



THE FACTOR ANALYSIS QUALITY OF LIFE AND ENHANCING QUALITY OF LIFE AMONG CHINESE  
COLLEGE STUDENTS THROUGH INDIVIDUAL COUNSELLING



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THE DISSERTATION TITLED  
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This study was conducted in two phases with the aim of: (1) to explore the structural dimensions of quality of life among Chinese university students; and (2) to design an individualized counselling program based on the A-B-C framework to enhance students' quality of life. The research targeted Chinese university students aged 18 to 25 and employed a quantitative research design combining both survey and experimental methods. Phase One: A total of 265 valid responses were collected through convenience sampling. Based on statistical and theoretical considerations using exploratory factor analysis and confirmatory factor analysis, the study refined the measurement model by eliminating specific items and merging overlapping dimensions. The final CFA model retained 25 items across 7 dimensions, demonstrating acceptable model fit (CFI = 0.95, TLI = 0.941, RMSEA = 0.077, and CMIN/DF = 2.575). Seven dimensions of quality of life among Chinese university students were identified: Moods and Self-Perception, Social and Family Environment, Psychological Well-being, School Environment, Physical Well-being, Autonomy, and Financial Resources. Phase Two: Ten students participated in six sessions of individualized counselling based on the A-B-C framework. Results showed a statistically significant improvement in overall quality of life (mean difference = 0.501,  $p = 0.005$ ), particularly in the domains of emotions, psychological well-being, and autonomy. However, no significant changes were observed in dimensions more influenced by external factors such as physical health, family relationships, and financial status. These findings suggest that while the counselling program was effective in enhancing internal aspects of well-being, its influence on externally driven quality of life factors may be limited.

Keywords: Quality of life, survey strategy, individual counselling, Chinese university

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This humble thesis is finally complete, and the credit belongs to everyone who has accompanied me through the journey. In closing, may we all remain true to the aspirations that first set us forth and retain the courage to chase our own moonlight.

LIN PEIYU

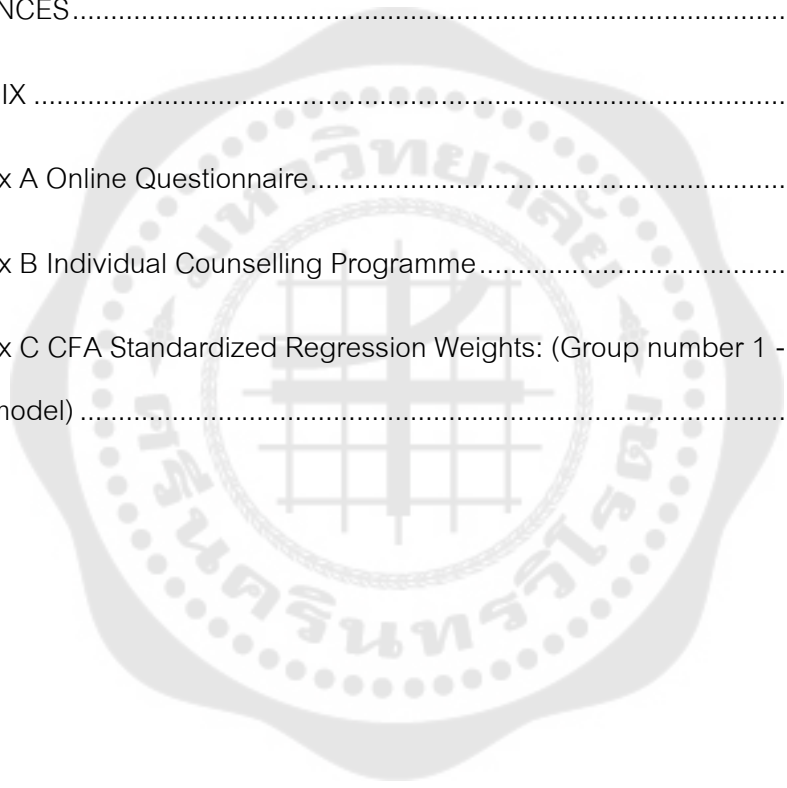
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## Glossary of Abbreviation

QoL	Quality of Life
ICP	Individual Counselling Programme
CBT	Cognitive Behavioural Therapy
REBT	Rational Emotive Behaviour Therapy



# CHAPTER 1

## INTRODUCTION

### 1.1 Background

The World Health Organization (2024) defines quality of life as the degree of awareness and satisfaction with a person's current social status and living situation in the context of his or her values, cultural system, and living conditions. In a similar vein, extant studies have conceptualized the quality of life as an individual's perception of a specific position in the context of culture and value systems when comparing their goals, perspectives, and concerns (Ribeiro et al., 2018; Ogunsanya et al., 2018). Nowadays, existing studies have highlighted the importance of quality of life in the education field (Edgerton et al., 2011). This is due to quality of life can directly influence various aspects of students' lives, including their physical and mental health, academic performance, learning motivation, and overall learning experience (Ribeiro et al., 2018). For instance, Shareef et al. (2015) argues that there is a direct relationship between quality of life and students' academic performance. Similarly, Oxon (2015) emphasises that students' quality of life also impacts their study motivation. Furthermore, a high quality of life is beneficial for student' physical and mental health (Legey et al., 2017). Therefore, Wallander and Koot (2016) suggest that future research should focus more on how to improve students' quality of life. In addition, students with a higher quality of life typically exhibit lower levels of stress, anxiety, and depression, which helps enhance their concentration, memory retention, and effective participation in learning (Magiera and Pac, 2022).

Considering the importance of quality of life in students' life, extant studies have also investigated the dimensions and indicators of quality of life in the education sectors. For example, Land et al. (2011) note that standard social indicators of quality of life include physical and mental health, wealth, employment, environment, education, entertainment and leisure time, social belonging, religious belief, safety, security, and freedom. On this basis, Magiera and Pac (2022) further reveal that the indicators related

to the quality of life include physical well-being, psychological well-being, self-perception, autonomy, parent relation and home life, and financial resource, moods and emotions, self-perception, social support and peers, and school environment, appearance was for physical well-being, psychological well-being, moods and emotions, self-perception, school environment, and social acceptance and bullying. These emphasized dimensions can also affect students' overall quality of life. One example could be that a worsening health condition would likely increase students' anxiety and further generate negative feelings towards their life (Leifa and Zheleznyak, 2017).

Yet, extant studies have not paid enough attention to investigating the indicators of quality of life in the Chinese college context, indicating a significant research gap. The previous indicators of quality of life are identified in the Western cultural context. Yet, individuals from different cultural contexts or educational backgrounds may have different perceptions towards their quality of life. In other words, quality of life is a subjective perception that involves cultural context and satisfaction or accomplishment in different situations (Ogunsanya et al., 2018). Thus, it is important to empirically examine the dimensions of quality of life in the Chinese context. Additionally, these current studies have not adequately addressed how to improve the quality of life in the Chinese college context, particularly from the perspective of individual counselling. These overlooked research arenas represent apparent and important research gaps. In fact, the quality of life in the Chinese context should be given enough attention from both scholars and practitioners. According to the "2020 Chinese College Students Health Survey Report" jointly released by the China Youth Daily (2020), Over 60% of college students reported having a low quality of life and being troubled by academic pressure in the past year. Besides, a survey conducted by the Chinese Academy of Social Sciences (2006) revealed several factors affecting Chinese college students' quality of life. In particular, 75% of college students believed that social employment leads to pressures and negatively affects their quality of life. 50% of college students felt confused about their prospects after graduation and lacked clear goals. 41.7% of college students stated that they had not considered their future much. Similarly, the

Survey Report of Mental Health Status of College Students (2022) indicated that students' concerns about their future development is one of the primary sources for their quality of life. These survey data about students' pressures and quality of life indicate it is important to understand the indicators of quality of life in the Chinese college context and propose related strategies (e.g., individual counselling).

In addition, this study also aims to explore whether individual counselling can enhance the quality of life of Chinese college students. The selection of individual counselling is based on the following rationale. Individual counselling is a widely used form of psychotherapy that involves one-on-one sessions between a trained counsellor or psychotherapist and the client (American Counselling Association, 2014; Sharma et al., 2023). It is considered especially effective for university students, as it enables them to address psychological, emotional, academic, interpersonal, and other personal challenges, thereby promoting overall growth and development (American College Counselling Association, 2018).

Notably, studies have shown that individual counselling is positively associated with improvements in quality of life among university students. For example, research by Hämäläinen et al. (2023) demonstrated that students who received individualized psychological interventions reported enhanced well-being and academic engagement. Similarly, Suldo et al. (2014) found that structured counselling interventions led to significant improvements in students' emotional regulation and life satisfaction, both of which are key components of quality of life.

Furthermore, individual counselling allows for comprehensive attention to various psychological dimensions-many of which overlap with those measured by the KIDSCREEN-52 quality of life framework. Hereafter, this instrument is referred to as the Quality of Life Questionnaire. It provides targeted and personalized support tailored to the specific needs and difficulties of each student (Dumigan, 2017). In addition, the confidential nature of one-on-one counselling makes it easier for students to openly express their emotions and concerns without fear of being overheard or judged, thus increasing its effectiveness (Nelson, 2021). The flexible format also accommodates

students' scheduling needs, enhancing accessibility and consistency in treatment (Sarkar et al., 2010).

Importantly, it employs a six-session individual counselling program guided by the A-B-C framework from Rational Emotive Behavior Therapy (REBT). This structured, evidence-based cognitive-behavioral model focuses on helping students identify and reframe irrational beliefs that negatively affect their emotional and behavioral responses, with the goal of improving overall well-being and quality of life.

In summary, this study was conducted in two distinct phases to investigate and enhance the quality of life of Chinese university students. In the first phase, this study began with an extensive literature review and statistical analysis to explore the structural dimensions of quality of life among Chinese university students. A localized measurement tool tailored to this population was developed accordingly. Additionally, the study assessed and compared differences in quality of life across age and gender, providing a comprehensive understanding of students' overall well-being. In Phase 2, building upon the findings of the initial phase, an individual counselling program was developed based on the A-B-C framework from Rational Emotive Behavior Therapy (REBT). This structured and targeted intervention aimed to address irrational beliefs and improve emotional and behavioral outcomes. The program was implemented with randomly selected participants to examine whether such individualized counselling could significantly enhance their quality of life. Through this two-phase approach, the study not only mapped the key dimensions of quality of life in the Chinese university context but also evaluated the practical effectiveness of a structured CBT-based intervention in promoting students' overall well-being.

## 1.2 Research Questions

This research aims to address the following three important research questions.

1. What are the important dimensions of quality of life in the Chinese college education context?

2. Is the existing KIDSCREEN-52 scale applicable to Chinese university students? Are its measurement dimensions consistent within the Chinese context?

3. Does individual counselling programme help improve students' quality of life?

### 1.3 Objectives of the Research

Based on the three research questions outlined above, this study proposes the following research objectives, which will be achieved through a two-phase research design.

#### Phase One: Quality of Life Study (Quantitative Research)

(1) To explore the quality of life among Chinese university students.

(2) To investigate the key components that constitute the quality of life among Chinese university students;

#### Phase Two: Individual Counselling Programme Study (Quasi-Experimental Research)

(1) To develop an individual counselling programme based on the A-B-C framework aimed at enhancing the quality of life of Chinese university students;

(2) To compare participants' quality of life scores before and after the intervention in order to evaluate whether the counselling programme effectively improves their quality of life.

### 1.4 Significance of the Study

1.4.1 In today's competitive world, the student is under tremendous pressure. College students, in particular, struggle with academic competition and social anxiety and are prone to stress, depression, and other mental illnesses; therefore, every university establishes student counselling centres on campus to provide students with appropriate guidance and counselling services to cope with their mental health, academic performance, career development, and personal and social development issues (Shetty, 2018). Individual counselling is one of the most common ways to help achieve this, usually by a school or college counsellor conducting a one-on-one counselling session with a student in need (Gysbers & Henderson, 2014). The main

purpose of the session is to help students adapt to their personal, school, social, and educational environment. In this session, the counsellor encourages students to express themselves freely and fully so that they can solve problems (Gysbers & Henderson, 2014).

1.4.2 Nowadays, college students' psychological problems are common and can seriously affect their physical and mental health, well-being, life function, and even personal future development. These are all social indicators closely related to the quality of life of college students. Numerous studies have confirmed that counselling is a great way to cope with struggling students. Counselling plays an important preventive role in mental illness. Studies have shown that individual counselling services are effective in addressing student isolation and can be effective in changing student attitudes and behaviours (Aldina et al., 2022). It has also been shown to improve the severity of students' well-being, psychological symptoms, life functioning, and overall mental health (Judith et al., 2003). Moreover, school counselling interventions have a significant impact on student's education and personal development. Individual counselling appears to directly contribute to student success in and out of the classroom (Thuryrajah et al., 2017). Maintaining good mental health and well-being for every student, and improving the quality of life for students, is not only the responsibility of the Counselling Centre but also the core of the mission, purpose, and outcomes of each university and society (Shetty, 2018).

1.4.3 From a theoretical contribution perspective, this study can enrich the literature focusing on quality of life in the Chinese context. In essence, existing studies have majorly focused on analysing different factors associated with quality of life in the Western context (Land et al., 2012). The proposed dimensions of quality of life may not be applicable to the Chinese educational context. Moreover, most of the current studies on quality of life are conducted on medical students, so these findings cannot be generalized to college students with other majors (Li & Zhong, 2022). As a result, the quality of life of Chinese college students does not seem to be well studied.

1.4.4 Additionally, numerous studies have confirmed a clear relationship between quality of life, mental health, and wellness (Rodriguez-Fernandez et al., 2017). Medical studies have confirmed that individual counselling has an important preventive role in mental illness and has also been shown to be an effective intervention to improve health behaviour change in various chronic diseases (Cremin et al., 2010; Galbraith et al., 2016). Moreover, individual counselling also has a significant effect on promoting students' academic development, career development, and personal and social development (Shaterloo & Mohammadyari, 2011). There have been a number of studies exploring approaches to enhancing quality of life from various dimensions, such as strategic urban planning (Khalil, 2012) and green infrastructure (Nazir et al., 2014) from a broad perspective, and self-management program (Lee et al., 2021), physically active leisure (Sato et al., 2014), and telerehabilitation (McCue et al., 2010) from a narrow perspective. However, there are only limited studies which have explored the role of individual counselling as a method to improve the quality of life in the Chinese context.

## 1.5 Scope of the Study

### **Phase One: Quality of Life Study among University Students**

This study employed a questionnaire-based survey to investigate the quality of life of university students, with a primary focus on students enrolled at a higher education institution located in Guangdong Province, China. The aim was to examine the current status, existing challenges, and key influencing factors affecting students' quality of life.

The target institution has an approximate student population of 11,500. A simple random sampling method was applied during the data collection process, yielding a total of 265 valid responses. All respondents were currently enrolled at the same institution, which serves as a representative case for exploring the quality of life among Chinese university students in the region.

### **Phase Two: Study on the Individual Counselling Programme**

In the second phase, ten volunteers who had participated in Phase One and expressed willingness to continue were randomly selected to join the individual counselling programme. A quasi-experimental design was adopted to assess the

intervention's effectiveness. These ten participants received structured individual counselling sessions, and their quality of life scores were collected both before and after the intervention.

To ensure the reliability and comparability of the findings, the same quality of life measurement scale was consistently used as the primary assessment tool. Furthermore, the structure, frequency, and duration of the individual counselling programme were strictly standardized and carefully controlled throughout the entire process.

## 1.6 Variables in the Study

### Phase 1

In this research, the variable studied in Phase 1 is Quality of Life:

- Physical well-being
- Psychological well-being
- Moods and emotions
- Self-perception
- Autonomy
- Parent relation and home life
- Financial resources
- Social support and peers
- School environment
- Social acceptance and bullying

### Phase 2

Independent variable:

Individual Counselling Program

Dependent variable

Quality of Life of Chinese College Students

## **1.7 Operational Definition**

### **1.7.1 Quality of Life**

The World Health Organization (2024) defines quality of life as an individual's perception of their position in life, in the context of their culture, value systems, goals, expectations, and concerns. It emphasizes both awareness and satisfaction with one's current living conditions and social status. Quality of life is widely regarded as a multidimensional construct that encompasses an individual's subjective well-being across physical, psychological, and social domains. In this study, quality of life is assessed through ten core dimensions: physical well-being, psychological well-being, moods and emotions, self-perception, autonomy, parent relations and home life, financial resources, social support and peers, school environment, and social acceptance and bullying.

### **1.7.2 Individual Counselling Program**

Individual counselling refers to a structured, one-on-one interaction between a trained counsellor and a client, aimed at exploring personal issues, developing coping strategies, and fostering psychological growth. It offers a confidential space where individuals can discuss emotional, behavioral, or relational concerns, and work collaboratively with a counsellor toward positive change. In this study, individual counselling serves as the primary intervention method to address participants' psychological challenges and improve their quality of life.

### **1.7.3 Chinese Students**

The study population for this research consists of college students currently enrolled in a higher education institution located in Guangdong Province, China. In this study, "Chinese college students" specifically refers to those receiving higher vocational education and registered at a recognized university or college. These students typically engage in three- to four-year vocational and technical training programs focused on specific occupations or industries, and are generally between the ages of 18 and 25 (Ministry of Education of the People's Republic of China, 2020)

## Chapter 2

### Literature Review

This chapter provides a systematic review of the theories and research related to quality of life and individual counselling. It explores the definition, significance, current research status, and existing limitations concerning the quality of life among university students. Particular emphasis is placed on evaluating the applicability of existing quality of life scales in the context of Chinese university students and on how to adapt or develop a more contextually appropriate scale based on existing instruments. Furthermore, the chapter provided an in-depth discussion on the practical application and procedural framework of individual counselling based on the A-B-C framework, aiming to enhance students' quality of life. These theoretical insights offer valuable references and foundational support for this study, thereby strengthening its credibility and feasibility.

#### 2.1 Quality of Life

##### 2.1.1 Conceptualizing Students' quality of life

##### 2.1.2 The components of quality of life in this study

#### 2.2 Individual Counselling Programme

##### 2.2.1 Individual Counselling in the Education Sector

##### 2.2.2 Individual Counselling in the Chinese context

#### 2.3 Conceptual Frameworks

##### 2.3.1 Cognitive-Behavioural Therapy (CBT)

##### 2.3.2 Rational Emotive Behaviour Therapy (REBT)

##### 2.3.3 A-B-C Framework

##### 2.3.4 The Therapeutic Process

#### 2.4 Research Framework and Process

#### 2.5 Individual Counselling Program

2.5.1 A-B-C Framework for Enhancing the Overall quality of life of Chinese University Students

## 2.5.2 Application to Various quality of life Dimensions

## 2.6 Hypotheses of the Study

### 2.1 Quality of Life

This section presents a comprehensive literature review to establish the theoretical foundation of the study. It begins with an exploration of the general definition of quality of life, followed by an in-depth review of how quality of life is conceptualized and examined within educational contexts, particularly among student populations. While the concept of quality of life has been widely discussed in international research, studies specifically focusing on Chinese college students remain limited. To address this research gap, the present study adopts the Quality of Life Questionnaire to assess the quality of life of Chinese college students.

The KIDSCREEN-52 is an internationally validated instrument originally developed to measure the quality of life among children and adolescents, particularly in educational settings. It has been widely applied across various European and international contexts, making it a suitable tool for assessing quality of life in student populations. Unlike many other quality of life instruments designed for clinical or special populations (e.g., patients or elderly individuals), the KIDSCREEN-52 targets a more general demographic, including adolescents and college students, and is therefore more appropriate for the current study.

According to Magiera and Pac (2022), and in alignment with the conceptual framework of the KIDSCREEN-52, quality of life is understood as a multidimensional construct that encompasses ten core dimensions: physical well-being, psychological well-being, moods and emotions, self-perception, autonomy, parent relations and home life, financial resources, social support and peers, school environment, and social acceptance and bullying. These dimensions collectively capture the subjective well-being of individuals across physical, emotional, and social domains.

This study aims to explore how the ten dimensions of quality of life are specifically manifested in the lived experiences of Chinese university students, and

whether these dimensions can accurately reflect their overall well-being. It also examines whether the existing dimensions and items require adjustment when applied in the context of Chinese students. This line of inquiry is particularly important in China, where university students often face intense academic pressure, interpersonal challenges, concerns about future career development, and mental health issues—all of which are encompassed within the concept of quality of life. The ability to accurately and efficiently identify these issues is therefore essential. By providing a comprehensive assessment and in-depth exploration of quality of life among Chinese university students, this study seeks to fill a critical gap in the existing literature and offer valuable insights for educational and psychological interventions.

### **2.1.1 Conceptualizing Students' Quality of Life**

Quality of life is a broad and multidimensional concept that incorporates an individual's overall well-being and satisfaction with life (Davison et al., 2023; Rodríguez-Fernández et al. 2017). Quality of life is subjective, varying from person to person, and includes various aspects. This broader perspective recognises that students' experiences, both within and outside the university setting, contribute significantly to their quality of life. The multidimensional concept of quality of life is well-documented in previous literature (Muda et al., 2015; Ring et al., 2007). Academic literature identifies several core dimensions crucial in understanding and assessing the quality of life among college students (Caron et al., 2012).

Firstly, students' physical health, including sleep quality and lifestyle regularity, significantly impacts their cognitive functioning, emotional stability, and academic performance (Wong, et al., 2013). Moreover, financial stress and the necessity of part-time employment, driven by increasing living costs, add considerable strain, potentially leading to academic difficulties and reduced social participation (Adams, et al., 2016). Additionally, the campus environment and infrastructure substantially influence students' satisfaction and sense of belonging, as high-quality facilities and accessible learning resources enhance academic experiences and foster greater attachment to university life (Norton T., 2023).

Furthermore, academic support and teaching quality are critical components affecting quality of life, as supportive faculty relationships and effective teaching methodologies significantly boost students' motivation and academic engagement (Tahir and Fatima, 2023). Equally important is maintaining an effective study-life balance; excessive academic workloads can lead to stress and burnout, negatively impacting students' psychological health and overall life satisfaction (Szegedi, et al., 2024). Social relationships and a sense of belonging further enhance students' quality of life by providing essential emotional and psychological support through meaningful interactions and participation in campus activities (Civitci, 2015).

Moreover, students' mental health and emotional regulation capacities, including managing anxiety and depression, profoundly impact their academic and personal life satisfaction (Liu and Wang, 2024). The presence of robust family relationships and social support networks also improves psychological resilience, enabling students to better navigate stress and academic challenges (Khan and Sultan, 2023). Additionally, students' self-efficacy and personal growth contribute substantially to their well-being, as higher self-confidence and personal achievement facilitate resilience and a positive outlook toward academic and life challenges (Tang and Zhu, 2024). Lastly, an inclusive campus culture and diversity foster an environment where students feel respected and valued, which significantly enhances their overall satisfaction and quality of life (Pedro, et al., 2020). Collectively, recognizing and addressing these multidimensional factors can effectively promote improved quality of life among college students.

Generally, previous literature has identified four fundamental components of quality of life: health and functioning, life satisfaction, and educational environment. First, health and functioning are critical to students' quality of life, encompassing physical and mental health (Morales et al., 2013; Rodríguez-Fernández et al. 2017). The transition to college often brings about changes in lifestyle that can impact students' health, such as irregular eating and sleeping patterns, decreased physical activity, and increased stress. Mental health issues, including anxiety and depression, are of particular concern

in this population, affecting not only their academic performance but also their overall quality of life (Ring et al., 2007). Second, life satisfaction represents the psychological and subjective dimensions of quality of life; high self-esteem and life satisfaction are associated with better stress management, greater resilience, and improved academic performance (Henrich and Herschbach, 2000). These factors are influenced by a range of experiences, including social support, achievement, and personal development opportunities. Additionally, the educational environment plays a significant role in shaping students' quality of life (Tempski et al., 2015). This includes the quality of academic programs, availability of support services, campus culture, and opportunities for engagement and personal growth. Positive experiences within the university setting can enhance students' sense of belonging, contribute to their personal and professional development, and improve their overall quality of life. Recently, the study of Magiera and Pac (2022) offers a systematic summary of the 10 Dimensions of quality of life. Table 2.1 summarizes the dimensions of quality of life based on the study of Magiera and Pac (2022).

Table 1 Dimensions of Quality of Life

Dimensions of Quality of Life	Explanations	Authors
Physical Well-Being	The overall state of physical health and vitality. It includes factors such as fitness levels, absence of illness or disabilities, nutrition, and access to healthcare.	Rodriguez-Fernández et al. (2017)
Psychological Well-Being	Psychological well-being pertains to the state of mental health and emotional stability. It is characterized by feelings of satisfaction, contentment, and resilience, enabling individuals to cope with the challenges of life.	Ring et al. (2007)
Moods and Emotion	This dimension addresses the range and intensity of emotions an individual experiences, covering a spectrum that includes happiness, sadness, anger, anxiety, and the ability to manage stress.	Davison et al. (2023)
Self-Perception	Self-perception involves how individuals view themselves, affecting their self-esteem, self-confidence, and sense of identity. This facet encompasses body image, self-worth, and beliefs about their capabilities and potential.	Muda et al. (2015)

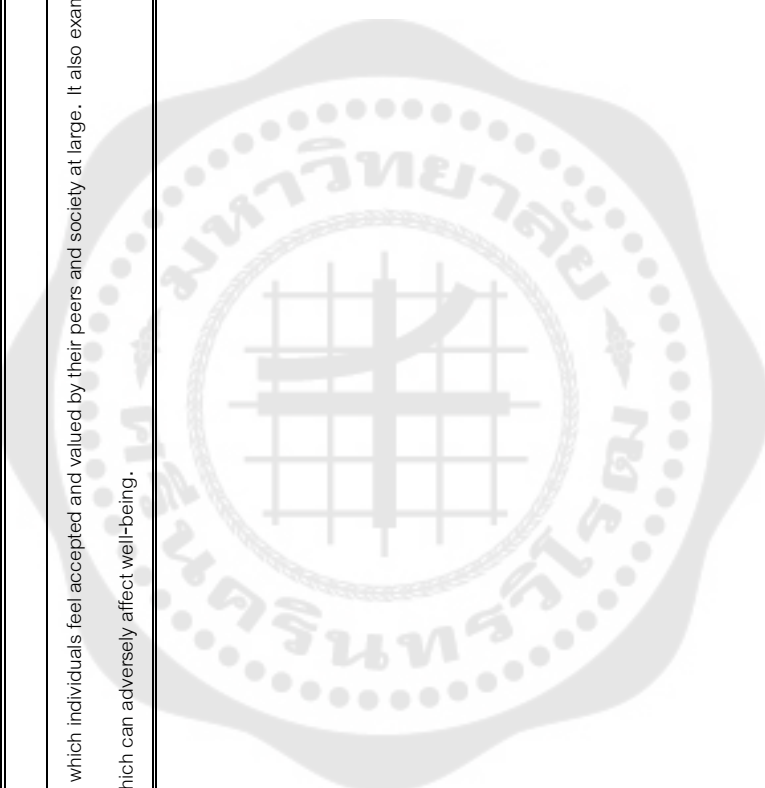
Table 1 (continued)

Dimensions of Quality of Life	Explanations	Authors
Autonomy	Autonomy is defined as the level of independence and control individuals possess over their own lives. It includes the ability to make decisions, express opinions, and perform actions that are in harmony with personal values.	McCabe et al. (2021)
Parent Relation and Home Life	This dimension reflects the quality of relationships with parents or caregivers and the atmosphere within the home environment, including communication, support, warmth, and stability.	Badia et al. (2016)
Financial Resources	Financial resources concern the availability of material wealth and economic stability. This includes access to essential needs such as food, shelter, and education, along with opportunities for economic advancement.	Caron et al. (2012)
Social Support and Peers	Social support involves a network of relationships with friends, family, and peers who provide emotional, instrumental, and informational backing.	Morales et al. (2013)
School Environment	The school environment covers the physical, social, and academic aspects of educational institutions. It includes considerations such as safety, inclusivity, quality of teaching, and opportunities for personal and academic growth.	Pauli et al. (2020)

Table 1 (continued)

Dimensions of Quality of Life	Explanations	Authors
Social Acceptance and Bullying	This relates to the degree to which individuals feel accepted and valued by their peers and society at large. It also examines experiences of exclusion and bullying, which can adversely affect well-being.	Silva et al. (2020)

Source: Magiera and Pac (2022)



### 2.1.2 The components of quality of life in this study

#### **Physical well-being**

This dimension explores the level of the college students' physical activity, energy and fitness. Level of physical activity is examined with reference to the college students' ability to get around the home and school, and to play or do physically demanding activities such as sports, since a college students' impairment does also affect physical activity. The dimension also looks at the college students' capacity for lively or energetic play. In addition, the extent to which a college student feels unwell and complains of poor health is examined. This dimension assesses teenager's willingness and frequency of physical activities to evaluate their internal energy (Mazur et al., 2008).

#### **Psychological well-being**

This dimension examines the psychological well-being of the college student including positive emotions and satisfaction with life. It specifically reveals the positive perceptions and emotions experienced by the individual. The questions look at how much a college student experiences positive feelings such as happiness, joy, and cheerfulness. It also reflects the person's view of their satisfaction with life so far. This dimension concerns mental well-being in terms of positive emotions and life satisfaction. It refers to the experience of positive feelings such as happiness, joy, and serenity (Mazur, et al., 2008).

#### **Moods and emotions**

This dimension covers how much the college student experiences depressive moods and emotions and stressful feelings. It specifically reveals feelings such as loneliness, sadness, sufficiency/insufficiency and resignation. Furthermore, this dimension takes into account how distressing these feelings are perceived to be. This dimension shows a high score in quality of life if these negative feelings are rare. This dimension concerns the child or adolescent's experience of depressive moods and stressful feelings. In particular, the intensity of loneliness, sadness and resignation is examined. As a general rule of indexing, a high value means no negative feelings.

### **Self-perception**

This dimension explores the college student's perception of self. It includes whether the appearance of the body is viewed positively or negatively. Body image is explored through questions concerning satisfaction with one's appearance, as well as with clothing and other personal accessories. The dimension examines how secure and satisfied the college student feels about him/herself as well as his/her appearance. This dimension reflects the value somebody assigns to him/herself and the perception of how positively others value him/her. This dimension concerns the respondent's way of perceiving himself, satisfaction with his appearance, concern for his appearance and possible willingness to change.

### **Autonomy**

This dimension looks at the opportunity given to a college student to create his/her social and leisure time. It examines the college student's level of autonomy, seen as an important developmental issue for creating an individual identity. This refers to the college student's freedom of choice, self-sufficiency and independence. In particular, the extent to which the student feels able to shape his/her own life as well as being able to make decisions about day-to-day activities is considered. The dimension also examines if the college student feels sufficiently provided with opportunities to participate in social activities, particularly in leisure activities and pastimes. The dimension concerns the respondent's ability to decide what he will do in his free time and the level of autonomy, which is important during adolescence due to his developing identity. It refers to the conscious building of social relationships, in particular related to the ways of spending free time.

### **Parents relation and home life**

This dimension examines the relationship with the parents and the atmosphere in the college student's home. It explores the quality of the interaction between the college student and parent or carer, and the college student's feelings towards parents/carers. Particular importance is attached to whether the college student feels loved and supported by the family, whether the atmosphere at home is comfortable or not and also if the college student feels treated fairly. The dimension concerns

relationships with parents and the atmosphere at home. It refers to mutual contacts and feelings. The assessment helps to assess whether the child/teenager feels loved, supported, and treated fairly by the parents.

#### **Financial resources**

The perceived quality of the financial resources of the college student is assessed. The dimension explores whether the college student feels that he/she has enough financial resources to allow him/her to live a lifestyle which is comparable to other college student and provides the opportunity to do things together with peers. The dimension concerns the respondent's perception of the family's financial resources, the ability to lead a lifestyle similar to that of peers, and whether he or she feels financially limited in the ability to purchase certain goods and have access to entertainment.

#### **Social support and peers**

This dimension examines the nature of the college student's relationships with other college students. Social relations with friends and peers are considered. The dimension explores the quality of the interaction between the college student and peers as well as their perceived support. The questions examine the extent to which the college student feels accepted and supported by friends and the college student's ability to form and maintain friendships. In particular, aspects concerning communication with others are considered. It also explores the extent to which the person experiences positive group feelings and how much he/she feels part of a group and respected by peers and friends. This dimension refers to the individual's relationships with others of the same age, as well as perceived social support. The questions check to what extent the child/teenager feels accepted by others, has a sense of being a member of a peer group, and is able to establish and maintain friendships.

#### **School environment**

This dimension explores a college student's perception of his/her cognitive capacity, learning and concentration, and his/her feelings about school. It includes the college student's satisfaction with his/her ability and performance at school. General feelings about school, such as whether school is an enjoyable place to be, are also considered. In addition, the dimension explores the student's view of the relationship

with his/her teachers. For example, questions include whether the student gets along well with his/her teachers and whether the teachers are perceived as being interested in the student as a person. This dimension determines the teenager's cognitive abilities, ability to learn and concentrate, and his/her feelings towards school. The questions refer to satisfaction with school, academic achievements, and the perception of school as a friendly place. Relationships with teachers are also examined.

### **Social acceptance and bullying**

This dimension covers the aspect of feeling rejected by peers in school. It explores both the feeling of being rejected by others as well as the feeling of anxiety towards peers. A student is being bullied when another student or a group of students say or do nasty and unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she doesn't like. But it is not bullying when two students of about the same strength quarrel or fight. This definition is fairly standard and has been used over a number of years in the HBSC studies (Curie et al., 1998, 2001). This dimension shows a high score in quality of life if these negative feelings are rare. This dimension refers to the unpleasantness experienced by the teenager from peers - tormenting and teasing, i.e. the phenomenon known as "bullying". The name of the dimension was defined as "social acceptance" so that, similarly to the other dimensions, high values corresponding to this dimension of the quality of life index refer to a positive state.

## **2.2 Individual Counselling Programme**

The individual counseling program in this study is designed based on the ABC framework. Each participant will undergo six structured sessions, with each session providing targeted psychological interventions across the ten dimensions of Quality of Life.

Applying the ABC framework to improve university students' quality of life offers multiple advantages. It helps students identify irrational beliefs behind their negative emotions, and its clear, structured approach makes it easy to implement in individual

counseling and suitable for quantitative evaluation. The framework emphasizes cognitive change to enhance self-efficacy and is applicable across various dimensions of quality of life, such as mental health, self-perception, interpersonal relationships, and financial stress. As a core component of cognitive-behavioral therapy, the ABC framework is grounded in solid theory and supported by empirical evidence, making it a scientifically valid and effective tool for psychological intervention.

### **2.2.1 Individual Counselling in the Education Sector**

In terms of the concept of counselling, Board (2013) defined counselling as psychologists applying psychological knowledge or theory to empower and enhance target clients, including children, young persons, adults, and even families, through a series of assessments, interventions, and preventative approaches. Psychologists and psychological knowledge are the two main necessities for conducting counselling services. From a clinical perspective, counselling psychology is a therapeutic relationship between patients and doctors (Stanley, 2013). Moloney (2016) summarised that there are three types of counselling: individual, couples, and family counselling. It has been proven that counselling for couples and families is more challenging compared to individuals because it involves massive evidence collection and higher expertise for handling more client requirements (Moloney, 2016). Regarding individual counselling, it generally refers to a two-person interaction mainly through verbal communication, with one as the help-giver and the other as the help-receiver, aimed at reducing living problems and achieving behavioural changes (Applegarth, 2006). Moloney (2016) also offered a detailed explanation regarding individual or personal counselling, which involves collaborative discussion in a confidential environment aiming to solve problems through accounts. The objectives of personal counselling usually stem from opportunities, better self-management, better interpersonal relationship management, and even wider environmental adjustment. Specifically, counsellors have to develop and maintain expertise and follow a private process, including assessment, observation, intervention, and eventually providing appropriate solutions for prevention for certain clients (Moloney, 2016). Referring to the application of individual counselling in the

education sector, it involves counselling services between students and counsellors in schools. It is not just about counselling services regarding disciplinary issues but more importantly, it concerns all positive developments of individuals (Amat, 2019). It has been regarded as a necessary part of professional activities in schools, especially before graduating (Burceva, 2020). Actually, besides career counselling services, Getachew (2020) added that universities are able to provide time management, study skills, and even academic failure comforts. It is believed that necessary and suitable individual counselling is a good method for enhancing students' competencies and improving their coping skills, along with encouraging behavioural changes. Through guidance and counselling services regarding various aspects, students have more opportunities to learn about themselves and build a stronger mental construction for dealing with mood swings, anger, and fear (Getachew, 2020). In the summary of Amat (2019), personal counselling services in schools are quite significant in terms of preventing youth at risk, solving family problems, improving students' disciplinary problems, and assisting in career development, among other areas.

However, even following the same procedures with similar context, the effectiveness of individual counselling services also varies greatly. Mildestvedt et al. (2008) explained that a long-term program of counselling services is likely to bring about continuous positive feedback in the end. In addition to that, Moloney (2016) pointed out that the quality of counselling services is highly dependent on the relationship between the counsellor and the client, which means school counsellors have to create a foundation of trust with students and try to build friendships with them. As reported by Amat (2019), professional counsellors in Malaysia not only need systematic knowledge and skills but also need to enhance ethical skills as experts before offering counselling services. In detail, Getachew (2020) added that it is also necessary for counsellors to understand student diversities in terms of ethnicity, gender, religion, and cultural background to achieve effective counselling services. Nevertheless, effective counselling services require support from parents or teachers as well as the school administrative team (Amat, 2019).

### 2.2.2 Individual Counselling in the Chinese context

This study is based on Chinese education background. First, China's education system is the largest state-run education system in the world. Over the past few decades, the quality of education has improved considerably thanks to constant reforms and large-scale investments. Chinese students from Beijing, Shanghai, Jiangsu, and Zhejiang achieved the highest scores in the 2018 PISA assessment. Furthermore, increasingly more Chinese universities are entering the global best university rankings (Statista, 2023). However, Chinese education mainly revolves around standardized tests and exams, most notably China's National Gaokao. The high-risk, high-elimination selective examination determines the future direction of students, and the fierce competition puts tremendous pressure on students (Zhao et al., 2015). As a result, children and adolescents in China face serious mental disorders. According to a 2022 national survey, half of all depressed people in China are students (Xie, 2023). Several large-scale studies have reported that older adolescents in China are at higher risk of suicidal ideation and suicide attempts, mainly due to increased academic stress from middle to high school (Cheng et al., 2009; Cui et al., 2011). The negative effects of academic stress are not limited to students' personal mental health but also extend to their social relationships with their peers and attitudes towards authorities and society as a whole (Zhao et al., 2015). A study conducted by Zhao (2011) in Shanghai showed that jealousy, distrust, and hostility are common in peer relationships due to intense academic competition. Although the Chinese education authorities are aware of the problem, China's top-down education reforms have failed to alleviate this problem (Zhao et al., 2015).

However, Chinese college students generally have low quality of life scores in the field of "mental health", and they are going to enter society. In addition to academic pressure, they mainly face employment pressure and economic pressure in Chinese society. According to China's latest labour force estimates, the number of Chinese university graduates will reach a record 11.79 million in 2024 due to the high unemployment rate in the 16-24 age group, with oversupply exceeding demand,

increasing pressure on the job market (Nulimaimaiti, 2023). The challenges college students face every day make them vulnerable to stress, depression, and other mental illnesses that negatively impact college students' quality of life. And these symptoms in college students are often not noticeable until they become more severe. Adolescents are reluctant to confide in their parents and reveal their problems to subject teachers. Although they do confide in their peers, they may not be properly mentored (Shetty, 2018). If these emotions are not alleviated in time, it will lead to further aggravation of psychological problems. Counselling has been shown to have a promising preventive and mitigating effect on mental illness and to prevent the problem from worsening. Individual counselling is one of the best ways for students to accept and open up to themselves. This study focuses on the effect of individual counselling.

### 2.3 Counselling Theories

This study posits that individual counselling can effectively enhance students' quality of life, which is understood as a multidimensional construct including various aspects of personal well-being. As an intervention, individual counselling plays a crucial role in supporting students' psychological development, improving their personal competencies, and fostering overall life satisfaction. As the main executors of this role, schools play a key role in enhancing each student's ability to develop academic achievement, personal and social development, and career planning by providing effective guidance and counselling services (Shaterloo & Mohammadyari, 2011). School counsellors work with students, parents, school staff, and the community to meet the academic and professional development needs of all students, not just those in need (Shaterloo & Mohammadyari, 2011). Studies have confirmed that individual counselling interventions are an effective method used by school counsellors to promote students' academic motivation (Rowell & Hong, 2013). A study by Brody (2009) suggests that individual counselling is effective in improving the behaviour of students who exhibit negative attitudes towards school and poor academic performance. Bilodeau and Meissner (2018) reported that a combination of academic and personal counselling

programs can effectively improve academic performance and mental health of a variety of disadvantaged students. Nweze and Okolie (2014) suggest that school guidance and counselling intervention programs can play a key role in the holistic development of students in their personal, social, vocational, emotional, and academically relevant areas. All of the above student needs are closely related to their overall quality of life and can be effectively addressed through individual counselling interventions, which help enhance students' quality of life across multiple dimensions.

To ensure the effectiveness of individual counselling in improving students' quality of life, this study draws upon established theoretical frameworks in cognitive and behavioural psychology, particularly the ABC framework. The ABC framework, which illustrates how an Activating event (A), when interpreted through underlying Beliefs (B), leads to emotional and behavioural Consequences (C). By applying the ABC model in individual counselling sessions, students are guided to identify and restructure their irrational beliefs, enabling them to achieve healthier emotional responses and greater life satisfaction. Incorporating this framework into the counselling process thus provides a theoretically grounded and empirically supported approach to enhancing students' quality of life across multiple dimensions. In essence, ABC model is rooted in Cognitive Behavioural Therapy (CBT) and Rational Emotive Behaviour Therapy (REBT). The following sections will further elaborate on the origins and development of ABC model.

### **2.3.1 Cognitive-Behavioural Therapy (CBT)**

Cognitive-behavioural therapy (CBT) is a structured and cognitive-oriented psychological treatment method developed by Beck in the 1960s. Building on CBT, cognition refers to an individual's perception of things, objects, oneself, others' thoughts, environmental awareness, and perspectives on matters. It primarily targets mental disorders such as depression, anxiety, and psychological problems caused by irrational cognitions. (Knapp et al., 2008). The main focus of CBT is on addressing the irrational cognitive issues of patients, aiming to change their perceptions and attitudes towards themselves, others, or events, in order to modify psychological problems (Hazlett-Stevens et al., 2002). CBT believes that individuals' emotions and behaviours are

influenced by their cognitions, including their ways of thinking, beliefs, evaluations, interpretations, and attitudes. The core objective of CBT is to help individuals identify and change irrational cognitions, thereby improving emotional states and behavioural patterns. Figure 2.4 further summarizes the process of CBT based on the study of Olafur et al. (2020). CBT, with its evidence-based foundation, clear structure, and short-term effectiveness, has become one of the most widely practiced and utilized psychological therapy methods worldwide.

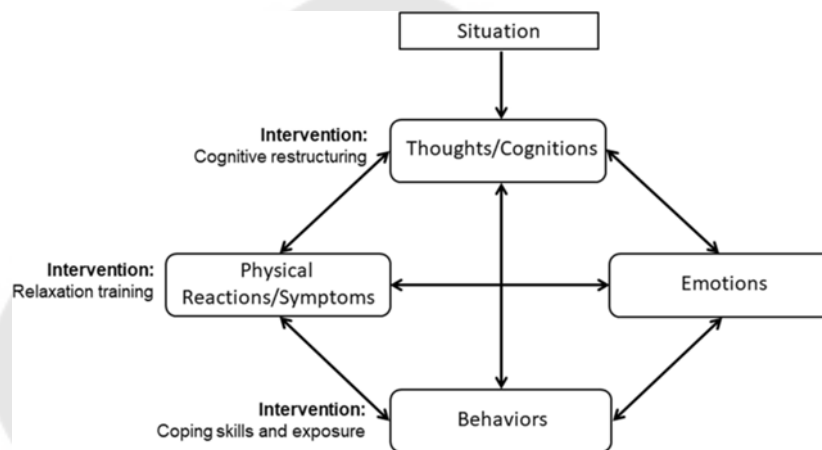


Figure 1 Cognitive-Behavioural Therapy

Source: Olafur et al. (2020)

CBT emphasizes that the therapeutic goals extend beyond addressing external behaviours and emotions, also involving the analysis of patients' thought processes and coping strategies to identify and correct erroneous cognitions (Beck and Haigh, 2014). Furthermore, CBT is extensively employed among college students to address a range of psychological challenges, including anxiety, depression, stress, and adjustment issues. For instance, Zeng (2023) mentioned that CBT is the most empirically supported intervention method for adult depression. Many studies highlight its significant efficacy in improving the mental health issues of college students. By promoting changes in negative thought patterns and maladaptive behaviours, CBT helps alleviate symptoms and enhance overall quality of life (Stallman, 2016). Overall, through CBT, specific issues

can be addressed, leading to noticeable improvements in a short period (Alford and Norcross, 1991).

Considering a practical perspective, CBT consists of two parts, including automatic thoughts and underlying beliefs, which are often important factors in forming various psychological disorders (Curwen et al., 2022). For example, in Obsessive-Compulsive Disorder, our automatic thoughts inevitably lead us to repeat the same actions over and over again, even if we consciously tell ourselves otherwise. Through short-term psychological training, we can change this thought process, effectively addressing the problem, and the underlying beliefs are similarly addressed. Common CBT treatment methods include cognitive restructuring, behavioural activation, exposure therapy, problem-solving skills training, emotion regulation strategies, relaxation training, and cognitive behavioural skills (Hofmann, 2011).

In conclusion, the application of CBT in improving university students' quality of life offers a structured, evidence-based approach that addresses both cognitive and emotional challenges commonly encountered during this critical developmental stage. By helping students identify and modify irrational beliefs, enhance emotional regulation, and develop adaptive coping strategies, CBT empowers them to navigate academic, personal, and social demands more effectively. As a multidimensional construct, quality of life can be significantly enriched through targeted CBT interventions that foster resilience, self-efficacy, and positive mental health. Future research and practice should continue to explore the integration of CBT into campus mental health services, ensuring broader accessibility and long-term support for students' holistic development and well-being.

### **2.3.2 Rational Emotive Behaviour Therapy (REBT)**

Building on CBT, REBT, as another prominent form of cognitive-behavioural therapy, focuses on how individual belief systems influence emotional and behavioural outcomes. In essence, REBT holds that emotional disturbance is not caused directly by events themselves, but by the irrational interpretations individuals assign to those events (Dryden and Neenan, 2020). As such, the therapeutic goal is to identify, dispute, and

restructure these irrational beliefs into more rational, adaptive ones. This cognitive restructuring not only reduces emotional symptoms but also promotes long-term behavioural change. In practical application, REBT follows a structured and directive process in which therapists guide clients through disputing irrational thoughts using logical reasoning, empirical questioning, and Socratic dialogue. This is followed by the formation of a healthier belief system known as an Effective Rational Outlook, for instance, transforming “I must be the top student” into “I’ll do my best; failure doesn’t define my worth.” Therapy often includes homework assignments to reinforce these changes and encourages clients to take an active role in modifying their thought patterns.

Meanwhile, previous empirical studies also support the efficacy of REBT in addressing emotional issues under educational settings. Studies have found that REBT interventions can reduce the intensity of negative emotions by up to 40%, enhance academic performance by 15%, and significantly improve students’ self-efficacy (Gao, 2012). Moreover, REBT’s action-oriented and present-focused methodology aligns well with the developmental needs of young adults in higher education.

Overall, REBT offers a theoretically robust and practically effective framework for addressing the cognitive roots of emotional and behavioural difficulties. Its adaptability and focus on empowering individuals to take responsibility for their thoughts make it particularly suitable for student populations. By equipping learners with the tools to reinterpret life challenges and build emotional resilience, REBT contributes meaningfully to the enhancement of students’ quality of life. The REBT majorly lies on the A-B-C model to implement this intervention, which will be furthered explained below.

### **2.3.3 A-B-C Framework**

The A-B-C framework, originating from REBT, serves as an essential conceptual tool to comprehend and manage individuals’ emotional and behavioural reactions. This model provides a useful tool for understanding the client’s feelings, thoughts, events, and behaviour (Ellis & Ellis, 2011). According to this model, “A” stands for the Activating Event, which refers to external incidents such as exam failure or interpersonal conflict;

“B” refers to the Beliefs-either rational (e.g., “failure is an opportunity to learn”) or irrational (e.g., “I must succeed every time”)-through which the event is interpreted; and “C” represents the Consequences, or the emotional and behavioural outcomes that result from these beliefs, such as anxiety, depression, avoidance, or aggression. These irrational beliefs typically take the form of absolutist demands (e.g., “musts” and “should”), catastrophizing (e.g., “failure is unbearable”), and low frustration tolerance (e.g., “I can’t stand this”), all of which intensify emotional distress and lead to maladaptive behaviours (Ellis A., 2000).

Integrating the A-B-C framework into educational interventions, especially through structured counselling programs, can significantly improve students' quality of life. The A-B-C framework can be further expanded on including D and E practices. That is, by identifying and disputing irrational or detrimental beliefs through processes known as detection, debate, and discrimination (collectively referred to as “D”), students learn to replace these beliefs with healthier, more constructive thoughts (“E”), ultimately leading to more adaptive emotional responses and behaviours. This structured approach, supported by practical exercises and ongoing reflection, equips students with effective coping strategies and emotional resilience, thereby fostering a sustained improvement in their quality of life.

#### **2.3.4 The Therapeutic Process**

The therapeutic process in A-B-C framework based on REBT theory emphasizes assisting individuals in minimizing emotional disturbances and self-sabotaging behaviours by developing a realistic, adaptive, and compassionate worldview (Cohen and Swerdlik, 2018). Within this approach, therapists collaborate closely with clients to establish meaningful and attainable therapeutic objectives, aiming to convert unproductive emotional patterns and behaviours into healthier alternatives. A fundamental goal of this process is fostering unconditional self-acceptance, acceptance of others, and acceptance of life circumstances, thereby significantly enhancing students' overall quality of life.

Therapists play several crucial roles in this transformative journey. Initially, they guide students to identify irrational beliefs characterized by rigid expectations and excessive demands, such as absolutist thinking about how things “must” or “should” be. Therapists then actively dispute these unhelpful beliefs, encouraging students to adopt more flexible and realistic thought patterns. Subsequently, therapists illustrate how these irrational thoughts maintain emotional distress and self-defeating behaviours. By facilitating self-awareness and cognitive restructuring, therapists help students recognize their active role in perpetuating these psychological difficulties, empowering them to initiate meaningful change.

Further into the therapeutic process, therapists strongly advocate the adoption of a rational life philosophy, which equips students to manage future emotional challenges effectively and sustainably. Rather than addressing isolated issues, this comprehensive strategy promotes long-term resilience and emotional stability, significantly contributing to improved quality of life. Students participating in this therapy predominantly focus on present-day experiences, with minimal exploration of past events unless explicitly beneficial for therapeutic progress. Unlike other therapies, this therapy emphasizes actionable strategies. To reinforce therapeutic outcomes, students are assigned practical “homework” designed to enhance emotional regulation skills and decrease irrational thinking.

Overall, the therapeutic process in A-B-C framework, though directive and cognitively focused, remains respectful and supportive, facilitating an environment conducive to open dialogue and personal growth. Therapists acknowledge students' progress regularly, reinforcing a positive cycle of self-improvement and self-acceptance, thereby actively enhancing students' quality of life through structured cognitive and behavioural interventions.

#### **2.4 Individual Counselling Program**

By integrating both CBT, REBT and A-B-C framework, this study has proposed an individual counselling program based on Chinese educational sector. According to

the suggested short-term therapy approaches by Curwen et al. (2022), this study will conduct six individual counselling sessions, each lasting 50 minutes, for the invited Chinese college students. These sessions will be spread over 2 months, with participants attending one to two sessions per week. The online one-on-one counselling format offers flexibility and convenience, breaking geographical barriers and ensuring privacy and anonymity, which can encourage participants to open up more easily (Richards and Derek, 2008). Thus, each volunteer will undergo a structured six-session program, providing a comprehensive yet concise approach to improving their psychological well-being. Throughout all stages of data collection, this study will strictly adhere to ethical standards. For instance, participants will be clearly informed of the purpose of the survey before data collection, and their participation will be ensured with informed consent and participant information sheet. Additionally, this study commits to maintaining the confidentiality of all collected data and will not disclose any personal information. All processes of this data collection activity are voluntary. Participants can withdraw at any time without offering any explanations.

#### **2.4.1 A-B-C Framework for Enhancing the Overall Quality of Life of Chinese University Students**

The ABC model, developed by Dr. Albert Ellis, is a foundational component of Rational Emotive Behavior Therapy (REBT). It posits that an individual's beliefs about an activating event (A) influence the emotional and behavioral consequences (C). By identifying and modifying these beliefs (B), individuals can achieve healthier emotional responses. This approach has been shown to improve mental and emotional functioning (King A M, et al., 2024). By systematically identifying, challenging, and altering irrational or maladaptive beliefs, individuals can develop more adaptive emotional responses and behaviors.

This study adopts an individual counselling program grounded in the ABC framework to explore ways of enhancing the quality of life among Chinese university students. Prior research by Nelson et al. (2021) and Hofmann et al. (2015) has demonstrated the applicability and effectiveness of the ABC framework in individual

psychotherapy, particularly for student populations. The structured and focused nature of short-term counselling based on the ABC model makes it especially well-suited for delivery in an online one-on-one format.

This counselling program operationalizes the ABC framework through structured one-on-one online sessions, each explicitly focusing on identifying students' specific activating events, exploring their associated irrational beliefs, and collaboratively developing strategies to transform these beliefs into rational and functional thought patterns. Counsellors guide students to detect irrational beliefs characterized by absolutistic demands (e.g., "I must succeed," "I should always be accepted by others") and to dispute these beliefs logically, empirically, and pragmatically. Subsequently, students are encouraged to adopt rational alternative beliefs and practice them consistently through structured homework assignments, reflection exercises, and ongoing self-monitoring.

By integrating the ABC framework into the counselling process, the study emphasizes not only immediate symptom relief but also long-term psychological resilience and emotional autonomy. This structured yet personalized approach is particularly beneficial in an online format, allowing flexibility and accessibility, thus effectively addressing diverse student needs and promoting sustainable improvements in their overall quality of life.

The A-B-C framework for constructing individual counselling program has been adapted based on the Chinese University context by incorporating both D and E practices, which is shown below Table 2. Additionally, Table 3 further illustrate the Program Structure.

Table 2 A-B-C Framework Defined in this Study Context

A-B-C Framework	Explanation
A (Activating Event)	Events or situations that trigger an emotional response, such as academic pressures, social relationships, family issues, or financial concerns.
B (Beliefs)	Beliefs or thoughts that individuals hold about the activating events. These can be irrational or maladaptive, leading to negative emotional and behavioural consequences.
C (Consequences)	Emotional and behavioural responses to the activating events, which can be healthy or unhealthy depending on the beliefs held.
D (Disputing)	Challenging and questioning irrational beliefs to replace them with more rational and adaptive thoughts.
E (Effective New Beliefs)	Developing new, rational beliefs that lead to healthier emotional and behavioural outcomes.

Table 3 Programme Structure

Sessions	Objectives	Techniques
Session 1: Introduction and Goal Setting	Establish rapport, introduce the A-B-C framework, and set specific, measurable goals for therapy.	Psychoeducation about the A-B-C model, initial assessment using standardized quality of life questionnaires, and goal-setting exercises.

Table 3 (continued)

Sessions	Objectives	Techniques
Session 2: Identifying Activating Events and Beliefs	Help students identify common activating events and the beliefs associated with them.	Use thought records to track situations that trigger negative emotions, thoughts associated with these situations, and the resulting emotional and behavioural responses.
Session 3: Cognitive Restructuring	Challenge and reframe negative and irrational beliefs.	Cognitive restructuring exercises, disputing irrational beliefs by examining evidence for and against these beliefs, and developing balanced perspectives.
Session 4: Behavioural Activation	Increase engagement in positive and meaningful activities to improve mood and reduce avoidance behaviours.	Activity scheduling, identifying pleasurable and meaningful activities, and gradually increasing engagement in these activities.
Session 5: Developing Coping Strategies	Equip students with coping strategies to manage stress and negative emotions.	Relaxation techniques such as deep breathing, progressive muscle relaxation, and mindfulness meditation; problem-solving skills; and developing a coping plan.
Session 6: Review and Relapse Prevention	Consolidate gains, review progress, and develop a plan to prevent relapse.	Reviewing progress, discussing potential challenges, and creating a maintenance plan including booster sessions if necessary.

#### 2.4.2 Application to Various Quality of Life Dimensions

The application of the A-B-C framework to enhance the quality of life of Chinese university students involves addressing various dimensions including physical well-being, psychological well-being, moods and emotions, self-perception, autonomy, parents' relations and home life, financial resources, social support and peers, school environment, and social acceptance and bullying. The specified applications of the A-B-C framework to quality of life are displayed in Table 4. By applying the A-B-C framework across these various dimensions, the CBT-based individual counselling program aims to comprehensively enhance the quality of life for Chinese university students. This structured, evidence-based approach ensures that all aspects of students' well-being are addressed, promoting lasting positive change.



Table 4 Enhancement of Quality of Life Using the A-B-C Framework

Dimensions of quality of life / A-B-C Framework	A (Activating Event)	B (Beliefs)	C (Consequences)	D (Disputing)	E (Effective New Beliefs)
Physical Well-being	Poor health, lack of exercise, unhealthy eating habits.	Beliefs about inability to improve health due to busy schedule or lack of motivation.	Fatigue, physical discomfort, low energy.	Disputing beliefs about lack of time and motivation, emphasizing small, manageable changes.	Developing a balanced perspective on health and time management, planning short exercise routines and healthier meal options.
Psychological Well-being	Stress from academic and social pressures.	Beliefs about not being able to cope or succeed.	Anxiety, depression, feeling overwhelmed.	Challenging beliefs about inadequacy and failure.	Adopting a more balanced view of personal capabilities and resources, developing stress management techniques.

Table 4 (continued)

Dimensions of quality of life / A-B-C Framework	A (Activating Event)	B (Beliefs)	C (Consequences)	D (Disputing)	E (Effective New Beliefs)
Moods and Emotions	Negative feedback, social conflicts.	Beliefs about being disliked or incompetent.	Sadness, frustration, anger.	Questioning irrational beliefs about self-worth.	Cultivating self-compassion and resilience, improving emotional regulation.
Self-perception	Comparison with peers, social media influence.	Beliefs about not measuring up.	Low self-esteem, insecurity.	Disputing negative self-comparisons.	Fostering a positive self-image, focusing on personal strengths and achievements.
Autonomy	Lack of decision-making opportunities.	Beliefs about dependence and lack of control.	Helplessness, passivity.	Challenging beliefs about dependence.	Encouraging self-efficacy and proactive behaviour, practicing decision-making.

Table 4 (continued)

Dimensions of quality of life / A-B-C Framework	A (Activating Event)	B (Beliefs)	C (Consequences)	D (Disputing)	E (Effective New Beliefs)
Parents Relation and Home Life	Family conflicts, lack of support.	Beliefs about being misunderstood or unsupported.	Stress, frustration, feeling isolated.	Reframing beliefs about family dynamics.	Improving communication skills, seeking positive interactions.
Financial Resources	Financial stress, limited budget.	Beliefs about financial inadequacy and future insecurity.	Anxiety, stress.	Disputing catastrophic thinking about finances.	Developing practical budgeting skills, focusing on long-term financial planning.
Social Support and Peers	Loneliness, lack of social connections.	Beliefs about being unworthy of friendships.	Isolation, sadness.	Challenging beliefs about social unworthiness.	Encouraging social engagement, improving social skills.

Table 4 (continued)

Dimensions of quality of life / A-B-C Framework	A (Activating Event)	B (Beliefs)	C (Consequences)	D (Disputing)	E (Effective New Beliefs)
School Environment	Academic pressure, negative school experiences.	Beliefs about inability to succeed academically.	Anxiety, stress.	Disputing beliefs about academic failure.	Developing effective study habits, seeking academic support.
Social Acceptance and Bullying	Experiences of rejection or bullying.	Beliefs about being unlikable or weak.	Low self-esteem, anxiety.	Reframing beliefs about social worth and bullying experiences.	Building resilience, seeking supportive peer relationships.

Lastly, the study has also applied inclusion and exclusion criteria for recruiting participants to attend the individual counselling programme. The qualified participants should be university students in China, aged 18 to 25 years. All participants must have sufficient proficiency in Mandarin to understand and engage with the therapy sessions and complete assessments. Additionally, they must provide informed consent, understanding the study's purpose, procedures, potential risks, and benefits. A baseline assessment, including standardized questionnaires measuring mood, emotions, and overall quality of life, must be completed by all participants.

For exclusion criteria, individuals currently undergoing any form of psychological therapy or counselling, or those who have started psychotropic medication within the last six months, will be excluded. This is to ensure that the study assesses the effects of CBT alone. Participants with severe psychiatric disorders such as schizophrenia, bipolar disorder, or severe depression with suicidal ideation will be excluded, as these conditions require more intensive treatment than the structured CBT sessions provided in this study. Individuals with a history of substance abuse or dependence in the past year will also be excluded, as substance use can significantly impact mood and behaviour, complicating the interpretation of the study results. Additionally, individuals with cognitive impairments or learning disabilities that would interfere with their ability to participate in CBT sessions and complete study assessments will be excluded. Finally, participants who do not complete the baseline assessment or miss more than one CBT session during the study period will be excluded from the final analysis to ensure the consistency and reliability of the data.

## **2.5 Research Framework and Process**

Figure 2, 3, and 4 provides a summary of the overall research methodology adopted in both Phase One and Phase Two of this study.

This research is divided into two main parts. The first part involves using the Quality of Life Questionnaire to investigate quality of life among Chinese university students. During this phase, a pilot study will also be conducted to assess the feasibility

and applicability of the instrument. Based on the results of the pilot study, the formal questionnaire survey will be administered to a broader group of participants.

It is preliminarily planned that all survey data will be collected within one week. The quantitative data obtained will be analysed using a variety of statistical techniques, including frequency analysis, descriptive statistics, reliability testing, independent samples t-tests, correlation analysis, and factor analysis. Both EFA and CFA will be employed to assess and validate the structural applicability of the The Chinese College Students' Quality of Life Scale in the context of Chinese university students.

The second phase of the research design aims to explore the impact of individual counselling on the quality of life of Chinese university students. In this phase, participants will be invited to engage in an individual counselling program. Their quality of life will be assessed using the Quality of Life Questionnaire scale both before and after the intervention. By adopting a quasi-experimental design with pre-test and post-test measures, this study seeks to systematically evaluate the effectiveness of individual counselling in improving quality of life among Chinese students.

To assess the impact of the intervention, non-parametric tests were employed in this phase. These analyses aimed to evaluate whether the individual counselling program (independent variable) had a significant effect on students' quality of life (dependent variable), thereby providing empirical evidence of its effectiveness in enhancing various dimensions of student well-being.

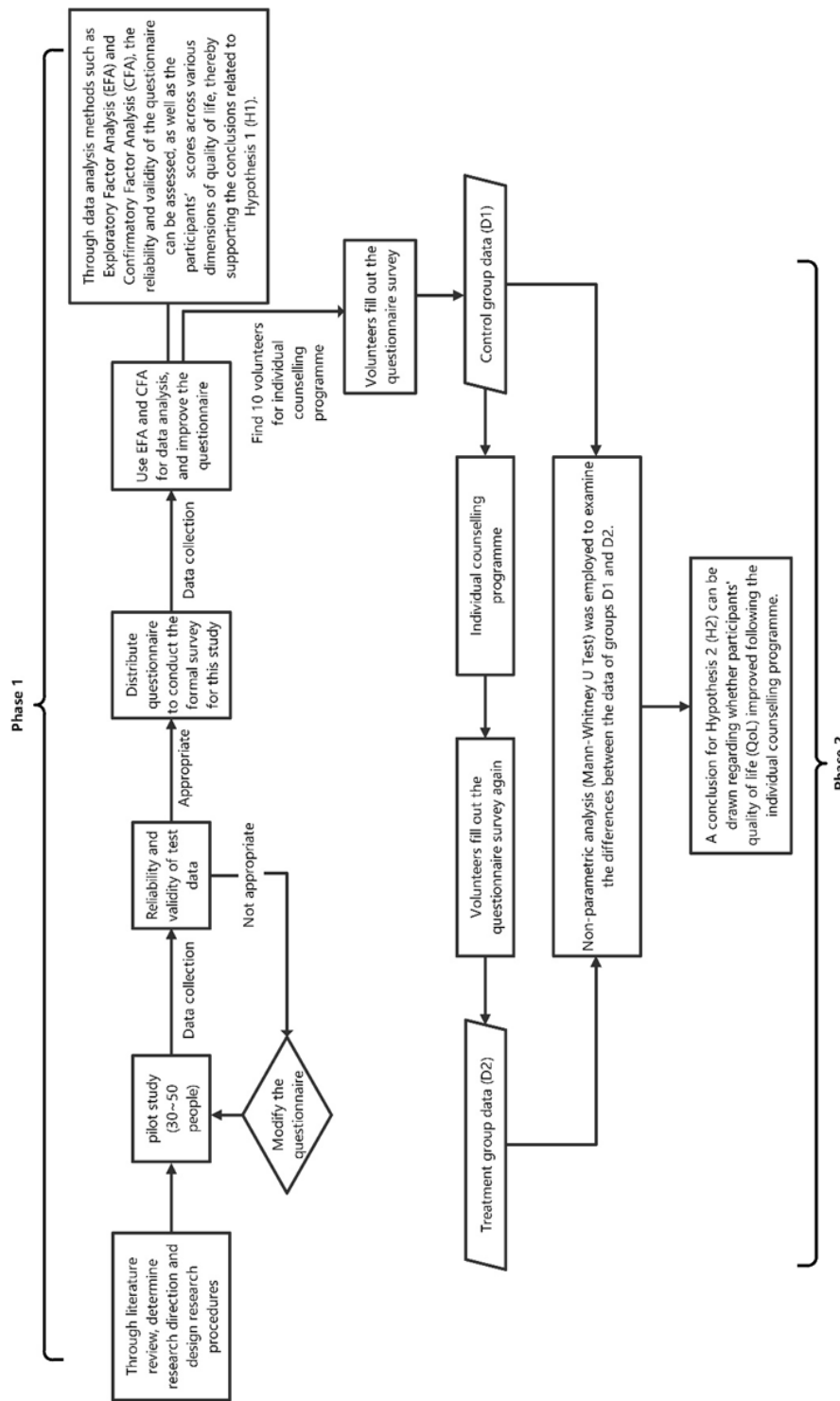


Figure 2 Overall research flow chart

## 2.6 Hypotheses of the Study

Based on above theoretical discussions, this research proposes the following two hypotheses:

### Phase 1

Hypothesis 1: There are differences in the quality of life among Chinese university students based on gender and age.

Hypothesis 2: The model development for measuring quality of life demonstrates good fit with empirical data, indicating its validity and reliability as a measurement tool.

### Phase 2

Hypothesis 3: Chinese university students who participate individual counselling programme (experimental group) will have higher quality of life score more than before participate individual counselling programme.



## Chapter 3

### Methodology

This study adopts a combination of quantitative research and quasi-experimental design, conducted in two distinct phases. Statistical methods were used for comprehensive data analysis to derive meaningful results.

In the first phase, the study focused on exploring the quality of life of Chinese university students and evaluating the applicability and potential revision of the Quality of Life Questionnaire. Through statistical analysis of the collected data, the study assessed the current state of students' quality of life and verified the reliability and validity of the questionnaire, ensuring the scientific rigor and reliability of the research instrument.

In the second phase, ten volunteers were randomly selected to participate in an individual counselling programme. The programme was developed based on the A-B-C framework and aimed to improve the quality of life of these participants. To ensure consistency and comparability among participants, the programme consisted of six structured sessions designed to comprehensively target all ten dimensions of quality of life.

The Quality of Life Questionnaire served as the primary quantitative assessment tool, while the individual counselling programme-uniformly structured and based on the A-B-C framework-was implemented as the intervention method. This approach enabled a systematic evaluation of the effectiveness of individual counselling in enhancing the quality of life of Chinese university students. Additionally, the study revalidated the structure of the Quality of Life Questionnaire to explore its suitability within the context of Chinese higher education.

### 3.1 Phase 1 (Survey Strategy)

#### 3.1.1 Population and sample

The study population comprises students currently enrolled at a higher education institution located in Guangdong Province, China, with a total student body of approximately 11,500 individuals. These students typically pursue three- to four-year vocational and technical education programs designed to prepare them for specific occupations or industries. The majority of students are between the ages of 18 and 25 (Ministry of Education of the People's Republic of China, 2020). Accordingly, this study focused on recruiting participants within this age range for data collection.

To determine an appropriate sample size for this population, the study employed Taro Yamane's formula (Yamane, 1967), a widely accepted method in social science research. Using a margin of error of approximately 5.75%, the required sample size was calculated to be around 295. Additionally, Comrey and Lee (1992) suggest that a sample size of 300 is considered "good" for general statistical analysis. Based on these considerations, a target of 300 participants was set to ensure both statistical adequacy and feasibility (MacCallum et al., 1999).

Although the initial goal was to collect 300 responses, the final dataset comprised 265 valid questionnaires after excluding those with incomplete answers or logical inconsistencies. Despite this reduction, the final sample still meets and exceeds the minimum threshold for reliable statistical analysis in social science research, offering a strong foundation for both descriptive and inferential analysis.

During the implementation phase, simple random sampling was adopted to minimize sampling bias and enhance the generalizability of the findings. Participants were randomly selected based on the enrollment distribution across different academic faculties. This strategy ensured balanced representation across disciplines and academic years, enabling comprehensive coverage of the student population.

The initial survey was distributed with the aim of collecting responses within one week. After dissemination, students were given one day to complete and return the questionnaire. Upon completion, all responses were collected, and a preliminary

screening was conducted to remove any incomplete or evidently randomly filled questionnaires. This step was essential to ensure data integrity and validity. Following the screening process, valid responses were entered and processed for further analysis.

### 3.1.2 Research Instruments

This research utilizes online questionnaires as the primary research instruments. With the advent of easy-to-use online survey platforms, online questionnaires make it easier and faster for researchers to collect relevant data, and to utilize features to classify, filter, and analyze data at a deeper level (Zhang et al., 2017). Dewaele (2018) points out that online questionnaires are widely used in market research, particularly in the social, education, and health sciences.

This study used the universal KIDSCREEN-52 scale proposed by Magiera and Pac (2022) to measure the quality of life related constructs in questionnaires. Additionally, Questionnaire Star, as a Chinese online survey platform, is used to create the online questionnaires. As the KIDSCREEN-52 has been developed in multiple language versions for various countries, data collection for this study is based on the Chinese version of the KIDSCREEN-52. In detail, the KIDSCREEN-52 questionnaire is widely used to assess the quality of life of adolescents and children. It covers 10 dimensions: Physical Well-Being (5 items), Psychological Well-Being (6 items), Moods and Emotions (7 items), Self-Perception (5 items), Autonomy (5 items), Parent Relations and Home Life (6 items), Financial Resources (3 items), Peers and Social Support (6 items), School Environment (6 items), and Social Acceptance and Bullying (3 items).

Following, this study utilizes a Likert 5-point scale to design the survey questionnaire, where participants rate their attitudes on a scale of 1 to 5. Completing the Quality of Life Questionnaire typically takes about 15-20 minutes. In addition to the 52 questions in the Quality of Life Questionnaire, the questionnaire for this study also includes 4 demographic questions and 2 optional questions. Section A, comprising 4 demographic questions, aims to collect basic information about the students. Sections B to K contain the questions of the Quality of Life Questionnaire, covering its 10 dimensions of quality of life. Additionally, the questionnaire for this study includes 1 optional (non-

mandatory) question, which participants can choose to answer or skip. The purpose of including this question is primarily to identify volunteers willing to participate in the subsequent individual counseling program.

Table 5 Sample Questions from the Questionnaire

Questions	Strongly disagree (1 point)	Disagree (2 points)	Somewhat agree (3 points)	Agree (4 points)	Strongly agree (5 points)
1. You feel that your overall health is good.					
2. You felt well and physically fit.					
3. You were physically active, such as running, swimming, or dancing.					

### 3.1.3 Reliability Test

This study employs the Cronbach Alpha Test to evaluate the reliability of the variables. Reliability refers to the consistency and stability of a measurement instrument (Taber, 2018). The Cronbach Alpha Test is a widely used statistical tool in social science research to assess the internal consistency of a scale. Internal consistency refers to how closely related a set of items are as a group. A high Cronbach Alpha value indicates that the items measure the same underlying construct, providing a reliable scale. This test is essential in ensuring that the measurement instruments used in research are dependable and can produce consistent results across different populations and settings (Taber, 2018).

This study used SPSS software to conduct the Cronbach Alpha Test. The reliability of the scales was evaluated by calculating the Cronbach Alpha coefficients for each dimension. Cronbach Alpha values range from 0 to 1, with higher values indicating greater reliability. According to Bonett and Wright (2015), a Cronbach Alpha value above 0.9 is considered excellent, values between 0.8 and 0.9 are considered good, values

between 0.7 and 0.8 are acceptable, values between 0.6 and 0.7 are questionable, values between 0.5 and 0.6 are poor reliability, and values below 0.5 are considered unacceptable reliability. The results of the reliability test are as follows: Physical well-being (0.94), Psychological well-being (0.96), Moods and emotions (0.95), Self-perception (0.92), Autonomy (0.94), Parents Relation and Home Life (0.95), Financial Resources (0.95), Social Support and Peers (0.95), School Environment (0.95), Social Acceptance and Bullying (0.89), and Overall Quality of Life (0.96). All dimensions except for Social Acceptance and Bullying exhibit Cronbach Alpha values greater than 0.9, indicating excellent reliability. The Social Acceptance and Bullying dimension have a Cronbach Alpha value of 0.89, which is still considered good according to the criteria outlined by Bonett and Wright (2015). Therefore, the reliability analysis confirms that all dimensions of quality of life in this study exhibit high reliability, ensuring the consistency and dependability of the measurement instruments used.

Table 6 Reliability Test based on Cronbach Alpha Test

Variables	Cronbach Alpha
Physical well-being	0.94
Psychological well-being	0.96
Moods and emotions	0.95
Self-perception	0.92
Autonomy	0.94
Parents Relation and Home Life	0.95
Financial Resources	0.95
Social Support and Peers	0.95
School Environment	0.95
Social Acceptance and Bullying	0.89
Overall Quality of Life	0.96

Note: Values are rounded to two decimal places.

#### 3.1.4 Validity Test

This study employed Confirmatory Factor Analysis (CFA) to evaluate and validate the Chinese College Students' Quality of Life Scale among university students in China. The primary objective was to examine whether the structure of the questionnaire—comprising seven dimensions and 25 items—is appropriate and effective for this specific population. CFA begins with the assumption that the proposed factor structure is valid and then applies statistical techniques to assess the degree of fit between the observed data and the hypothesized model. Key indicators observed during the CFA process include standardized factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR). These metrics are used to assess convergent validity (the extent to which items within the same dimension are highly correlated) and discriminant validity (the extent to which each dimension is distinct from the others). By evaluating these values, the study aims to determine whether the Chinese College Students' Quality of Life Scale reliably and effectively captures the multidimensional construct of quality of life among Chinese university students.

Table 7 Standard Reference Values for CFA Fit Indices

Fit Index	Reference Range / Standard	Interpretation
Chi-square ( $\chi^2$ )	$p > 0.05$ (non-significant preferred)	Indicates model-data fit; sensitive to sample size, often significant in large samples
CMIN/DF ( $\chi^2/df$ )	$< 3$ (acceptable), $< 2$ (good)	Relative chi-square; adjusts $\chi^2$ by degrees of freedom
RMSEA	$< 0.08$ (acceptable), $< 0.05$ (good)	Root Mean Square Error of Approximation; measures approximate model fit
CFI (Comparative Fit Index)	$> 0.90$ (acceptable), $> 0.95$ (excellent)	Compares model with null model; less affected by sample size
TLI (Tucker-Lewis Index)	$> 0.90$ (acceptable), $> 0.95$ (excellent)	Non-normed fit index; penalizes for model complexity
NFI (Normed Fit Index)	$> 0.90$ (acceptable)	Compares model to a null model; early index, less robust in small samples
FMIN (Minimum Fit Function)	Lower is better (no fixed threshold)	Indicates minimum discrepancy between observed and model-implied covariances
NCP (Non-Centrality Parameter)	Lower is better (approaches 0 with perfect fit)	Used in computing RMSEA and power analysis; reflects degree of misfit

### 3.1.5 Data Collection

According to the list of national universities released by the Chinese Ministry of Education in 2023, the top 10 cities in mainland China in terms of the number of universities are: Beijing (92 universities), Guangzhou (84 universities), Wuhan (83 universities), Zhengzhou (72 universities), Chongqing (71 universities), Shanghai (68 universities), Xi'an (63 universities), Changsha (59 universities), Chengdu (58 universities), and Tianjin (57 universities) (Ministry of Education of the People's Republic of China, 2023). The universities collected in this study questionnaire are mainly concentrated in the top 10 cities with the highest number of universities.

The data collection procedures for this study generally consist of the following steps. Firstly, prior to commencing formal data collection, a pilot study has been conducted to ensure that the questionnaire's questions are reasonable, free of errors, and understandable to participants. For the distribution of the online questionnaire, this study will distribute the online questionnaire through popular Chinese social networking platforms such as WeChat, Xiaohongshu (Red), Weibo, and email, among others

commonly used by Chinese university students. Subsequently, participants will be invited to further forward the link of online questionnaire to their personal social networks to further increase the sample size. In the invitation message, the purpose of the survey, estimated time for completion, and the content of the investigation has been explained to participants to avoid any potential ethical issues. Additionally, all questions in the questionnaire must be responded to in order to avoid missing data. Participants will also be informed in the invitation message that responses submitted cannot be altered or redone. Throughout the data collection process, real-time monitoring of Questionnaire Star's backend data will be conducted to ensure that the data collection results meet the sample size set for this study. It is anticipated that the entire process, from the pilot study to the completion of the formal questionnaire survey, will take approximately two weeks.

#### **3.1.6 Data Completeness**

After data collection, a frequency analysis will be conducted to ensure the completeness of the data. Additionally, this study will check for missing values and remove any extreme values or invalid entries, such as data filled in randomly by participants or instances where participants select all options. These methods will be employed to guarantee the study's completeness with the data. Through this method, a total of 265 valid questionnaires were ultimately collected from Chinese university students across ten cities identified for this study.

#### **3.1.7 Data Analyses**

SPSS 25.0 and AMOS 24.0 software are used to analyse the collected survey data. Specifically, this research adopts exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) methods to identify the dimensions of students' quality of life in the Chinese context. EFA is a technique used to identify the essential structure of multiple observed variables and to process dimensionality reduction. It synthesizes variables with complex relationships into a few core factors (Fabrigar and Wegener, 2011). It does not rely on predefined models or assumptions but focuses on data sets, discovering hidden patterns and observing relationships between variables (Flora et al., 2012). CFA is a research method used to measure whether the correspondence between

factors and measured items is consistent with the researcher's prediction (Widaman, 2012). From a validation perspective, CFA can effectively test hypotheses and ensure that theoretical structures are consistent with empirical evidence (Jackson et al., 2009).

### **3.2 Phase 2 (Individual Counselling Program Strategy)**

#### **3.2.1 Research Design**

This phase adopts a quasi-experimental design, incorporating a control group, pre-test, and post-test assessments, following the methodological framework proposed by White and Sabarwal (2014). This design allows for a more rigorous evaluation of the intervention's effectiveness while accounting for changes over time.

To address the second and third research objectives, this study implemented an individual counselling program aimed at examining whether such an intervention can enhance the quality of life of Chinese university students. By comparing participants' quality of life scores before and after the counselling sessions, the study seeks to determine whether significant improvements occurred as a result of the intervention.

In this phase, the same Quality of Life Questionnaire used in Phase One is applied to ensure consistency in measuring quality of life indicators across both phases. A total of ten volunteers were recruited from those who completed the Phase One questionnaire to participate in the individual counselling program. Prior to the intervention, each participant completed the Quality of Life Questionnaire, and their responses were treated as the control group data (pre-test). Following the completion of all counselling sessions, the same participants completed the Quality of Life Questionnaire again, and their post-intervention responses were considered the treatment group data (post-test).

To evaluate whether the individual counselling program produced a significant improvement in quality of life, non-parametric statistical methods were employed to compare the pre- and post-intervention scores. This comparative analysis provides empirical support for testing Hypothesis 2-namely, whether the individual counselling program has a positive and measurable impact on participants' quality of life.

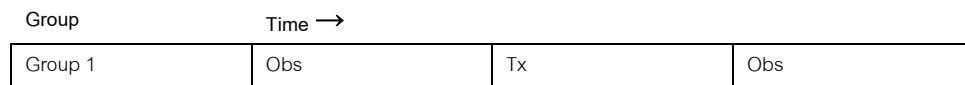


Figure 3 Quasi-experimental design

### 3.2.2 Participants

The purposive sampling approach was used to recruit participants for the individual counselling program.

This study plans to invite at least ten volunteers to participate in Phase 2 of the research. During the Phase 1 questionnaire survey, a question will be included at the end of the questionnaire asking participants if they are willing to participate in the upcoming individual counseling program. If respondents are willing to participate in the next phase of the study, they will need to fill in their personal contact information in the blank space provided after the option “Yes” in that question. Subsequently, this study will randomly select ten volunteers from the provided information and invite them to participate in the upcoming online individual counseling program.

### 3.2.3 Individual Counselling Program Development

#### a. Intervention Design Based on Short-Term Therapy Principles

Following the short-term therapeutic model proposed by Curwen et al. (2022), this study will provide six individual counselling sessions for participating Chinese university students, with each session lasting 50 minutes. These sessions will be delivered over a period of 30 to 45 days, with participants attending one to two sessions per week. The counselling will be conducted in an online one-on-one format, offering flexibility and convenience while overcoming geographical limitations. Moreover, the online setting enhances privacy and anonymity, which may encourage participants to open up more freely (Richards & Derek, 2008). Each volunteer will receive a structured six-session program designed to provide a comprehensive yet concise approach to improving their psychological well-being.

The structured, time-limited, and evidence-based nature of CBT makes it particularly suitable for addressing the psychological challenges commonly faced by university students, such as anxiety, depression, stress, and adjustment difficulties

(Stallman, 2016). Research has demonstrated that CBT is highly effective in improving students' mental health by promoting changes in negative thought patterns and maladaptive behaviours. These changes contribute to symptom reduction and the enhancement of overall quality of life (Zeng, 2023; Alford & Norcross, 1991). Given these advantages, this study adopts CBT as the standardized therapeutic model for the individual counselling program. Each participant will undergo the same structured six-session protocol to ensure consistency and comparability of results.

b. The ABC Framework for Enhancing Quality of Life among Chinese University Students

The ABC framework, developed by Albert Ellis as a core component of Rational Emotive Behaviour Therapy (REBT), has been effectively integrated into CBT and is used in this study to enhance the overall quality of life of Chinese university students. The ABC model helps students identify and modify irrational beliefs by analysing the relationship between Activating events (A), Beliefs (B), and Consequences (C), thereby promoting more adaptive emotional and behavioural responses. This framework is particularly effective in addressing various aspects of quality of life, including physical well-being, psychological well-being, moods and emotions, self-perception, autonomy, parental relationships and home life, financial resources, social support and peer relationships, school environment, and experiences of social acceptance or bullying.

#### **3.2.4 Individual Counselling Program Implementation**

The invited ten volunteers will participate in an online one-on-one individual psychological counselling program. Online individual counselling is characterized by its flexibility and convenience, as it is not constrained by time and location. Additionally, the anonymity and privacy protection of online counselling makes it easier for participants to open up. Furthermore, as the research subjects of this study come from all over the country, online individual counselling breaks geographical barriers, allowing this study to collect data from various regions nationwide (Richards and Derek, 2008). According to Curwen et al. (2022) 's research, the individual counselling program for this study is

expected to consist of 6 sessions per participant, each lasting 50 minutes, with sessions occurring 1-2 times per week.

### **3.2.5 Instrument for Pre-test and Post-test**

In this study, both the pre-test and post-test assessments employed the Quality of Life Questionnaire. Originally developed to evaluate the quality of life among children and adolescents aged 8 to 18 across different cultural contexts, the Quality of Life Questionnaire has demonstrated strong cross-cultural applicability and reliability. Although it was initially designed for younger populations, the multidimensional structure of the scale-including physical, psychological, and social domains-aligns well with the developmental needs of university students. As individuals in a transitional life stage, university students face challenges related to identity formation, academic pressure, and social adaptation. These characteristics make the Quality of Life Questionnaire a suitable instrument for assessing quality of life in the Chinese university student population. Previous research has also successfully applied this scale to college students in China, further supporting its relevance in this context. Moreover, using the same version of the Quality of Life Questionnaire scale for both pre- and post-intervention assessments ensures consistency in measurement and comparability of results. This approach minimizes measurement bias and allows for more accurate evaluation of the actual impact of the individual counselling program on participants' quality of life.

### **3.2.6 Data Collection**

Participants in the individual counselling program during Phase Two were recruited from those who completed the Quality of Life Questionnaire in Phase One. At the end of the initial survey, participants were asked whether they would be willing to voluntarily take part in a follow-up counselling program. Those who agreed were invited to leave their contact information, from which ten eligible volunteers were randomly selected. These participants were Chinese university students aged 18 to 25, representing diverse academic disciplines and geographic backgrounds across ten major cities. This recruitment strategy was designed to ensure sample diversity and

enhance the representativeness of the study, capturing a wide range of student experiences.

Throughout the data collection process, all participants were provided with a detailed participant information sheet and signed an informed consent form. These procedures ensured the protection of personal data and compliance with ethical standards. In total, data from ten participants were successfully collected across two stages: pre-intervention (baseline) and post-intervention (follow-up). The full individual counselling program data collection phase lasted approximately six months.

### **3.2.7 Data Analysis**

In this section, the study employs non-parametric tests, and regression analysis methods to examine the impact of individual counselling on students' quality of life. Specifically, these statistical methods are utilized to analyse the relationship between the individual counselling program (independent variable) and the various dimensions of quality of life among Chinese university students (dependent variables). Quality of life in this context involves ten dimensions: Physical Well-Being, Psychological Well-Being, Moods and Emotions, Self-Perception, Autonomy, Parent Relations and Home Life, Financial Resources, Peers and Social Support, School Environment, and Social Acceptance and Bullying.

Non-parametric tests, on the other hand, are statistical inference methods that do not require strict distributional assumptions such as normality. They are especially useful when dealing with categorical data, small sample sizes, or unclear distributional characteristics. Given this study's focus on comparing two independent samples-quality of life scores before and after the individual counselling intervention-the Mann-Whitney U Test is particularly appropriate. This test effectively compares medians between two independent samples without normal distribution assumptions. By applying the Mann-Whitney U Test, this research can determine whether significant differences exist between the medians of quality of life scores pre- and post-counselling. A p-value less than the predetermined significance level (typically  $p < 0.05$ ) would indicate sufficient

evidence to reject the null hypothesis, suggesting that individual counselling significantly affects students' quality of life.

### **3.2.8 Ethical Considerations for Human Subjects**

Throughout all stages of data collection, this study will strictly adhere to ethical standards. For instance, participants will be clearly informed of the purpose of the survey before data collection, and their participation will be ensured with informed consent and participant information sheet. Additionally, this study commits to maintaining the confidentiality of all collected data and will not disclose any personal information. All processes of this data collection activity are voluntary. Participants can withdraw at any time without offering any explanations.

Additionally, both the quality of life questionnaire and the framework of the Individual Counselling Program (ICP) used in this study were approved through an ethical review process, ensuring that no ethical, safety, or confidentiality concerns were present. Ethic number: SWUEC-672427.

## Chapter 4

### Data Analysis and Findings

#### Phase 1

Research Objective 1: To analyze various dimensions of Quality of Life through methods such as literature review, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA).

Research Objective 2: To investigate students' quality of life.

The study aimed to investigate the quality of life (QoL) of Chinese university students and analyze its key dimensions using literature review, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA). Results showed that students reported the highest satisfaction in “Parent Relations and Home Life” and the lowest in “Moods and Emotions,” suggesting strong family support but challenges in emotional well-being. The overall QoL was rated moderately high ( $M = 3.69$ ,  $SD = 0.83$ ). Notably, financial resources showed the greatest variability in responses. Gender differences were significant, with male students reporting higher QoL scores than females, while age differences were not statistically significant.

Based on EFA and CFA, a new measurement tool—The Chinese College Students' Quality of Life Scale—was developed. The refined scale includes 7 dimensions and 25 items, offering a more culturally and contextually appropriate instrument for assessing the QoL of Chinese university students.

#### Phase 2

Research Objective 1: To develop an individual counselling program aimed at enhancing students' quality of life.

In this study, an individualized counselling intervention was designed using the Rational Emotive Behavior Therapy (REBT) A-B-C framework. Subsequently, ten participants were invited to join this individualized counselling program. Each participant attended six individual counselling sessions, each lasting approximately 50 to 60

minutes, with sessions specifically targeting improvements across the different dimensions of quality of life.

According to statistical analysis, individualized counselling demonstrated particular effectiveness in enhancing internal psychological dimensions of quality of life. In contrast, the impact of counselling interventions appeared limited in influencing external or environmental factors, highlighting potential limitations inherent in such interventions.

Research Objective 2: To compare the Quality of Life between the experimental group (before participating in the personalized counselling program) and the control group (after participating in the personalized counselling program).

Through non-parametric analysis comparing quality of life scores before and after participation in the individualized counselling program, the study demonstrated that personalized counselling significantly improved overall quality of life and several specific dimensions. After completing the counselling sessions, participants' overall quality of life scores improved significantly by approximately 0.501 points. Specifically, personalized counselling significantly enhanced students' moods and emotions, psychological well-being, and autonomy. However, the findings also indicated that personalized counselling did not significantly improve aspects such as physical well-being, parent relations and home life, financial resources, school environment, social acceptance, and bullying.

#### **4.1 Phase 1: Quality of Life Study**

##### **4.1.1 Frequency Analysis**

This study collected a total of 265 valid questionnaires, and a frequency analysis was conducted to understand the demographic characteristics of the participants. The gender distribution revealed that the majority of the participants were male, with 179 respondents (67.5%), while female participants numbered 86 (32.5%). This indicates a significant male predominance in the sample

The age distribution of the participants showed that the largest age group was 19 years old, comprising 114 participants (43.0%). This was followed by 18-year-olds,

with 68 participants (25.7%). The number of 20-year-old participants was 41 (15.5%), while those aged 21 accounted for 12 participants (4.5%). There were 4 participants aged 22 (1.5%), and 3 participants aged 23 (1.1%), the smallest age group. Additionally, 5 participants were 24 years old (1.9%), and 18 participants were 25 years old (6.8%). The primary age range of the participants was thus 18 to 19 years old.

In terms of their academic majors, over half of the participants studied Engineering, with 136 participants (51.3%). The next largest group was from Agriculture, comprising 56 participants (21.1%). Economics majors accounted for 21 participants (7.9%), while Interdisciplinary Studies included 13 participants (4.9%). The Management field had 10 participants (3.8%), and there were 29 participants (11.0%) from other fields of study. This distribution highlights a significant representation of Engineering students within the sample.

Overall, these demographic details provide a comprehensive overview of the study participants, highlighting the predominance of male students, the significant representation of 18 and 19-year-olds, the majority being Engineering majors.

Table 8 Frequency Analysis

Demographic Analysis	Frequency (n)	Percentage (%)
<b>Gender</b>		
Male	179	67.5
Female	86	32.5
<b>Age</b>		
18	68	25.7
19	114	43.0
20	41	15.5
21	12	4.5
22	4	1.5
23	3	1.1

Table 8 (continued)

Demographic Analysis	Frequency (n)	Percentage (%)
24	5	1.9
25	18	6.8
<b>Major</b>		
Engineering	136	51.3
Agriculture	56	21.1
Economics	21	7.9
Interdisciplinary Studies	13	4.9
Management	10	3.8
Others	29	11
<b>Total</b>	<b>265</b>	<b>100%</b>

#### 4.1.2 Descriptive Analysis

This study utilized 52 items to reflect various dimensions of quality of life. The selection of the 52 items is adapted from the study of Magiera (2022). Hereafter, this instrument is referred to as the Quality of Life Questionnaire. Each dimension of quality of life is computed by calculating the mean of relevant items. The questions for each item can be found in the online questionnaire (See Appendix). For instance, Physical well-being was calculated by averaging five items (Q5 to Q9), resulting in a mean value of 3.66.

The top three highest means are in “Parents Relation and Home Life” (mean = 3.98), “Social Support and Peers” (mean = 3.88), and “Psychological Well-being” (mean = 3.84), reflecting strong family and social support and good psychological well-being among participants. Among these dimensions, the highest mean is in “Parents Relation and Home Life” (mean = 3.98), suggesting students are merely satisfied with their family relationships. Based on these findings, the higher scores in the dimensions of Parents Relation and Home Life, Social Support and Peers, and Psychological Well-being indicate that college students generally feel supported and valued by their families, have strong social networks, and experience positive emotions and life satisfaction. These

positive aspects also suggest a supportive environment both at home and among peers, which is crucial for the overall quality of life and development of college students.

Conversely, the three lowest means are in “Moods and Emotions” (mean = 3.32), “Self-perception” (mean = 3.51), and “Financial Resources” (mean = 3.61), highlighting areas where participants face more challenges. In particular, the lowest mean is in “Moods and Emotions”: (mean = 3.32), indicating variability and challenges in students’ internal emotional well-being. According to these results, the lower scores in the dimensions of Moods and Emotions, Self-perception, and Financial Resources indicate several challenges faced by college students. The low mean in Moods and Emotions suggests that many students experience depressive moods, loneliness, and stress. This indicates that emotional well-being is a major area of concern. The low score in Self-perception reflects dissatisfaction with body image and appearance, suggesting that many students struggle with self-esteem and self-worth. Finally, the low mean in Financial Resources highlights the perception of insufficient financial support, indicating that financial stress is a common issue among students, affecting their ability to participate in social activities and maintain a lifestyle comparable to their peers.

Similarly, this study also conducted the mean analysis for the overall quality of life by computing as the mean of all dimensions, resulting in a mean value of 3.69 with a standard deviation of 0.83. These results suggest a moderate to high perception of life quality among the participants. Additionally, the variable with the highest standard deviation, indicating the most fluctuation, is “Financial Resources” (SD = 1.06), suggesting that most participants had varied opinions on this dimension. Meanwhile, “Parents Relation and Home Life” has the lowest standard deviation (SD = 0.90), indicating the least fluctuation, suggesting that participants’ opinions on this dimension were generally consistent. Lastly, the distribution analysis confirms that all variables follow a normal distribution as their Skewness and Kurtosis statistics are within the range of -1 to +1.

Table 9 Descriptive Analysis (n=265)

Variables	Items (Questions)	Mean	Standard Deviation	Skewness	Kurtosis
Physical well-being	Q5, Q6, Q7, Q8, Q9	3.66	1.02	-0.15	-0.97
Psychological well-being	Q10, Q11, Q12, Q13, Q14, Q15	3.84	0.95	-0.40	-0.45
Moods and emotions	Q16, Q17, Q18, Q19, Q20, Q21, Q22	3.32	1.05	0.18	-0.57
Self-perception	Q23, Q24, Q25, Q26, Q27	3.51	1.00	0.02	-0.60
Autonomy	Q28, Q29, Q30, Q31, Q32	3.68	0.94	-0.12	-0.51
Parents Relation and Home Life	Q33, Q34, Q35, Q36, Q37, Q38	3.98	0.90	-0.52	-0.37
Financial Resources	Q39, Q40, Q41	3.61	1.06	-0.38	-0.24
Social Support and Peers	Q42, Q43, Q44, Q45, Q46, Q47	3.88	0.88	-0.33	-0.52

Table 9 (continued)

Variables	Items (Questions)	Mean	Standard Deviation	Skewness	Kurtosis
School Environment	Q48, Q49, Q50, Q51, Q52, Q53	3.65	0.93	-0.08	-0.36
Social Acceptance and Bullying	Q54, Q55, Q56	3.81	0.98	-0.45	-0.25
Overall Quality of Life	Q5-Q56 (Total 52 Items)	3.69	0.83	0.03	-0.43

Note: Values are rounded to two decimal places.

#### 4.1.3 Independent Samples t-test

This section will employ the independent samples t-test to examine whether participants' gender and age lead to differences in the quality of life among Chinese college students. An independent samples t-test is a statistical method used to determine whether there are significant differences between the means of two independent groups on a particular variable (Kim, 2015). The test assesses whether the mean of one group is significantly different from the mean of another group, indicating potential variations due to the independent variable being studied.

Additionally, this section will provide a detailed comparison of each dimension of quality of life. Specifically, the analysis will compare the quality of life scores between male and female students to determine if there are statistically significant differences. It will also compare the quality of life scores across different age groups to identify any significant variations. Furthermore, each dimension of quality of life will be analysed separately to understand how gender and age may affect specific aspects such as

physical well-being, psychological well-being, moods and emotions, self-perception, autonomy, parents' relation and home life, financial resources, social support and peers, school environment, and social acceptance and bullying. A detailed analysis of each dimension is presented below.

#### **a. The Differences of Gender on Dimensions of Quality of Life**

Before conducting the independent samples t-test, Table 10 shows the means analysis for quality of life across males and females. The table presents the mean scores for various dimensions of quality of life for both male and female students.

For the Physical well-being dimension, the mean for males is 3.87, while the mean for females is 3.22. This indicates that males have a higher mean score in physical well-being compared to females. In the Psychological well-being dimension, the mean for males is 3.94, and for females, it is 3.62, again showing that males score higher on this dimension. For Moods and emotions dimension, males have a mean score of 3.49, whereas females have a mean score of 2.98, indicating a higher mean for males. Regarding Self-perception, males have a mean score of 3.64, while females have a mean score of 3.25, with males scoring higher. In the dimension of Autonomy, the mean for males is 3.74, compared to 3.54 for females, showing a higher mean score for males. For Parents Relation and Home Life, males have a mean of 4.09, whereas females have a mean of 3.74, indicating higher scores for males. In the Financial Resources dimension, the mean for males is 3.73, while for females it is 3.35, showing males have a higher mean. For Social Support and Peers, males have a mean score of 3.93, and females have a mean score of 3.79, with males scoring higher. Regarding the School Environment dimension, males have a mean of 3.75, while females have a mean of 3.43, indicating a higher mean for males. In the Social Acceptance and Bullying dimension, the mean for males is 3.87, compared to 3.68 for females, showing males score higher. Overall, for Overall quality of life, males have a mean score of 3.81, while females have a mean score of 3.46, indicating that males have a higher overall quality of life.

In summary, for male students, parent relations and home life have the highest mean among all dimensions of quality of life (Mean= 4.09); moods and emotions

have the lowest mean among all dimensions of quality of life (Mean= 3.49). For female students, social support and peers have the highest mean among all dimensions of quality of life (Mean= 4.09); moods and emotions have the lowest mean among all dimensions of quality of life (Mean= 2.98).

Table 10 Means for Quality of Life Across Male and Females

Dimensions of Quality of Life	Gender	Mean
Physical well-being	Male (179)	3.87
	Female (86)	3.22
Psychological well-being	Male (179)	3.94
	Female (86)	3.62
Moods and emotions	Male (179)	3.49
	Female (86)	2.98
Self-perception	Male (179)	3.64
	Female (86)	3.25
Autonomy	Male (179)	3.74
	Female (86)	3.54
Parents Relation and Home Life	Male (179)	4.09
	Female (86)	3.74
Financial Resources	Male (179)	3.73
	Female (86)	3.35
Social Support and Peers	Male (179)	3.93
	Female (86)	3.79
School Environment	Male (179)	3.75
	Female (86)	3.43
Social Acceptance and Bullying	Male (179)	3.87

Table 10 (continued)

Dimensions of Quality of Life	Gender	Mean
	Female (86)	3.68
Overall Quality of Life	Male (179)	3.81
	Female (86)	3.46

Table 11 below shows the independent samples t-test results for evaluating the impacts of gender on all dimensions of quality of life. In particular, these results reflect whether there are significant differences in the quality of life between females and their male counterparts.

Regarding psychological well-being, the mean difference is 0.32 with a t-value of 2.59 and a p-value less than 0.01. Additionally, the mean scores for physical well-being are significantly higher among males compared to females, with a mean difference of 0.65 and a t-value of 5.06, indicating a p-value less than 0.01. This indicates that, on average, males have high level of quality of life than females in terms of psychological well-being and physical well-being. For moods and emotions, the mean difference is 0.51 with a t-value of 3.83 and a p-value less than 0.01. In the dimension of self-perception, males and females have a mean difference of 0.39 with a t-value of 3.03 and a p-value less than 0.01. Regarding financial resources, the mean difference is 0.39 with a t-value of 2.81 and a p-value less than 0.01. For parental relations and home life, the mean difference is 0.35 with a t-value of 2.99 and a p-value less than 0.01. Lastly, for the school environment dimension, the mean difference is 0.32 with a t-value of 2.66 and a p-value less than 0.01. Collectively, males report a substantially higher overall quality of life in comparison to females, indicated by an overall mean difference of 0.34 and a t-value of 3.23, with a p-value less than 0.01. This comprehensive analysis suggests that males generally perceive their quality of life more positively across multiple dimensions and the overall quality of life. However, there is no statistically significant mean difference in the autonomy dimension among males and females (mean difference = 0.20,  $t = 1.60$ ,

$p > 0.05$ ), social support and peers (mean difference = 0.14,  $t = 1.19$ ,  $p > 0.05$ ), and social acceptance and bullying (mean difference = 0.19,  $t = 1.46$ ,  $p > 0.05$ ).

Table 11 Independent Samples t-test (Compare quality of life score between male and female)

Dimensions of Quality of Life	Mean Difference (Male minus Female)	t-value	p-value
Physical well-being	0.65	5.06	0.000*
Psychological well-being	0.32	2.59	0.010
Moods and emotions	0.51	3.83	0.000
Self-perception	0.39	3.03	0.003
Autonomy	0.20	1.60	0.111
Parents Relation and Home Life	0.35	2.99	0.003
Financial Resources	0.39	2.81	0.005
Social Support and Peers	0.14	1.19	0.236
School Environment	0.32	2.66	0.008
Social Acceptance and Bullying	0.19	1.46	0.145
Quality of Life (Overall)	0.34	3.23	0.001

In summary, the results of the independent samples t-test indicate that there are significant differences between males and females in several dimensions of quality of life. Specifically, males report a higher quality of life in the dimensions of physical well-being, psychological well-being, moods and emotions, self-perception, parent relations and home life, financial resources, school environment, and overall quality of life. These findings suggest that males perceive their quality of life more positively across these various dimensions.

### **b. The Differences of Age on Dimensions of Quality of Life**

This section will further perform the independent-samples t-test to evaluate the impacts of age group on quality of life. In this study, participants were divided into two age groups: 18-21 and 22-25 years old, to examine whether there are significant differences in the quality of life between these two age groups. This division was made for several reasons.

Firstly, Individuals aged 18-21 are typically in late adolescence or early adulthood, undergoing rapid psychological and physiological changes (Arnett et al., 2014). They are often transitioning from high school to university, adapting to new independence and academic pressures. In contrast, those aged 22-25 are generally more mature psychologically and emotionally, having spent more time in the university environment, with better self-management skills and clearer academic and career goals. Secondly, academic and life stages differ between these groups. The 18-21 age group mainly includes first to third-year university students who are in the process of adapting to university life. The 22-25 age group likely includes final-year students or graduate students facing decisions about graduation, employment, or further studies, leading to different stress levels and life expectations. Thirdly, social roles and responsibilities vary significantly among these two age groups. Younger students (18-21) may rely more on family financial support, while older students (22-25) might be partially or fully financially independent and may even bear some family responsibilities. These differences in economic independence and responsibility directly impact their life satisfaction and psychological stress. Additionally, younger students might focus more on social and campus life, whereas older students may be establishing long-term relationships and considering marriage and family planning. Lastly, cognitive and behavioral differences are notable between these two age groups. Students aged 22-25 are likely better at handling complex problems and adopting more mature coping mechanisms, while those aged 18-21 may feel more confused and anxious when facing pressure (Zimmermann et al., 2014). By comparing these two age groups, the study aims to reveal the impacts of physiological, psychological, and social role changes on students' quality of life. This

approach provides a more comprehensive understanding and supports the development of targeted interventions and support strategies.

Table 12 presents the mean scores for various dimensions of quality of life across the two age groups, 18-21 and 22-25 years old. The mean scores for each dimension are as follows: For physical well-being, the mean score for the 18-21 age group is 3.63, whereas for the 22-25 age group it is 3.67. In psychological well-being, the mean score for the 18-21 age group is 3.74, while for the 22-25 age group it is 3.85. For moods and emotions, the mean scores are 3.28 for the 18-21 age group and 3.33 for the 22-25 age group. In self-perception, the mean scores are 3.53 for the 18-21 age group and 3.51 for the 22-25 age group. In the dimension of autonomy, the 18-21 age group has a mean score of 3.71, compared to 3.67 for the 22-25 age group. For parental relations and home life, the mean scores are 4.03 for the 18-21 age group and 3.97 for the 22-25 age group. In financial resources, the 18-21 age group has a mean score of 3.52, while the 22-25 age group scores 3.62. In terms of social support and peers, the 18-21 age group reports a mean score of 4.04, compared to 3.86 for the 22-25 age group. For the school environment, the mean scores are 3.81 for the 18-21 age group and 3.63 for the 22-25 age group. In social acceptance and bullying, the mean scores are 3.92 for the 18-21 age group and 3.79 for the 22-25 age group. Overall, the quality of life mean scores are 3.72 for the 18-21 age group and 3.69 for the 22-25 age group.

For the age group 18-21, the highest mean score is in the dimension of social support and peers (Mean = 4.04), indicating that younger students perceive their peer relationships and social support networks more positively compared to other dimensions. This could be because younger students are more engaged in social activities and peer interactions as they adapt to university life. The lowest mean score for this group is in the dimension of moods and emotions (Mean = 3.28), suggesting that managing moods and emotions is a significant challenge for younger students.

For the age group 22-25, the highest mean score is in the dimension of psychological well-being (Mean = 3.85). This suggests that older students, who are more mature and experienced, have better psychological health and coping

mechanisms, reflecting their ability to manage stress and emotional challenges more effectively. The lowest mean score for this group is also in the dimension of moods and emotions (Mean = 3.33), indicating that emotional regulation remains a challenge across both age groups. Overall, these findings demonstrate perceptions of quality of life across various different age groups.

Table 12 Means for Quality of Life Across Different Age Groups

Dimensions of Quality of Life	Age	Mean
Physical well-being	18~21 (235)	3.63
	22~25 (30)	3.67
Psychological well-being	18~21 (235)	3.74
	22~25 (30)	3.85
Moods and emotions	18~21 (235)	3.28
	22~25 (30)	3.33
Self-perception	18~21 (235)	3.53
	22~25 (30)	3.51
Autonomy	18~21 (235)	3.71
	22~25 (30)	3.67
Parents Relation and Home Life	18~21 (235)	4.03
	22~25 (30)	3.97
Financial Resources	18~21 (235)	3.52
	22~25 (30)	3.62
Social Support and Peers	18~21 (235)	4.04
	22~25 (30)	3.86
School Environment	18~21 (235)	3.81
	22~25 (30)	3.63

Table 12 (continued)

Dimensions of Quality of Life	Age	Mean
Social Acceptance and Bullying	18~21 (235)	3.92
	22~25 (30)	3.79
Quality of Life (Overall)	18~21 (235)	3.72
	22~25 (30)	3.69

Table 13 shows the results of the independent samples t-test, which examines whether there are significant differences in the quality of life between two age groups: 18-21 years and 22-25 years. The table provides the mean differences for various dimensions of quality of life, the t-values, and the corresponding p-values.

When comparing the two age groups, the 18-21 age group reported higher mean scores in certain dimensions of quality of life than the 22-25 age group. The dimensions where the 18-21 age group reported higher mean scores, ranked from highest to lowest mean difference, are social support and peers (mean difference = 0.18), school environment (mean difference = 0.18), social acceptance and bullying (mean difference = 0.13), parents' relation and home life (mean difference = 0.06), autonomy (mean difference = 0.03), and self-perception (mean difference = 0.01). The highest mean difference was observed in the dimension of social support and peers, indicating that the younger age group (18-21) perceives more social support compared to the older age group. The smallest mean difference was seen in self-perception, suggesting that this dimension is relatively consistent across both age groups.

However, the results of p-value and t-value revealed that there were no significant differences between the two age groups in any of the measured dimensions of quality of life. In particular, there are no statistically significant differences in any of the dimensions of quality of life between the two age groups. This lack of significant differences can be attributed to the similar university environment and shared

experiences that both age groups go through, which likely homogenize their perceptions of quality of life.

In summary, the results of the independent samples t-test suggest that age does not significantly affect the quality of life for the students surveyed. In other words, within this group of students, both younger (18-21 years) and older (22-25 years) individuals report similar levels of quality of life across all measured dimensions. Overall, this indicates that age does not play a significant role in determining the quality of life among the university students in this study.

Table 13 Independent Samples t-test

Dimensions of Quality of Life	Mean Difference (Age Group 18~21 minus Age Group 22~25)	<i>t</i> -value	<i>p</i> -value
Physical well-being	-0.04	-0.20	0.85
Psychological well-being	-0.11	-0.61	0.55
Moods and emotions	-0.05	-0.24	0.81
Self-perception	0.01	0.07	0.95
Autonomy	0.03	0.18	0.86
Parents Relation and Home Life	0.06	0.34	0.74
Financial Resources	-0.09	-0.46	0.65
Social Support and Peers	0.18	1.07	0.29
School Environment	0.18	1.01	0.31
Social Acceptance and Bullying	0.13	0.69	0.49
Quality of Life	0.03	0.19	0.85

#### 4.1.5 Correlation Analysis

This section presents the correlation analysis conducted to understand the relationships between various dimensions of quality of life. The correlation analysis aims to identify the strength and direction of associations between these dimensions and overall quality of life. The results are obtained by calculating Pearson correlation

coefficients, which measure the linear relationship between two variables, with values ranging from -1 to 1. If the value of Pearson correlation coefficients is greater than 0, it indicates a positive correlation, meaning that as one variable increases, the other tends to increase as well. Conversely, a value less than 0 indicates a negative correlation, where one variable increases as the other decreases. Additionally, the closer the absolute value of the correlation coefficient is to 1, the stronger the relationship between the two variables. A significant correlation at the 0.01 level indicates a strong and statistically significant relationship between the variables.

Table 14 displays the Pearson correlation coefficients between overall quality of life and its various dimensions, as well as the inter-correlations among these dimensions. The table reveals the following key points: Firstly, there is a strong positive correlation between overall quality of life and each dimension measured. Specifically, physical well-being has a correlation of .81 with overall quality of life, indicating a significant and strong positive relationship. Psychological well-being shows an even stronger positive correlation with overall quality of life, with a coefficient of .88. Moods and emotions also have a strong positive correlation with overall quality of life, at .88. Self-perception correlates with overall quality of life at .86, demonstrating a significant positive relationship. Furthermore, autonomy exhibits a strong positive correlation with overall quality of life at .85. Parents' relations and home life correlate positively with the overall quality of life at .83, while financial resources show a strong positive correlation of .82. Social support and peers have the highest correlation with overall quality of life at .89, indicating a very strong positive relationship. Similarly, the school environment also shows a very strong positive correlation with overall quality of life at .89. Lastly, social acceptance and bullying have a strong positive correlation with overall quality of life at .83.

In addition to these findings, the inter-correlations among the various dimensions themselves are all significant and positive, ranging from .57 to .83. This indicates that improvements in one dimension of quality of life are likely to be associated with improvements in other dimensions.

Overall, the correlation analysis indicates that all dimensions of quality of life are positively and significantly correlated with the overall quality of life. The strongest correlations with overall quality of life are observed for social support and peers (.89) and the school environment (.89), suggesting these dimensions are particularly important for the participants' perceived quality of life. Additionally, strong inter-correlations among the various dimensions highlight that improvements in one aspect of quality of life are likely to be associated with improvements in other areas as well.



Table 14 Correlation Analysis

	Quality of Life	Physical well-being	Psychological well-being	Moods and emotions	Self-perception	Autonomy	Parents Relation and Home Life	Financial Resources	Social Support and Peers	School Environment	Social Acceptance and Bullying
Quality of Life	1										
Physical well-being	.81**	1									
Psychological well-being	.88**	.76**	1								
Moods and emotions	.88**	.74**	.78**	1							
Self-perception	.86**	.65**	.71**	.83**	1						
Autonomy	.85**	.62**	.74**	.72**	.72**	1					

Table 14 (continued)

	Quality of Life	Physical well-being	Psychological well-being	Moods and emotions	Self-perception	Autonomy	Parents Relation and Home Life	Financial Resources	Social Support and Peers	School Environment	Social Acceptance and Bullying
Parents Relation and Home Life	.83**	.60**	.69**	.62**	.65**	.68**	1				
Financial Resources	.82**	.57**	.66**	.67**	.68**	.67**	.69**	1			
Social Support and Peers	.89**	.64**	.77**	.68**	.69**	.76**	.79**	.74**	1		
School Environment	.89**	.70**	.76**	.76**	.70**	.73**	.73**	.69**	.83**	1	

Table 14 (continued)

	Quality of Life	Physical well-being	Psychological well-being	Moods and emotions	Self-perception	Autonomy	Parents Relation and Home Life	Financial Resources	Social Support and Peers	School Environment	Social Acceptance and Bullying
Social Acceptance and Bullying	.83**	.58**	.65**	.66**	.70**	.65**	.72**	.62**	.77**	.75**	1

#### 4.1.6 Exploratory Factor Analysis

This section presents the results of the Exploratory Factor Analysis (EFA). Exploratory Factor Analysis is a statistical technique used to uncover the latent structures or factors that explain the patterns of correlations within a set of observed variables. This study uses EFA to determine the underlying dimensions that constitute the quality of life among Chinese college students and to understand how different items group together to form factors. The results are obtained through statistical software (SPSS Statistics 27) that analyses the correlations among the variables and extracts the factors based on eigenvalues and factor loadings. The table from the EFA analysis, known as the Rotated Component Matrix, shows the factor loadings of various items on different components (factors).

The EFA results indicate that the quality of life for Chinese university students can be categorized into seven distinct dimensions. The first dimension encompasses factors related to “Moods and Emotions” (items 2, 3, 4, 5, 6, 7) and “Self-Perception” (items 1, 2, 3, 4, 5). The factor loadings range from 0.536 to 0.728. The second dimension primarily includes factors related to “Parents Relation and Home Life” (items 1, 2, 3, 4, 5, 6), along with some factors from “Social Support and Peers” (items 3, 4) and “Social Acceptance and Bullying” (items 2, 3). It’s important to note that “Support and Peers 4” loads on both the second (0.58) and third (0.55) dimensions, but the higher loading on the second dimension is considered. In such cases, we consider the higher loading, which is 0.58. The third dimension is defined by factors associated with “Psychological Well-being” (items 1, 2, 3, 4, 5, 6) and one item from “Moods and Emotions” (item 1). The factor loadings range from 0.56 to 0.71. The fourth dimension includes factors related to the “School Environment” (items 1, 2, 3, 4, 5, 6), “Social Support and Peers” (items 5, 6), and one factor from “Social Acceptance and Bullying” (item 1). The loadings vary between 0.51 and 0.69. The fifth dimension comprises factors related to “Physical Well-being” (items 1, 2, 3, 4, 5). The factor loadings range from 0.57 to 0.77. The sixth dimension includes factors associated with “Autonomy” (items 1, 2, 3, 4, 5). The loadings range from 0.61 to 0.74. The seventh dimension is characterized by

factors related to “Financial Resources” (items 1, 2, 3). The loadings range from 0.65 to 0.73.

Notably, the factors “Social Support and Peers 1” and “Social Support and Peers 2” have loadings below 0.5, suggesting that these factors have low correlations with the overall quality of life in the context of Chinese college students. This implies that these items are not strong indicators of the constructs measured in this study.

Overall, the EFA analysis reveals that the quality of life among Chinese college students can be segmented into seven key dimensions: moods and self-perception, family and peer relationships, psychological well-being, school environment, physical well-being, autonomy, and financial resources. Each dimension represents a cluster of related items, suggesting that these items share a common underlying dimension of quality of life. For example, items related to “Moods and emotions” and “Self-perception” cluster together, indicating that they represent a common aspect of quality of life related to emotional and self-perceptual well-being. It also highlights that “Social Support and Peers 1” and “Social Support and Peers 2” are not significant indicators within this framework. This understanding allows for more targeted interventions and support strategies to enhance the quality of life of college students in China. Overall, these findings present the multi-faceted nature of quality of life, with different dimensions contributing to the overall experience.

Table 15 Exploratory Factor Analysis

Factors	1	2	3	4	5	6	7
Moods and emotions 2	0.66						
Moods and emotions 3	0.63						
Moods and emotions 4	0.54						
Moods and emotions 5	0.64						
Moods and emotions 6	0.71						

Table 15 (continued)

Factors	1	2	3	4	5	6	7
Moods and emotions 7	0.68						
Self-perception 1	0.61						
Self-perception 2	0.65						
Self-perception 3	0.73						
Self-perception 4	0.63						
Self-perception 5	0.73						
Parents Relation and Home Life 1		0.69					
Parents Relation and Home Life 2		0.77					
Parents Relation and Home Life 3		0.73					
Parents Relation and Home Life 4		0.67					
Parents Relation and Home Life 5		0.77					
Parents Relation and Home Life 6		0.73					
Social Support and Peers 3		0.60					
Social Support and Peers 4		0.58					

Table 15 (continued)

Factors	1	2	3	4	5	6	7
Social Acceptance and Bullying 2		0.56					
Social Acceptance and Bullying 3		0.51					
Psychological well- being 1			0.71				
Psychological well- being 2			0.69				
Psychological well- being 3			0.64				
Psychological well- being 4			0.63				
Psychological well- being 5			0.70				
Psychological well- being 6			0.70				
Moods and emotions 1			0.56				
Social Support and Peers 5				0.56			
Social Support and Peers 6				0.60			
School Environment 1				0.62			
School Environment 2				0.51			
School Environment 3				0.66			

Table 15 (continued)

Factors	1	2	3	4	5	6	7
School Environment 4				0.63			
School Environment 5				0.63			
School Environment 6				0.69			
Social Acceptance and Bullying 1				0.56			
Physical well-being 1					0.57		
Physical well-being 2					0.62		
Physical well-being 3					0.77		
Physical well-being 4					0.72		
Physical well-being 5					0.69		
Autonomy 1						0.61	
Autonomy 2						0.74	
Autonomy 3						0.66	
Autonomy 4						0.67	
Autonomy 5						0.74	
Financial Resources 1							0.65
Financial Resources 2							0.72
Financial Resources 3							0.73
Social Support and Peers 1							

Table 15 (continued)

Factors	1	2	3	4	5	6	7
Social Support and Peers 2							
Extraction Method: Principal Component Analysis.							
Rotation Method: Varimax with Kaiser Normalization.							
a. Rotation converged in 9 iterations.							

#### 4.1.7 Confirmatory Factor Analysis

This section employs Confirmatory Factor Analysis (CFA) to assess whether the proposed structure of quality of life is conceptually and statistically sound. Specifically, CFA is used to validate whether the seven hypothesized dimensions collectively form a coherent measurement model. As a statistical technique, CFA verifies the underlying factor structure of observed variables and determines whether the items are appropriately grouped within each latent construct. Key outputs such as Standardized Regression Weights and Model Fit Indices are examined to evaluate both the reliability of individual items and the overall adequacy of the model structure.

To enhance the cultural and psychometric appropriateness of the The Chinese College Students' Quality of Life Scale for Chinese university students, the original scale (comprising 10 dimensions and 52 items) underwent a systematic refinement process involving both Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA).

In the first stage, Exploratory Factor Analysis (EFA) was conducted using Principal Component Analysis with Varimax rotation. Items with factor loadings below 0.50 were considered for deletion due to insufficient contribution to the underlying constructs. Some of the original ten dimensions showed conceptual overlaps or lacked empirical distinction, leading to the merging or removal of those dimensions.

In the second stage, Confirmatory Factor Analysis (CFA) was conducted using the Maximum Likelihood estimation method in AMOS 27. Items with low standardized factor loadings or weak conceptual alignment were excluded to improve model parsimony and fit. For example, the dimension financial resources was reduced to two key items (Q40 and Q41). Given the small number of indicators, this factor may be modeled as a second-order construct. Similarly, dimensions such as physical, school environment, social support, and emotional self-Perception were refined by retaining only items with strong loadings and clear conceptual alignment. The psychological construct retained three high-loading items (Q10, Q13, and Q14), while the autonomy dimension was preserved in its entirety due to its internal consistency and acceptable factor structure.

The final 7-factor, 25-item model demonstrated acceptable fit indices (CFI = 0.944, TLI = 0.927, RMSEA = 0.065, SRMR = 0.047), supporting the revised factor structure. All retained items had standardized factor loadings above 0.60, indicating strong contributions to their respective latent constructs. This refined model provides a reliable and valid structure for assessing quality of life among Chinese university students.

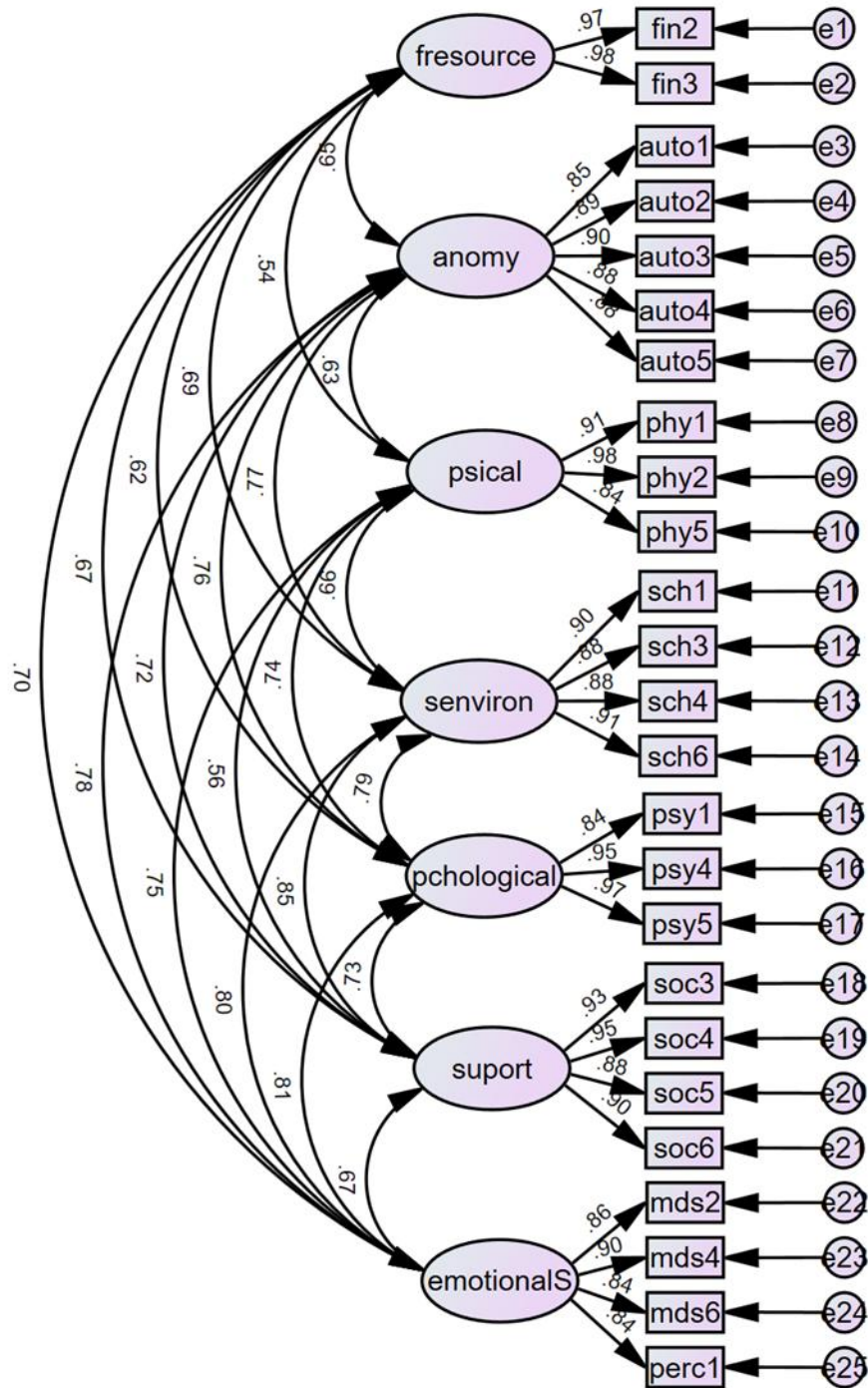


Figure 4 Standardized Estimates

The Chinese College Students' Quality of Life Scale, a refined adaptation of the original 52-item Quality of Life Questionnaire, maintains the fundamental theoretical

underpinnings of the original instrument while enhancing its cultural and contextual relevance for Chinese university students. This revised version retains key conceptual domains-such as psychological well-being, moods and emotions, autonomy, and social support-while eliminating redundant or culturally incongruent items. Through a rigorous two-phase analytical process, the scale was streamlined from 52 to 25 items and from 10 to 7 dimensions, thereby improving measurement efficiency without sacrificing reliability or validity. By aligning more closely with the lived experiences and sociocultural realities of Chinese students, the final version not only strengthens psychometric robustness but also ensures practical applicability for future research, policy development, and intervention evaluation within similar educational and cultural contexts. The following table presents the retained items and latent variables in the final confirmatory factor analysis (CFA) model.

Table 16 Retained Items and Latent Variables in the Final CFA Model

Latent Variable	Contains the original dimensions	Observed Variables (Item Numbers)	Notes
<i>Financial Resources</i>	maintains the original dimensions	Q40, Q41	Few items; can be modeled as a second-order construct
<i>Autonomy</i>	maintains the original dimensions	Q28, Q29, Q30, Q31, Q32	Retained in full
<i>Physical Well-being</i>	maintains the original dimensions	Q5, Q6, Q9	Retained after streamlining
<i>School Environment</i>	maintains the original dimensions	Q48, Q50, Q51, Q53	Retained after streamlining
<i>Psychological Well-being</i>	maintains the original dimensions	Q10, Q13, Q14	Retained only high-loading items

Table 16 (continued)

Latent Variable	Contains the original dimensions	Observed Variables (Item Numbers)	Notes
<i>Social Support and Environment</i>	Parents Relation and Home Life + Social Support and Peers + Social Acceptance	Q44, Q45, Q46, Q47	Retained after streamlining
<i>Emotional Self-Perception</i>	Moods and Emotions + Self-Perception	Q17, Q19, Q21, Q23	Retained after streamlining

Based on the model fit indices provided in the table 17, the results of the Confirmatory Factor Analysis (CFA) suggest that the optimized model exhibits a satisfactory overall fit to the data. Although the chi-square statistic was significant ( $\chi^2 = 653.966$ ,  $df =$  not specified here,  $p < .001$ ), this result is expected due to the chi-square test's sensitivity to sample size. Therefore, it should not be the sole indicator of model adequacy.

Other fit indices provide a more robust evaluation. The relative chi-square (CMIN/DF) was 2.575, which falls within the acceptable range (less than 3), indicating adequate model parsimony. The Root Mean Square Error of Approximation (RMSEA) was 0.077, which is below the recommended upper threshold of 0.08, suggesting a reasonably good fit. Additionally, incremental fit indices such as the Comparative Fit Index (CFI = 0.950), Tucker-Lewis Index (TLI = 0.941), and Normed Fit Index (NFI = 0.921) all exceeded the conventional benchmark of 0.90, reflecting a strong correspondence between the hypothesized model and the observed data.

The Minimum Fit Function (FMIN = 2.477) and the Non-Centrality Parameter (NCP = 399.966) further support the model's acceptability, contributing to the conclusion that the model structure is robust. Overall, these indices confirm that the refined CFA

model provides a valid and reliable framework for assessing the quality of life among Chinese university students and underscore the effectiveness of the scale optimization process.

Table 17 Model Fit (Default model)

Chi-square	653.966 ( $p = 0.00$ )
CMIN/DF	2.575
RMSEA	0.077
CFI	0.950
TLI	0.941
NFI	0.921
FMIN	2.477
NCP	399.966

Table 18 Model Fit Indices for the Confirmatory Factor Analysis (CFA) Model

Fit Index	Value	Interpretation
Chi-square ( $\chi^2$ )	653.966 ( $p = 0.000$ )	The chi-square value is statistically significant, indicating some difference between the model and observed data. However, chi-square is <b>highly sensitive to sample size</b> , and with larger samples, significance is almost always observed. Therefore, it should not be used alone to judge model fit.
CMIN/DF ( $\chi^2/df$ )	2.575	Also known as relative chi-square. A value below 3 is generally considered acceptable, indicating <b>a good model fit</b> in this case.

Table 18 (continued)

Fit Index	Value	Interpretation
RMSEA	0.077	A value below 0.08 is considered acceptable. 0.077 suggests an acceptable level of model fit.
CFI (Comparative Fit Index)	0.950	A CFI value above 0.95 indicates excellent model fit, showing that the hypothesized model closely matches the observed data.
TLI (Tucker-Lewis Index)	0.941	A value greater than 0.90 suggests a good fit, further confirming the model's robustness.
NFI (Normed Fit Index)	0.921	A value over 0.90 indicates a well-fitting model.
FMIN (Minimum Fit Function)	2.477	A lower value is better. This value indicates substantial improvement from previous versions.
NCP (Non-Centrality Parameter)	399.966	A reduced NCP also indicates an improved fit and contributes to more favorable RMSEA calculation.

Based on Table 19 the Standardized Regression Weights demonstrate that all retained items in the finalized version of The Chinese College Students' Quality of Life Scale show strong and significant loadings on their respective latent factors. The standardized estimates range from 0.836 to 0.983, all well above the commonly accepted threshold of 0.50, indicating excellent convergent validity and construct reliability across the model.

Each latent construct (dimension) is measured by 3 to 5 items, and the factor loadings confirm that each item contributes meaningfully to its respective dimension:

Financial Resources (fresource): Items Q40 and Q41 have extremely high loadings (0.971 and 0.977), indicating a strong reflection of financial conditions in students' quality of life.

Autonomy (anomy): Items Q28-Q32 show consistently high loadings (ranging from 0.848 to 0.896), confirming the internal consistency of this dimension.

Physical Well-being (psical): Q5, Q6, and Q9 have strong loadings (0.841 to 0.983), showing high reliability in measuring students' physical health perceptions.

School Environment (senviron): Q48, Q50, Q51, and Q53 demonstrate high loadings (0.884 to 0.914), supporting this dimension's construct validity.

Psychological Well-being (pchological): Q10, Q13, and Q14 range from 0.838 to 0.969, indicating strong associations.

Social Support and Peers (suport): Q44-Q47 all load strongly (0.884 to 0.949), reinforcing the reliability of this scale.

Moods and Self-Perception (emotionalS): Q17, Q19, Q21, and Q23 also exhibit consistently high factor loadings (0.836 to 0.899), supporting the robustness of this construct.

Overall, the standardized factor loadings confirm that the newly refined 7-factor, 25-item model has solid psychometric properties. The high factor loadings across all dimensions validate the theoretical structure and measurement accuracy of The Chinese College Students' Quality of Life Scale, making it a reliable instrument for future research and practical application in higher education contexts in China.

Table 19 Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
Q40 <--- fresource	.971
Q41 <--- fresource	.977
Q28 <--- anomy	.848
Q29 <--- anomy	.887
Q30 <--- anomy	.896
Q31 <--- anomy	.878
Q32 <--- anomy	.881
Q5 <--- psical	.913
Q6 <--- psical	.983
Q9 <--- psical	.841
Q48 <--- senviron	.899
Q50 <--- senviron	.884
Q51 <--- senviron	.884
Q53 <--- senviron	.914
Q10 <--- pchological	.838
Q13 <--- pchological	.949
Q14 <--- pchological	.969
Q44 <--- suport	.926
Q45 <--- suport	.949
Q46 <--- suport	.884
Q47 <--- suport	.903
Q17 <--- emotionalS	.856
Q19 <--- emotionalS	.899
Q21 <--- emotionalS	.836
Q23 <--- emotionalS	.836

Based on the results of both EFA and CFA, this study developed a revised measurement instrument titled “The Chinese College Students' Quality of Life Scale”, specifically tailored to the contextual and cultural characteristics of university students in China. While this new scale demonstrates strong psychometric properties - such as clearly defined dimensions, satisfactory internal consistency, and acceptable model fit - there are still limitations to consider. The study relied solely on quantitative data, which may have overlooked nuanced individual experiences and contextual influences that qualitative methods could better capture.

Future research should adopt mixed-method approaches - such as interviews or focus groups - to further validate and refine the Chinese College Students' Quality of Life Scale. Applying the scale to more diverse samples and exploring additional contextual factors will enhance its generalizability and practical value. This version offers a strong foundation for assessing and improving the quality of life among Chinese university students.

#### **4.1.8 The Impact of Individual Counselling Programme on Quality of Life**

Ten volunteers from the previously studied group are invited to participate in this Individual Counselling Programme. The Individual Counselling Programme lasted approximately 6 months, consisting of 10 individual counselling sessions per participant, each scheduled roughly one week apart. Each session lasted between 45 minutes to 1 hour, with slight adjustments made according to individual volunteer schedules. The Quality of Life Questionnaire was used to measure participants' quality of life both before and after the Individual Counselling Programme.

Non-parametric tests do not rely on assumptions about data distribution, making them particularly suitable for smaller sample sizes or when data do not meet the assumptions necessary for parametric tests. Given the relatively small sample size in this study, the Independent-Samples Mann-Whitney U Test was chosen as a complementary analysis to validate the findings. The Mann-Whitney U Test evaluates whether there is a

statistically significant difference in medians between two independent groups, especially useful for data with unclear or non-normal distributions (Nachar, 2008).

Table 20 presents the impact of the Individual Counselling Programme on various dimensions of quality of life. The Mean Difference scores were calculated by subtracting pre-counselling quality of life scores from post-counselling quality of life scores. The dimension "Moods and Emotions" showed the largest mean difference (0.77), indicating the greatest improvement through the counselling programme. Conversely, the dimension "Financial Resources" had the smallest mean difference (0.10). The overall mean difference was 0.50.

Table 20 shows two significant tests for comparing the quality of life difference for individuals attending before and after the counselling programme. According to the p-value (Sig.) of Mann-Whitney U Test presented, dimensions such as Psychological Well-being ( $p = 0.005$ ), Moods and Emotions ( $p = 0.002$ ), Self-perception ( $p = 0.015$ ), Autonomy ( $p = 0.023$ ), and Social Support and Peers ( $p = 0.005$ ) showed statistically significant improvements. These results suggest that the Individual Counselling Programme positively influences these specific dimensions of quality of life. Dimensions such as Physical Well-being ( $p = 0.190$ ), Parents Relation and Home Life ( $p = 0.165$ ), Financial Resources ( $p = 1.000$ ), School Environment ( $p = 0.143$ ), and Social Acceptance and Bullying ( $p = 0.165$ ) were not statistically significant, indicating that the counselling programme may have limited or no effect on improving these particular aspects of quality of life. Overall, the programme significantly improved the participants' overall quality of life ( $p = 0.005$ ).

In summary, the Individual Counselling Programme effectively enhances participants' quality of life, especially in psychological and emotional aspects, autonomy, self-perception, and social relationships.

Table 20 The Impact of Individual Counselling Programme on Quality of Life

Dimensions of Quality of Life	Quality of Life Mean Difference (Post and Pre-Counselling)	z-value	p-value (Exact Sig.)
Physical well-being	0.46	1.37	0.190
Psychological well-being	0.77	2.75**	0.005
Moods and emotions	0.77	2.97**	0.002
Self-perception	0.68	2.40*	0.015
Autonomy	0.70	2.30*	0.023
Parents Relation and Home Life	0.42	1.41	0.165
Financial Resources	0.10	0.09	1.000
Social Support and Peers	0.50	2.76**	0.005
School Environment	0.32	1.49	0.143
Social Acceptance and Bullying	0.30	1.43	0.165
Quality of Life	0.50	2.72**	0.005

Note: \* $p < 0.05$  \*\* $p < 0.01$ . z-values were computed using the Independent-Samples Mann-Whitney U Test.

## Chapter 5

### Conclusion and Discussion

This study was conducted in two phases. The first phase, using a quantitative research design, aimed to (1) explore the overall quality of life among Chinese university students and (2) identify the key components that constitute their quality of life. Based on literature review and statistical analyses, a new measurement tool—The Chinese College Students' Quality of Life Scale—was developed, consisting of 7 dimensions and 25 items.

In the second phase, a quasi-experimental design was employed to (1) develop an individual counselling program grounded in the A-B-C framework and (2) evaluate its effectiveness in improving students' quality of life. The Mann-Whitney U test, a non-parametric method, was used to compare pre- and post-intervention scores. Results indicated a significant improvement in participants' overall quality of life following the counselling program (mean difference = 0.501,  $p = 0.005$ ), confirming both the effectiveness of the intervention and the applicability of the newly developed scale.

#### 5.1 Summary

#### 5.2 Discussion

##### 5.2.1 Exploration into the Quality of Life of Chinese College Students

##### 5.2.2 Effectiveness of Individual Counselling on Chinese College Students'

Quality of Life

#### 5.3 Suggestions

##### 5.3.1 Suggestions for Research and Educational Practices

##### 5.3.2 Suggestions for Future Research

#### 5.4 Limitations

## 5.1 Summary

### Phase I: Quality of Life Study

This study found that among participants, the dimension scoring highest in Quality of Life was "Parent Relations and Home Life" (mean=3.98), while "Moods and Emotions" scored the lowest (mean=3.32). The overall quality of life mean score was 3.69, with a standard deviation (SD) of 0.83. Additionally, "Financial Resources" exhibited the highest variability (SD=1.06), indicating diverse opinions among participants on this dimension. In contrast, "Parent Relations and Home Life" had the lowest variability (SD=0.90), showing consistent perceptions. Reliability analysis confirmed strong internal consistency and reliability for all quality of life dimensions.

The independent samples t-test results indicated significant gender differences in multiple quality of life dimensions, with males reporting higher scores than females in physical well-being, psychological well-being, moods and emotions, self-perception, parent relations and home life, financial resources, school environment, and overall quality of life. However, age did not significantly influence quality of life, with similar scores observed between younger (18-21 years) and older students (22-25 years).

Furthermore, correlation analysis showed significant positive relationships between all quality of life dimensions and overall quality of life, with "Social Support and Peers" (0.89) and "School Environment" (0.89) having the strongest correlations. This indicates the critical importance of these dimensions in shaping overall perceived quality of life. Strong intercorrelations among dimensions further suggest that improvements in one quality of life area are likely associated with enhancements in other areas as well.

Both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) suggest that the conceptualization of quality of life among Chinese university students needs to be adapted to the local context. Based on literature review and empirical analysis, a new instrument—The Chinese College Students' Quality of Life Scale—was developed. This scale comprises seven key dimensions: moods and self-perception, family and peer relationships, psychological well-being, school environment, physical well-being, autonomy, and financial resources, encompassing a total of 25 items.

## Phase II: Enhancing Quality of Life Through Individual Counselling Program

This section employed non-parametric tests to examine changes in participants' Quality of Life before and after involvement in an Individual Counselling Program (ICP). The Mann-Whitney U test confirmed statistically significant improvements in dimensions such as Psychological Well-being ( $p = 0.005$ ), Moods and Emotions ( $p = 0.002$ ), Self-Perception ( $p = 0.015$ ), Autonomy ( $p = 0.023$ ), and Social Support and Peers ( $p = 0.005$ ). Conversely, no significant improvements were noted in dimensions including Physical Well-being ( $p = 0.190$ ), Parent Relations and Home Life ( $p = 0.165$ ), Financial Resources ( $p = 1.000$ ), School Environment ( $p = 0.143$ ), and Social Acceptance and Bullying ( $p = 0.165$ ). Overall, the ICP significantly enhanced participants' total quality of life ( $p = 0.005$ ).

These above research results assess the effectiveness of individual counselling interventions in enhancing the quality of life among college students. By investigating the impact of counselling on various aspects of students' well-being, including psychological well-being, moods and emotions, and overall quality of life, this study seeks to provide insights into the potential benefits of counselling services in higher education settings (Erford, 2015; Galassi et al., 2017; Leibert, 2019).

Overall, this study endeavours to contribute to a comprehensive understanding of the quality of life of Chinese college students, elucidate the determinants of their well-being and assess the potential efficacy of individual counselling interventions in promoting their overall quality of life.

## 5.2 Discussion

### 5.2.1 Exploration into the Quality of Life of Chinese College Students

This study aimed to develop and refine a new measurement tool for assessing the quality of life among Chinese university students and to examine the effectiveness of an individual counselling program based on the A-B-C framework in enhancing their quality of life.

The findings of this study suggest that, within the Chinese context, the quality of life of university students can be categorized into seven key dimensions: emotion and

self-perception, family and peer relationships, psychological well-being, school environment, physical well-being, autonomy, and financial resources. The \*Chinese College Students' Quality of Life Scale\* provides an effective tool for measuring quality of life among this population; however, further refinement is still needed to enhance its comprehensiveness and precision.

These results align with the study of Tian et al. (2019), which identified issues with the misuse and insufficient localization of the original quality of life scale in China. They recommended that scale items, such as those related to financial resources, be adapted according to the Chinese cultural context and validated through large-scale reliability and validity assessments. Although direct applications of the full KIDSCREEN-52 scale are relatively limited in Chinese student populations, abbreviated versions such as KIDSCREEN-27 and KIDSCREEN-10 have demonstrated value in domestic studies. For instance, recent research on children with Tourette Syndrome (TS) found that the Chinese version of KIDSCREEN-27 has good reliability and validity (Cronbach's  $\alpha=0.85$ ) and effectively differentiates between the quality of life of children with TS and healthy controls (Anon., 2023). Furthermore, in a mental health survey conducted in a middle school in Chongqing, the KIDSCREEN-10 was used to assess psychological health among adolescents aged 8-18. The study found significant correlations between psychological qualities and indicators such as mental health, family cohesion, and adaptability, demonstrating the feasibility of KIDSCREEN-10 as a rapid screening tool (He, et al., 2019). Concurrently, this study's reliability and validity analyses confirmed the applicability of KIDSCREEN-52 in the Chinese context and indicated potential directions for future improvements (Cronbach's  $\alpha=0.958$ ).

Additionally, this study found significant differences across various dimensions of quality of life among Chinese university students. The three dimensions scoring highest were: parents' relationship and home life (mean: 3.9761), social support and peers (mean: 3.8818), and psychological well-being (mean: 3.8384). These findings reflect that Chinese university students currently experience relatively stable family environments, harmonious family relationships, and possess robust social support

networks and interpersonal resources. This phenomenon may be attributed to traditional Chinese cultural values emphasizing family harmony and the collective social environment (Wei X, et al., 2013; Dong et al., 2023), which facilitate psychological satisfaction and emotional support from family and social connections. Moreover, Arcila-Arango et al. (2020) found similar positive and direct correlations between quality of life dimensions and both parents relationship and home life, as well as social acceptance among Colombian university students.

Moreover, this study identified the three dimensions with the lowest scores as emotion and mood (3.3245), self-perception (3.5147), and financial resources (3.6063), reflecting significant pressures and challenges faced by Chinese university students in emotional stability, self-worth perception, and financial independence. These results are consistent with the findings from the literature review conducted earlier in this study. The reviewed literature revealed that the primary reasons for low quality of life among participants were often associated with negative emotional states such as anxiety, depression, confusion, and self-doubt. According to prior studies (Chinese Academy of Social Sciences, 2006; The Survey Report of Mental Health Status of College Students, 2022), negative emotions experienced by contemporary Chinese university students primarily stem from academic pressure, uncertainty about future development, and the financial stress linked to transitioning into society. The literature also emphasized that the main sources of psychological stress for Chinese students include academic workload, interpersonal relationships, personality traits, and anxiety regarding future prospects. Anxiety about future development is notably one of the critical factors affecting contemporary Chinese students' quality of life (Chinese Academy of Social Sciences, 2006; The Survey Report of Mental Health Status of College Students, 2022). These findings are largely consistent with the conclusions of the present study, reinforcing the reliability and validity of this research.

However, a study examining the determinants of quality of life among adolescents in Poland found that the top three highest-scoring dimensions were social acceptance and bullying, financial resources, and physical well-being. Conversely, the

three lowest-scoring dimensions were school environment, psychological well-being and social support and peers (Magiera & Pac, 2022). Another study conducted in Mexico using the KIDSCREEN-52 scale to assess health-related quality of life and depressive symptoms among high school students revealed that 31.8% of students perceived lower quality of life in the physical health dimension, 33.3% in psychological health, and 49.3% in the emotions and feelings dimension (Gómez-Delgado et al., 2022). These differences may be influenced by various factors such as national culture, family economic status, educational policies. Furthermore, Ravens-Sieberer et al. (2008), in a cross-cultural analysis of the KIDSCREEN-52 scale, noted that since the questionnaire was initially developed in European countries, its items and dimensions, though relevant to European children and adolescents, may not hold the same relevance for populations outside Europe.

In conclusion, based on reliability and validity analyses and supporting evidence from previous studies, this research is considered to have acceptable reliability and validity. Additionally, the Quality of Life Questionnaire is applicable in the Chinese context; however, it requires adjustments and localization of certain items and dimensions to better fit China's specific social and cultural circumstances.

#### **5.2.2 Effectiveness of Individual Counselling on Chinese College Students' Quality of Life**

In addition to exploring the applicability of the Quality of Life Questionnaire among Chinese university students and identifying the key dimensions influencing their quality of life (Hypothesis 1), this study also examined the impact of individual counselling on the quality of life of Chinese university students (Hypothesis 2).

By comparing participants' quality of life scores before and after the individual counselling program, this study found that the individual counselling program, designed using the A-B-C framework, effectively improved overall quality of life (Overall Quality of Life Mean Difference: 0.501,  $p = 0.005$ ). Notably, the counselling program appeared particularly effective in enhancing specific quality of life dimensions, with the top three improvements observed in "Moods and Emotions" (mean difference: 0.771,  $p = 0.002$ ), "Psychological Well-being" (mean difference: 0.767,  $p = 0.005$ ), and "Autonomy" (mean

difference: 0.700,  $p = 0.023$ ). In other words, the program demonstrated substantial benefits in improving participants' emotional states, mental health, and sense of autonomy. In fact, Individual counselling program, based on CBT, studies have as been widely recognised for its effectiveness in improving "Moods and Emotions" dimension of quality of life. In summary, the application of an individual counselling program based on the ABC framework of CBT is supported by empirical evidence demonstrating its effectiveness in improving overall quality of life, particularly in the areas of "Moods and Emotions," "Psychological Well-being," and "Autonomy".

Although the individual counselling program demonstrated effectiveness in improving certain aspects of quality of life in this study, the statistical results for the following dimensions were not significant: Physical Well-being ( $p=0.190$ ), Parents Relation and Home Life ( $p=0.165$ ), Financial Resources ( $p=1.000$ ), School Environment ( $p= 0.143$ ), and Social Acceptance and Bullying ( $p=0.165$ ). These findings suggest that the counselling program cannot improve these specific areas of quality of life.

The five non-significant dimensions identified in this study are primarily associated with external factors, whereas conventional individual psychological counselling typically focuses more on internal issues and personal transformation (Stanley , 2013). Although research has shown that family therapy can improve parent–child relationships and overall family life (Evans P, et al., 2012), individual counselling usually does not involve family members, which limits participants' ability to directly enhance family dynamics. In terms of "Social Acceptance and Bullying", certain themed counselling sessions and activities can provide valuable emotional support to victims of bullying (Verasammy and Cooper, 2021; Rajabi et al., 2017). However, their effectiveness in altering external environments or preventing bullying incidents remains limited. Xu et al. (2020) have suggested that social support can buffer the negative effects of bullying on mental health, but counselling alone may not be sufficient to improve peer-level social acceptance.

Overall, while individual counselling is beneficial for certain personal and psychological aspects of students' quality of life, its impact on dimensions influenced by external or systemic factors may be limited. Addressing these areas may require comprehensive strategies involving institutional changes, family engagement, financial support programs, and community-based interventions.

### 5.3 Suggestions

#### 5.3.1 Suggestions for Research and Educational Practices

In this study, the individual counselling program was grounded in the Cognitive Behavioural Therapy (CBT) framework, specifically employing the A-B-C theoretical model to explore effective methods for enhancing the quality of life among Chinese university students. Cognitive Behavioural Therapy, introduced by American psychiatrist Aaron T. Beck in the 1960s, emphasizes the interactions among cognition, emotions, and behaviour. CBT suggests that emotional distress and behavioural issues can be significantly alleviated by identifying and restructuring irrational or dysfunctional thought patterns. Concurrently, Albert Ellis developed Rational Emotive Behaviour Therapy (REBT), introducing the influential A-B-C framework-Activating Event, Belief, and Consequence-which remains fundamental to CBT. This model elucidates how emotional responses are formed and provides a structured method for individuals to modify their beliefs and achieve improved emotional outcomes.

The advantages of integrating CBT and the A-B-C framework into counselling programs for students are considerable. Specifically, this theoretical approach facilitates students' ability to recognize and challenge irrational beliefs systematically, fostering enhanced emotional regulation, improved psychological resilience, and greater autonomy. Recognizing these advantages, this study utilized CBT and the A-B-C framework as guiding principles and standardized intervention methods within its individual counselling program. Each of the ten dimensions of quality of life as identified by the KIDSCREEN-52 scale was explicitly incorporated into the counselling sessions. To ensure consistency and comparability of outcomes, participants engaged in a structured, six-session program, each session systematically addressing these ten

quality of life dimensions. The use of this structured approach assisted the research in accurately assessing improvements across various quality of life indicators.

Through this counselling program, the present study confirmed the effectiveness of employing the CBT-based A-B-C framework to enhance overall quality of life among Chinese university students. Particularly noteworthy improvements were observed in internal personal factors such as moods and emotions, psychological well-being, and autonomy. The application of the CBT-based A-B-C framework was innovative in this context, as it systematically integrated cognitive restructuring techniques with targeted, culturally relevant counselling interventions tailored specifically to Chinese university students. Furthermore, the structured nature of the A-B-C model provided a clear, replicable framework for both participants and counsellors, enhancing program consistency and facilitating measurable outcomes. This approach not only addressed immediate emotional and psychological challenges but also equipped students with sustainable coping strategies and self-regulation skills, highlighting its long-term effectiveness. The study thus demonstrates the A-B-C framework's adaptability and practical value within diverse educational and cultural contexts.

This research provides new avenues and implications for future scholars. Future research can explore alternative approaches to address external factors affecting quality of life, such as financial resources, social acceptance, and school environment, thus addressing limitations noted in the current study and contributing to a more comprehensive enhancement of student quality of life. Moreover, since the participants in this study were limited to Chinese university students, further studies might extend the exploration to high school students or other educational sectors. Such research could validate the applicability and efficacy of CBT and the A-B-C framework to improve quality of life within broader and more diverse populations.

Additionally, this study identified inconsistencies in the ten dimensions of the Quality of Life Questionnaire when applied within the Chinese context. Specifically, the quality of life for Chinese university students should be conceptualized through seven critical dimensions: Dimension 1 includes "Moods and Emotions" and "Self-Perception";

Dimension 2 comprises “Parental Relations and Home Life,” “Social Support and Peers,” and “Social Acceptance and Bullying”; Dimension 3 addresses “Psychological Well-being”; Dimension 4 involves the “School Environment”; Dimension 5 pertains to “Physical Well-being”; Dimension 6 covers “Autonomy”; and Dimension 7 relates to “Financial Resources”. Additionally, items labelled “Social Support and Peers 1” and “Social Support and Peers 2” from the original scale were found to be insignificant indicators of quality of life among Chinese university students and may therefore be considered for exclusion or modification.

These discrepancies between the original and Chinese-adapted scales likely result from differing cultural influences. Since the KIDSCREEN-52 was initially developed in European countries, it may lack adequate representation from Asian populations. Such inconsistencies highlight and enrich the ongoing exploration of quality of life dimensions specifically within the Chinese educational context. Consequently, future researchers might further investigate whether similar divergences in quality of life dimensions exist in other Asian educational contexts, thereby contributing to a broader and deeper understanding of quality of life dimensions across various cultural and national contexts.

This study also significantly contributes to the development of educational practices in the Chinese university context in several meaningful ways:

- 1) Our study findings imply practical approaches universities can adopt to effectively measure students' quality of life. Universities should consider developing and implementing tailored assessment tools based on validated frameworks, such as adapting the The Chinese College Students' Quality of Life Scale for local relevance. For example, institutions can create a simplified self-assessment rating form derived from the adjusted scale dimensions, allowing students to regularly evaluate their own quality of life. These assessments can help institutions promptly identify students' needs, facilitating targeted interventions to enhance their well-being.

- 2) Our findings highlight how individual counselling programs can be effectively structured to enhance students' quality of life. Universities could develop

evidence-based counselling programs incorporating Cognitive Behavioural Therapy (CBT) principles, specifically utilizing the A-B-C framework. For example, counselling sessions can systematically address negative emotional patterns and promote positive cognitive restructuring, fostering emotional resilience among students. However, universities should remain aware of potential challenges, such as resource limitations, counsellor training requirements, ethical concerns regarding confidentiality, and stigma associated with seeking counselling services.

3) The survey findings identified specific dimensions of quality of life where students scored comparatively low, notably emotional stability, self-perception, and financial independence. These results suggest universities need to pay particular attention to these areas by offering targeted support services, such as emotional health workshops, self-esteem enhancement programs, and career guidance. Additionally, universities should invest in specialized pastoral care training for faculty and staff to effectively recognize and support students experiencing difficulties in these critical areas.

4) the government also has a vital role in facilitating universities' efforts to enhance student quality of life. Specifically, the government should provide adequate financial support to universities, enabling the implementation of comprehensive student support programs. Additionally, the government should introduce and enforce policies addressing school bullying, mental health awareness, and economic support programs, creating a safer and more supportive educational environment that comprehensively promotes students' overall quality of life.

### **5.3.2 Suggestions for Future Research**

This study significantly contributes to the development of educational practices in the Chinese university context in several meaningful ways:

First, our study findings imply practical approaches universities can adopt to effectively measure students' quality of life. Universities should consider developing and implementing tailored assessment tools based on validated frameworks, such as adapting the The Chinese College Students' Quality of Life Scale scale for local

relevance. For example, institutions can create a simplified self-assessment rating form derived from the adjusted scale dimensions, allowing students to regularly evaluate their own quality of life. These assessments can help institutions promptly identify students' needs, facilitating targeted interventions to enhance their well-being.

Second, our findings highlight how individual counselling programs can be effectively structured to enhance students' quality of life. Universities could develop evidence-based counselling programs incorporating Cognitive Behavioural Therapy (CBT) principles, specifically utilizing the A-B-C framework. For example, counselling sessions can systematically address negative emotional patterns and promote positive cognitive restructuring, fostering emotional resilience among students. However, universities should remain aware of potential challenges, such as resource limitations, counsellor training requirements, ethical concerns regarding confidentiality, and stigma associated with seeking counselling services.

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#### 5.4 Limitations

Although this research has significantly contributed to both literature and educational practices, several limitations remain, providing potential directions for future studies.

Firstly, this study exclusively utilized quantitative methods to answer the proposed research questions. While the quantitative approach effectively demonstrated differences and specific dimensions of quality of life among Chinese university students and verified the effectiveness of individual counselling in enhancing students' quality of life, it did not allow for a deeper exploration of underlying reasons. For instance, it could not thoroughly investigate why particular dimensions or factors significantly influence quality of life, nor could it uncover students' interpretations, perspectives, and deeper psychological concerns. Quantitative methods primarily highlight relationships and identify dimensions constituting quality of life but are insufficient for exploring in-depth phenomena such as the reasons behind low scores in specific dimensions.

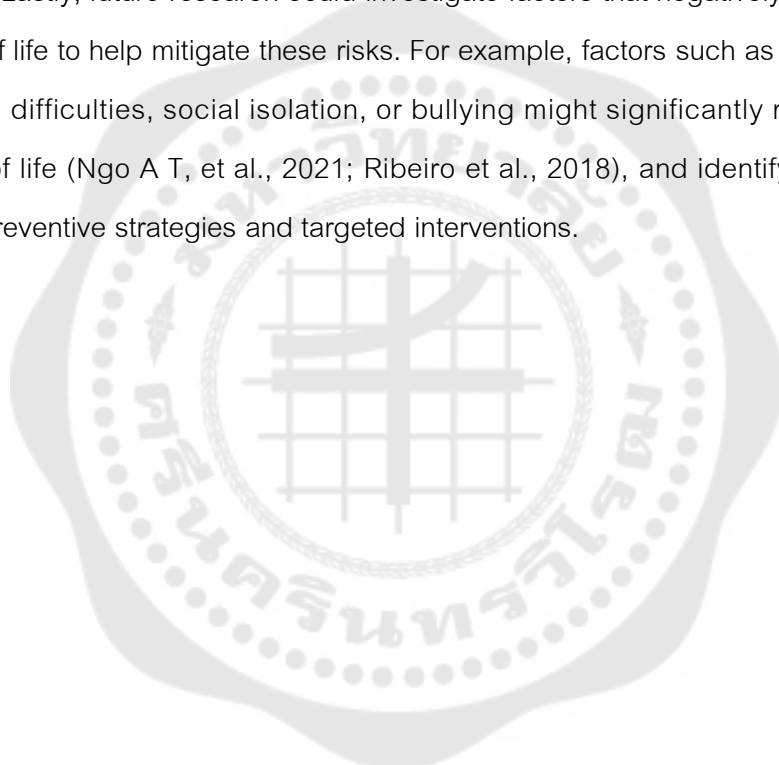
Secondly, this research focused exclusively on the Chinese context, lacking cross-cultural comparative analysis. Although this study addressed the research gap concerning the application of Quality of Life Questionnaire among Chinese university students, enhancing our understanding of their quality of life, the scale and theoretical framework utilized originated from Western contexts. This raises potential cross-cultural applicability issues. Therefore, future researchers are encouraged to conduct cross-cultural comparative studies, such as exploring quality of life differences among students from various countries or investigating the quality of life of Chinese students studying abroad, whose educational environments differ significantly from those in China. Such studies would help determine whether findings remain consistent across diverse cultural contexts.

Thirdly, the limited sample size in the intervention component of this study ( $n = 10$ ) may affect the generalizability of the findings. A small sample size could limit the applicability of results beyond the context of Chinese university students, as findings might not generalize to other educational sectors such as primary or secondary schools.

To overcome this limitation, future research could expand the sample size by including participants from more diverse educational levels (e.g., high schools, primary schools).

Fourthly, although numerous approaches could potentially enhance students' quality of life, this study examined only the individual counselling approach. In the Chinese context, future studies could also explore other interventions, including group courses, counsellor training programs, and interest groups, and compare their relative effectiveness in improving students' quality of life.

Lastly, future research could investigate factors that negatively impact students' quality of life to help mitigate these risks. For example, factors such as academic stress, financial difficulties, social isolation, or bullying might significantly reduce students' quality of life (Ngo A T, et al., 2021; Ribeiro et al., 2018), and identifying these could inform preventive strategies and targeted interventions.



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APPENDIX

## Appendix A

### Online Questionnaire

Exploration of Factors Influencing Quality of Life among Chinese College Students Questionnaire

#### Section A: Demographic Information

1. Gender.

Male

Female

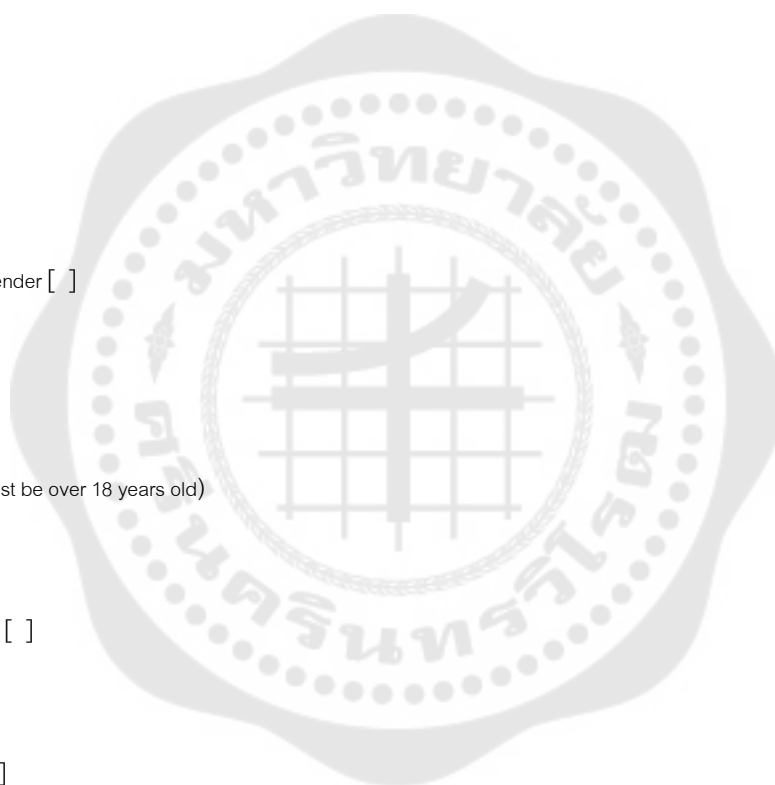
Preferred Gender [ ]

Other

2. Age? (Must be over 18 years old)

3. Province: [ ]

4. Major: [ ]



## Section B: Physical well-being

1. Do you think your health in general is....?

excellent -> bad

Physical health

2. Were you feeling well and physically fit?

not at all -> extremely

Physical health

3. Were you physically active (e.g. running, swimming, dancing)?

not at all -> extremely

Physical health

4. Were you able to run?

not at all -> extremely

Physical health

5. Were you full of energy?

never -> always

Physical health

## Section C: Psychological well-being

6. Was your life full of joy?

not at all -> extremely

Mental well-being

7. Did you feel happy to be alive?

not at all -> extremely

Mental well-being

8. Did you feel satisfied with your life?

not at all -> extremely

Mental well-being

9. Were you in a good mood?

never -> always

Mental well-being

10. Were you cheerful?

never -> always

Mental well-being

11. Did you have fun?

never -> always

Mental well-being

Section D: Moods and emotions

12. Did it feel like you were doing everything wrong?

never -> always

Moods and emotions

13. Did you feel sad?

never -> always

Moods and emotions

14. Did you feel so bad that you didn't want to do anything?

never -> always

Moods and emotions

15. Did you feel like everything was going wrong in your life?

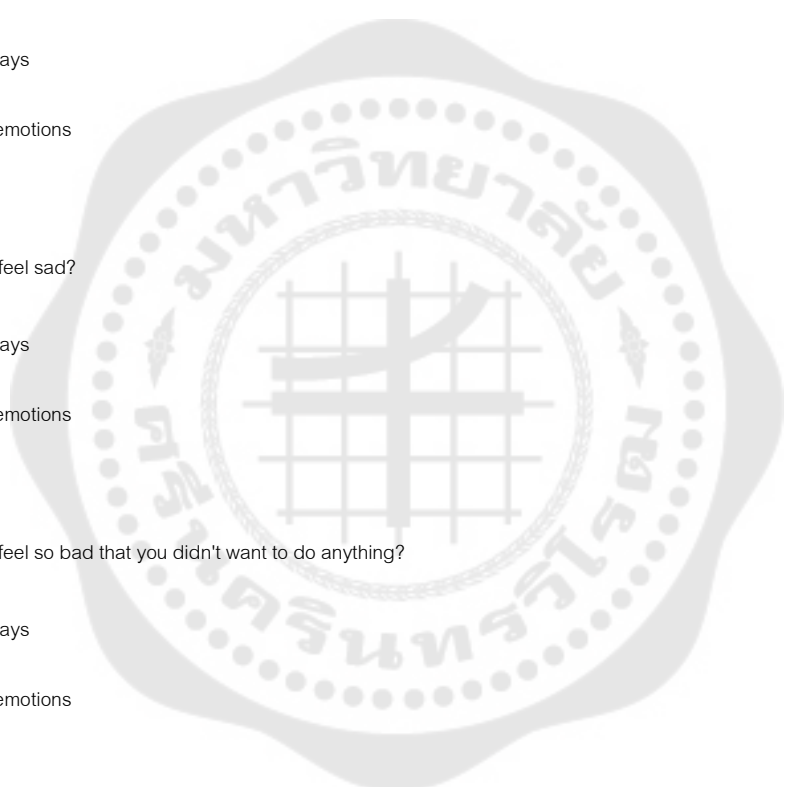
never -> always

Moods and emotions

16. Did you feel like you were fed up with everything?

never -> always

Moods and emotions



17. Did you feel lonely?

never -> always

Moods and emotions

18. Have you felt overwhelmed by problems?

never -> always

Moods and emotions

Section E: Self-perception

19. Were you happy with the way you were?

never -> always

About yourself

20. Were you happy with your clothes?

never -> always

About yourself

21. Were you worried about your appearance?

never -> always

About yourself



22. Did you envy the appearance of other girls and boys?

never -> always

About yourself

23. Would you like to change something in your body (e.g. body structure)?

never -> always

About yourself

Section F: Autonomy

24. Have you had enough time for yourself?

never -> always

Independence

25. Were you able to do whatever you wanted in your free time?

never -> always

Independence

26. Have you had enough opportunities to leave the house?

never -> always

Independence

27. Did you have enough time to meet with friends?

never -> always

Independence

28. Were you able to decide what you would do in your free time?

never -> always

Independence

Section G: Parents Relation and Home Life

29. Did your parents understand you?

not at all -> extremely

Relationships with parents and life at home

30. Did you feel loved by your parents?

not at all -> extremely

Relationships with parents and life at home

31. Were you happy at home?

never -> always

Relationships with parents and life at home

32. Did your parent(s) have enough time for you?

never -> always

Relationships with parents and life at home

33. Did your parent(s) treat you well and fairly (equally with others)?

never -> always

Relationships with parents and life at home

34. Could you talk to your parent(s) whenever you wanted?

never -> always

Relationships with parents and life at home



## Section H: Financial Resources

35. Did you have enough money to do what your friends did?

never -> always

Financial resources

36. Did you have enough money for your expenses?

never -> always

Financial resources

37. Did you have enough money to do something together with your friends?

not at all -> extremely

Financial resources

## Section I: Social Support and Peers

38. Did you spend time with your friends?

never -> always

Social support and peers

39. Did you do various jobs together with other girls or boys?

never -> always

Social support and peers

40. Did you have fun with your friends?

never -> always

Social support and peers

41. Did you and your colleagues help each other?

never -> always

Social support and peers

42. Could you talk about everything with your friends?

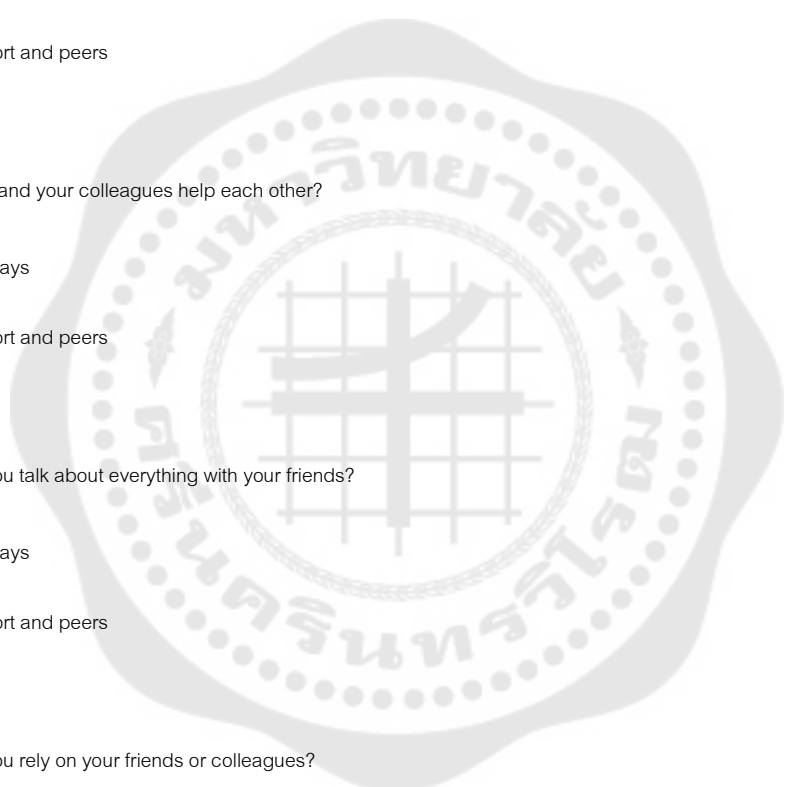
never -> always

Social support and peers

43. Could you rely on your friends or colleagues?

never -> always

Social support and peers



## Section J: School Environment

44. Were you happy when you were at school?

not at all -> extremely

School environment

45. Did you do well at school?

not at all -> extremely

School environment

46. Were you satisfied with your teachers?

not at all -> extremely

School environment

47. Were you able to look and listen carefully?

never -> always

School environment

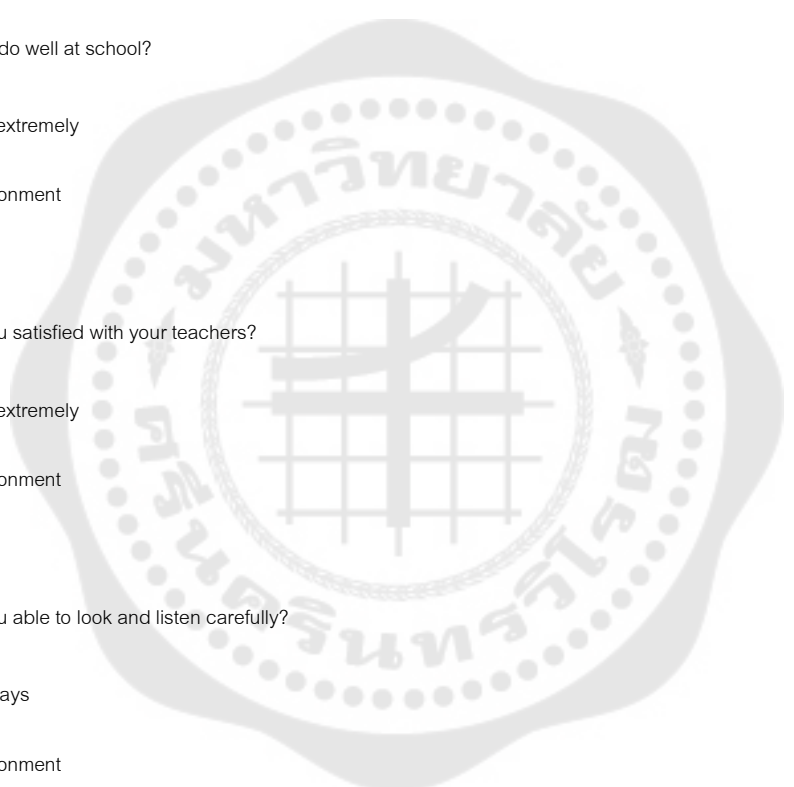
48. Did you enjoy going to school?

never -> always

School environment

49. Were your relationships with teachers good?

never -> always



School environment

Section K: Social Acceptance and Bullying

50. I was not afraid of other girls or boys.

strongly disagree -> strongly agree

Social acceptance (bullying)

51. Other girls or boys did not make fun of me.

strongly disagree -> strongly agree

Social acceptance (bullying)

52. Other girls or boys did not bully me (did not do things that made me feel bad).

strongly disagree -> strongly agree

Social acceptance (bullying)

Thank you for taking the time to complete this survey. Your feedback is invaluable to our research.

## Appendix B

### Individual Counselling Programme

#### Quality of Life Individual Counselling Program

Components of Quality of Life	Individual Counselling procedure
Physical Well-being	<p><b>Session 1: Introduction and Goal Setting</b></p> <p>The first session focuses on building rapport and introducing the A-B-C framework, which stands for Activating Event, Beliefs, and Consequences. The session includes psychoeducation about the model and an initial assessment using standardized Quality of Life questionnaires to understand the students' current physical well-being. Specific, measurable goals related to improving physical health are set during this session.</p> <p><b>Session 2: Identifying Activating Events and Beliefs</b></p> <p>In this session, students identify common activating events that negatively impact their physical well-being, such as lack of exercise or poor dietary habits. Students use thought records to track situations that trigger negative health behaviors and document the thoughts associated with these situations. This helps in understanding the underlying beliefs that lead to unhealthy behaviors.</p> <p><b>Session 3: Cognitive Restructuring</b></p> <p>This session focuses on challenging and reframing the negative and irrational beliefs identified in the previous session. Through cognitive restructuring exercises, students learn to dispute these irrational beliefs by examining evidence for and against them and developing more balanced perspectives. For instance, a belief like "I don't have time to exercise" is restructured to "I can find small pockets of time for physical activity."</p> <p><b>Session 4: Behavioral Activation</b></p> <p>Students are encouraged to increase their engagement in positive and meaningful physical activities. Techniques such as activity scheduling help students identify enjoyable and beneficial physical activities and gradually increase their engagement in these activities. This could include planning short exercise routines, participating in sports, or engaging in any physical activity that they find pleasurable.</p> <p><b>Session 5: Developing Coping Strategies</b></p>

Components of Quality of Life	Individual Counselling procedure
	<p>This session equips students with strategies to manage stress and maintain physical well-being. Techniques such as deep breathing, progressive muscle relaxation, and mindfulness meditation are introduced to help students manage stress, which can negatively impact physical health. Additionally, problem-solving skills are developed to help students overcome barriers to maintaining a healthy lifestyle.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session consolidates the gains made throughout the counseling program. Progress is reviewed, and potential challenges to maintaining physical well-being are discussed. A relapse prevention plan is developed, which includes strategies to handle future challenges and booster sessions if necessary. This plan helps ensure that students continue to apply what they have learned and maintain their improved physical health over the long term.</p>
Psychological Well-being	<p>Session 1: Introduction and Goal Setting</p> <p>The first session aims to establish rapport between the therapist and the student, introduce the A-B-C framework (Activating Event, Beliefs, and Consequences), and set specific, measurable goals for therapy. Techniques used include psychoeducation about the A-B-C model, an initial assessment using standardized Quality of Life questionnaires, and goal-setting exercises tailored to enhance psychological well-being.</p> <p>Session 2: Identifying Activating Events and Beliefs</p> <p>In this session, students identify common activating events that negatively impact their psychological well-being, such as academic pressures, social conflicts, or personal challenges. Students use thought records to track situations that trigger negative emotions, the thoughts associated with these situations, and the resulting emotional and behavioral responses. This process helps in recognizing and understanding the beliefs that contribute to psychological distress.</p> <p>Session 3: Cognitive Restructuring</p> <p>This session focuses on challenging and reframing negative and irrational beliefs identified in the previous session. Through cognitive restructuring exercises, students learn to dispute these irrational beliefs by examining the evidence for and against them and developing more balanced and rational perspectives. For instance, beliefs such as "I am not good enough" are reframed to "I have strengths and areas for improvement, like everyone else."</p> <p>Session 4: Behavioral Activation</p>

Components of Quality of Life	Individual Counselling procedure
	<p>Students are encouraged to increase their engagement in positive and meaningful activities to improve their mood and reduce avoidance behaviors. Techniques such as activity scheduling help students identify activities they find enjoyable and beneficial, and gradually increase their participation in these activities. This could include joining clubs, engaging in hobbies, or socializing with friends.</p> <p>Session 5: Developing Coping Strategies</p> <p>This session equips students with strategies to manage stress and negative emotions. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation. Additionally, problem-solving skills are developed to help students effectively handle challenges and stressors that impact their psychological well-being. Developing a personalized coping plan is a key component of this session.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session consolidates the gains made throughout the counseling program. Progress is reviewed, and potential challenges to maintaining psychological well-being are discussed. A relapse prevention plan is developed, which includes strategies to handle future challenges and possible booster sessions if necessary. This plan helps ensure that students continue to apply what they have learned and maintain their improved psychological health over the long term.</p>
Moods and Emotions	<p>Session 1: Introduction and Goal Setting</p> <p>The initial session is designed to build rapport and introduce the A-B-C framework, which stands for Activating Event, Beliefs, and Consequences. During this session, students will receive psychoeducation about the A-B-C model, undergo an initial assessment using standardized Quality of Life questionnaires, and set specific, measurable goals for therapy. This foundation sets the stage for targeted interventions aimed at improving their moods and emotions.</p> <p>Session 2: Identifying Activating Events and Beliefs</p> <p>In this session, students identify common activating events that negatively impact their moods and emotions, such as academic pressures, social conflicts, or personal setbacks. They will use thought records to track situations that trigger negative emotions, the associated thoughts, and the resulting emotional and behavioral responses. This process helps in recognizing and understanding the beliefs that contribute to emotional distress.</p> <p>Session 3: Cognitive Restructuring</p>

Components of Quality of Life	Individual Counselling procedure
	<p>The third session focuses on challenging and reframing the negative and irrational beliefs identified previously. Through cognitive restructuring exercises, students learn to dispute these irrational beliefs by examining the evidence for and against them and developing more balanced and rational perspectives. For example, a belief like "I am not capable" can be restructured to "I have the ability to learn and improve."</p> <p>Session 4: Behavioral Activation</p> <p>Students are encouraged to increase their engagement in positive and meaningful activities to improve their mood and reduce avoidance behaviors. Techniques such as activity scheduling help students identify activities they find enjoyable and beneficial, and gradually increase their participation in these activities. This might include joining clubs, engaging in hobbies, or socializing with friends.</p> <p>Session 5: Developing Coping Strategies</p> <p>In this session, students are equipped with strategies to manage stress and negative emotions. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation. Additionally, problem-solving skills are developed to help students effectively handle challenges and stressors that impact their moods and emotions. Developing a personalized coping plan is a key component of this session.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session consolidates the gains made throughout the counseling program. Progress is reviewed, and potential challenges to maintaining improved moods and emotions are discussed. A relapse prevention plan is developed, which includes strategies to handle future challenges and possible booster sessions if necessary. This plan ensures that students continue to apply what they have learned and maintain their emotional well-being over the long term.</p>
Self-perception	<p>Session 1: Introduction and Goal Setting</p> <p>The initial session focuses on establishing rapport between the therapist and the student, introducing the A-B-C framework, and setting specific, measurable goals for therapy. This session includes psychoeducation about the A-B-C model, an initial assessment using standardized Quality of Life questionnaires, and goal-setting exercises tailored to enhance self-perception.</p> <p>Session 2: Identifying Activating Events and Beliefs</p>

Components of Quality of Life	Individual Counselling procedure
	<p>In this session, the objective is to help students identify common activating events that negatively impact their self-perception, such as academic failures, social comparisons, or negative feedback. Students use thought records to track situations that trigger negative self-beliefs, documenting the associated thoughts and resulting emotional and behavioral responses. This process helps in recognizing patterns in their self-perception and understanding how their beliefs influence their self-esteem.</p> <p>Session 3: Cognitive Restructuring</p> <p>The third session focuses on cognitive restructuring, a key CBT technique that involves challenging and reframing negative and irrational beliefs about oneself. Through cognitive restructuring exercises, students learn to critically examine the evidence for and against their negative beliefs, and develop more balanced and rational perspectives. For example, a belief like "I am not good enough" can be restructured to "I have strengths and areas for improvement, like everyone else."</p> <p>Session 4: Behavioral Activation</p> <p>Behavioral activation is the focus of the fourth session, aiming to increase the student's engagement in activities that positively reinforce their self-worth. Techniques such as activity scheduling help students identify and engage in activities they find enjoyable and meaningful, which can enhance their self-perception. This might include participating in hobbies, volunteering, or joining clubs that align with their interests and strengths.</p> <p>Session 5: Developing Coping Strategies</p> <p>In the fifth session, the objective is to equip students with effective coping strategies to manage stress and negative self-beliefs. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation. Additionally, problem-solving skills are taught to help students address and overcome challenges that contribute to their negative self-perception. The development of a personalized coping plan is a key component of this session.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session focuses on consolidating the gains made throughout the counseling program and preparing students for potential future challenges. Progress is reviewed, and students are encouraged to reflect on their achievements and the skills they have developed. The therapist and student discuss potential triggers for relapse and strategies to handle these situations effectively. A relapse prevention plan is created, which includes maintenance strategies and possibly scheduling booster sessions if</p>

Components of Quality of Life	Individual Counselling procedure
	<p>necessary. This plan ensures that students are equipped to maintain their improved self-perception over the long term.</p>
Autonomy	<p>Session 1: Introduction and Goal Setting</p> <p>In the first session, the primary objective is to establish rapport between the therapist and the student, introduce the A-B-C framework, and set specific, measurable goals for therapy. Psychoeducation about the A-B-C model is provided to help students understand the connection between their thoughts, emotions, and behaviors. An initial assessment using standardized Quality of Life questionnaires is conducted to gauge the current state of the student's autonomy. Based on the assessment, specific and measurable goals for therapy are set, focusing on improving autonomy over the course of the program.</p> <p>Session 2: Identifying Activating Events and Beliefs</p> <p>In this session, students identify common activating events that negatively impact their sense of autonomy, such as dependence on others for decision-making, lack of confidence, or external pressures. Students use thought records to track situations that trigger feelings of helplessness or dependence, documenting the associated thoughts and resulting emotional and behavioral responses. This process helps in recognizing patterns in their autonomy and understanding how their beliefs influence their sense of control and independence.</p> <p>Session 3: Cognitive Restructuring</p> <p>The third session focuses on cognitive restructuring, a key CBT technique that involves challenging and reframing negative and irrational beliefs about autonomy. Through cognitive restructuring exercises, students learn to critically examine the evidence for and against their negative beliefs and develop more balanced and rational perspectives. For instance, a belief like "I can't make decisions on my own" can be restructured to "I can make informed decisions with confidence."</p> <p>Session 4: Behavioral Activation</p> <p>Behavioral activation is the focus of the fourth session, aiming to increase the student's engagement in activities that reinforce their autonomy. Techniques such as activity scheduling help students identify and engage in activities that require independent decision-making and self-direction, which can enhance their sense of autonomy. This might include setting personal goals, planning and executing tasks independently, or taking on new responsibilities.</p> <p>Session 5: Developing Coping Strategies</p>

Components of Quality of Life	Individual Counselling procedure
	<p>In the fifth session, the objective is to equip students with effective coping strategies to manage stress and challenges related to autonomy. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation. Additionally, problem-solving skills are taught to help students effectively handle situations that challenge their sense of independence. The development of a personalized coping plan is a key component of this session, providing students with practical tools to handle future stressors and maintain their autonomy.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session focuses on consolidating the gains made throughout the counseling program and preparing students for potential future challenges. Progress is reviewed, and students are encouraged to reflect on their achievements and the skills they have developed. The therapist and student discuss potential triggers for relapse and strategies to handle these situations effectively. A relapse prevention plan is created, which includes maintenance strategies and possibly scheduling booster sessions if necessary. This plan ensures that students are equipped to maintain their improved sense of autonomy over the long term.</p>
Parents Relation and Home Life	<p>Session 1: Introduction and Goal Setting</p> <p>The initial session aims to establish rapport between the therapist and the student, introduce the A-B-C framework, and set specific, measurable goals for therapy. The therapist provides psychoeducation about the A-B-C model, explaining how Activating Events (A) trigger Beliefs (B), which then lead to Consequences (C) in terms of emotional and behavioral responses. An initial assessment is conducted using standardized Quality of Life questionnaires to understand the current state of the student's family relationships and home life. Based on the assessment, specific goals for therapy are set, focusing on improving relationships with parents and home life.</p> <p>Session 2: Identifying Activating Events and Beliefs</p> <p>In this session, the objective is to help students identify common activating events that negatively impact their relationships with parents and home life, such as family conflicts, lack of support, or miscommunications. Students use thought records to track situations that trigger negative emotions, the thoughts associated with these situations, and the resulting emotional and behavioral responses. This process helps in recognizing patterns in their family interactions and understanding how their beliefs influence their relationships and home environment.</p> <p>Session 3: Cognitive Restructuring</p>

Components of Quality of Life	Individual Counselling procedure
	<p>The third session focuses on cognitive restructuring, a key CBT technique that involves challenging and reframing negative and irrational beliefs about family relationships and home life. Through cognitive restructuring exercises, students learn to critically examine the evidence for and against their negative beliefs and develop more balanced and rational perspectives. For example, a belief like "My parents don't understand me" can be restructured to "My parents and I have different perspectives, but we can find common ground."</p> <p>Session 4: Behavioral Activation</p> <p>Behavioral activation is the focus of the fourth session, aiming to increase the student's engagement in positive and meaningful activities that enhance family relationships and home life. Techniques such as activity scheduling help students identify and engage in activities that promote positive interactions with their parents and improve their home environment. This might include planning family activities, having regular family meetings, or finding new ways to communicate effectively with family members.</p> <p>Session 5: Developing Coping Strategies</p> <p>In the fifth session, the objective is to equip students with effective coping strategies to manage stress and negative emotions related to family dynamics. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation. Additionally, problem-solving skills are taught to help students effectively handle conflicts and challenges that arise in their family relationships. The development of a personalized coping plan is a key component of this session, providing students with practical tools to manage family-related stress.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session focuses on consolidating the gains made throughout the counseling program and preparing students for potential future challenges. Progress is reviewed, and students are encouraged to reflect on their achievements and the skills they have developed. The therapist and student discuss potential triggers for relapse and strategies to handle these situations effectively. A relapse prevention plan is created, which includes maintenance strategies and possibly scheduling booster sessions if necessary. This plan ensures that students are equipped to maintain their improved family relationships and home life over the long term.</p>
Financial Resources	<p>Session 1: Introduction and Goal Setting</p> <p>The first session aims to build rapport between the therapist and the student, introduce the A-B-C framework, and set specific, measurable goals for therapy. The therapist provides psychoeducation about</p>

Components of Quality of Life	Individual Counselling procedure
	<p>the A-B-C model, explaining how Activating Events (A) trigger Beliefs (B), which then lead to Consequences (C) in terms of emotional and behavioral responses. An initial assessment is conducted using standardized Quality of Life questionnaires to understand the current state of the student's financial situation and stress levels. Based on the assessment, specific goals for therapy are set, focusing on improving financial management skills and reducing financial stress.</p> <p>Session 2: Identifying Activating Events and Beliefs</p> <p>In this session, the objective is to help students identify common activating events that negatively impact their financial well-being, such as unexpected expenses, poor budgeting, or financial pressures from family. Students use thought records to track situations that trigger financial stress, documenting the associated thoughts and resulting emotional and behavioral responses. This process helps in recognizing patterns in their financial behavior and understanding how their beliefs influence their financial decisions and stress levels.</p> <p>Session 3: Cognitive Restructuring</p> <p>The third session focuses on cognitive restructuring, a key CBT technique that involves challenging and reframing negative and irrational beliefs about finances. Through cognitive restructuring exercises, students learn to critically examine the evidence for and against their negative beliefs and develop more balanced and rational perspectives. For example, a belief like "I will never be able to manage my finances" can be restructured to "I can learn and apply effective financial management skills."</p> <p>Session 4: Behavioral Activation</p> <p>Behavioral activation is the focus of the fourth session, aiming to increase the student's engagement in positive and meaningful financial activities. Techniques such as activity scheduling help students identify and engage in activities that improve their financial situation, such as creating a budget, tracking expenses, and saving money. This session emphasizes taking practical steps to enhance financial stability and reduce stress.</p> <p>Session 5: Developing Coping Strategies</p> <p>In the fifth session, the objective is to equip students with effective coping strategies to manage financial stress and make better financial decisions. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation to manage stress.</p> <p>Additionally, problem-solving skills are taught to help students effectively handle financial challenges and</p>

Components of Quality of Life	Individual Counselling procedure
	<p>develop a personalized financial plan. This plan includes strategies for budgeting, saving, and managing unexpected expenses.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session focuses on consolidating the gains made throughout the counseling program and preparing students for potential future financial challenges. Progress is reviewed, and students are encouraged to reflect on their achievements and the skills they have developed. The therapist and student discuss potential triggers for financial stress and strategies to handle these situations effectively. A relapse prevention plan is created, which includes maintenance strategies and possibly scheduling booster sessions if necessary. This plan ensures that students are equipped to maintain their improved financial management skills and reduce stress over the long term.</p>
Social Support and Peers	<p>Session 1: Introduction and Goal Setting</p> <p>The first session is designed to establish rapport between the therapist and the student, introduce the A-B-C framework (Activating Event, Beliefs, and Consequences), and set specific, measurable goals for therapy. This session includes psychoeducation about the A-B-C model and an initial assessment using standardized Quality of Life questionnaires to understand the current state of the student's social support and peer relationships. Specific goals for therapy are then set, focusing on enhancing social support and improving peer interactions.</p> <p>Session 2: Identifying Activating Events and Beliefs</p> <p>In this session, the objective is to help students identify common activating events that negatively impact their social support and peer relationships, such as social conflicts, feelings of isolation, or negative social experiences. Students use thought records to track situations that trigger negative emotions related to their social interactions, documenting the associated thoughts and resulting emotional and behavioral responses. This helps in recognizing patterns in their social interactions and understanding how their beliefs influence their peer relationships.</p> <p>Session 3: Cognitive Restructuring</p> <p>The third session focuses on cognitive restructuring, a key CBT technique that involves challenging and reframing negative and irrational beliefs about social interactions and peer support. Through cognitive restructuring exercises, students learn to critically examine the evidence for and against their negative beliefs and develop more balanced and rational perspectives. For example, a belief like "No one wants to</p>

Components of Quality of Life	Individual Counselling procedure
	<p>be my friend" can be restructured to "I can find and build meaningful friendships through positive interactions."</p> <p>Session 4: Behavioral Activation</p> <p>Behavioral activation is the focus of the fourth session, aiming to increase the student's engagement in positive and meaningful social activities. Techniques such as activity scheduling help students identify and engage in activities that promote positive social interactions and build peer support. This might include joining clubs, participating in group activities, or seeking out new social opportunities that align with their interests.</p> <p>Session 5: Developing Coping Strategies</p> <p>In the fifth session, the objective is to equip students with effective coping strategies to manage stress and negative emotions related to social interactions. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation. Additionally, problem-solving skills are taught to help students effectively handle social conflicts and challenges. The development of a personalized coping plan is a key component of this session, providing students with practical tools to manage social-related stress.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session focuses on consolidating the gains made throughout the counseling program and preparing students for potential future social challenges. Progress is reviewed, and students are encouraged to reflect on their achievements and the skills they have developed. The therapist and student discuss potential triggers for social stress and strategies to handle these situations effectively. A relapse prevention plan is created, which includes maintenance strategies and possibly scheduling booster sessions if necessary. This plan ensures that students are equipped to maintain their improved social support and peer relationships over the long term.</p>
School Environment	<p>Session 1: Introduction and Goal Setting</p> <p>The first session is designed to establish rapport between the therapist and the student, introduce the A-B-C framework (Activating Event, Beliefs, and Consequences), and set specific, measurable goals for therapy. This session includes psychoeducation about the A-B-C model, an initial assessment using standardized Quality of Life questionnaires, and goal-setting exercises tailored to address issues related to the school environment.</p>

Components of Quality of Life	Individual Counselling procedure
	<p>Session 2: Identifying Activating Events and Beliefs</p> <p>In this session, the objective is to help students identify common activating events that negatively impact their school experience, such as academic pressures, interactions with faculty, or social dynamics within the campus. Students use thought records to track situations that trigger negative emotions related to their school environment, documenting the associated thoughts and resulting emotional and behavioral responses. This process helps in recognizing patterns in their school-related stress and understanding how their beliefs influence their school experience.</p> <p>Session 3: Cognitive Restructuring</p> <p>The third session focuses on cognitive restructuring, a key CBT technique that involves challenging and reframing negative and irrational beliefs about the school environment. Through cognitive restructuring exercises, students learn to critically examine the evidence for and against their negative beliefs and develop more balanced and rational perspectives. For example, a belief like "I will never succeed academically" can be restructured to "I can improve my academic performance with effective study strategies and support."</p> <p>Session 4: Behavioral Activation</p> <p>Behavioral activation is the focus of the fourth session, aiming to increase the student's engagement in positive and meaningful school activities. Techniques such as activity scheduling help students identify and engage in activities that promote a positive school experience, such as joining academic clubs, participating in study groups, or engaging in campus events. This session emphasizes taking practical steps to enhance their engagement and satisfaction with the school environment.</p> <p>Session 5: Developing Coping Strategies</p> <p>In the fifth session, the objective is to equip students with effective coping strategies to manage stress and challenges related to their school environment. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation. Additionally, problem-solving skills are taught to help students effectively handle academic and social challenges within the school setting. The development of a personalized coping plan is a key component of this session, providing students with practical tools to manage school-related stress.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session focuses on consolidating the gains made throughout the counseling program and preparing students for potential future challenges. Progress is reviewed, and students are encouraged to</p>

Components of Quality of Life	Individual Counselling procedure
	<p>reflect on their achievements and the skills they have developed. The therapist and student discuss potential triggers for school-related stress and strategies to handle these situations effectively. A relapse prevention plan is created, which includes maintenance strategies and possibly scheduling booster sessions if necessary. This plan ensures that students are equipped to maintain their improved school environment and overall quality of life over the long term.</p>
Social Acceptance and Bullying	<p><b>Session 1: Introduction and Goal Setting</b></p> <p>The first session is designed to establish rapport between the therapist and the student, introduce the A-B-C framework (Activating Event, Beliefs, and Consequences), and set specific, measurable goals for therapy. This session includes psychoeducation about the A-B-C model and an initial assessment using standardized Quality of Life questionnaires to understand the current state of the student's social interactions and experiences with bullying. Specific goals for therapy are then set, focusing on enhancing social acceptance and managing bullying experiences.</p> <p><b>Session 2: Identifying Activating Events and Beliefs</b></p> <p>In this session, the objective is to help students identify common activating events that negatively impact their social acceptance and experiences with bullying, such as instances of exclusion, negative peer interactions, or direct bullying incidents. Students use thought records to track situations that trigger negative emotions related to their social experiences, documenting the associated thoughts and resulting emotional and behavioral responses. This helps in recognizing patterns in their social interactions and understanding how their beliefs influence their responses to bullying and social acceptance.</p> <p><b>Session 3: Cognitive Restructuring</b></p> <p>The third session focuses on cognitive restructuring, a key CBT technique that involves challenging and reframing negative and irrational beliefs about social acceptance and bullying. Through cognitive restructuring exercises, students learn to critically examine the evidence for and against their negative beliefs and develop more balanced and rational perspectives. For example, a belief like "I will always be bullied" can be restructured to "I can find ways to protect myself and seek support when needed."</p> <p><b>Session 4: Behavioral Activation</b></p> <p>Behavioral activation is the focus of the fourth session, aiming to increase the student's engagement in positive and meaningful social activities. Techniques such as activity scheduling help students identify and engage in activities that promote positive social interactions and build a supportive peer network.</p>

Components of Quality of Life	Individual Counselling procedure
	<p>This might include joining clubs, participating in group activities, or engaging in social events that foster a sense of belonging and acceptance.</p> <p>Session 5: Developing Coping Strategies</p> <p>In the fifth session, the objective is to equip students with effective coping strategies to manage stress and negative emotions related to social interactions and bullying. Techniques introduced include relaxation methods such as deep breathing, progressive muscle relaxation, and mindfulness meditation.</p> <p>Additionally, problem-solving skills are taught to help students effectively handle social conflicts and bullying incidents. The development of a personalized coping plan is a key component of this session, providing students with practical tools to manage social-related stress.</p> <p>Session 6: Review and Relapse Prevention</p> <p>The final session focuses on consolidating the gains made throughout the counseling program and preparing students for potential future social challenges. Progress is reviewed, and students are encouraged to reflect on their achievements and the skills they have developed. The therapist and student discuss potential triggers for social stress and bullying, and strategies to handle these situations effectively. A relapse prevention plan is created, which includes maintenance strategies and possibly scheduling booster sessions if necessary. This plan ensures that students are equipped to maintain their improved social acceptance and ability to manage bullying over the long term.</p>

## Appendix C

## CFA Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
Q40 <--- fresource	.971
Q41 <--- fresource	.977
Q28 <--- anomy	.848
Q29 <--- anomy	.887
Q30 <--- anomy	.896
Q31 <--- anomy	.878
Q32 <--- anomy	.881
Q5 <--- psical	.913
Q6 <--- psical	.983
Q9 <--- psical	.841
Q48 <--- senviron	.899
Q50 <--- senviron	.884
Q51 <--- senviron	.884
Q53 <--- senviron	.914
Q10 <--- pchological	.838
Q13 <--- pchological	.949
Q14 <--- pchological	.969
Q44 <--- suport	.926
Q45 <--- suport	.949
Q46 <--- suport	.884
Q47 <--- suport	.903

	Estimate
Q17 <--- emotionalS	.856
Q19 <--- emotionalS	.899
Q21 <--- emotionalS	.836
Q23 <--- emotionalS	.836

