A Descriptive Study of Assertiveness, Social Skills, and Psychological Well-Being Among First-Year Students in Malaysian Public Universities

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ABSTRACT

This study investigates the levels of assertiveness, social skills, and psychological well-being among first-year undergraduate students in Malaysian public universities (UA), with a focus on understanding their psychosocial readiness during the transition into higher education. A quantitative cross-sectional descriptive survey design was employed, involving 1,206 respondents selected through a multistage sampling procedure incorporating cluster and stratified sampling techniques across multiple public universities. Data were collected using three established instruments: the Rathus Assertiveness Schedule (RAS), the Social Skills Inventory (SSI–Del-Prette), and Ryff's Psychological Well-Being Scale, all of which demonstrated strong internal consistency (Cronbach's alpha = .93, .94, and .88, respectively). Descriptive analyses revealed that students reported moderate levels of assertiveness (M = 79.87, SD = 18.67), social skills (M = 86.49, SD = 24.49), and psychological well-being (M = 136.13, SD = 38.38) across measured dimensions. These findings suggest that while students possess foundational psychosocial competencies, there remains substantial room for further development, particularly in adapting to the academic, social, and emotional demands of university life. The results highlight the transitional nature of the first-year experience, where students are still adjusting to new environments, expectations, and interpersonal contexts. This study contributes baseline empirical evidence on the psychosocial profiles of Malaysian first-year undergraduates and underscores the importance of structured institutional support. The findings may inform the design of targeted interventions, such as orientation programmes, peer mentoring, and skills-based training, aimed at strengthening students' psychosocial readiness and overall well-being in higher education settings.

Keywords: Assertiveness, Social Skills, Psychological Well-Being, University Students, Cross-Sectional Survey, Malaysia, Soft Skills

1. Introduction

Universities play a central role in society by disseminating knowledge, producing professionals with scientific expertise, and providing technical and intellectual support for cultural, social, and economic development (Ministry of Education, 2024). Beyond their academic mission, universities are also entrusted with nurturing students' holistic development. This responsibility aligns with the National Philosophy of Education, which emphasizes balanced growth across intellectual, spiritual, emotional, and physical domains to develop graduates who can contribute meaningfully to personal, societal, national, and religious advancement (Ministry of Education Malaysia, 2008; FPK, 2013). As a result, higher education should not only emphasize academic excellence but also promote student satisfaction and psychological well-being. Despite this perspective, research also consistently demonstrates that undergraduate students experience higher levels of stress, anxiety, and depression than the general population, a trend observed globally and within Malaysia (Cho et al., 2021; Labrague and De los Santos, 2020). Local studies also reported moderate to severe levels of depression, anxiety, and stress among Malaysian undergraduates (Ranita et al., 2019), while more recent findings indicate that students' psychological wellbeing remains at a moderate level (Aziz et al., 2024). These mental health challenges have been shown to negatively affect academic performance (Mahdavi et al., 2023), social relationships (Freitas et al., 2022), and overall quality of life (Slimmen et al., 2022).

Such concerns are particularly pronounced among first year undergraduates, who face the dual challenge of adapting to increased academic demands while navigating new social and cultural environments (Mohzana, 2024). During this key changeover period, students are expected to show more independence, initiative, and emotional maturity. In addition to academic competency, effective social skills are required for managing peer relationships and meeting social expectations (Blegur, Haq, & Barida, 2023; Toktas, Demir, & Barut, 2022; Suleman et al., 2022; Vanhove, Opdecam, & Haerens, 2024; World Economic Forum, 2025). However, research indicates that many Malaysian undergraduates are passive in academic and social settings, frequently avoiding engagement, withholding opinions, and lacking confidence in expressing or defending their ideas (Ang, 2016; Kipli et al., 2022; Sieng and Yussof, 2017). Assertiveness, as a key dimension of social skills, enables individuals to communicate their needs and viewpoints clearly while respecting the rights of others. It has been associated with greater resilience against bullying, constructive conflict resolution, and improved academic outcomes (Alberti and Emmons, 2017; Blegur et al., 2023).

Nevertheless, empirical evidence indicates that Malaysian undergraduates generally demonstrate low to moderate levels of assertiveness, which may constrain their confidence, critical thinking, and engagement compared with international peers (Ang, 2016; Kipli et al., 2022; Sieng and Yussof, 2017). Limited assertiveness may also hinder the development of healthy interpersonal relationships, thereby increasing vulnerability to stress and social isolation (Moss et al., 2021). Psychological wellbeing is equally central to students' adjustment and success in higher education. Ryff conceptualized psychological wellbeing as comprising autonomy, environmental mastery, personal growth, purpose in life, positive relations, and self-acceptance (Ryff, 1989, 2018). Higher psychological well-being has been linked to greater resilience, adaptability, and academic achievement (Korda et al., 2025). However, national surveys continue to report concerning levels of stress, anxiety, and depression among young people in Malaysia (Institute for Public Health, 2015, 2023). Despite the expanding focus on student mental health in higher education, existing research in Malaysia has predominantly examined psychological distress indicators such as stress, anxiety, and depression in isolation, with limited integration of positive psychosocial competencies. While studies have documented moderate to severe mental health challenges among undergraduates, far fewer have explored the psychosocial skills that enable students to cope effectively with academic and social demands.

In particular, assertiveness and social skills, which are closely associated with psychological wellbeing and adaptive functioning, remain under examined within the Malaysian higher education context. Moreover, much of the existing literature also focuses on undergraduate populations in general, thereby overlooking the unique vulnerabilities of first year students. The transition into university represents a

critical developmental period characterized by increased academic expectations, new social roles, and greater personal responsibility. First year undergraduates are therefore at heightened risk of adjustment difficulties, yet empirical evidence addressing their psychosocial readiness, particularly within Malaysian public universities, remains limited. Many existing studies rely on single institution samples or focus on narrow constructs, thereby constraining the generalizability and practical relevance of their findings. Understanding the levels of these psychosocial factors is essential for informing the development of appropriate support strategies for first-year students. However, empirical evidence that provides a comprehensive description of assertiveness, social skills, and psychological well-being within a multi-institution Malaysian context remains limited. Without such baseline data, higher education institutions may lack sufficient information to design targeted and contextually appropriate initiatives to support students' holistic development.

Therefore, the present study examines the levels of assertiveness, social skills, and psychological well-being among first-year undergraduates in Malaysian public universities. By providing a descriptive overview of these key psychosocial constructs, this study offers empirical insights into students' psychosocial readiness during the transition to university life.
Importantly, this study extends existing research by drawing on a large dataset (N = 1,206) collected from first-year students across five Malaysian public universities representing multiple geographical zones. In addition, the study incorporates the simultaneous assessment of assertiveness, social skills, and psychological well-being using three established instruments, namely the Rathus Assertiveness Schedule (RAS), the Social Skills Inventory (SSI–Del-Prette), and Ryff's Psychological Well-Being Scale. Collectively, these contributions provide baseline evidence that may support future research and inform the development of early and preventative support initiatives within higher education contexts.

2. Theoretical Framework

This study is grounded in established theoretical perspectives that support the inclusion of assertiveness, social skills, and psychological well-being as key components of students' psychosocial development in higher education contexts. Although the present study adopts a descriptive design and does not aim to test causal or predictive relationships among variables, the integration of relevant theoretical perspectives is essential to provide conceptual coherence and justify the selection of these constructs. This study is informed by Albert Bandura's Social Cognitive Theory (1977), which emphasises the interaction between personal beliefs, behavioural capabilities, and social environments in shaping human functioning. Within this perspective, assertiveness reflects individuals' confidence in expressing thoughts and needs in social contexts, aligning with the concept of self-efficacy. Social skills, in turn, represent learned behavioural competencies that facilitate effective interpersonal interaction and adaptation, particularly during transitional phases such as entry into university.

In addition, this study draws on Ryff's Model of Psychological Well-Being (1989), which conceptualises psychological well-being as a multidimensional construct comprising autonomy, environmental mastery, personal growth, purpose in life, positive relations with others, and self-acceptance. The dimension of positive relations with others highlights the importance of interpersonal functioning, suggesting that social competencies such as assertiveness and social skills are conceptually relevant to individuals' overall psychological well-being. Collectively, these theoretical perspectives provide a coherent basis for understanding assertiveness, social skills, and psychological well-being as interrelated dimensions of students' psychosocial functioning. While the present study does not empirically examine the relationships among these variables, the framework supports their inclusion as complementary constructs that reflect students' psychosocial readiness during the transition to higher education.

3. Literature Review

3.1. Assertiveness

Assertiveness is widely recognised as a fundamental communication and psychosocial skill that enables individuals to express thoughts, emotions, and needs clearly while maintaining respect for the rights of others. Effective communication plays a central role in sustaining healthy interpersonal relationships and reducing conflict, particularly within academic and social contexts (Rosenfeld et al., 2000). Conceptually, assertiveness is positioned on a behavioural continuum between passive and aggressive communication styles, representing a balanced mode of interaction that promotes self-expression without hostility or submission (Lazarus & Folkman, 1984). Rather than being a fixed personality trait, assertiveness is increasingly understood as a learnable social competence that can be developed through experience and structured intervention.

Early conceptualisations described assertiveness as an individual disposition (Salter, 1949), but subsequent theoretical developments reframed it as a core social skill associated with psychological adjustment and adaptive functioning. Lazarus (1971) characterised assertive behaviour as an indicator of social competence, while non-assertiveness was conceptualised as a social skills deficit. Further elaboration identified key assertive abilities, including the capacity to communicate personal needs openly, refuse unreasonable demands, express both positive and negative emotions appropriately, and manage interpersonal interactions effectively (Lazarus, 1973). These principles were later operationalised by Rathus (1973), who proposed behavioural dimensions of assertiveness that emphasise mutual respect, emotional expression, the right to make mistakes, the right to say "no," and open communication. This framework has been widely applied in educational and psychological research due to its relevance across diverse social contexts.

However, empirical evidence from Malaysia suggests that university students generally exhibit low to moderate levels of assertiveness, despite its inclusion as a key component of generic or soft skills within higher education policy frameworks (Ang, 2016; Kipli et al., 2022; Ministry of Higher Education Malaysia, 2024). These findings indicate that while students may possess cognitive and academic capabilities, deficiencies in assertiveness may constrain their ability to engage effectively in academic and social environments. Similar patterns have been observed among professional students, including medical undergraduates, where moderate assertiveness levels were found to have implications for emotional regulation, decision-making, and professional communication (Alyssa Sureyya et al., 2021).

Assertiveness has also been identified as a key factor in students' adjustment to university life. Research examining student adaptation indicates that assertiveness is more strongly associated with social and emotional adjustment than with academic performance alone, suggesting its primary influence lies in interpersonal functioning and psychological resilience (Rahayu, 2023). Additionally, low assertiveness has been linked to increased reliance on digital avoidance behaviours, such as excessive smartphone use, which may further reduce face-to-face social engagement and reinforce social withdrawal (Parmaksiz, 2019). These findings suggest that assertiveness plays a critical role in students' social and emotional adjustment, highlighting its potential link with broader psychosocial competencies such as social skills and psychological well-being.

Despite the extensive international literature, research on assertiveness in Malaysian higher education remains limited. This gap restricts the ability of institutions to implement evidence-based strategies that support students' psychosocial development and psychological well-being. Accordingly, this research is warranted to systematically assess assertiveness levels among Malaysian undergraduates. Addressing this gap may contribute to improved student well-being, academic engagement, and graduate employability, in line with national higher education objectives. These findings suggest that assertiveness plays a critical role in students' social and emotional adjustment, highlighting its potential link with broader psychosocial competencies such as social skills and psychological well-being.

3.2. Social Skills

Social skills have evolved from early behavioural and social competence theories. Salter (1949) initially framed social competence as a behavioural tendency, while later work by Zigler and Phillips (1961) emphasised its role in adaptive functioning and social adjustment. Subsequent theoretical developments conceptualised social skills as learned, goal-directed behaviours that enable individuals to interact effectively and maintain positive interpersonal relationships (McFall, 1982). Contemporary perspectives highlight that social skills comprise both observable behaviours and underlying cognitive and emotional processes. These skills include verbal and non-verbal communication, emotional regulation, empathy, assertiveness, cooperation, and self-control, all of which operate within specific social and cultural contexts (Del Prette & Del Prette, 2017). Social skills are therefore not static traits but dynamic competencies that can be acquired and enhanced through learning, practice, and social interaction across the lifespan.

Within higher education settings, social skills play a critical role in students' academic engagement, psychological well-being, and social adjustment. Students with higher levels of social competence are more likely to participate actively in classroom discussions, collaborate effectively in group work, and communicate confidently with peers and lecturers (Toktas, Demir, & Barut, 2022). In contrast, limited social skills have been associated with social anxiety, avoidance behaviours, reduced academic involvement, and poorer mental health outcomes (Rahayu, 2023). This indicates that social skills are closely related to students' ability to function effectively in both academic and social environments, and may contribute to their overall psychological well-being.

The significance of social skills extends beyond academic contexts to labour market outcomes. Graduate unemployment in Malaysia has increasingly been attributed to deficiencies in soft skills rather than a lack of academic qualifications (Ministry of Higher Education Malaysia, 2024). Employers also consistently prioritise communication, teamwork, adaptability, and emotional intelligence over technical expertise alone (World Economic Forum, 2025). However, higher education institutions continue to emphasise academic achievement, often providing limited structured opportunities for systematic social skills development. Study conducted in Malaysian universities indicate that undergraduates generally demonstrate moderate levels of social skills, suggesting the presence of basic competencies but limited application in more complex interpersonal situations (Chin, 2016). These findings underscore the central role of social skills in supporting both individual functioning and successful social integration.

3.3. Psychological Well-Being

Psychological well-being (PWB) is widely conceptualised as a multidimensional construct encompassing individuals' optimal psychological functioning and positive engagement with life. Seminal work by Ryff conceptualises PWB through six core dimensions: self-acceptance, positive relations with others, autonomy, purpose in life, personal growth, and environmental mastery (Ryff & Singer, 2006; Ryff, 2018). This eudaimonic perspective emphasises meaning, self-realisation, and adaptive functioning rather than transient emotional states. Contemporary scholars further describe psychological well-being as the integration of positive affect, effective functioning, and meaningful life engagement (Ruggeri et al., 2020), bridging both hedonic and eudaimonic traditions (Tang et al., 2019).

Psychological well-being is not limited to emotional satisfaction but reflects individuals' capacity to manage life challenges, maintain healthy relationships, and pursue personal growth in a balanced manner. Individuals with high levels of PWB tend to perceive their lives as meaningful, display optimism, possess a positive self-concept, and demonstrate resilience in the face of stressors (Tobin & Neugarten, 1961; Suvera, 2016). Empirical evidence further indicates that psychological well-being is associated with favourable physical health outcomes, including lower risk of chronic illness and

increased longevity (Hernandez et al., 2018). Collectively, these findings suggest that PWB represents a holistic indicator of mental health that extends beyond the absence of psychological distress.

Within higher education contexts, psychological well-being has emerged as a critical concern, given increasing reports of mental health challenges among university students globally and in Malaysia. Although earlier local studies predominantly measured mental health through distress-based indicators such as depression, anxiety, and stress using instruments like the DASS-21, these approaches provide only a partial understanding of students' psychological functioning (Shahira et al., 2018; Manap et al., 2019). Findings from these studies reveal alarmingly high levels of anxiety and moderate levels of depression and stress among Malaysian undergraduates, particularly among female students and those in their final year of study, highlighting the psychological vulnerability of this population.

More recent research has adopted a positive psychology framework by directly assessing psychological well-being using multidimensional models such as Ryff's Psychological Well-Being Scale. Studies conducted among Malaysian university students report that most students demonstrate moderate levels of PWB, with significant variations across dimensions such as autonomy, purpose in life, and environmental mastery (Kunjiapu & Kunasegaran, 2021; Aziz et al., 2024). These findings suggest that while students may function adequately, many struggle with long-term purpose, emotional regulation, and life direction, particularly under academic and career-related pressures.

Systematic reviews further reinforce concerns regarding student psychological well-being in Southeast Asia. Dessauvagie et al. (2022), in a PRISMA-guided systematic review, reported high prevalence rates of depression and anxiety among university students across the region, alongside limited evidence-based institutional interventions. The review highlights structural challenges such as stigma, insufficient mental health professionals, and fragmented psychosocial support systems, underscoring the need for preventive and developmental approaches rather than crisis-driven responses. The transition into university life, particularly during the first year of study, has been identified as a critical period for psychological well-being. Conceptual analyses indicate that first-year students frequently experience academic overload, social isolation, financial strain, identity confusion, and reluctance to seek help due to stigma (Oramas, 2024). Without early and systematic support, these stressors may undermine long-term psychological functioning and academic persistence. Consequently, scholars increasingly advocate for early, institution-wide interventions that integrate emotional support, peer mentoring, and mental health literacy into the university ecosystem.

Beyond individual vulnerabilities, psychological well-being is shaped by multiple contextual and psychosocial factors. Empirical studies demonstrate that social support from family, peers, and institutions, positive learning environments, and academic engagement significantly predict students' psychological well-being (Chaudhry et al., 2024). Similarly, psychological well-being has been consistently linked to academic outcomes, with students exhibiting higher well-being demonstrating greater self-regulation, motivation, and academic achievement (Xiang et al., 2024). Conversely, psychological distress negatively impacts academic performance, although achievement motivation may buffer these adverse effects (Mahdavi et al., 2023). Maladaptive psychological traits such as academic procrastination and maladaptive perfectionism have also been identified as significant predictors of reduced psychological well-being. Research indicates that excessive fear of failure and unrealistic self-expectations contribute to procrastination behaviours, which in turn exacerbate stress, guilt, and emotional exhaustion among students (Ahmad & Munir, 2022). Overall, the reviewed literature indicates that Malaysian university students generally exhibit low to moderate levels of well-being, with significant implications for mental health, academic success, and long-term development. These findings highlight the importance of addressing psychological well-being patterns alongside emotional well-being in student support initiatives.

3.4. Summary of Literature

Collectively, the reviewed literature indicates a consistent pattern in which Malaysian university students demonstrate moderate levels of assertiveness, social skills, and psychological well-being. While these constructs have been examined separately in prior studies, they represent interconnected dimensions of students' psychosocial adjustment, particularly during the transition to university life. Limited assertiveness may restrict students' ability to express their needs and participate actively in academic and social environments, while moderate levels of social skills may reduce opportunities for effective communication, collaboration, and peer support. These constraints may, in turn, contribute to only moderate levels of psychological well-being, especially in areas related to emotional regulation, purpose in life, and interpersonal relationships.

Furthermore, these patterns are influenced by broader contextual factors, including academic pressures, cultural norms that may discourage open self-expression, and limited structured opportunities for psychosocial skill development within higher education institutions. As a result, students may possess basic competencies but face challenges in applying them effectively in complex real-life situations. Therefore, a comprehensive understanding of these psychosocial competencies is necessary to provide baseline evidence for early intervention and support strategies. This justifies the present study's focus on examining the levels of assertiveness, social skills, and psychological well-being among first-year undergraduates in Malaysian public universities.

4. Methodology

4.1. Research Design

The survey employed a cross-sectional research design, with a structured questionnaire used as the primary data collection instrument. This design is commonly utilised in social science research as it allows for precise quantitative descriptions of population characteristics through the examination of a representative sample within a limited period (Sekaran, 2005). Cross-sectional surveys also enable the efficient collection of primary data prior to the application of inferential statistical analyses (Cohen et al., 2018). The survey was conducted to examine levels of assertiveness, social skills, and psychological well-being among first-year undergraduate students at Malaysian public universities (UA). First-year undergraduates were selected as the target population due to their transitional phase into higher education, a period often characterised by significant psychosocial adjustment.

4.2. Population

Population and sampling form the foundational, critically important elements of any research project. The appropriate population selection establishes the scope of the investigated issue and the scale of required data collection and analysis. Thus, researchers must carefully determine the population and sample as an initial step. Mohd Najib (2009) explains that proper population choice affects study effectiveness in problem definition and data acquisition. This research targets first-year undergraduate students from the 2021/2022 intake at Malaysian public universities. Selecting the first-year undergraduate students is significant, as they exhibit lower exposure to soft skills than those in subsequent years. They are also navigating the transition from school to university life, marked by social and psychological adjustments that impact self-adaptation, social abilities, assertiveness, and mental health. Astin (1993) and Pascarella and Terenzini (2005) underscore the first year as a vital period for soft skill development and psychosocial adjustment.

4.3. Sampling Procedure

Wiersma and Jurs (2009) describe a sample as a portion or subset of a larger group known as the population. Creswell (2014) notes that cluster random sampling can be applied across multiple

hierarchical levels of population clusters to meet researcher needs, such as students' fields of study at university. In this study, the sample comprises first-year undergraduate students who represent their academic year, assuming all have undergone adjustment to their respective programs. The employed sampling technique is stratified random sampling, combining cluster random sampling at the first stage and stratified random sampling at the second stage. Although various sampling methods exist, the researcher selected cluster random sampling for the survey data collection, following Cohen et al. (2017), who highlight its time-saving benefits and reduction of logistical issues by grouping the population. Stratified sampling, meanwhile, enables proportional division by specialization areas.

Additionally, cluster sampling was chosen due to the uneven distribution of first-year public university (UA) students across zones and the scattered placement of study samples across 20 UAs in 14 states on Peninsular Malaysia, Sabah, and Sarawak. This aligns with Creswell (2014), who recommends cluster sampling for large, geographically dispersed populations. Wiersma and Jurs (2008) further advice including all members of selected clusters in the sample. Therefore, drawing from Wiersma and Jurs (2009), the researcher applied cluster random sampling to select groups representing the population of first-year undergraduate students at Malaysian public universities.

For cluster random sampling, the first step the researcher took was to identify clusters that could represent the population before proceeding with the sampling process. Therefore, the researcher grouped the 20 UAs in Malaysia according to zones established by the Ministry of Higher Education. Based on the diagram, there are six UAs in the Central Zone, four UAs in the Southern Zone, four UAs in the Eastern Zone, four UAs in the Northern Zone, and two UAs in the Borneo Zone. After grouping the UAs by zone, the researcher conducted the selection of clusters by adapting the basic elementary sampling marble from jar technique (Neuman, 2009). This technique required the researcher to prepare a list of universities by zone. Then, the selection process was carried out by randomly choosing a university to represent each zone.

For this survey study, the researcher selected one university from each zone, considering that the Borneo Zone only had two UAs. As a result, five universities were selected using the elementary sampling marble from jar technique, namely Universiti Teknologi Mara (UiTM), Universiti Malaysia Pahang (UMP), Universiti Teknikal Malaysia Melaka (UTeM), Universiti Sains Malaysia (USM), and Universiti Malaysia Sabah (UMS). Choosing one university from each zone helps ensure that different geographic regions are represented in the sample. When applying this technique, the selection process was carried out only once. The selected universities represent different geographic zones and institutional categories, providing broad coverage of the Malaysian higher education context. However, as only one university was selected from each zone, the sample does not fully capture the variability across all public universities in Malaysia. Therefore, the findings should be interpreted with caution when generalised beyond the sampled institutions. Additionally, the tabulation of results based on the zones will give an overall picture that the sample for the study is widespread.

Before determining sample size, the researcher emailed and phoned all 20 Malaysian UAs to obtain estimated first-year undergraduate student populations for the 2021/2022 academic session. Based on the data obtained, the total number of first-year undergraduate students for the 2021/2022 academic session across the 20 UAs in Malaysia was 60,976. However, this study's sample draws from first-year undergraduates at just the five selected universities (UiTM, UMP, UTeM, USM, and UMS), totaling approximately 11,803. The students from these five universities provide representation across multiple geographic zones; however, the findings are limited to the sampled universities and should be interpreted with caution when generalised to all public universities in Malaysia.

4.3.1. Sample Size Determination

In determining the sample size, based on the Krejcie and Morgan (1970) for a population of 11,803 the

5% margin of error. Additionally, at least 10% was added to account for potential incomplete, damaged, or unreturned questionnaires (Mohd Najib, 2005). Therefore, the proposed sample size was 415 students**.** However, for this study, the researcher used proportional stratified sampling to determine the sample size required from these five universities. Stratified sampling is a method that requires all samples to be grouped according to certain parameters, and samples are selected from each group rather than randomly from the entire population.

According to Creswell (2005), the proportional stratified random sampling technique is suitable for populations that are not uniform. For this study, the sample was taken from the population of students at UiTM**,** UMP**,** UTeM**,** USM**,** and UMS, which have different backgrounds, locations, and university categories. USM is a research university, while UiTM and UMS are comprehensive universities. On the other hand, UTeM and UMP are focused universities. Hence, in this case, using simple random sampling would result in insufficient samples for certain categories. In proportional stratified sampling, the sample size determined is proportional to the groups formed. Since the division of groups strata and the number of samples taken to represent the entire population depends on the researcher, there is no specific formula for the stratified sampling process. However, the formula below has been widely used to calculate the sample size for each group (Cresswell, 2005):

$$\text{Sample Size: } \frac{\text{Total Sample}}{\text{Total Population of Group}} \times \text{Population of Sub Group}$$

For this study, the researcher decided to select 10% from each group. Therefore, the required sample size is 1,180 students, which includes 275 students from UiTM, 210 students from UTeM, 253 students from USM, 207 students from UMP, and 236 students from UMS, as discussed in Table 1 below. This sample size is sufficient to represent the population because based on Fraenkel and Wallen (1993), a larger sample size is better for representing a population.

Table 1. Sample Size by University

Zone	Public University	Population	Sample
Central	Universiti Teknologi Mara Shah Alam (UiTM)	2750	275
Southern	Universiti Teknikal Malaysia Melaka (UTeM)	2095	209
Northern	Universiti Sains Malaysia (USM)	2360	236
Eastern	Universiti Malaysia Pahang (UMP)	2068	207
Borneo	Universiti Malaysia Sabah (UMS)	2530	253
Total		**11,803**	**1,180**

4.3.2. Respondent Selection

Based on the total population of 15,583 first-year students across the five selected Malaysian public universities, the minimum required sample size was determined using the Krejcie and Morgan (1970) table. According to this guideline, a minimum of approximately 375 respondents is required for a population of this size. To enhance representativeness across institutions and support proportional allocation by university, the study targeted a larger sample. As a result, a total of 1,206 respondents were included in the final analysis, exceeding the minimum requirement. This larger sample strengthens the stability and representativeness of the descriptive findings.

The selection process was carried out systematically and transparently to ensure fair representation and reliable data. The first step involved creating an alphabetical list of first-year undergraduate students from the five selected universities. Systematic random sampling was then applied by selecting respondents at regular intervals (e.g., every 4th, 8th, 12th, and so on) until the required sample size was achieved for each university. By using this method, the study generated data that can be generalised to the sampled universities, with caution when extended beyond this context. This approach helps to

reduce selection bias and improve the reliability of the results (Flick, 2018). Before participating in the study, all participants were provided with detailed information about the study's purpose and procedures within the Google Form. They were informed that participation was voluntary and that they could withdraw at any time without consequence. By proceeding with the questionnaire, participants provided 1,226 responses were received. After data screening, 1,206 completed questionnaires met the necessary criteria, resulting in a usable response rate of approximately 90.7%. This larger sample size enhances the stability and reliability of the descriptive findings within the sampled universities.

4.3.3. Sampling Procedure Diagram

The detailed sampling procedure is illustrated in Figure 1 below. The diagram shows how the sampling process is carried out, from identifying the population to selecting the universities and finally selecting the respondents.

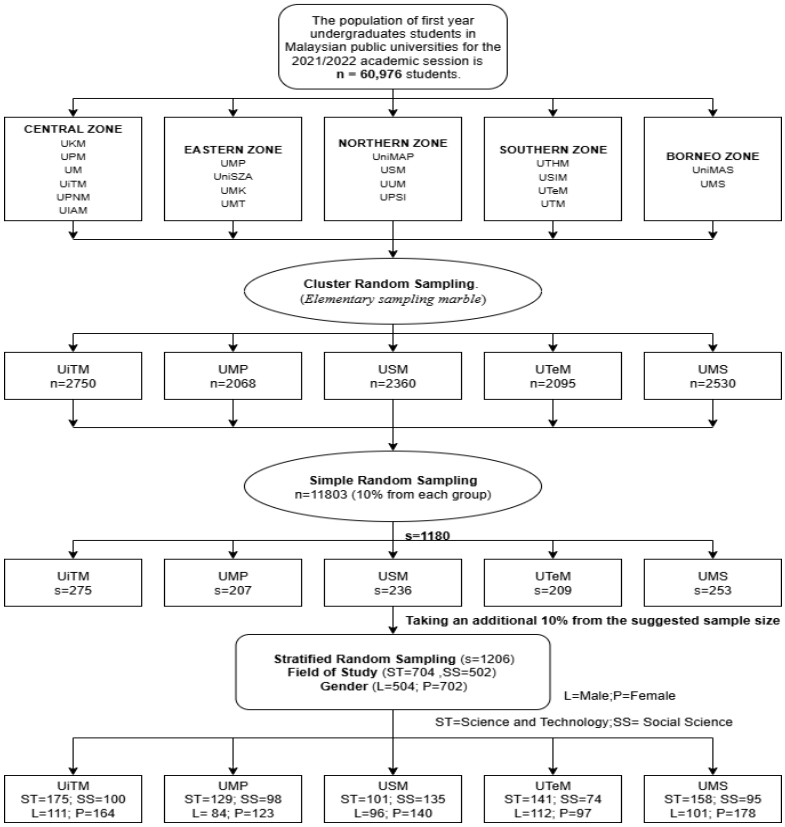

Figure 1. Sampling Procedure Diagram

4.4. Research Instrument

Research instruments are tools designed specifically for data collection purposes. To ensure comprehensive and convincing research, various instruments can be used (Fraenkel et al., 2018; Meriam & Tisdell, 2015). In this study, the researcher used a questionnaire as the instrument to collect the necessary data to answer the research questions and hypotheses. According to Fraenkel et al. (2012), a questionnaire can either be developed independently or adapted from existing instruments to save time. For this study, the questionnaire was developed using an "adapt and adopt" method. Specifically, the questionnaire includes four main sections which are Section A: Respondent profile, covering gender,

ethnicity, field of study, residence, and socioeconomic status. Section B focuses on assertiveness, using the Rathus Assertiveness Schedule (RAS). Section C addresses social skills, adapted from the Social Skill Inventory (Del-Prette, 2001). Section D assesses psychological well-being, based on Ryff's Psychological Well-Being Scale. The details of the research instrument are discussed in Table 2 below.

Table 2. Research Instrument

Section	Instrument / Item	Number of Items	Reference
A	Respondent Profile	6	-
B	Rathus Assertiveness Schedule (RAS)	30	Rathus (1973,1978); Hawa (2014); Abdullah (2005)
C	Social Skill Inventory Del-Prette (SSI)	38	Del Prette & Del Prette (2001;2013); Nor Azima (2008)
D	Ryff Psychological Well-Being Scale	42	Ryff (1989,2019); Hasimah (2010); Salina & Rahimi (2013); Norsayyidatina (2017)

4.4.1. Rathus Assertiveness Schedule (RAS)

Assertiveness in this study was measured using the Rathus Assertiveness Schedule (RAS), developed by Spencer Rathus (1973; 1978). The instrument, developed by Rathus (1973) was designed to assess levels of assertiveness among college students and adults. In this study, the researcher employed the Malay version of the RAS, which was adapted from previous studies conducted by Abdullah (2005), Zainol Abidin (2016), Hawa (2014), and Bakri (2016). Abdullah (2005) used the RAS to measure assertive behaviour among employees of the Johor District Customs Department. Meanwhile, Hawa (2014) utilised the RAS to examine the relationship between assertive behaviour and organisational commitment among support staff at Universiti Tun Hussein Onn Malaysia (UTHM).

The RAS instrument used in this study consists of 30 items representing five dimensions of assertive behaviour which is the right to mutual respect, the right to mutual feelings, the right to make mistakes, the right to say “no,” and the right to ask questions and communicate. Fourteen items measure assertive behaviour, while sixteen items assess non-assertive behaviour. Responses are rated on a five-point Likert scale: 1 = very untrue; 2 = untrue; 3 = partly true and partly untrue; 4 = true; and 5 = very true. The total assertiveness score ranges from 30 to 150 for the 30 items. The minimum possible score is 30 (1 × 30), and the maximum possible score is 150 (5 × 30). The level of assertiveness, according to Rathus' (1976) classification, is divided into several categories based on the score obtained, namely aggressive, assertive, moderately assertive, less assertive, and passive (Rathus, 1976). For this study, the RAS, adapted from Abdullah’ study (2005), categorizes assertiveness based on the score obtained, with the classifications being aggressive (121-150), assertive (91-120), moderately assertive (60-90), less assertive (30-59), and passive (0-29) as shown in the table 3 below. This classification is used to assess the extent to which an individual demonstrates assertiveness in social interactions and self-communication (Rathus, 1976).

Table 3. Interpretation of Assertiveness Score

Score	Level
0-29	Passive
30-59	Less Assertive
60-90	Moderately Assertive
91-120	Assertive
121-150	Aggressive

Next, to determine the level of assertiveness of students based on dimensions, the average score between 0 and 5 indicates a passive level, 6 to 11 indicates less assertive, 12 to 18 is moderately assertive. A score between 19 and 24 shows an assertive level, and a score between 25 and 30 indicates an aggressive level (Abdullah, 2005) as shown in Table 4 below.

Table 4. Interpretation of Assertiveness Dimension Score

Score	Level
0-5	Passive
6-11	Less Assertive
12-18	Moderately Assertive
19-24	Assertive
25-30	Aggressive

4.4.2. Social Skills Inventory Del-Prette (SSI Del-Prette)

To measure social skills, the researcher employed the Social Skills Inventory (SSI–Del-Prette), developed by Del Prette and Del Prette (2001; 2011; 2019). In the context of this study, the Malay version of the SSI adapted by Nor Azima (2008) was used. The SSI used in this study consists of 38 items grouped into five factors which is Factor 1: Coping and self-assertion with risk; Factor 2: Self-assertion in the expression of positive affect; Factor 3: Conversation and social confidence; Factor 4: Self-exposure to strangers and new situations; and Factor 5: Self-control of aggressiveness. For each item, respondents were asked to indicate their level of agreement using a four-point Likert scale: 1 = never; 2 = rarely; 3 = almost always; and 4 = always.

The total mean score for overall social skills is 152 for the 38 items. The minimum possible score that can be obtained by a respondent is 38 (1 × 38), while the maximum possible score is 152 (4 × 38). For this study, the SSI adapted from Nor Azima's (2008) and the level of students' social skills are classified into three categories, which are low with a mean score from 0 to 50, moderate with a mean score from 51 to 101, and high with a mean score from 102 to 152 as shown in Table 5.

Table 5. Interpretation of Social Skills Score

Score	Level
0-50	Low
51-101	Moderate
102-152	High

Meanwhile, to determine the level of each social skill dimension, a mean score between 0 and 11 indicates that the student's social skill dimension is at a low level, a score between 12 and 24 indicates a moderate level, and a score between 25 and 36 indicates a high level of social skill dimension, as shown in Table 6 below.

Table 6. Interpretation of Social Skills Dimension Score

Score	Level
0-11	Low
12-24	Moderate
25-36	High

4.4.3. Ryff's Psychological Well-Being Scale

The construct of psychological well-being in this study was measured using Ryff's (1989) Psychological Well-Being (PWB) questionnaire, which comprises six dimensions: autonomy, environmental mastery, personal growth, purpose in life, self-acceptance, and positive relations with others. There are three versions of the Ryff instrument: the long version containing 120 items (20 items per dimension) and 84 items (14 items per dimension); the medium version containing 54 items (9 items per dimension); and the short version containing 42 items (7 items per dimension) and 18 items (3 items per dimension) (Ryff, 1989; Ryff & Singer, 1996). The scale has been translated into more than 20 languages worldwide. The 42-item Malay version of the Psychological Well-Being Scale used in this study was adapted from previous studies conducted by Hasimah (2010), Norsayyidatina (2017), Roslan

et al. (2017), and Salina and Rahimi (2015). The six dimensions of well-being were measured using a six-point Likert scale: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = agree; 5 = somewhat agree; and 6 = strongly agree. Negatively worded items were reverse scored. For the 42-item Ryff Psychological Well-Being Scale, the total possible score is 252. The minimum score that can be obtained by a respondent is 42 (1 × 42), while the maximum score is 252 (6 × 42).

Based on Norsayyidatina (2017), students' levels of psychological well-being are classified into three categories which are low (0-83), moderate (84-168), and high (169-252) as presented in Table 7 below. High scores across the six dimensions of psychological well-being (PWB) indicate an individual with a high level of well-being, characterized by self-acceptance, personal growth, purpose, effective environmental management, autonomy, and positive relationships (Ryff, 1989; Ryff & Keyes, 1995). Moderate scores suggest that while the individual has areas of psychological strength, they may struggle in one or more dimensions, indicating room for improvement (Ryff, 1989; Ryff & Keyes, 1995). Conversely, low scores across one or more dimensions may reflect poor psychological well-being, suggesting the need for therapeutic intervention or support to enhance their overall well-being (Ryff, 1989; Ryff & Keyes, 1995).

Table 7. Interpretation of Psychological Well-Being Skills Score

Score	Level
0-83	Low
84-168	Moderate
169-252	High

Meanwhile, to determine the level of the students' psychological well-being dimensions, a mean score between 0 and 13 indicates a low level of psychological well-being, 14 to 28 indicates a moderate level, and a mean score between 29 and 42 indicates a high level of psychological well-being, as detailed in Table 8 below

Table 8. Interpretation of Psychological Well-Being Dimension Score

Score	Level
0-13	Low
14-28	Moderate
29-42	High

4.5. Instrument Validity

Validity is an important concept in the context of measuring an instrument. Validity refers to the ability to measure what is intended to be measured (Azizi Yahya et al., Field, 2018). The validity of a measurement also depends on how successfully it measures what it is supposed to measure (Azizi Yahya et al., 2017). Therefore, the validation process should be carried out correctly and precisely. In general, validity can be divided into several types which are face validity, content validity, criterion validity, and construct, each with different purposes and objectives (Taherdoost, 2016). Content validity is the first level of validation that must be conducted before the study and the actual research is carried out on the population. Content validity also refers to evaluating each item in the instrument to ensure it is suitable for the instrument's intended purpose (Mohammad Rahim et al., 2018).

In the context of this study, all three instruments were administered in Malay and adapted from previously validated versions. The Rathus Assertiveness Schedule (RAS) and Ryff's Psychological Well-Being Scale have demonstrated acceptable validity and reliability in prior Malaysian studies. For example, a Malaysian validation study of the RAS conducted by Jusoh et al. (2023) employed exploratory factor analysis and confirmed the factor structure within a local sample, with acceptable reliability (Cronbach's alpha = .748), supporting its use in the Malaysian context. Similarly, the

psychometric properties of Ryff's Psychological Well-Being Scale have been examined in Malaysian samples using factor analytic techniques. For instance, Shariff and Wan Sulaiman (2018) reported that factor analysis of the scale produced a coherent structure with acceptable factor loadings and reliability coefficients across dimensions, indicating that the instrument possesses adequate construct validity within the Malaysian context.

In addition to construct validity evidence from prior studies, content and face validity of the Malay versions were further supported through expert evaluation. Previous studies have reported high Content Validity Index (CVI) values for the Ryff scale (e.g., 0.94 reported by Salina & Rahimi, 2015), indicating strong agreement among experts. In the present study, the instruments were reviewed by experts to ensure linguistic clarity and contextual appropriateness for first-year undergraduate students. However, it is acknowledged that construct validity (e.g., factor structure through CFA or EFA) was not re-examined within the current multi-institution sample. This is consistent with the descriptive nature of the study, which focuses on assessing levels of psychosocial constructs rather than instrument validation. Future research is recommended to conduct confirmatory analyses to further establish the structural validity of these instruments in diverse student populations. Therefore, the researcher performed content validity for the SSI Del-Prette (Del Prette & Del Prette, 2001, 2011, 2019; Nor Azima, 2008).

4.5.1. Process of Determining Content Validity for SSI Del-Prette

For the process of determining the content validity of the SSI, several methods can be used. However, in the context of this study, the researcher chose to use the Content Validity Index (CVI). This choice was based on several advantages of the CVI method compared to other methods. The CVI method was introduced by Waltz and Bausell (1981) and developed by Lynn (1986), and it has been proven to be more practical in terms of time and cost (Tojib & Sugianto, 2006) because it measures the content validity of items through empirical measurement, as compared to other content validity methods that are difficult to interpret. In this study, the CVI method was considered appropriate because it measures the agreement on the relevance of an item within the instrument, as assessed by expert panels. Involvement of a large number of expert panels will provide detailed feedback on the items in the questionnaire. This is in contrast to other methods, such as Cohen's Kappa, Tinsley-Weiss T Index, and James, Demaree & Wolf Index.

Furthermore, the CVI method provides a table for determining the critical value that needs to be achieved (Wilson et al., 2012). The CVI method has also been widely used by local and international researchers to determine the content validity coefficient of instruments (Mohd Effendi et al., 2017). However, the CVI technique is rarely used in social science research, particularly in counselling. The CVI value can be determined using two methods which are the Item Content Validation Index (I-CVI) and the Sum of Content Validation Index (S-CVI). The I-CVI guides the experts to review, reject, or replace the items in the instrument with new ones (Polit & Beck, 2006; Salbiah @ Salleh et al., 2017). In determining the content validity of the SSI-Del-Prette, the researcher used external reviewers, namely the evaluations and critiques from a panel of experts. This expert evaluation method has also been conducted by other researchers, including Aslina (2013), Kamaruzaman Moidunny (2012), Mohd Noor (2012), and Zainol Abidin Ishak (2016).

The selection of experts is crucial in determining the quality of the items and the content of the produced instrument. Salbiah @ Salleh et al. (2017) explain that the criteria for selecting an expert in a field include i) having experience and working for an extended period in the field, ii) holding a PhD degree or qualifications in the field, iii) consistency between experts, meaning an expert with consistent opinions with others, iv) the ability to distinguish deficiencies or changes in an item, and v) attending workshops or training sessions, either in-service or external. Table 3.26 below lists the experts involved in the content validity of the SSI Del-Prette.

According to Najib (1999), for content validity of an instrument, six to nine experts are sufficient for the assessment. Meanwhile, Sousa & Rojjanasrirat (2011) suggest that the expert panel for content validity should consist of six to ten experts. Lynn (1986) also suggests a panel of five to ten experts. Therefore, the researcher appointed six experts, all with academic qualifications at the PhD level and specific expertise relevant to evaluating the SSI questionnaire, including expertise in psychometrics, instrument construction, counseling and psychology modules, and professionals from various higher education institutions (IPTA) and the Public Services Department. The inclusion of experts from various universities and agencies is to avoid bias.

In terms of instrument evaluation by experts, this study used a set of questionnaires built according to Lawshe (1975). The questionnaire used had two parts. The first part was the content validity review, which contained 38 items from five constructs related to social skills, adapted from previous research (Nor Azima, 2008). The five constructs used in this social skills measurement instrument were: coping and self-assertion with risk (10 items), self-assertion in expressing positive effects (8 items), conversation and social confidence (7 items), self-exposure to strangers and new situations (7 items), and self-control of aggressiveness (6 items). Each expert reviewed all items by assessing the relevance of each item based on a 10-point Likert scale, where 1 = very unsuitable and 10 = very suitable.

The second part consisted of a qualitative feedback section, providing the experts with the opportunity to make corrections or suggest more appropriate items in relation to language, society, and culture in Malaysia, or to give written comments and suggestions for suitable statements. Aspects that needed to be considered by the experts during the content validity review procedure of this study included the use of language and statements, language aspects, and ensuring the instrument's suitability for use in higher education contexts in Malaysia. All 38 items were reviewed by the experts to meet the content validity requirements of the SSI. The instrument was emailed to the experts before setting an appointment. For this assessment, the expert panel was given up to two weeks to complete the questionnaire.

The content validity evaluation of the SSI questionnaire in this study was conducted through a systematic process based on recognized procedures in the field of research. The expert panel was asked to evaluate each item using a 10-point scale, from 1 (very unsuitable) to 10 (very suitable). According to Polit & Beck (2006), this scale was converted into a dichotomous form, where scores from 1 to 5 were considered "0" (not agreed/relevant), and scores from 6 to 10 were considered "1" (agreed/relevant). After receiving the expert evaluations, content validity was measured using several key indices, namely the Content Validity Ratio (CVR), which empirically measures how important the items are as considered by the expert panel. The CVI formula is as follows: CVI = (ne - N/2) / (N/2)

Where "ne" is the number of experts who rated the item as "important," and N is the total number of experts. The CVI value ranges from -1 to +1, with a value approaching +1 indicating strong agreement that the item is important (Matoré et al., 2017; Lawshe, 1975). Items with a CVI value below 0.50 are usually considered less valid and are either replaced or removed (Mohamed et al., 2017). The Content Validity Index (CVI) is calculated as the average CVI value for all items, which indicates the overall content validity of the instrument. For new instruments, the recommended minimum CVI value is above 0.80 to ensure that the items are clear, relevant, and have high content validity (Lau et al., 2018; Shrotryia & Dhanda, 2019; Polit et al., 2007).

The Sum of Content Validity Index (S-CVI) refers to the overall content validity index based on the expert panel's overall agreement. In this study, the SSI instrument obtained an S-CVI value of 0.99 based on evaluations from six expert panel members, indicating a very high level of content validity and acceptance. This confirms that the items in the instrument are appropriate and accurately represent the construct being measured. In conclusion, the process of content validity evaluation of the SSI instrument using CVR, CVI, and S-CVI is crucial to ensure that the instrument is accurate and appropriate for measuring the constructs being studied.

4.6. Instrument Reliability

According to Hamidah Yusof et al. (2015), to ensure that the research tool used is stable, predictable, and capable of producing accurate and unquestionable findings, reliability analysis is essential because it is related to the concept of validity. Reliability refers to the consistency or stability of the assessment results (Azizi Ahmad, 2010). This means an individual will receive the same score from an instrument, even if measured repeatedly with the same instrument. Generally, reliability can be measured using several methods, such as Kuder Richardson, Internal Consistency, Test-Retest, Inter-Rater Reliability, and Split-Half. However, the method most commonly used by researchers is Cronbach's Alpha reliability coefficient (George & Mallery, 2016).

Therefore, to determine the reliability of all three instruments, the researcher chose to use Cronbach's Alpha method. Cronbach's Alpha is a reliability coefficient used to demonstrate internal consistency or uniformity of the items in the instrument (Sidek Mohd Noh, 1998). It also indicates the strength of elements within a set of questions in relation to one another. A good reliability value for an instrument is an Alpha value greater than 0.6 at the 0.05 significance level (Cresswell, 2016; 2010; Pallant, 2010). However, according to Hair et al. (2014), the Cronbach's Alpha reliability coefficient ranges from 0.00 to 1.00, and the lowest acceptable value is 0.70. Meanwhile, according to Mohd Majid (2005), this value can be as low as 0.60 in exploratory studies.

Although the reliability of the instruments used in this study have been tested and discussed in previous research group discussions, they need to be tested again within the context of Malaysian society. Furthermore, certain modifications in terms of phrasing, place, context, and study subjects can change the dimensions of the instrument's reliability. Therefore, before the actual study was conducted, the instrument was tested through a pilot study held at a university in the eastern coast. In this study, the researcher conducted a pilot study with 137 first year undergraduate's students from the 2021/2022 academic session, using the RAS, SSI Del-Prette, and Ryff's Psychological Well-Being Scales, all in Malay, adapted from previous studies.
Before conducting the pilot study, permission was obtained from the Deputy Vice Chancellor for Student Affairs & Alumni of the relevant university. The questionnaire was administered using Google Forms with the assistance of the university's Student Affairs staff. First-year undergraduate students, randomly selected by the Student Affairs officer, were provided with a link to complete the survey. Students could choose to respond using either a laptop or a smartphone. This method was selected to facilitate data collection and to minimise the likelihood of incomplete responses through the use of required-response settings. A standard set of instructions regarding how to answer the questionnaire, the purpose of the study, and its potential benefits was explained to the participants prior to data collection. Each student was asked to read the instructions carefully and complete the questionnaire independently, based on their own understanding, without assistance from others. The questionnaire consisted of four sections: Section A covered respondents' demographic profiles, Section B assessed assertiveness, Section C measured social skills, and Section D examined psychological well-being.

4.6.1. Reliability of RAS

Several researchers have conducted pilot studies to measure the reliability of the RAS instrument. For example, Abdullah (2005) used the RAS to measure assertive behavior among workers at the Johor State Customs Department. The reliability value obtained in Abdullah's (2005) study was 0.70, indicating that the reliability of the questionnaire used in Abdullah's study was acceptable. In addition, studies by Haladin et al. (2013) and Zainol Abidin (2016) to measure the reliability of this instrument also showed high Cronbach's alpha values, ranging between 0.82 and 0.84. Hawa (2014) also conducted a pilot study to measure the reliability of the RAS and obtained a high Cronbach's alpha value of 0.84.

Since the instrument had already been translated by Abdullah (2010) and Jusah et al. (2023) into the Malay version, the researcher only reviewed the original and translated versions with the help of two language experts who were also skilled in counseling and psychology. However, in this study, due to

the researcher having a different sample of participant which are first year undergraduate student, another pilot study was conducted to test the reliability of the. The overall Cronbach alpha reliability coefficient for the RAS instrument also showed a high value of 0.93. Therefore, this instrument can be used in the actual study to measure assertiveness, as it has been verified to have high consistency and reliability. The detailed reliability values for the RAS are shown in Table 9.

Table 9. Reliability for the RAS Instrument

Construct	Cronbach Alpha (α)
Right to mutual respect	0.87
Right to mutual feelings	0.86
Right to make mistakes	0.85
Right to say "no"	0.88
Right to ask and communicate	0.84
Overall	0.93

4.6.2. Reliability of SSI Del-Prette

In the context of this study, the SSI-Del Prette used was in the Malay version, adapted from Nor Azima's study (2008). Nor Azima (2008) conducted a pilot study on teachers and obtained a high Cronbach's alpha reliability coefficient of 0.79. However, since this study focuses on the social skills of university students, the researcher made modifications, including changes in phrasing, sentence structure, and corrections for technical errors like spelling and language. All 38 items were maintained as in the original instrument. Subsequently, the researcher conducted a pilot study to test the reliability of the SSI Del-Prette on 137 first year undergraduate students for the 2021/2022 academic session at a university on the Eastern Coast.

Based on the pilot study, the Cronbach alpha values range from 0.83 to 0.85. The overall Cronbach alpha reliability coefficient for the instrument is 0.94. The detailed reliability values for the SSI are shown in Table 10. This shows that the SSI instrument has very high reliability. Therefore, when compared to all previous findings, including the pilot study, the results indicate that the SSI instrument has high reliability. As such, the SSI can be used in the actual study to measure university students' social skills as it has been verified to have high consistency and reliability.

Table 10. Reliability for the SSI

Construct	Cronbach Alpha (α)
Coping and self-assertion with risk	0.84
Self-assertion in the expression of positive effect	0.85
Conversation and social confidence	0.84
Self-exposure to strangers and new situations	0.83
Self-control of aggressiveness	0.85
Overall	0.94

4.6.3. Reliability of Ryff's Psychological Well-Being Scale

The Ryff's Psychological Well-Being Scale is one of the most popular research instruments that has been used by many researchers locally to measure psychological well-being across various populations. Several researchers have also conducted pilot studies to obtain the reliability coefficient for this instrument. Among them is Salina & Rahimi Che (2015), who conducted a study involving 210 special education teachers in the Integrated Special Education Program (PPKI) in the states of Penang, Kedah, and Perlis. The results showed that Ryff's Well-Being Scale had a high internal consistency value of Cronbach's alpha of 0.97. Furthermore, Norsayyiditina (2017) also conducted a pilot study and obtained a Cronbach alpha value of 0.70 for the reliability of the Ryff's Psychological Well-Being Scale.

However, since the researcher had a different sample of participants, specifically first-year undergraduate students, the researcher decided to conduct another pilot study to test the reliability of the Ryff's Psychological Well-Being Scale on 137 first year undergraduate students from the 2021/2022 academic session at a public university on the eastern coast. Based on Table 11, the Cronbach alpha reliability value for the entire Ryff's Psychological Well-Being Scale is 0.88. Therefore, overall, based on the results of this pilot study, it is evident that the instruments used in this study have high reliability, and all items in the instruments are suitable for use in the actual study to measure university students' psychological well-being.

Table 11. Reliability for the Ryff's Psychological Well-Being

Construct	Cronbach Alpha (α)
Autonomy	0.85
Environmental mastery	0.83
Personal growth	0.83
Positive relationships	0.84
Purpose in life	0.85
Self-acceptance	0.84
Overall	0.88

5. Findings and Discussion

5.1. Respondent Profile

Although the required sample size was 1,180, but a total of 1,206 first-year undergraduate students from Malaysian public universities participated in this survey study. The profiles of the respondents were described based on key demographic factors, including gender, ethnicity, field of study, place of residence, and socioeconomic status (SES), as detailed in Table 12.

Table 12. Respondent Profile

	Frequency (*f*)	Percentage (%)
Gender		
Female	702	58.2
Male	504	41.8
Ethnicity		
Malay	678	56.2
Chinese	180	14.9
Indian	110	9.1
Bumiputera Sabah	125	10.4
Bumiputera Sarawak	113	9.4
Field of Study		
Science and Technology	704	58.4
Social Sciences	502	41.6
Place of Residence		
Urban	634	52.6
Rural	572	47.4
Household Income		
Low (≤ RM4,850)	562	47.0
Middle (RM4,851–10,959)	544	45.0
High (≥ RM10,960)	100	8.0
Total	**1206**	**100**

The majority of respondents were female students (58.2%), while male students accounted for 41.8%. In terms of ethnicity, most respondents were Malay (56.2%), followed by Chinese (14.9%), Bumiputera Sabah (10.4%), Bumiputera Sarawak (9.4%), and Indian (9.1%). With respect to field of study, a greater proportion of students were enrolled in Science and Technology programs (58.4%), while 41.6% came from the Social Sciences. In terms of residence, slightly more than half of the respondents reported living in urban areas (52.6%), while the remainder were from rural areas (47.4%). Finally, the distribution of household income showed that nearly half of the students were from low-income families (47.0%), followed by middle-income families (45.0%), and a small proportion from high-income families (8.0%). This demographic distribution reflects the diversity of the respondents and enhances the representativeness and credibility of the study's findings.

5.2. Level of Assertiveness among First-Year Undergraduate Students at Public Universities in Malaysia

Table 13 shows the assertiveness levels among 1,206 first year undergraduate students in UA Malaysia. Of this total, 56.60% of students have a moderate level of assertiveness, 16.20% are less assertive, 25.10% have a high level of assertiveness, and 2.10% are categorized as aggressive.

Table 13. Level of Assertiveness Among First-Year Undergraduate Student in UA Malaysia (N=1206)

Score	Level	Frequency (*f*)	Percentage (%)
0-29	Passive	0	0
30-59	Less Assertive	195	16.20
60-90	Moderately Assertive	682	56.60
91-120	Assertive	303	25.10
121-150	Aggressive	26	2.10

The mean scores for students based on dimensions are shown in Table 14. According to the table, five dimensions of assertiveness were examined. The overall mean assertiveness score for students was (*M* = 79.87, *SD* = 18.67), categorized as moderate. Additionally, all assertiveness dimensions also fall within the moderate level, with mean scores for the right to mutual respect (13.36), right to mutual feelings (18.45), right to make mistakes (15.90), right to say "no" (16.02), and right to ask and communicate (16.15).

Table 14. Mean Score for Assertiveness (N=1206)

Assertiveness Constructs	Mean (*M*)	Standard Deviation (*SD*)	Level
Right to mutual respect	13.36	2.98	Moderate
Right to mutual feelings	18.45	4.94	Moderate
Right to make mistakes	15.90	4.16	Moderate
Right to say "no"	16.02	3.95	Moderate
Right to ask and communicate	16.15	4.48	Moderate
Overall	**79.87**	**18.67**	**Moderate**

As shown in Table 14, the overall mean score for assertiveness was M = 79.87, placing students at a moderate level of assertiveness. All five dimensions which is respect for others (M = 13.36), expressing feelings (M = 18.45), acknowledging mistakes (M = 15.90), ability to say "no" (M = 16.02), and interaction and communication (M = 16.15) were also found to be at moderate levels. Assertiveness is a critical skill for effective communication, personal development, and mental health, particularly for university students (ElBarazi et al., 2024; Samfira, 2022). However, the findings of this study revealed that the overall level of assertiveness among first-year undergraduates in Malaysian public universities was at a moderate level. This finding is consistent with previous studies conducted in Malaysia. For example, Salleh and Zuria (2007) reported that assertiveness, measured using the Rathus Assertiveness

Schedule (RAS), was closely associated with life satisfaction and effective communication skills among university students.

The RAS itself measures the extent to which individuals can express opinions and emotions confidently without offending others (Rathus, 1973). Thus, the moderate levels observed in this study suggest that students are still in the process of developing essential assertiveness skills that are crucial for interpersonal communication and psychological well-being. Similarly, Haladin et al. (2013) found that assertiveness was strongly linked with life satisfaction, active learning engagement, and social interaction. Cultural factors may also explain the moderate levels of assertiveness among Malaysian undergraduates. As Malaysia is a collectivist society that emphasizes social harmony and respect for authority, students may be less likely to assert themselves compared to their Western peers, who are often encouraged to adopt individual assertiveness (Abdul Majid et al., 2024; Haladin et al., 2013). Ang (2016) and Sieng and Yusof (2017) likewise highlighted that Malaysian students often lack the confidence to express and defend their opinions constructively.

A study conducted at Manipal University College Malaysia (MUCM) further revealed that the majority of medical students displayed tentative behaviors (77.5%), while only 21.7% were identified as assertive (Alyssa Sureyya et al., 2021). This underscores the tendency for Malaysian students to be less assertive than their international peers. Barriers such as fear of making mistakes, cultural emphasis on deference, and limited opportunities to practice assertive communication further contribute to this trend. Students may avoid speaking up due to anxiety about being judged or ridiculed, particularly when using English as a second language. This avoidance is reinforced by an education system that prioritizes technical knowledge over interpersonal and communication skills (Haladin et al., 2013; Mohamad et al., 2024). Without practical exposure to assertive communication, graduates may struggle in situations that require confidence and self-expression.

Low levels of assertiveness can negatively impact academic performance, interpersonal relationships, and employability. In academic settings, non-assertive students may hesitate to express their ideas, negotiate roles in group assignments, or seek clarification, leading to weaker collaboration and lower performance (Blegur et al., 2023; Toktaş et al., 2022). Studies have also shown a negative correlation between assertiveness and attitudes toward academic courses, with less assertive students often displaying lower motivation and reduced achievement (Alyssa Sureyya et al., 2021; Toktaş et al., 2022). Similarly, low assertiveness hinders the ability to build and sustain healthy relationships, as students may struggle to communicate their needs or establish boundaries (Moss et al., 2021).

Research has also demonstrated a link between low assertiveness and higher levels of academic anxiety, which can disrupt concentration, attention, and academic functioning (ElBarazi et al., 2024; Mohebi et al., 2012). In terms of employability, employers often seek candidates who can communicate effectively and advocate for themselves (Haladin et al., 2013; Vargas-Saritama et al., 2025). Graduates with low assertiveness may underperform in job interviews and workplace interactions, which can limit their career prospects. They may also be perceived as lacking confidence or initiative (Alyssa Sureyya et al., 2021), potentially reducing their chances of being hired or promoted. Taken together, these findings highlight the importance of developing assertiveness as a vital skill for university students.

Moderate levels of assertiveness indicate room for targeted interventions and training programs designed to strengthen students' self-confidence and interpersonal abilities, thereby supporting their academic success, psychological well-being, and employability. Importantly, interventions must be culturally sensitive, taking into account the collectivist values of Malaysian society to ensure effectiveness. Universities should prioritize the design and implementation of assertiveness development programs and integrate counselling support services to identify and assist students at risk of low assertiveness early in their studies. By fostering a supportive environment, universities can encourage students to express their thoughts and feelings more confidently and prepare them for future academic and professional challenges.

5.3. Level of Social Skills among First-Year Undergraduate Students at Public Universities in Malaysia

Table 15 below shows the classification of social skills levels among 1,206 first year undergraduate students in UA Malaysia. The majority of students, 64.10%, have a moderate level of social skills, and 12.90% have low social skills. Meanwhile, only 23% of respondents are in the high social skills category.

Table 15. Level of Social Skills Among First-Year Undergraduate Student in UA Malaysia (N=1206)

Score Range	Level	Frequency (*f*)	Percentage (%)
0-50	Low	156	12.90
51-101	Moderate	773	64.10
102-152	High	272	23

The mean scores and social skills levels based on dimensions are discussed in Table 16. There are five dimensions of social skills being examined. The overall mean score for social skills is (M = 86.49, SD = 24.49), classified as moderate. Additionally, all dimensions of social skills are also at the moderate level, with mean scores for the dimensions coping and self-assertion with risk (22.60), self-assertion in the expressing of positive effects (19.01), conversation and social confidence (15.64), self-exposure to stranger and new situations (14.92), and self-control from aggressiveness (14.17).

Table 16. Mean Score for Social Skills (N=1206)

Social Skills Constructs	Mean (M)	Standard Deviation (*SD*)	Level
Coping and self-assertion with risk	22.60	6.87	Moderate
Self-assertion in the expression of positive effect	19.01	6.30	Moderate
Conversation and social confidence	15.64	4.42	Moderate
Self-exposure to strangers and new situations	14.92	5.22	Moderate
Self-control of aggressiveness	14.17	3.08	Moderate
Overall	**86.49**	**24.49**	**Moderate**

The findings of this study indicate that overall, first-year undergraduate students in Malaysian public universities demonstrated a moderate level of social skills. Analysis of the five dimensions which is Coping and self-assertion with risk, self-assertion in the expression of positive effect, conversation and social confidence, self-exposure to strangers and new situations, and self-control of aggressiveness also revealed moderate mean scores across the board. These results align with previous studies that have identified limited social competence among Malaysian undergraduates. Chin (2016) reported that students often display lower levels of communicative competence, assertiveness, and prosocial tendencies, while Nooriah and Zakiah (2017) also found that many lacked strong interpersonal abilities. Similarly, Kipli et al. (2022) observed that students in Sarawak demonstrated social skills at unsatisfactory moderate levels, suggesting that a considerable number of university students in Malaysia still lack sufficient mastery of social competence to navigate daily life effectively.

Low levels of social skills are associated with numerous challenges, including difficulty in forming and maintaining friendships, which may contribute to loneliness and social isolation in the demanding university environment (Moeller & Seehuus, 2019). Poor communication skills can also negatively affect classroom participation, group projects, and the ability to seek academic support (Ayllón-Salas, 2024; Gul et al., 2023; Shengyao et al., 2024; Yan Carlo, 2022). Furthermore, deficits in social competence have been linked to heightened risks of anxiety and depression among students (Rikzia et

al., 2024; Segrin, 2019). Beyond academics, inadequate social skills may also hinder employability. Employers frequently emphasize the importance of interpersonal and communication skills for career success (Suleman et al., 2022; Vanhove et al., 2024).

Graduates with weaker social skills may underperform in interviews, workplace collaboration, and leadership roles, which can negatively affect career progression and job satisfaction. In summary, social skills serve as a foundation for effective communication, interpersonal relationships, academic performance, mental health, and employability. Current higher education policies in Malaysia, such as the Malaysia Education Blueprint 2015–2025, emphasize the development of soft skill including social competence as key to producing competitive and holistic graduates (Ministry of Education Malaysia, 2015). Therefore, universities should prioritize the integration of social skills development into curricula and provide structured training and intervention programs to better prepare students for academic and professional success.

5.4. Level of Psychological Well-Being among First-Year Undergraduate Students at Public Universities in Malaysia

Table 17 below shows that 67.70% of the 1,206 students exhibit a moderate level of psychological well-being, while 14.20% have a low level, and only 18.10% of students report a high level of psychological well-being.

Table 17. Level of Psychological Well-Being Among First-Year Undergraduate Student in UA Malaysia (N=1206)

Score Range	Level	Frequency (*f*)	Percentage (%)
0-83	Low	171	14.20
84-168	Moderate	817	67.70
169-252	High	218	18.10

The mean scores and levels of psychological well-being among students based on dimensions are discussed in Table 18. The overall mean psychological well-being score for students is *(M* = 136.13, *SD* = 38.38), indicating a moderate level. Additionally, six dimensions of psychological well-being were studied, and all dimensions also fall within the moderate level, with mean scores for the dimensions as follows: autonomy (22.73), environmental mastery (23.22), personal growth (22.30), positive relations with others (22.36), purpose in life (23.05), and self-acceptance (22.46).

Table 18. Mean Score for Psychological Well-Being (N=1206)

Psychological Well-Being Dimension	Mean (*M*)	Standard Deviation (*SD*)	Level
Autonomy	22.73	7.24	Moderate
Environmental mastery	23.22	6.28	Moderate
Personal growth	22.30	6.42	Moderate
Positive relationships	22.36	6.60	Moderate
Purpose in life	23.05	6.62	Moderate
Self-acceptance	22.46	6.80	Moderate
Overall	**136.13**	**38.38**	**Moderate**

The study also found that the overall psychological well-being of first-year undergraduates was at a moderate level, with all six-dimension self-acceptance, positive relationships, autonomy, environmental mastery, purpose in life, and personal growth also falling within the moderate range. This finding is consistent with studies in Malaysia, such as Aziz et al. (2024), who reported moderate levels of psychological well-being among students at Universiti Malaysia Kelantan. National survey data also

highlight significant levels of distress among Malaysian youth, with Soo et al. (2024) documenting that 34% of students experienced anxiety, 27.5% faced depression, and 18.6% reported stress. Internationally, similar concerns have been raised, with more than half of university students in the United Kingdom and the United States reporting clinically significant levels of anxiety and depression (Myrissa et al., 2024). The COVID-19 pandemic further exacerbated these issues, intensifying psychological pressures faced by students globally (Wong et al., 2023).

Academic pressures, frequent examinations, and concerns about future employment were identified as major stressors, leading to lower psychological well-being (Chaudhry et al., 2024). Students with lower well-being often experience impaired concentration, reduced problem-solving skills, and weaker coping strategies, placing them at higher risk of depression and anxiety (Wąsowicz et al., 2021). Limited psychological flexibility also restricts their ability to adapt to change and manage negative emotions effectively. Low psychological well-being has further implications for social participation. Students may withdraw from social and co-curricular activities, misinterpret social cues, and feel isolated, which can reduce life satisfaction and hinder personal development (Campbell et al., 2022; Chaudhry et al., 2024). Poor coping mechanisms, such as avoidance or unhealthy behaviors, may worsen stress and negatively affect both mental and physical health (Indreswari et al., 2024). Such challenges increase the risk of academic disengagement and dropout, with long-term consequences for careers and life outcomes. Employability is also influenced by students' psychological well-being.

Research shows that students with poor mental health may struggle to build professional networks and engage effectively in teamwork, both of which are critical for career advancement (He et al., 2022). Feelings of isolation may further reduce collaboration and limit exposure to diverse perspectives in professional contexts. These findings underscore the importance of prioritizing psychological well-being in higher education. National policies, such as the Malaysia Education Blueprint 2015–2025 (Ministry of Education Malaysia, 2015) and the National Mental Health Policy 2020–2025, highlight the need for early intervention and support services for young people, including undergraduates. Universities should therefore strengthen psychosocial support systems, reduce stigma around mental health, and foster inclusive learning environments that encourage students to seek help. Such efforts will not only enhance students' academic and personal development but also prepare them for long-term resilience and career readiness.

6. Conclusion

This study examined the levels of assertiveness, social skills, and psychological well-being among first-year undergraduate students in Malaysian public universities. The findings indicate that students generally demonstrate moderate levels across all three constructs and their respective dimensions. While these results suggest that students possess foundational competencies in self-expression, interpersonal communication, and emotional well-being, these skills may not yet be sufficiently developed to meet the increasingly complex academic, social, and professional demands of higher education.

The moderate level of assertiveness suggests that many students are still developing confidence in expressing their opinions and articulating their ideas, which may be influenced by cultural norms that emphasise social harmony and respect for authority. Similarly, the findings on social skills indicate that students may encounter challenges in establishing effective interpersonal relationships, adapting to new environments, and communicating effectively, all of which are essential for success in academic and professional settings. The moderate level of psychological well-being reflects the ongoing challenges faced by students in adjusting to university life, particularly in balancing academic expectations with personal and social demands.

These findings highlight the importance of strengthening students' psychosocial competencies as part of holistic higher education development. Without adequate institutional and social support, students may face difficulties in sustaining academic engagement, maintaining psychological well-being, and

preparing for future employability. In light of these findings, several recommendations are proposed. First, higher education institutions should integrate soft skills such as assertiveness, communication, and social competence into the formal curriculum to ensure systematic development of these competencies. Second, counselling and psychoeducational programmes should be expanded to include assertiveness training, resilience-building, and emotional regulation strategies, with early identification of students who may require additional support. Third, interventions should be culturally responsive, balancing collectivist values with the need to encourage appropriate self-expression, with an emphasis on group-based and peer-supported approaches.

In addition, universities should strengthen collaboration with industry partners to provide experiential learning opportunities, such as internships, service-learning, and work-based learning, enabling students to apply interpersonal and communication skills in real-world contexts. Efforts should also be made to enhance awareness of mental health and reduce stigma, by fostering supportive and inclusive environments where students feel comfortable expressing their concerns. Finally, institutional strategies should be aligned with national frameworks such as the Malaysia Education Blueprint 2015–2025 and the National Mental Health Policy 2020–2025, which emphasise holistic student development. Overall, enhancing assertiveness, social skills, and psychological well-being among undergraduates requires a structured, culturally responsive, and comprehensive approach that integrates curriculum development, counselling support, experiential learning, and institutional policy alignment.

7. Limitation of Study

This study has several limitations that should be acknowledged. First, the cross-sectional design captures data at a single point in time and therefore does not allow for the examination of changes over time or the establishment of causal relationships among variables. Second, the study relies on self-reported questionnaire data, which may be subject to common-method bias, including social desirability and response consistency effects. Although measures were taken to ensure anonymity and independent responses, such biases cannot be entirely eliminated. Third, the interpretation of results based on categorical thresholds (e.g., low, moderate, and high levels) is dependent on cut-off values adapted from prior studies. Different classification criteria may yield slightly different interpretations of the data. Therefore, the findings should be interpreted with consideration of this threshold sensitivity. Finally, as the sample was drawn from selected public universities, the findings are limited to the sampled institutions and should be interpreted with caution when generalised to all Malaysian public universities.

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