www.sciencedirect.com/science/article/abs/pii/S1740144524001359>
68. Yang, F., Qi L., Liu, S., Hu, W., Cao, Q., Liu, Y., Tang, M., Lv, Z., Zhou, Z., Yang, Y. (2022) Body Dissatisfaction and Disordered Eating Behaviors: The Mediation Role of Smartphone addiction and Depression. *Nutrients*. 14(6):1281. doi: 10.3390/nu14061281 <https://pmc.ncbi.nlm.nih.gov/articles/PMC8955505/#B5-nutrients-14-01281>
69. Yurtsever, I., Matusiak, Ł., Szepietowska, M., Evans, C., & Szepietowski, J. C. (2022). Body Shape Questionnaire-34 (BSQ) and Functionality Appreciation Scale (FAS) - pertinent body image screening tools: Creation and validation of Polish language versions. *Science progress*, 105(3), 368504221117068. <https://doi.org/10.1177/00368504221117068>
70. Zaizakrani, FA.B. (2021) Malaysian's Acceptance towards Korean beauty Standards Embedded in Korean Popular Culture. *Forum Komunikasi*. 16(2) p87-107. <https://ir.uitm.edu.my/id/eprint/57942/1/57942.pdf>
71. Zulhaim, A. (2024) Scrolling Past the Filter : Escaping Toxic Social Media Beauty Standards in Malaysia. *Beautyinsider.my*. <https://beautyinsider.my/malaysian-beauty-standards/>
72. Zulkifli, Z.I. (2023). Understanding colourism in Malaysia through discursive constructions of skin colour on social media. *Kajian Malaysia (Early view)*. http://web.usm.my/km/earlyView/82_KM-OA-05-22-0082.R1.pdf
73. Zyuod, M.M., Bsharat, T.R.K., Dweikat K.A. (2024) Quantitative Research Methods: Maximizing Benefits, Addressing Limitations, and advancing Methodological Frontiers. *ISRG Journal of Multidisciplinary Studies*. p11-14. https://www.researchgate.net/publication/379655878_Quantitative_Research_Methods_Maximizing_Benefits_Addressing_Limitations_and_Advancing_Methodological_Frontiers