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Muhammad Naseer Akhtar

University of East London

Arshad Mahmood

China University of Geosciences

Erkan Işık

İstanbul Aydın University

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Author Note

Muhammad Naseer Akhtar, PhD. Department of Business Management, Entrepreneurship, Finance, Royal Docks School of Business and Law, The University of East London, United Kingdom. Email: m.akhtar@uel.ac.uk

Arshad Mahmood, PhD. School of Management and Economics, China University of Geosciences, Wuhan, China. Email: Sadozai@cug.edu.cn

Erkan Işık, PhD. Department of Guidance and Psychological Counselling, Faculty of Education, Istanbul Aydin University, Istanbul, Turkey. Email: erkanisik@aydin.edu.tr
ORCID: https://orcid.org/0000-0002-0373-120X

Correspondence concerning this article should be addressed to Muhammad Naseer Akhtar, PhD. Department of Business Management, Entrepreneurship, Finance, Royal Docks School of Business and Law, The University of East London, United Kingdom. Email: m.akhtar@uel.ac.uk

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Abstract

Drawing upon the social cognitive career theory (SCCT), this study tested the social cognitive model of well-being which seeks to explain student life experience i.e., the relationship between positive affect with environmental support available to international students; mediated by cognitive and behavioral factors (self-efficacy expectations, outcome expectations, goal progress), towards the paths of academic satisfaction, and overall life satisfaction. Two hundred and ninety-four international students completed the survey questionnaire. Structural Equational Modelling (SEM) was used to test the overall model, alongside Confirmatory Factory Analysis (CFA) to test the model fitness. The SEM based path analyses showed that overall model fits the data well. Moreover, all the hypotheses were supported except for four paths (academic support → academic outcome expectation; academic outcome expectation → academic satisfaction, academic goal progress → life satisfaction; positive affectivity → academic satisfaction). Study findings also support the

applicability of the social cognitive model of well-being; specifically, this demonstrates the power of particular predictor variables significant for student satisfaction and well-being. The study adds to the existing literature on a cross-cultural utility of the social cognitive model of well-being. Practical and theoretical implications as well as limitations and future recommendations are discussed at the end.

Keywords: Social Cognitive Model of Well-being; life satisfaction; positive affect; international students; China

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Over the past decade psychological pressures have intensified for students in colleges across North America, Europe, Asia and Australasia where international students make up a significant proportion of the student population. With increased globalization and the rapid emergence of diverse migration patterns, higher education institutions (HEIs) are receiving a considerable volume of students from countries around the world (King & Raghuram, 2013). Therefore, universities in the higher education sector are finding creative ways for attracting students on a global scale. Recently, this has been recognized as the "globalization of

international students" (Riaño & Piguet, 2016, p.1) which calls for better understanding of academic environments that work for international students.

For individuals relocating to a new country, their personal journey of cultural transition can be difficult because it places considerable adjustment demands on the individual, which can be overwhelming. Despite the fact that many students complete their educations without difficulty, others face significant obstacles that place stress on their well-being and life satisfaction. Particularly, the recent influx of international students studying at universities located in mainland China have been linked to poor mental health, maladaptive behavior, and difficulties with sociocultural adjustment (Wen et al., 2018; Ding, 2016). Evidence shows that during their college years, individuals struggle with language difficulties, feel lonely and stressed because they miss their families, and also, experience social isolation and discrimination (English et al., 2020; Jiang et al, 2018; Szabo, 2016; Brisset et al, 2010; Dao et al, 2007). However, little is known about how life satisfaction turns out for international students enrolled in the higher education institutions of mainland China. This lack of understanding in the literature warrants study of student well-being, satisfaction and associated psychological pressures faced by international students in China. Addressing this emerging issue, the current study examined factors of life satisfaction based on Lent's (2004) model that links personality traits (positive or negative affect) with environmental support available to international students; mediated by cognitive and behavioral factors (self-efficacy expectations, outcome expectations, goal progress).

Globally, universities facilitate students in successful adjustment to local settings and challenges faced, this includes the provision of onboarding events, orientation programs, mentors and personal tutors, dedicated to student nurturing and development. Social events

on campus acculturate individuals and make them feel welcome in what are often new and intimidating environments. Albeit international students often need to adjust their expectations in order to cope with socio-cultural demands, such that they may continue to maintain a stable sense of social worth and identity (Haslam et al., 2021; Cruwys et al., 2020; Zhou et al., 2008; Ward & Kennedy, 1993). The central idea is to effectively manage stress and the pressure that students experience due to adjustment demands of a new culture and country (Berry, 2006). On this front, to better understand the student experience, Lent (2004) suggests that student well-being is a key measure and predictor of satisfaction in academia, work and in social aspects of life. Building on work done with the Social Cognitive Career Theory (SCCT) during the mid-90s (Lent et al., 1994), Lent proposed the social cognitive model of well-being. The model was further developed to predict that students who find meaningful activities that gauge their personal goals are more likely to achieve happiness and satisfaction in academia and in their further career pathways (Lent & Brown, 2008).

In the current study, we contribute to literature on the social cognitive career theory (SCCT) by demonstrating the explanatory power of Lent's model of well-being with respect to the behavior of a diverse body of international students studying in mainland China (see Fig.1). A study by Sheu, Liu and Li (2017) developed and applied a variant model based on the SCCT to explain satisfaction amongst local college students in Southwest and East China. Results showed that college outreach programs boost self-efficacy and facilitate efforts to pursue personal goals and that these are beneficial for student well-being. Does this apply to the experience of international students in China's higher education system? Our study extends this debate by focusing on the international body of students who study and live alongside local Chinese students. For individuals from other countries their journey

across academic life in China can be markedly different in the challenges and hurdles that are faced and must be met.

Confucian culture is widespread in China, where it encourages rules, structure, and obedience to authority. In tandem, Confucian thought also limits room for critical thinking and risk seeking behavior much of which drives innovation in other countries (Zhu, 2015). This falls in sharp contrast to some cultures where international students may arrive from when integrating into Chinese universities. One study found that in Chinese universities the mother tongue of an individual influences identification with some social groups over others (Tsung & Clarke, 2010). This may sow divisions that create barriers for international students who are seeking satisfaction in studying alongside a culturally rich and diverse environment. Modern Chinese higher education aimed to infuse western practices and ideology within local institutional arrangements and pedagogical methodologies. However, Chinese education policies have been responsive with ad hoc, piecemeal and superficial remedies, rather than the required systematic change based on deep understanding of cross-cultural activities and challenges (Yang, 2011). Student well-being can be further fostered through flexible approaches in teaching that engenders creative, risk taking and emotionally satisfying experiences (Li et al., 2008).

The Integrative Social Cognitive Model of Well-Being

Historically, ideas by Bandura (1997) exemplified in his general social cognitive theory influenced the development of the SCCT and subsequently Lent's integrative model of well-being. For Lent (2004) in different related domains of life (for instance in academic endeavors or professional projects) the individual person's well-being is emphasized in terms

of subjective emotional experiences and how satisfying these turn out to be. In the context of well-being at university, essentially, the onus is placed on the student's subjective experience of living (eudaimonic) and the satisfying feelings of pleasure (hedonism) that are associated with what is encountered and requires coping actions (Işık et al., 2018; Lent et al., 2009). In our study we recognized that international students often struggle emotionally and behaviorally when coping with new environments. The pressure is debilitating and acts as a barrier to prosperous integration with host country culture. More generally, cultures tend to vary as one moves across countries in the west to those in the east (Markus & Kitayama, 1991).

According to social cognitive model of well-being (Lent, 2004), people are more likely to be satisfied with a specific domain (e.g., academic satisfaction) when they (a) perceive more support from their environment (e.g., social support), (b) feel that they can accomplish the related tasks (e.g., self-efficacy), (c) believe that accomplishing these tasks will lead to favorable outcomes (e.g., outcome expectation), (d) see themselves as making progress toward their valued goals (see Fig. 1). This satisfaction with a specific life domain then affects an individual's overall well-being (Lent et al., 2004, 2005).

Since the development of these propositions in 2004 and its introduction as an extension of social cognitive career theory, well-being model has been tested across many populations. These studies were primarily targeted local students in their domestic context such as Brazilian (Vautero et al., 2021), Iranian (Sadeghi & Mahdavi, 2020), Portuguese (Lent et al., 2009, 2012), Chinese (Sheu et al., 2017), and Turkish (Işık et al., 2018) college students and students from diverse cultural backgrounds from the U.S. (e.g., Flores et al., 2020; Truong & Miller, 2018; Ezofor & Lent, 2014). The results mostly supported the links

from positive affect to academic support, academic self-efficacy, and life satisfaction (Işık et al., 2018; Garriott et al., 2015; Lent et al., 2005, 2012, 2014, 2017; Ojeda et al., 2011) as well as the links from academic support to self-efficacy, from academic self-efficacy to academic satisfaction, and from academic satisfaction to life satisfaction (e.g., Sadeghi & Mahdavi, 2020; Işık et al., 2018; Lent et al., 2005, 2014, 2017; Sheu et al., 2014, 2017). Results regarding the link between academic outcome expectations and academic goal progress were not consistent as few studies (Sheu et al., 2016; Ezeofor & Lent, 2014) found empirical support for this link whereas many others did not (Işık et al., 2018; Sheu & Bordon, 2017; Garriott et al., 2015; Sheu et al., 2014; Ojeda et al., 2011; Lent et al., 2005).

To our knowledge, only one study tested tenets of social cognitive model of well-being among international students in China (Cao et al., 2022). In particular, they tested the roles of social cognitive factors (e.g., host university support, social self-efficacy) and personality traits (e.g., proactive personality) in international students' cross-cultural adjustment (e.g., academic adjustment, sociocultural adjustment, psychological depression). Their results showed that these social cognitive variables and proactive personality operated uniquely in predicting different domains of cross-cultural adjustment among international students in China.

Please insert Figure 1, here

Our study examines the applicability of the social cognitive model of well-being within the context of international student experience in China. This adds a new perspective to the debate on well-being and life satisfaction, demonstrating the efficacy of the model

within the eastern tradition of education. This is essential because modern Chinese educational systems seek to internalize and replicate western pedagogical values and institutional practices (Yang, 2011; Ryan & Louie, 2007).

Method

Participant and procedure

The population of this study comprises international students studying in different universities of China. For collecting data, we used self-administrated survey because it allows the authors to describe the importance of this study in front of respondents. Before distribution of the survey the confidentiality of the study was rest assured. Five hundred and fifty students voluntarily agreed to participate in this study. However, we get the response from 315 students. Out of this, 19 responses did not complete or found inappropriate (e.g., missing more than 80% of the full questionnaires) for the study. Finally, we received 294 (208 males, 85 females) usable questionnaires retrieved for further analysis with an actual response rate of 53.45%.

Most of the students were in age group of 25-30 (147) and only 14 has age of 36 or above. The respondents perusing bachelor (55), master (123), Ph.D. (80) and learning Chinese language (36). Majority of the students enjoying different types of scholarships (55%) and 132 students (45%) did not get any scholarship.

Data analysis

After getting some basic analysis the next important step is model fitness. In this study, we used AMOS v.23 for conducting model fitness in two steps i.e., through measurement model and structural model. In order not to violate the normality of the data,

maximum likelihood estimation was employed (Kline, 2016; Işık et al., 2018). For the indicators of seven latent variables, we created parcels using item-to-construct balancing method (Little et al., 2002). Specifically, we used two parcels for academic self-efficacy, academic goal progress, academic satisfaction, and life satisfaction and three parcels for academic support, academic outcome expectation, and positive affect.

Measures

Positive affect

The 10-items for positive affect taken from positive and negative affect schedule (Watson et al., 1988) scale. Positive affect describes distinct feelings such as "enthusiastic, excitement, inspiration "on five-point Likert scale (1 = very slightly or not at all to 5 = extremely). This scale revealed (Table 1) the value of Cronbach's alpha and composite reliability is (0.86) and (0.80).

Academic support

Academic support was measured through seven items (Lent et al., 2005) about student's perception of getting support (e.g., from their friends, family and experts), "I have access to a 'role model' (e.g., someone I can look up to and learn from by observing)", "in my academic major", and "I feel that close friends or relatives would be proud of me for pursuing this goal". The items were measured through five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The scale has shown a very good internal consistency (0.94) and composite reliability (0.83) as shown in Table 1.

Academic self-efficacy

The students' self-efficacy was assessed through two types of self-efficacy items: a five-item academic milestone self-efficacy scale and a seven-item academic coping efficacy

scale (Lent et al., 2005). The first one indicates the list of major steps along the way to completing a degree e.g., "excel in your intended major over the next two semesters" and "remain enrolled in your intended major over the next two semesters". Another item concerned student belief about coping with barriers and problems that students might possibly face in pursuing their degree. For example, "continue in your intended major even if you do not feel well-liked by your classmates or professors". Participants were requested to rate these items on a 10-point Likert type scale (0 = no confidence to 9 = complete confidence). In this study, the composite reliability was (0.90) and internal consistency of this measure was (0.89).

Academic outcome expectation

Lent et al. (2005) developed a scale to measure the students' expectation after getting their degree on 10-items scale which also used in this study. A sample item was "receive a good job offer", and "have a career that is valued by my family". The participants were asked to indicate their level of agreement or disagreement on seven-point Likert type scale (1= strongly disagree to 7= strongly agree). For this study, the scale yields internal consistency (0.93), and composite reliability (0.93).

Academic goal progress

This was assessed through Lent et al.'s (2005) 7-items scale seeking students' progress on variety of academic goals at this point in time e.g., "studying effectively for all of your exams", and "completing academic requirements of your major satisfactorily" on 5-point Likert scale (1 = no progress at all to 5 = excellent progress). The internal consistency and composite reliability of this scale was (0.89) and (0.88) respectively.

Academic satisfaction

The academic satisfaction measure (Lent et al., 2005) includes seven items pertaining to the satisfaction of the students with different facets of their academic experience on five-point Likert scale ranging from 1 = strongly disagree to 5= strongly agree. For e.g. "I am generally satisfied with my academic life." This scale yielded 0.89 as Cronbach's alpha and composite reliability.

Life satisfaction

For measuring life satisfaction this study used SWLS (satisfaction with life scale) developed by Diener, et al., (1985). Participants are asked to evaluate five items using seven-point Likert scale from 1 (strongly disagree) to 7(strongly agree). A sample item is "So far I have gotten the most important things I want in life". Table 1 indicates that the Cronbach's alpha and composite reliability of this scale was (0.86) and (0.85) respectively.

Please insert Figure 2, here

Results

Preliminary analyses

Descriptive statistics and preliminary analyses including mean, standard deviation, composite reliability, internal consistency, and coefficients of correlation were computed through SPSS v.23 (see Table 1). The mean scores indicated that most of the respondents agreed with the survey items.

Please insert Table 1, here

Correlation results revealed a positive and significant relationship among all the paths variables. Positive affect was significantly related to academic support (r= 0.44, p<0.01), academic self-efficacy (r= 0.34, p<0.01), academic satisfaction (r= 0.41, p<0.01), and life satisfaction (r= 0.44, p<0.01). Similarly, academic support was significantly related to academic self-efficacy (r= 0.37, p<0.01), academic outcome expectation (r= 0.41, p<0.01), and academic goal progress (r= 0.44, p<0.01). The internal consistency ranged from 0.85 to 0.93, and composite reliability of the measures also reached a good level (ranging from 0.80 to 0.93). To distinguish between male and female respondents, undergraduate and postgraduate students, and students with and without scholarship, we ran a series of independent t tests for seven variables used in this study. The results showed no significant difference on the basis of gender, education level, and scholarship status (see Table 2).

Please insert Table 2, here

In order to account for the common method bias, we conducted Harman's one-factor test as recommended by Podsakoff et al. (2003). The result of one factor CFA (all items include in one latent variable) revealed poor fit (χ^2 = 1262, df = 120, p < 0.001, IFI= 0.63, CFI = 0.63, RMSEA = 0.18, SRMR = 0.17) which suggest that common method bias is not an issue of this study (see Table 3).

Measurement model

Before testing the hypothesized research model, it is important to test the model fitness. We ran series of CFAs (confirmatory factor analysis) to validate the distinctiveness of factors and their respective parcels. We tested the main seven-factor model (also the baseline model) and compared it with other alternative models such as three-factor model, and one-factor model. The results showed that seven-factor model obtained the best fit as

compared to other alternative models and meet the standard criteria as suggested in the literature (McAulay et al., 2006; Roh et al., 2005; Hu & Bentler, 1999). The measurement model represents a good model fit e.g., comparative fit index (CFI) =0.98 root mean square error of approximation 90% CI [.04–.06], standardized root mean square residual (SRMR) =0 .029 and is significant at (p< .001). The other models did not meet the criteria and represent poor model fit for e.g., three factor model (RMSEA =0.15, IFI=0.76, CFI=0.76, SRMR=0.1), and one-factor model (RMSEA =0.18, IFI=0.63, CFI=0.63, SRMR=0.17) as depicted in Table 3.

Please insert Table 3, here

Structural model

After meeting all the relevant criteria, the next step is to test the hypothesized model (Fig.2). We ran SEM (Structural Equation Modelling) through AMOS V.23. The structural model provided a good fit i.e., χ^2 = 204.9, df = 103, p < 0.001, IFI= 0.97, CFI = 0.97, RMSEA = .06, 90% CI [.05–.07], SRMR= 0.043. The results (Fig.3, Table-4) indicated that all paths were consistent with theory and statistically significant, except four paths (academic support → academic outcome expectation, academic outcome expectation → academic satisfaction, academic goal progress → life satisfaction, and positive affectivity → academic satisfaction). The other variables such as positive affect predicted a significant positive relationship with life satisfaction (β= 0.31, p<0.001), academic support (β= 0.50, p<0.001) and academic self-efficacy (β= 0.45, p<0.001). It also depicted from the Figure 3 that academic support also has a positive significant relationship with academic self-efficacy (β= 0.41, p<0.001), academic goal progress (β= 0.20, p<0.001) and academic satisfaction (β=

0.19, $p<0.001$). Academic self-efficacy has a significant effect on academic outcome expectation (β= 0.80, $p<0.001$) and academic goal progress (β= 0.88, $p<0.001$). The standard regression weight confirmed a significant positive effect of Academic outcome expectation on academic goal progress (β= 0.22, $p<0.001$). The results also in favor of significant positive effect of academic goal progress on academic satisfaction (β= 0.29, $p<0.001$) and academic satisfaction on life satisfaction (β= 0.51, $p<0.001$).

Please insert Figure 3, here

Please insert Table 4, here

Discussion

The current study extends debate about the international applicability of Lent's social cognitive model of well-being, which seeks to explain student life experience. Specifically, it is the first study we are aware of, which examines academic and overall life satisfaction of international students studying in China within the scope of social cognitive model. Prior studies predominantly focused on local students in their domestic context (e.g., Işık et al., 2018; Lent et al., 2010, 2012, 2009), Lent et al, 2010) and very few studies targeted international students (e.g., Cao et al., 2022). Adding to this body of scholarly research and debate, our study focused on international students, rather than local students, studying in China.

The Ministry of Education of the People's Republic of China recommend as part of their Education Action Plan for the Belt and Road Initiative (M.o.E., China, 2016), the provision of high-quality education to overseas students and mechanisms for attracting new

ones. Over the past decade China has attracted large numbers of education seekers compared to the UK, US, Europe and Australia. In terms of global mobility trends, China was absent amongst the top host destinations for international education. However, over the span of two decades 2000-2020, China appeared and rapidly grew in the market, as a high-volume provider, e.g., rated as a top five education provider globally alongside the United States, United Kingdom, and Canada (Project Atlas, 2020). This trend is significant because it demonstrates China as a key destination where the experience of international students is little known.

We examined the factors of life satisfaction based on Lent's (2004) model that links personality traits (positive or negative affect) with environmental support available to international students; mediated by cognitive and behavioral factors (self-efficacy expectations, outcome expectations, goal progress). Prior studies examined the experience of Asian and African students within North American University systems (Hui et al., 2013; Ezeofor & Lent, 2014). One study added self-construal as a variable predicting academic satisfaction and recommends interventions by education counselors to support African students residing in the United States of America (Ezeofor & Lent, 2014). A second study tested the adequacy of the SCCT model and calls for more research into determining the range or limit of the theory with respect to gender (Hui et al., 2013). In view of this emerging debate on cross-cultural validity of the social cognitive model of well-being, our study therefore, tested this model.

Overall, significant results support our hypothesized fit of the structural model to the data and provide new evidence about the power of Lent's normative model of well-being applied to a sample of international students studying and living in China. We found that 12

out of 16 hypothesized paths were significant with positive coefficients, which is consistent with results from previous studies (Işık et al., 2018; Lent et al., 2017, 2014, 2012, 2005; Garriott et al., 2015; Ojeda et al., 2011). The other four hypotheses showed no significant outcomes which raises concerns. Firstly, we found no significant outcome associating academic goal progress with life satisfaction in our hypothesized research model. To count for this, a plausible explanation is that progress toward academic goals influences satisfaction of international students in this domain, which improves life satisfaction.

Secondly, we found non-significant results when examining for the impact of positive affect on academic satisfaction. A similar outcome was found by Işık et al. (2018) who tested Lent's model to better understand and predict the experience of students in the Turkish education system. They argued that positive feelings like excitement, enthusiasm and inspiration may be distinctly related to life satisfaction rather than domain specific academic feelings of satisfaction. Overall, whilst some studies found no significant relationship (Işık et al., 2018; Garriot et al., 2015; Singley et al., 2010; Lent et al., 2005) other studies in Mexico, the United States of America, Portugal, and Spain have found evidence to support the impact of positive affect on academic satisfaction (Lent et al., 2017, 2014, 2012; Ojeda et al., 2011). Thirdly, we found no significant relationship between academic outcome expectation and academic satisfaction.

Fourthly, there was a non-significant negative relationship between academic support and academic outcome expectation. This suggests a problem with communication between support systems and how inviting they appear to international students, many of whom already suffer from a language and cultural barrier (Hussain & Shen, 2019). Majority international students may focus attention on activities directly related to academic

achievement, leaving behind less motivation and capacity to engage with university systems designed for student support. Given, systems may not be user-friendly and ambiguous (i.e., language, cultural norms, symbols, food, peer-support), this exasperates further a growing issue in higher education provision. We call for transparency and greater visibility of underlying mechanisms and behaviors including capability, motivation and opportunity for international students.

The central finding of our study is consistent with Lent's (2004) theory of social well-being. Our sample offers unique insight into preferences of students from a host of ethnic backgrounds and cultures who face pedagogical challenges in the Chinese education system (Benton et al., 2003). In addition, whilst an international student's well-being has been hypothesized as dependent on gender (Işık et al., 2018; Hui et al., 2013), we tested and found no significant differences based on gender bias (see Table 2). Whether there are latent variables that indirectly mediate the effect of gender remains an open question.

The results of our study must be interpreted in the context of its scope and limit. In terms of methodological implications, first, our study is similar to recent cross-cultural research on the well-being of international students abroad. We offer a snapshot of a region not tested in prior research (i.e., sample of international students studying in China). Second, our study adopts a cross-sectional design, which excludes causal inference because it lacks temporal relationships and limits the generalizability of results (Işık et al., 2018; Lent et al., 2013). By contrast, the nature of our variables in so far as they do not incorporate temporal aspects of change, limits our perspective about student well-being in China. One other limitation was that the response rate was low. Although 550 students volunteered to participate in the study, only 294 of them (about 54%) delivered complete questionnaires. A

possible explanation might be the length of questionnaires, as some studies found that questionnaire length had a significant influence on low response (e.g., Rolstad et al., 2011; Sahlqvist et al., 2011). Using a longitudinal design and separating questionnaires across different waves of data collection may reduce this risk.

With respect to practical implications, our study recommends that where high quality, standardized, and more frequent availability of academic support and environment is provided yield better career prospects, trait positive affect, academic satisfaction and overall life satisfaction for international students. Studies suggest that social and academic support international students receive from their host universities can play a pivotal role in coping with emotional challenges such as uncertainty, anxiety, and stress (English et al., 2021, 2022), which may in turn can contribute to their academic and overall life satisfaction. Similarly, we suggest a focus on non-academic goal progress in conjunction with other aspects of behavior considered by Lent's theory tested in the current paper. The reason for our suggestion is that no significant influence was found associated with academic goal achievement alone. Thus, a broader level focus requires widening the scope in future studies. Another prospective argument is to compare results between our study with those conducted in western cultural contexts. At the national level, this would provide a comparison between what Hui and Lent (2018) has recently acknowledged as cultural bipolarities between the individuals sense of self; predicated upon a spectrum spanning individualistic and collectivistic tendencies.

Given that the current study was a preliminary study testing the basic tenets of social cognitive model of well-being among international students, all the factors tested were not just specific to the sample of international students. Thus, future studies focusing on

international students' well-being may test models integrating unique features of international students (e.g., intercultural interactions, progress towards acculturation, and outcome expectations for integration into the host society). We also recommend collecting data and testing several important demographics in future studies (examining the sample of international students in China) e.g., length of residence in China (during studies), current level of studies in China, original country (home country of residence), and prior study experience abroad. As these controlling factors will provide more in-depth insights into the life satisfaction, academic satisfaction and overall health and well-being of international students studying in mainland China. In terms of environmental support variable, social media usage intensity may also be tested within the model as its positive effect in social adjustment of international students in China has recently been reported (Cao et al., 2023). Further research is also recommended in the Southeast Asia Region (i.e., mainland China) where our study was conducted. The experience of international students in these societies can be influenced by broader cultural variables. Previous research has suggested that the notion of self is significant, particularly, in contrasting the experiences of international students originating from the west and the east (Markus & Kitayama, 2003; Hui & Lent, 2018).

In sum, findings of the current study in China suggest that international student experience is under researched in the field with respect to life satisfaction, adjacent to academic support and goal progress. Here, additional research is required to further develop knowledge of social cognitive well-being of international students (Sheu et al., 2017; Lent et al., 2014; Sheu et al., 2014). Moreover, at the broader pragmatic and policy level, we

recommend investment in acculturation policy and activities that can be put in place to aid coping with the adjustment curve many foreigners face (Ojeda et al., 2011).

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Data Availability
The datasets generated and analyzed in the current research are available from the corresponding authors on reasonable request.

Declarations

Ethical approval
All procedures performed in this study involving human participants were in line with the principles of the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent
Informed consent was obtained from all individual participants included in the study.

Conflict of interest
On behalf of all authors, the corresponding author declares that there is no conflict of interest.

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Figures 01

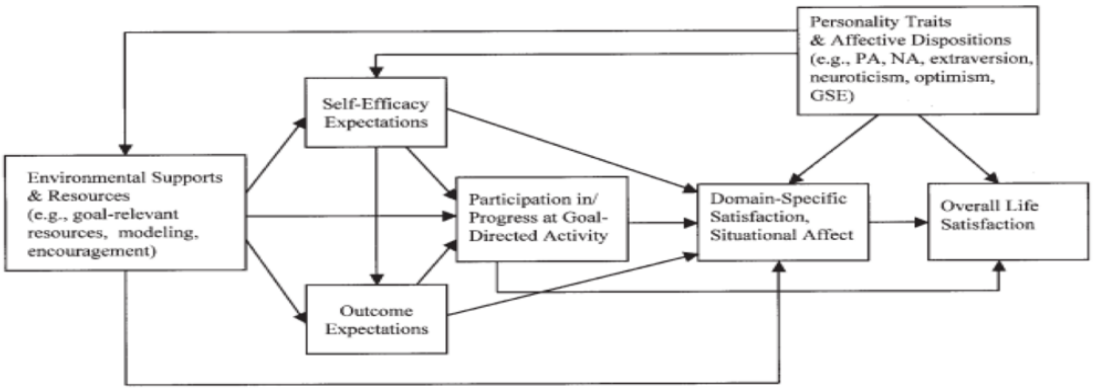

Fig. 1. *Social cognitive model of well-being adapted from Lent, R. W. (2004).*

Figure 02

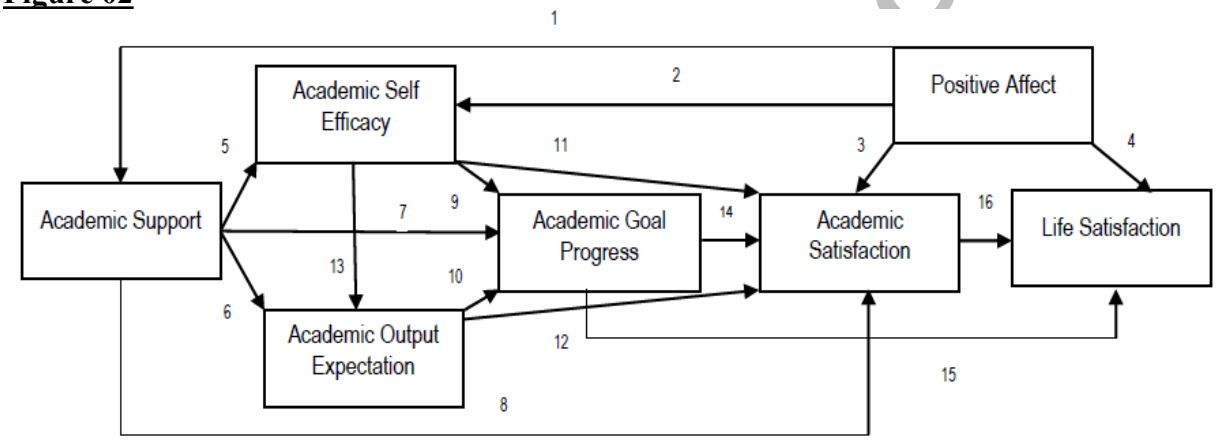

Fig. 2: *Hypothesized Research Model*

Figure 03

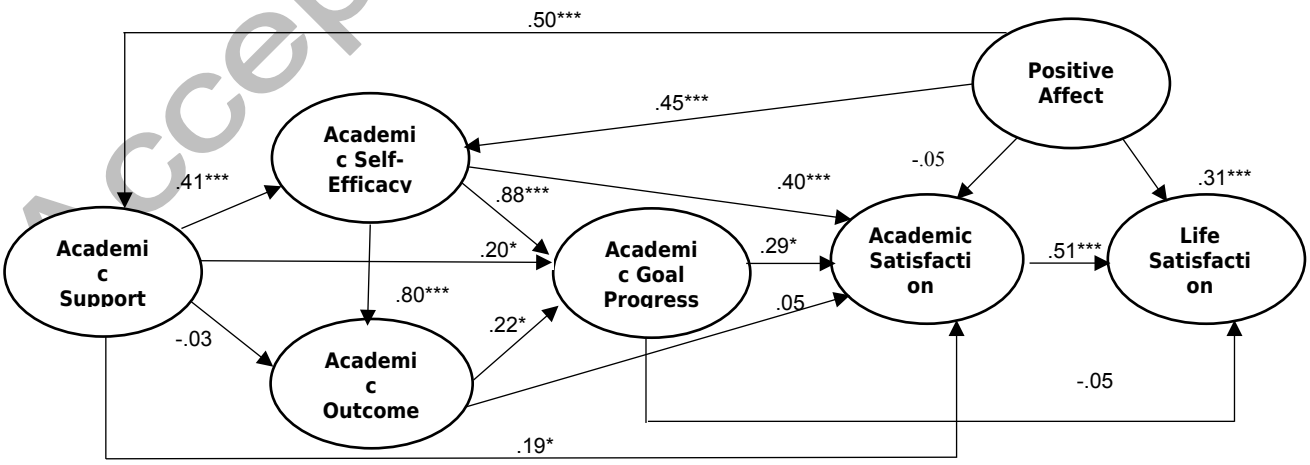

Fig. 3 *Standardized regression weights *p<0.05, ***p<0.001*

Table1: Descriptive Statistics, Correlations, Internal Consistency Estimates and Composite Reliability

Variable	1	2	3	4	5	6	7	Mean	SD	CR	Cronbach's alpha (α)
1. Positive affect	***0.86***							3.56	0.81	0.8	0.86
2. Academic support	0.44	***0.94***						3.61	0.75	0.83	0.94
3. Academic self-efficacy	0.34	0.37	***0.89***					7.02	0.84	0.9	0.89
4. Academic output expectation	0.48	0.41	0.52	***0.93***				5.38	1.09	0.93	0.93
5. Academic goal progress	0.44	0.56	0.55	0.53	***0.89***			3.93	0.68	0.88	0.89
6. Academic satisfaction	0.41	0.53	0.40	0.48	0.64	***0.89***		3.72	0.79	0.89	0.89
7. Life satisfaction	0.44	0.47	0.29	0.53	0.42	0.49	***0.85***	4.79	1.24	0.86	0.85

Note: $N = 294$. Cronbach's alpha values are given in diagonal with bold and italic numbers. All correlations were significant at $p < 0.001$.

Table 2: Comparisons on the basis of gender, education level, and scholarship status

	Gender			Education Level			Scholarship Status		
	Male ($n = 208$)	Female ($n = 86$)		Undergrad. ($n = 55$)	Postgrad. ($n = 239$)		Yes ($n = 162$)	No ($n = 132$)	
Variables	*M (SD)*	*M (SD)*	*t*	*M (SD)*	*M (SD)*	*t*	*M (SD)*	*M (SD)*	*t*
Positive affect	3.58 (0.81)	3.51 (0.82)	0.66	3.73 (0.83)	3.52 (0.81)	1.65	3.51 (0.79)	3.62 (0.83)	-1.18
Academic support	3.61 (0.74)	3.64 (0.79)	-0.34	3.71 (0.76)	3.59 (0.75)	1.04	3.56 (0.76)	3.67 (0.74)	-1.29
Academic self-efficacy	4.03 (0.88)	4.11 (0.75)	-0.71	3.99 (0.85)	4.07 (0.85)	-0.56	3.98 (0.89)	4.15 (0.71)	-1.69
Academic output expectation	5.37 (1.12)	5.41 (1.06)	-0.26	5.47 (1.1)	5.37 (1.1)	0.65	5.36 (0.94)	5.51 (0.94)	-1.26
Academic goal progress	3.94 (0.72)	3.94 (0.59)	-0.01	3.95 (0.68)	3.93 (0.69)	0.22	3.95 (0.61)	3.96 (0.57)	-0.02
Academic satisfaction	3.72 (0.82)	3.71 (0.73)	0.09	3.76 (0.79)	3.71 (0.79)	0.45	3.66 (0.83)	3.79 (0.74)	-1.55
Life satisfaction	4.83 (1.27)	4.69 (1.19)	0.83	4.85 (1.46)	4.78 (1.19)	0.38	4.73 (1.27)	4.87 (1.2)	-1.02

Note. All t values were non-significant ($p > .05$).

Table 3: **Model Fitness (Measurement Model)**

Model	X2	df	RMSEA	IFI	CFI	SRMR	χ^2	df
One-factor Model	1262***	120	0.180	0.630	0.628	0.173	1094	22
Three-factor Model	848***	116	0.147	0.763	0.761	0.095	680	18
Seven-factor Model	168***	98	0.049	0.977	0.977	0.029	*Baseline Model*	

Note: *N = 294;* One-factor model: all observed variables loaded on a single factor. Three-factor model: academic support, academic self-efficacy, and academic outcome expectation loaded on one factor, academic goal progress and academic satisfaction loaded on one factor, and positive affect and life satisfaction loaded on one factor. Seven-factor model: all seven study variables treated as independent factors as suggested in our hypothesized model. ***$p < .001$

Table 4: Results of SEM Analysis of Hypotheses Testing

Paths	Estimate	*SE*	*CR*	*p*	Results
1. PA → ASUP	0.50	0.06	7.19	.000***	Supported
2. PA → ASE	0.45	0.06	5.87	.000***	Supported
3. PA → ASAT	-0.05	0.08	-0.65	.517	Not Supported
4. PA → LSAT	0.31	0.12	4.14	.000***	Supported
5. ASUP → ASE	0.41	0.07	5.13	.000***	Supported
6. ASUP → AOE	-0.03	0.15	-0.31	.759	Not Supported
7. ASUP → AGP	0.20	0.09	2.22	.027*	Supported
8. ASUP → ASAT	0.19	0.08	2.56	.011*	Supported
9. ASE → AGP	0.88	0.21	4.66	.000***	Supported
10. AOE → AGP	0.22	0.03	2.26	.034*	Supported
11. ASE → ASAT	0.40	0.04	2.45	.039*	Supported
12. AOE → ASAT	0.05	0.09	0.37	.710	Not Supported
13. ASE → AOE	0.80	0.21	7.06	.000***	Supported

14. AGP → ASAT	0.29	0.18	2.74	.032*	Supported
15. AGP → LSAT	-0.05	0.19	-0.51	.613	Not Supported
16. ASAT → LSAT	0.51	0.16	4.85	.000***	Supported

Note: ASUP= Academic Support; PA= Positive Affect; ASE, Academic Self-efficacy; AOE= Academic Outcome Expectations; AGP= Academic Goal Progress; ASAT= Academic Satisfaction; LS= Life Satisfaction. $*p < 0.05$*;* $**p < 0.01$*;* $***p < 0.001$