



MENTAL WELL-BEING OF CHINESE INTERNATIONAL STUDENTS IN THAI UNIVERSITIES THROUGHOUT THE POST-PANDEMIC ERA

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Abstract:

This study, employing a cross-sectional survey design, probes the mental well-being of Chinese International students enrolled in Thai higher-education institutions during the post-COVID-19 period. The investigation utilised Ryff's Psychological Well-Being Scale to assess six dimensions—autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. A total of 389 questionnaires were distributed, of which 347 were valid for analysis. The findings reveal salient disparities in psychological well-being across demographic categories. First, gender differences emerged for self-acceptance. Secondly, age significantly influenced environmental mastery, positive relations with others, purpose in life, and self-acceptance. Thirdly, the year of study was associated with variations in environmental mastery, positive relations with others, and self-acceptance. Finally, the length of residence in Thailand predicted differential outcomes in environmental mastery, personal growth, and self-acceptance. These results underscore the heterogeneous mental well-being profiles of Chinese students in Thai universities and suggest the exigency of tailored support strategies attentive to gender, age, academic seniority, and local acculturation.

Keywords: post-pandemic era; Chinese international students; Thai universities; mental well-being

1. Introduction

The term “post-pandemic era” refers, literally, to the period subsequent to the outbreak of COVID-19. On 5 May 2023 the Director-General of the World Health Organization, concurring with the Emergency Committee, declared that “COVID-19 is now an established and ongoing health issue which no longer constitutes a public-health emergency of international

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concern; nevertheless, the long-term management of ensuing physical and mental-health problems continues to merit sustained research and scrutiny” (World Health Organization, 2023).

In Thailand, the virus has lately resurfaced in intermittent waves, repeatedly drawing public attention (The Nation, 2025). The most recent Blue Book of the Chinese Study-Abroad Development Report (2023–2024) notes a continued rise in the number of Chinese students studying in Thailand and other Belt-and-Road nations; China thus remains the largest source country for international students, and outbound mobility even displayed positive growth during the pandemic (Center for China and Globalization, 2024). Compared with their counterparts studying within China, Chinese students overseas manifest more pronounced psychological difficulties (Cheng *et al.*, 2021). Tertiary-level students are particularly vulnerable to COVID-19’s psychological repercussions, occupying as they do the liminal space between academic life and professional trajectories and routinely experiencing elevated levels of stress, anxiety and depression (Craven, 2020). Moreover, cultural disparities and related factors can precipitate distinct psychological challenges for Chinese international students. Zhai and Du (2020) observed that cultural adaptation and mental-health issues among this cohort are especially salient, warranting sustained, systematic inquiry. Investigations in the Thai context further reveal that educational stage and length of residence modulate both psychological well-being and acculturation, with first-year and graduating students displaying the greatest adaptive strain (Chen *et al.*, 2018). Additional mental-health concerns encompass stress, anxiety, depressive symptomatology, anger, dejection, loneliness and mistrust (Mukhtar, 2020; Rajkumar, 2020; Rana *et al.*, 2020). Empirical work focusing specifically on Chinese students’ mental well-being in Thai universities remains limited; extant scholarship is concentrated primarily in China and the United States (Ding *et al.*, 2022).

Against this backdrop, continuous scholarly attention to the post-pandemic mental well-being of Chinese international students in Thai higher education is both necessary and timely. Accordingly, the present study seeks to elucidate the contemporary psychological well-being of Chinese students enrolled at Thai universities during the post-pandemic era.

2. Literature Review

Drawing upon Ryff’s psychological well-being model (Ryff, 2014, 2018, 2019), this study examines six dimensions—autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance—to understand the mental-health status of Chinese international students in Thai universities.

Autonomy is construed as the constellation of personal values, intrinsic motivations, and moral convictions that govern conduct independently of external pressures (Kühler & Jelinek, 2012). Within Ryff’s psychometric architecture, it signifies a steadfast confidence in one’s own judgements even when such judgements run counter to prevailing consensus (Ryff & Keyes, 1995). Empirical evidence positions autonomy as

a cardinal determinant of youth mental well-being, exhibiting inverse associations with both loneliness and perceived social isolation (Inguglia *et al.*, 2015). Furthermore, it operates as a pivotal facilitator of a successful progression from student status to adulthood, manifest across behavioural (capacity for independent action), cognitive (self-efficacy across life domains), and affective (quality of interpersonal bonds) strata (Parra *et al.*, 2015).

Environmental Mastery (EM) denotes the capacity to select or fashion contexts congruent with one's psychological requisites (Ryff & Keyes, 1995). It is integrally allied to self-awareness, volitional agency, and independence (Rosa-Rodríguez *et al.*, 2015), and its level demonstrably shapes individual mental-health outcomes (Wang *et al.*, 2015). During the liminal passage from higher-education enrolment to adult roles, robust mental well-being underpins effective environmental interaction and the surmounting of normative developmental challenges (Bluth *et al.*, 2017; Gómez-López *et al.*, 2019; Vera-Villarroel *et al.*, 2013). Accordingly, engendering affirmative experiential milieus within academic settings can cultivate clearer life trajectories and facilitate goal setting (García-Moya *et al.*, 2015). Conversely, perceptions of uncontrollability may obstruct adaptive engagement with one's surroundings (Wang *et al.*, 2015). Internal moderators of mastery include affective disposition and personality traits (Poyrazli *et al.*, 2010; Ziskis, 2010), alongside maturational stage (Ryff & Keyes, 1995). Externally, educational exposure, mobility, linguistic development, intercultural competence, and social scaffolding also exert significant influence (Bai, 2016; Chirkov, 2014; Garcia *et al.*, 2014; Kim, 1992; Ryff, 1989; Sinicrope *et al.*, 2007; Williams, 2005).

Ryff (1989) conceptualises Personal Growth (PG) as an enduring openness to novel stimuli whereby individuals continually learn and evolve across successive developmental epochs. Such dynamism enhances environmental adaptability and self-realisation—pivotal pillars of eudaimonic flourishing. Empirical studies demonstrate that personal-growth initiative correlates positively with psychological well-being and inversely with depressive symptomatology (Robitschek & Kashubeck, 1999; Sun *et al.*, 2014).

On Positive Relations with Others (PRO), this construct encompasses the aptitude to forge warm, trustworthy, and mutually satisfying connections, underpinned by empathy and intimacy (Ryff, 1989; Ryff & Keys, 1995; Ryff & Singer, 2002). Deficits in this sphere engender interpersonal isolation and frustration. Relationship quality is intricately linked to physiological and psychological health indices (Ryff *et al.*, 2001; Segrin, 2001). Further, positive relations are positively associated with environmental mastery (Hofer *et al.*, 2008) and completely mediate the inverse association between social competence and depression, thereby bolstering mental well-being (Segrin & Rynes, 2009).

Purpose in Life (PL) denotes the personally meaningful, idiosyncratic objectives individuals pursue (Crumbaugh & Maholick, 1964). Engagement in such goal pursuit confers existential meaning, enabling individuals to withstand inevitable adversities (Schulenberg *et al.*, 2008). A robust sense of purpose is indispensable for sustaining

holistic health; higher purpose consistently predicts superior physical and psychological outcomes (Hooker *et al.*, 2018).

Self-acceptance (SA) arises when individuals appraise their virtues and limitations objectively, affirm their inherent worth, and reconcile with their lived realities (Williams & Lynn, 2010). Ryff (1989) identifies self-acceptance as the fulcrum of mental well-being. Students manifesting elevated self-acceptance report greater psychological harmony and diminished distress (Huang *et al.*, 2019). It is a salient predictor of depression, anxiety, and stress (Li, 2021); it confers resilience against depressive episodes (Zhou & Liang, 2011) and reliably forecasts anxiety and stress levels (Kim, 2012; Rodriguez *et al.*, 2015). Contemporary evidence further confirms its mediating role—alongside interpersonal adaptation—in the nexus between emotional self-efficacy and psychological distress (Zhang *et al.*, 2022). Conversely, diminished self-acceptance precipitates withdrawal, failure under challenge, and heightened psychopathology (Flett *et al.*, 2003; Kim, 2012).

These dimensions collectively address behavioural regulation, environmental competence, potential realisation via supportive relationships, affirmative self-regard despite constraints, and the establishment of life meaning and direction (Gómez-López *et al.*, 2019; Keyes *et al.*, 2002; Viejo *et al.*, 2018). As such, they constitute “health assets” that shape students’ biopsychosocial trajectories and behavioural development (Chen *et al.*, 2019). Consequently, the present study adopts Ryff’s six-factor framework (Ryff, 2014, 2018, 2019) to interrogate the mental well-being status of Chinese international students in Thai higher-education institutions amid the post-pandemic milieu.

3. Method and Design

3.1 Research Participants

This inquiry concentrates on Chinese tertiary-level learners in Thailand—spanning bachelor’s, master’s, and doctoral programmes—and purposively samples two institutions. The first, in northern Thailand, is acclaimed as the region’s foremost public university (University A, 2022). Recent figures released by the Higher Education Information Center register 882 Chinese enrollees, substantiating its status as a key host of Chinese students (Higher Education Information Center, 2021). The second institution, based in Bangkok, is an expansive private university distinguished by its emphasis on business and trade education (University B, 2022). The same data source records 2,826 Chinese students within its rolls (Higher Education Information Center, 2021). Given their venerable histories, their contrasting governance models—public versus private—and their substantial Chinese cohorts, these two universities constitute appropriate loci for the present study.

3.2 Research Tools

The present investigation administered the revised 18-item Scale of Psychological Well-Being (SPWB) (Ryff & Keyes, 1995). The instrument encapsulates six theoretical domains—Autonomy, Environmental Mastery, Personal Growth, Positive Relations with

Others, Purpose in Life, and Self-Acceptance—and is calibrated on a seven-point Likert continuum (1 = strongly agree ... 7 = strongly disagree).

Accumulated evidence attests to the SPWB's cross-cultural robustness, its myriad linguistic adaptations, and its solid psychometric properties (Akin, 2008; Burns & Machin, 2009; Cheng & Chan, 2005; Clarke *et al.*, 2001; Kafka & Kozma, 2002; Kessler *et al.*, 2004; Lindfors *et al.*, 2006; Ryff & Keyes, 1995; Ryff, 2019; Springer & Hauser, 2006; Sweet & Bumpass, 1996; Van Dierendonck, 2004; Van *et al.*, 2008). Leveraging the validated Chinese-language version (Chan *et al.*, 2019; Cheng & Chan, 2005; Gao & McLellan, 2018; Li, 2014; Yu *et al.*, 2011), the current study evaluated internal consistency using the Cronbach's α threshold of 0.60 (Qiu, 2013). Pilot testing yielded an aggregate $\alpha=0.849$; sub-scale coefficients ranged from 0.606 to 0.701 (Autonomy=0.620, Environmental Mastery=0.701, Personal Growth=0.651, Positive Relations with Others=0.613, Purpose in Life=0.606, Self-Acceptance=0.657), reflecting satisfactory reliability. Sampling adequacy satisfied Qiu's (2013) Kaiser–Meyer–Olkin benchmark (KMO=0.812), and Bartlett's test of sphericity was significant, warranting exploratory factor analysis. Principal-axis factoring with varimax rotation produced salient loadings (0.515–0.865) across the six latent constructs, collectively explaining 73.436 % of the variance. These indices corroborate the scale's factorial validity within the current cohort.

3.3 Data Collection

Employing a questionnaire-based design, the present study surveyed Chinese international students enrolled in Thai higher-education institutions. Convenience sampling was implemented after a pilot study had validated the instrument, and the definitive questionnaire was disseminated through DingTalk, WeChat, and comparable networks. Gosling and Johnson (2010) contend that the Internet—social media inclusive—has inaugurated a paradigmatic shift in behavioural research for psychologists. Relative to paper-and-pencil protocols, web-delivered questionnaires afford superior flexibility and efficiency (Marshall, 2002). Furthermore, empirical evidence indicates no appreciable discrepancy between paper and online formats (Carini *et al.*, 2003; Denscombe, 2006; Fleming & Bowden, 2009; McCabe, 2004). Determining an auspicious sample size constitutes a pivotal design consideration, as it conditions statistical power and the detection of inter-variable effects (Peers, 1996). Consistent with Wu (2010), a respondent-to-item ratio of 5:1 to 10:1 was adopted, necessitating the acquisition of 389 valid questionnaires. Data collection was conducted in February 2023. Prior to participation, respondents received a comprehensive briefing concerning study objectives and data-confidentiality safeguards, and informed consent was duly secured. Administration and retrieval were executed via the Wenjuanxing platform, with visibility set to “private” to preserve sampling integrity. Hyperlinks circulated through DingTalk and WeChat yielded the requisite data for subsequent analysis.

4. Results

A total of 389 questionnaires were retrieved. After excluding cases exhibiting patterned responses across consecutive items and implausibly brief completion times, the analytical sample comprised $n = 347$ valid observations.

4.1 Demographics of the respondents' results

Table 1: Basic Demographic Information on the Valid Sample

Statistical Variable	Category	n	Percentage (%)
Gender	Male	159	45.82
	Female	188	54.18
Age	18-22 years old	86	24.78
	23-27 years old	112	32.28
	28-32 years old	53	15.27
	33 years and above	96	27.67
Academic levels	Freshman	28	8.07
	Sophomore	12	3.46
	Junior	42	12.1
	Senior	34	9.80
	Master's Year 1	46	13.26
	Master's Year 2	134	38.62
	Doctoral Year 1	19	5.48
	Doctoral Year 2	15	4.32
	Doctoral Year 3	13	3.75
	Doctoral Year 4	4	1.15
Length of Stay in Thailand	> 3 months	146	42.07
	3-6 months	58	16.71
	7-12 months	70	20.17
	13-18 months	29	8.36
	18-36 months	20	5.76
	< 36 months	24	6.92

Note: Data compiled by the present study.

Table 1 profiles the respondents' demographics. Females constituted a slight majority (54.18 %). The modal age bracket was 23–27 years (32.28%), whereas the 28–32-year cohort represented the smallest share (15.27%). With respect to programme seniority, second-year postgraduate students predominated (38.64%), while fourth-year doctoral candidates were the least represented (1.15%). Regarding duration of residence in Thailand, the plurality had remained for fewer than three months (42.07%); by contrast, only 5.76% reported a length of stay between 18 and 36 months.

4.2 Descriptive statistics results

Descriptive statistics (Mean \pm SD) were utilised to profile the psychological well-being of Chinese students in Thai higher-education institutions. The assessment comprised six subdomains—autonomy, environmental mastery, personal growth, positive interpersonal relations, purpose in life, and self-acceptance—where elevated scores denote superior functioning.

Table 2: Descriptive Statistical Analysis of the Mental Well-being
 Status of Chinese International Students in Thai Universities

Variables	Mean	Sd	Skewness	Kurtosis
A	3.020	1.388	0.420	-0.092
EM	2.767	1.492	0.768	0.108
PG	2.000	1.358	1.616	2.424
PR	2.865	1.519	0.937	0.384
PL	2.951	1.525	0.772	0.263
S	2.974	1.493	0.611	-0.167

Note 1: The variables are coded as follows: A=Autonomy; EM=Environmental Mastery; PG=Personal Growth; PR=Positive Relations with Others; PL=Purpose in Life; S=Self-acceptance.

Note 2: Data provenance derives from the authors' own compilation undertaken in the current study.

Table 2 reports mean scores of 3.020 (autonomy), 2.767 (environmental mastery), 2.000 (personal growth), 2.865 (positive relations), 2.961 (purpose in life), and 2.974 (self-acceptance). Dispersion ranked from greatest to least was: purpose in life > positive relations > self-acceptance > environmental mastery > autonomy > personal growth. Consistent with the thresholds proposed by Kline (2005)—skewness < 3 and kurtosis < 10—each dimension demonstrated acceptable normality, validating the application of parametric analytic procedures.

4.3 Gender-Based Variations in Mental Well-being among Chinese Students Enrolled in Thai Universities

Table 3: Gender-Based Disparities in Mental Well-being among
 International Chinese Students Enrolled in Thai Higher-Education Institutions

Test Variables	Male	Female	<i>t</i>	<i>p</i>
	Mean (SD)			
A	2.98(1.53)	3.05(1.26)	-0.474	0.636
EM	2.79(1.53)	2.75(1.46)	0.225	0.822
PG	1.99(1.34)	2.01(1.37)	-0.079	0.937
PR	2.89(1.52)	2.85(1.52)	0.250	0.802
PL	2.89(1.56)	3.01(1.49)	-0.721	0.471
S	3.16(1.57)	2.81(1.40)	2.186*	0.029

Note 1: * $p < 0.05$

Note 2: A=Autonomy; EM=Environmental Mastery; PG=Personal Growth; PR=Positive Relations with Others; PL=Purpose in Life; S=Self-acceptance

Note 3: Data compiled by the present study

Employing an independent-samples t-test, the present study interrogated potential gender differentials in six dimensions of psychological well-being among Chinese nationals enrolled in Thai universities. As displayed in Table 3, autonomy ($t=-0.474$, $p>.05$), environmental mastery ($t=0.225$, $p>.05$), personal growth ($t=-0.079$, $p>.05$), positive relations ($t=0.250$, $p>.05$), and purpose in life ($t=-0.721$, $p>.05$) did not differ significantly by gender. Notably, self-acceptance did exhibit a significant divergence ($t=2.186$, $p<.05$): male participants demonstrated a superior mean score ($M=3.16$) relative to female participants ($M=2.81$).

4.4 Age-Based Variations in Mental Well-being among Chinese Students Enrolled in Thai Universities

An analysis of variance was conducted to interrogate age-contingent disparities in psychological well-being among Chinese international students attending Thai higher-education institutions.

Table 4: Analysis of Mental-Health Differences among Chinese International Students at Thai Universities across Age Groups

Test Variable	A	EM	PG	PR	PL	S
	Mean (SD)					
1	3.31(1.17)	3.46(1.26)	2.43(1.21)	3.36(1.25)	3.44(1.17)	3.46(1.24)
2	3.36(1.06)	3.02(1.22)	2.27(1.20)	2.88(1.17)	3.20(1.01)	2.93(1.27)
3	3.26(0.97)	2.75(1.21)	2.21(1.23)	2.70(1.19)	3.10(1.10)	2.80(1.13)
4	3.09(1.09)	2.64(1.19)	2.18(1.06)	2.73(1.15)	2.93(0.95)	2.81(1.22)
<i>F</i>	1.157	7.570***	0.780	5.274**	3.735*	5.382**
<i>p</i>	0.326	0.000	0.506	0.001	0.012	0.001
Scheffe	-	1>2, 1>3,1>4	-	1>2, 1>3,1>4	1>4	1>2, 1>3,1>4

Note 1: *** $p<0.001$, ** $p<0.01$, * $p<0.05$

Note 2: A=Autonomy; EM=Environmental Mastery; PG=Personal Growth; PR=Positive Relations with Others; PL=Purpose in Life; S=Self-acceptance

Note 3: 1=18–22 years; 2=23–27 years; 3=28–32 years; 4=33 years and above.

Note 4: Data compiled by the present study.

As delineated in Table 4, autonomy ($F=1.157$, $p>.05$) and personal growth ($F=0.780$, $p>.05$) exhibited no statistically discernible age effects. In contrast, environmental mastery ($F=7.570$, $p<.01$), positive relations with others ($F=5.274$, $p<.01$), purpose in life ($F=3.735$, $p<.05$), and self-acceptance ($F=5.382$, $p<.01$) varied significantly across cohorts. Post-hoc contrasts revealed that students aged 18–22 years achieved markedly higher mean scores for environmental mastery ($M=3.46$), positive relations ($M=3.36$), purpose in life ($M=3.44$), and self-acceptance ($M=3.46$) than their peers aged 23–27, 28–32, and 33 years or older.

4.5 Academic Years-Based Variations in Mental Well-being among Chinese Students Enrolled in Thai Universities

This study employed an Analysis of Variance (ANOVA) to examine differences in psychological well-being among Chinese international students across various academic years at Thai higher education institutions.

Table 5: Analysis of Psychological Well-being Differences
among Chinese International Students Across Academic Years

Test Variable	A	EM	PG	PR	PL	S
	Mean (SD)					
1	3.55(1.07)	3.40(1.20)	2.45(1.25)	3.51(1.13)	3.46(1.18)	3.56(1.13)
2	3.50(1.00)	3.56(0.90)	2.39(0.86)	3.25(1.26)	3.47(0.92)	3.78(1.44)
3	3.21(1.53)	3.45(1.60)	2.45(1.51)	3.29(1.54)	3.29(1.22)	3.33(1.44)
4	3.26(0.92)	3.15(1.14)	2.36(1.16)	3.09(1.16)	3.37(0.99)	3.27(1.28)
5	3.22(1.00)	2.67(1.25)	1.78(0.85)	2.94(1.00)	3.19(1.28)	2.70(1.08)
6	3.23(1.05)	2.83(1.13)	2.30(1.15)	2.72(1.13)	3.06(0.95)	2.89(1.18)
7	3.05(1.05)	2.84(1.23)	2.16(1.01)	2.63(1.37)	2.68(1.18)	2.81(1.26)
8	3.47(0.70)	2.87(1.34)	2.36(1.20)	2.80(1.13)	3.18(0.71)	2.67(1.12)
9	3.26(1.06)	2.82(1.37)	2.59(1.25)	2.64(1.21)	3.18(0.75)	2.49(1.23)
10	2.92(1.23)	2.67(1.12)	2.33(1.15)	2.58(1.03)	2.83(1.17)	2.58(1.40)
F	0.496	2.050*	1.264	2.051*	1.209	2.649**
p	0.877	0.034	0.256	0.033	0.288	0.006
Scheffe	-	1>5, 1>6, 2>5, 3>5, 3>6	-	1>5, 1>6, 1>7, 1>9, 3>6, 3>7	-	1>5, 1>6, 1>7, 1>8, 1>9, 2>5, 2>6, 2>7, 2>8, 2>9, 3>5, 3>6, 3>9, 4>5, 4>9

Note 1: **p<0.01, *p<0.05

Note 2: A=Autonomy, EM=Environmental Mastery, PG=Personal Growth, PR=Positive Relations with Others, PL=Purpose in Life, S= Self-acceptance

Note 3: 1=Freshman, 2=Sophomore, 3= Junior, 4=Senior, 5=MA Year 1, 6=MA Year 2, 7= Doctoral Year 1, 8=Doctoral Year 2, 9=Doctoral Year 3, 10=Doctoral Year 4

Note 4: Data compiled by the present study.

The results, as presented in Table 5, indicate that no significant differences were observed in autonomy ($F=0.496$, $p>0.05$), personal growth ($F=1.264$, $p>0.05$), or purpose in life ($F=1.209$, $p>0.05$) across academic years. However, significant differences were found in environmental mastery ($F=2.050$, $p<0.05$), positive relations with others ($F=2.051$, $p<0.05$), and self-acceptance ($F=2.649$, $p<0.01$). Specifically, second-year undergraduate students exhibited higher mean scores in environmental mastery ($M=3.56$), purpose in life ($M=3.47$), and self-acceptance ($M=3.78$) compared to other academic years. First-year undergraduate students demonstrated higher mean scores in positive relations with others ($M=3.51$) relative to other years.

4.6 Duration of Stay-Based Variations in Mental Well-being among Chinese Students Enrolled in Thai Universities

This study employed an Analysis of Variance (ANOVA) to examine differences in psychological well-being among Chinese international students in Thai higher education institutions, categorized by their duration of stay in Thailand.

Table 6: Analysis of Differences in Mental Well-being among Chinese International Students in Thai Higher Education Institutions by Duration of Stay

Test Variable	A	EM	PG	PR	PL	S
	Mean (SD)					
1	3.20(1.01)	2.77(1.14)	2.12(1.04)	2.79(1.18)	3.04(1.06)	2.82(1.16)
2	3.07(0.97)	3.02(1.26)	2.46(1.23)	3.16(1.19)	3.24(0.97)	3.09(1.28)
3	3.26(1.10)	3.11(1.27)	2.19(1.05)	2.92(1.18)	3.30(1.15)	3.04(1.30)
4	3.44(1.07)	3.18(1.05)	2.21(1.14)	3.01(1.01)	3.01(0.82)	3.11(1.10)
5	3.47(1.50)	3.55(1.73)	3.03(1.92)	3.50(1.73)	3.62(1.18)	3.88(1.33)
6	3.67(1.27)	3.13(1.46)	2.47(1.17)	2.71(1.14)	3.22(1.11)	2.94(1.47)
F	1.407	2.774*	2.750*	1.915	1.559	2.795*
p	0.221	0.018	0.019	0.091	0.171	0.017
Scheffe	-	5>1	5>1, 5>3, 5>4	-	-	5>1, 5>2, 5>3, 5>4

Note 1: *p<0.05

Note 2: A=Autonomy, EM=Environmental Mastery, PG=Personal Growth, PR=Positive Relations with Others, PL=Purpose in Life, S= Self-acceptance

Note 3: 1= < 3 months, 2=3 to 6 months, 3=7 to 12 months, 4=13 to 18 months, 5= 18 to 36 months, 6= > 36 months

Note 4: Data compiled by the present study.

The results, as presented in Table 6, indicate that no significant differences were observed in autonomy ($F=1.407$, $p>0.05$), positive relations with others ($F=1.915$, $p>0.05$), or purpose in life ($F=1.559$, $p>0.05$) among Chinese international students with varying durations of stay. However, significant differences were found in environmental mastery ($F=2.774$, $p<0.05$), personal growth ($F=2.750$, $p<0.05$), and self-acceptance ($F=2.795$, $p<0.05$). Furthermore, students with a duration of stay ranging from 18 to 36 months exhibited significantly higher mean scores in environmental mastery ($t=3.55$), personal growth ($t=3.03$), and self-acceptance ($t=3.88$) compared to those with other durations of stay.

5. Conclusion and Recommendations

5.1 Descriptive Statistical Analysis of the Mental Well-being of Chinese International Students in Thai Universities

According to the descriptive statistics, the mean scores for the six dimensions of mental well-being among Chinese international students enrolled in Thai universities are: autonomy ($M=3.020$), environmental mastery ($M=2.767$), personal growth ($M=2.000$), positive relations with others ($M=2.865$), purpose in life ($M=2.961$), and self-acceptance ($M=2.974$). These data demonstrate that personal growth is situated at a moderately low

level, indicating that the mental well-being of most participants is particularly susceptible to influences stemming from personal growth. This finding concurs with earlier research showing a significant positive correlation between personal-growth initiative and mental health; individuals exhibiting lower initiative manifest correspondingly diminished well-being (Robitschek & Kashubeck, 1999; Sun *et al.*, 2014).

5.2 Gender Differences in Mental Well-being

An independent-samples t-test revealed a significant gender difference in self-acceptance, with male students attaining higher mean scores than their female counterparts. This outcome echoes previous studies reporting greater self-acceptance in men (Xing & Huang, 2004) and higher male scores for both self-acceptance and autonomy (Matud *et al.*, 2019). Such disparities may be attributable to ancillary factors—including age, cultural background, and role expectations (Ahrens & Ryff, 2006; Karasawa *et al.*, 2011). Consequently, Chinese male students in Thai universities appear to encounter fewer mental difficulties (Huang *et al.*, 2019), as elevated self-acceptance is associated with reduced anxiety, depression, and stress (Flett *et al.*, 2003; Kim, 2012). Nevertheless, female students may enhance self-acceptance through group activities, a strategy shown to mitigate symptoms of depression and stress (Du, 2015).

5.3 Age Differences in Mental Well-Being among Chinese International Students in Thai Universities

Analysis of variance (ANOVA) disclosed significant age-related differences in environmental mastery, positive relations with others, purpose in life and self-acceptance: students aged 18–22 attained higher scores than their older counterparts. This pattern diverges from the earlier finding that, with advancing age, purpose-in-life and personal-growth scores decline, whereas environmental mastery, positive relations and autonomy rise, and no age effects appear for self-acceptance (Ryff & Keyes, 1995). Subsequent work, however, reported that younger cohorts score more highly on environmental mastery, positive relations and purpose in life, arguably because contemporary technological advances furnish them with more avenues for knowledge acquisition and experiential enrichment, thereby sharpening their capacity to negotiate diverse environments and relationships (Xu *et al.*, 2003). No significant age differences were detected for autonomy or personal growth, echoing previous studies that found negligible age effects on autonomy (Xu *et al.*, 2003).

5.4 Year-Level Differences in Mental Well-being among Chinese International Students in Thai Universities

ANOVA further revealed significant year-level differences in environmental mastery, positive relations with others and self-acceptance. Contrary to earlier assertions that educational attainment is a weak predictor of psychological well-being and only modestly correlated with it (Keyes *et al.*, 2002; Ryff, 1989), second-year students outperformed their peers in environmental mastery and self-acceptance. This suggests

greater life satisfaction, fewer psychological difficulties and lower levels of anxiety, depression and stress in this group (Flett *et al.*, 2003; Kim, 2012). Elevated self-acceptance is known to foster psychological harmony (Huang *et al.*, 2019); hence, students in other years might benefit from group activities aimed at enhancing self-acceptance, thereby mitigating depressive and stress symptoms (Du, 2015). First-year students achieved the highest scores for positive relations with others, possibly owing to orientation and club activities that facilitate the formation of affirmative interpersonal ties. High-quality relationships are intimately linked to physiological and psychological health and well-being (Ryff *et al.*, 2001; Segrin, 2001), and positive relations have been shown to fully mediate the negative association between social skills and depression, underscoring their salutary role in mental health (Segrin & Rynes, 2009).

5.5 Differences in the Mental Health of Chinese International Students at Thai Universities by Length of Stay

ANOVA results indicate statistically significant disparities in environmental mastery, personal growth, and self-acceptance among Chinese students in Thai higher-education institutions with differing residence durations. Those who had remained in Thailand for 18–36 months recorded markedly higher scores than peers with briefer or more prolonged stays. Prior scholarship likewise reports that length of residence in the host country robustly predicts international students' adjustment—particularly environmental mastery (Aldawsari *et al.*, 2018). The challenges confronting Chinese students tend to diminish over time (Quan *et al.*, 2016; Wu, 2015; Wu & Hammond, 2011); extended study abroad enhances comprehension of host-country culture and bolsters academic achievement (Dwyer, 2004). Consequently, students develop greater capacity to navigate and control their environment, thereby fostering personal growth. The present findings suggest that Chinese students resident in Thailand for 18–36 months exhibit superior mental health, given that proactive personal growth is positively associated with psychological well-being and negatively related to depressive affect, such as anxiety and depression (Robitschek & Kashubeck, 1999; Sun *et al.*, 2014).

In summary, mental health profiles differed significantly across demographic categories. Gender was linked to self-acceptance; age to environmental mastery, positive relations with others, purpose in life, and self-acceptance; year of study to environmental mastery, positive relations with others, and self-acceptance; and length of stay to environmental mastery, personal growth, and self-acceptance.

6. Recommendations

First, the number of questionnaires ultimately retrieved fell short of expectations, resulting in a relatively small—though still broadly representative—sample for the quantitative phase. Subsequent studies should therefore expand the sampling frame, stratifying participants by variables such as length of overseas study, academic discipline, and socio-economic status to secure greater diversity. A longitudinal design

could also be adopted, with data gathered at discrete points (e.g., at matriculation, mid-semester, and immediately prior to graduation) to track fluctuations in psychological status over time. Furthermore, including a wider range of universities would facilitate cross-institutional comparisons and permit an examination of Chinese international students' mental health profiles across different host nations.

Second, because the present data were collected while many participants were likely still in a "transitional adaptation period", they may not accurately reflect longer-term psychological trajectories. In addition, the rapid recalibration of pandemic-related policies limits the generalisability of these findings to peak-pandemic conditions, though they nonetheless provide a valuable point of reference for subsequent inquiries. Given the dynamic nature of the pandemic's effects, future investigations should replicate the study at regular intervals to capture more precisely the evolving trends in mental health outcomes.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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