Predictors of Flourishing among Filipino College Students in Rural Areas

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ABSTRACT

Access to necessary resources is sometimes limited for college students in rural areas. With these limitations, this study focussed on self-adjustment, factors related to academic persistence, health-promoting behaviours, satisfaction with life, and external social support as predictors of the flourishing of college students in rural areas. Specifically, flourishing is operationally defined in this study as the promotion of social and psychological well-being (Diener, 2010). There were 217 college students enrolled in rural-based schools in the Philippines as respondents in the study. The multiple regression analysis results showed that academic buoyancy, academic self-efficacy, regularly eating breakfast, social support from friends, and life satisfaction significantly predicted the flourishing of college students. The discussion delved into the far-reaching implications of preventive and responsive student support services programmes.

Keywords: Flourishing, health-promoting behaviours, programme development, rural areas, scholastic persistence, social support, university students

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INTRODUCTION

In rural areas, residents' living standards are usually less advanced than those in urban areas. Access to a stable and high-speed internet connection, quality technological equipment for learning (Dasinger & Gibson, 2022), poverty, and unemployment of family members (Liu et al., 2023) are just some of the common challenges faced by college students in these contexts. Sometimes, because of these dire circumstances, students in rural areas were observed to have lower grades and lower aspirations compared to their urban counterparts (Miranda & Rodriguez, 2022).

Relevant scholarly literature indicates that personal characteristics like resilience and coping strategies, positive relationships with classmates, professors, and school staff (Erck & Sriram, 2022), and a positive school environment (Jones et al., 2023) are key factors for flourishing in college students. However, the plethora of available research has mostly reported flourishing among college students residing and enrolled in urban-based colleges or universities (Miranda & Rodriguez, 2022).

Flourishing, as operationalised in this study, refers to the promotion of social and psychological well-being, as explained by Diener et al., (2010). In rural areas, the flourishing of college students was observed to experience the following challenges: primary is the economic context of the student's family. Studies observed that since viable work opportunities in the provinces are not as readily available compared to urban areas, families usually find themselves relocating to the cities where work with higher pay is offered (Miranda & Rodriguez, 2022); this, in turn, results in students dropping out of school because their families had to transfer to work in the city (Guzmán et al., 2022). In retrospect, studies recorded that during the COVID-19 pandemic, students in rural areas experienced relatively more stress and anxiety as they coped with digital/online lessons and activities in school (Dasinger & Gibson, 2022). On the other hand, studies in other Asian countries such as in remote rural China, reported limited school facilities, inexperienced teachers handling subjects, and poor student life on campus (Gunawardena et al., 2020).

In a qualitative study conducted in the Philippines, particularly in the Bicol Region, students expressed financial limitations because of which they have to skip meals to spare some amount for transportation and printing papers to be submitted for class (Uclaray, 2023). In light of these difficulties, students depend on their families for support as a key method of coping (Asiones, 2023).

Given the unique circumstances of students in rural areas, the present study would contribute to the literature by confirming whether or not personal adjustments like scholastic persistence (i.e., academic buoyancy, general academic self-efficacy), satisfaction with life, family monthly income, health-promoting behaviours (i.e., breakfast frequency, exercise frequency, sleep average), and external sources of support (i.e., social support from family, social support from

friends, social support from significant others) would be significant in predicting flourishing among college students in the rural context.

LITERATURE REVIEW

Flourishing is an interesting construct, often associated with success (Bakracheva, 2020). It is described as the "pinnacle of good mental health" and a representation that one has achieved a balanced life (Keyes, 2016, p. 100). It is a state of human excellence, associated with self-care behaviours, social support, and positive affect (Lomas et al., 2023). While the conceptualisation of flourishing varies in the professional literature (Diener, 2010; Keyes, 2016; Butler & Kern, 2016), this paper will focus on flourishing as forwarded by Diener (2010), which underscores the social and psychological well-being of individuals (Rule et al., 2024).

Furthermore, the possible predictors of flourishing were analysed, with specific consideration given to college students in rural areas. Consequently, since the context of the study is flourishing in college, factors related to scholastic persistence, like academic buoyancy and academic self-efficacy were deemed important in determining well-being among this group. Including these factors acknowledges the unique circumstances of college students trying to thrive in the world of the academe. In addition, social support from family, friends, and significant others were considered because of its ability to protect against negative mental health outcomes

(Guzman Villegas-Frei et al., 2024) and the fact that social support is a known and crucial resource for thriving in the academe (Hou et al., 2024b). Moreover, including monthly income as a possible predictor recognises the study's rural context. One of the marked characteristics of living in a rural community is the relatively lower income strata of its members compared to those who reside and work in an urban setting (Liu et al., 2023). Other unique contexts of students in rural areas include the distance between home and school, lack of qualified teachers, an unstable internet connection, and poverty (Hassan et al., 2023). Satisfaction with life is therefore also included in recognition of the crucial role that cognitive perception plays in flourishing (Rule et al., 2024). Given these circumstances, this research question is forwarded, whether or not internal adjustments such as scholastic persistence, health-promoting behaviours, life satisfaction, and relationship support such as support from family, friends, and significant others, and monthly income would be significant predictors of the flourishing of college students in rural areas.

Scholastic Persistence

Scholastic persistence refers to one's disposition to achieve specific goals related to students' academic achievement despite challenges and difficulties (Leonard et al., 2021). While it is related to grit, scholastic persistence is a general term used in this paper to encapsulate the constructs of academic buoyancy and academic self-efficacy. Grit is not given focus because

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of reported limitations in theory and measurement (Datu, 2021; Hou et al., 2024a). Instead, academic buoyancy, which is about overcoming daily challenges in school (Putwain et al., 2023), and academic self-efficacy, which is the belief in one's ability to perform academic tasks successfully (Ribeiro & Fernandes, 2020) are considered because of their robust support from the literature and reports positively correlating them with academic resilience and well-being (Mao et al., 2023).

According to Martin and Marsh (2008), academic buoyancy promotes resilience and can buffer students from the anxiety of performing well in examinations despite setbacks. In addition, academic self-efficacy, or the belief in their capacity to overcome academic challenges, was also seen to partially explain reports of well-being (Ansong et al., 2019). Common to academic buoyancy and academic self-efficacy is their ability to be developed and sustained despite limitations in economic and other relevant resources (Kingsford-Smith et al., 2024).

Health-promoting Behaviours

Health-promoting behaviours like exercise, sleep, food, and nutrition were seen to also contribute to flourishing as these factors can improve mood and the overall mental well-being of individuals (Wickham & Amarasekara, 2020).

Eating breakfast, for instance, is generally associated with better mental health (Kaiwai et al., 2022), while fruit and vegetable consumption is linked to higher levels of happiness (De Leon et al., 2022).

Improved mental health is likewise linked to exercise frequency (Wang et al., 2022) and sleep (Scott et al., 2021). Unfortunately, access to healthy and sufficient meals, time and space for exercise, and adequate sleep are sometimes heavily influenced by socioeconomic status (Kopels & Roulette, 2023). Some students in rural areas can resonate with the experience of being disadvantaged as limited access to relevant facilities can be a barrier to pursuing health-promoting behaviours (Houghton et al., 2023).

Social Support

Studies report that social support and social skills tend to predict flourishing in college students (Holliman et al., 2021). Increased resilience and self-compassion (Yıldırım & Tanrıverdi, 2020) are said to explain this relationship. Resilience from social support tends to encourage a necessary perseverance to overcome challenges, while self-compassion generates a more self-forgiving stance. In other studies, social support from family, friends, and significant others (Qureshi et al., 2023; Whitaker et al., 2022) were also seen to be associated with flourishing as it fosters trust (Heyman et al., 2020), accelerates recovery, enhances coping behaviours, reduces stress, and diminishes physiological responses to stress (Lauzier-Jobin & Houle, 2022; Li et al., 2020). However, its effectiveness may vary among different groups. Specifically, among rural students, social support from friends and classmates can help ease the observed divide and discomfort when befriending

or interacting with someone above one's social class (Álvarez-Rivadulla et al., 2023). Social support from family, friends, and significant others can also buffer against the negative effects of stress and anxiety regardless of socioeconomic status (Shin & Gyeong, 2023).

Life Satisfaction

Another facet that is examined in most studies on flourishing is satisfaction with life, which is a cognitive evaluation of one's well-being (Bee Seok et al., 2020). Life satisfaction has been observed to influence emotional intelligence (Qin et al., 2023), health quality (Durand-Sanchez et al., 2023), and perceived distress levels (Johnson et al., 2023). Further, studies suggest that low socioeconomic status (SES) can result in low life satisfaction (Álvarez-Rivadulla et al., 2023). Interestingly, in the Philippines, the concept of the 'happy poor' finds empirical evidence in the study of Palanca-Tan (2021), citing that Filipinos, despite high poverty incidence, evaluate themselves as generally content and happy.

Monthly Income

In the rural areas of the Philippines, monthly income is less competitive than in metropolises (e.g., Metro Manila). In one study (Miranda & Rodriguez, 2022), given the same job position and job qualification, workers in the rural provinces are paid less than their urban counterparts. Including monthly income as one of the possible predictors of flourishing among rural college students finds a basis in professional

literature, which shows evidence that income contributes to flourishing and to a decrease in symptoms of depression (Lomas, 2024). Some studies would even peg a threshold that when the amount is met, facilitate flourishing (Killingsworth et al., 2023). While some would assert that the positive association between the two would only be true up until a certain income level, when the income surpasses the threshold, the effect of income on flourishing ceases (Killingsworth et al., 2023; Palanca-Tan, 2021). Thus, the inclusion of monthly income as one of the possible predictors in this study would verify reported claims on the association between income and flourishing.

Considering all the reasons mentioned above, this research investigates how flourishing among university students in rural areas is predicted by scholastic persistence (i.e., academic buoyancy and general academic self-efficacy), health-promoting behaviours (i.e., breakfast frequency, exercise frequency, and average sleep), satisfaction with life, social support (i.e., friend, family, and significant others' support), and monthly income.

METHODS

Research Design

The study utilised a cross-sectional research design that is quantitative in approach, using predictive correlation (Sharmila et al., 2022) to analyse data. This research model may guide mental health professionals in making clinical decisions based on proven relationships between multiple dependent variables and an independent variable (Yang et al., 2022).

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Research Participants

The participants of this study were undergraduate students from various disciplines at universities in the Bicol and Northern Mindanao Regions, Philippines. These regions have more rural areas and are comparatively less progressive when compared with the highly urbanised context of Metro Manila. A purposive sampling method was employed to gather 217 respondents who were specifically selected from students enrolled in universities from the specified areas, thus ensuring the sample aligns with the research context. While useful for focussing on a specific study population, the non-probability nature of this method essentially limits the generalisability of the findings to college students in highly urbanised or otherwise diverse regions.

To facilitate survey administration, an online form was created and posted on the social media platform Facebook and the websites of the target universities. Table 1 presents the demographic profile of student participants, based on the data culled from the researcher-made questionnaire.

Table 1 shows that the majority of the respondents are female (64.98%), aged 18-19 years old (80.64%), in their freshman year (86.2%), with monthly family income ranging from 10,000 to 50,000 pesos (48.85%), eat breakfast in 'some days' (47.22%), engage in exercise ranging at least 1-4 days (64.98%) and have a sleep duration of 5-8 hours (89.40%).

In terms of income, while it is true that families in rural areas are comparatively less advantaged (in terms of income and opportunities) than those in the urban context (Luo & Hu, 2024), the income spread of the participants in this study is consistent with research that posits that higher education is less pursued by individuals from low-income backgrounds (Voss et al., 2024).

Research Instruments

Data for this study was collected using a combination of a researcher-developed questionnaire and five established psychometric scales. These measures were designed to assess key psychological constructs, demographic variables, and behavioural indicators among Filipino college students in rural areas.

Researcher-made Questionnaire

Items in a Likert-scale form were utilised to elicit responses concerning college students' monthly income and health-promoting behaviours (e.g., breakfast frequency, exercise frequency, and sleep duration). Specifically, the questions used were: "In your estimate, what is the total monthly income in your family?" "How often do you eat breakfast in a week?;" "How many days in a week do you engage in at least 30 minutes of exercise?;" and "On average, how many hours of sleep do you get per night?" The answers to these questions are presented in a multiple-choice format, giving the respondents the option to choose specific answers that best resonate with their experience. Expert feedback and pilot testing of these questions were done to ensure ease of administration too and comprehension by the participants.

Table 1
Demographic characteristics of the participants of the study (N=217)

Variables	Frequency	Percentage
Sex at Birth		
Male	76	35.02
Female	141	64.98
Age		
16-17 years old	12	5.53
18-19 years old	175	80.64
20-21 years old	19	8.76
22-28 years old	11	5.07
Year in College		
1st year	187	86.2
2nd year	8	3.70
3rd year	15	6.90
4th year	7	3.20
Family's Monthly Income		
Prefer not to disclose	37	17.10
Less than PhP10,000	25	11.50
PhP10,001-PhP50,000	106	48.85
PhP50,001-PhP90,000	31	14.29
PhP90,001 and above	18	8.30
Breakfast Frequency		
Everyday	92	42.40
Some days	95	47.22
Rarely to Never	30	13.82
Exercise Frequency		
None	53	24.42
1-4 days	141	64.98
5-7 days	23	10.60
Sleep Duration		
Less than 5 hours	17	7.83
5-8 hours	194	89.40
More than 8 hours	6	2.76

Flourishing Scale

It is an eight-item self-report scale that measures perceived success in relationships, self-esteem, purpose, and optimism. Responses were provided on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree) (Diener et al., 2010). The scale demonstrates strong internal consistency (Cronbach's alpha typically > 0.800), construct validity through correlations with well-being indicators, and a unidimensional factor structure (Diener et al., 2010). Test-retest reliability is moderate to high over weeks to months. The scale's cross-cultural applicability is supported by its translation and validation in diverse contexts (Rule et al., 2024). The value of Cronbach's alpha in the sample of Filipino college students is at $\alpha = 0.950$.

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General Academic Self-efficacy (GASE)

This five-item scale assesses participants' beliefs in their ability to perform well academically (Nielsen et al., 2018). Responses were provided on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Recent reports on the internal consistency of GASE are at .81 Cronbach Alpha (Akanni & Oduaran, 2018). The value of Cronbach's alpha in the sample of Filipino college students is $\alpha = 0.855$.

Academic Buoyancy Scale

This four-item scale evaluates students' ability to cope with everyday challenges in school. Responses are on a seven-point Likert scale, ranging from Strongly Disagree to Strongly Agree. Internal consistency of .80 Cronbach Alpha was observed (Martin & Marsh, 2008). Some studies suggest that the Academic Buoyancy Scale is reliable (Kumar & Singh, 2021) and can positively influence performance in exams (Putwain et al., 2023). The value of Cronbach's alpha in the sample of Filipino college students is at $\alpha = .900$.

Satisfaction with Life Scale

This five-item scale measures an individual's cognitive evaluation of their satisfaction with life. Responses are on a seven-point Likert scale, ranging from strongly disagree to strongly agree (Diener et al., 2010). Satisfaction with life has been reported to correlate with self-efficacy (Çelik et al., 2020) and self-esteem (Szcześniak et al., 2021). Internal consistency ranges between 0.790 to 0.890 Cronbach alpha (Sachs, 2003). The value of Cronbach's alpha in the sample of Filipino college students is at $\alpha = .895$.

Multidimensional Scale of Perceived Social Support

The scale includes 12 items that measure perceived support from family, friends, and significant others. Responses were provided on a seven-point Likert scale, ranging from 1 (very strongly disagree) to 7 (very strongly agree). Internal consistency would range from 0.800 to 0.950, indicating that the items measure the construct of perceived social support (Zimet et al., 1990). Studies also suggest that the Multidimensional Scale of Perceived Social Support (MSPSS) has good internal reliability and strong factorial validity (Wittenborn et al., 2020) and is useful for measuring perceived social support across various contexts and populations (Dambi et al., 2018). The value of Cronbach's alpha in the sample of Filipino college students is $\alpha = 0.923$.

From these scales, results show that one out of three college students tends to have high academic buoyancy (39.17%) and life satisfaction (37.33%), and the majority (65.90%) has a high level of flourishing, perceived general academic self-efficacy (89.40%), and perceived social support from friends (60.83%), significant others (53.45%), and family (44.70%).

Data Analysis

Computations were done using SPSS Version 29. Multiple regression analysis

(Baždarić et al., 2021) was performed in this research. Multiple regression analysis enables the analysis of more than one variable and it is said to optimise precision in prediction (Maulud & Abdulazeez, 2020).

Ethical Consideration

Participants were assured of the confidentiality and anonymity of their responses. They were also asked to fill out an online informed consent form before proceeding with the main part of the survey questionnaire. Data will only be used for research purposes and will be stored for no more than five years in compliance with the Data Privacy Act of 2012 (Flores-Román, 2021).

RESULTS AND DISCUSSION

This study conducted a survey (N=217) to investigate the determinants of flourishing among college students in Bicol and Cagayan de Oro, Philippines. Specifically, variables related to scholastic persistence (i.e., academic buoyancy and academic self-efficacy), health-promoting behaviours (i.e., breakfast frequency, exercise frequency, and average sleep), social support from family, friends, significant others, monthly income, and satisfaction with life were measured.

Once data gathering was completed, the data were uploaded to SPSS Version 29, where a multiple regression analysis was performed. This analysis, as summarised in Table 2, generated the model identifying research variables that predict flourishing among college students in rural areas.

Table 2 shows the impact of flourishing by academic buoyancy, general academic self-efficacy, breakfast frequency, exercise frequency, average sleep, family, friends, and significant others' support, satisfaction with life, and monthly income. A Pearson correlation coefficient was calculated to examine the relationship between the predictors to ensure no multicollinearity. The correlation coefficients, tolerance, and variance inflation factor (VIF) are indicative of no multicollinearity. Durbin-Watson was also calculated to assess the assumption that the values of the residuals are independent, which suggests that this assumption was not violated (DW = 2.161).

The results revealed an R^2 value of 0.514, which suggests that the predictors explained 51.4% of the variance in the outcome variable with $F(10, 206) = 21.803$, $p < 0.001$. The R^2 value of .514 is acceptable in social science research (Ozili, 2023). The findings also indicated that the following predictors significantly projected flourishing: academic buoyancy ($\beta = .53$, $p < 0.050$), general academic self-efficacy ($\beta = .19$, $p \leq 0.001$), breakfast frequency ($\beta = 1.010$, $p < 0.050$), satisfaction with life ($\beta = .525$, $p < 0.001$), and friend support ($\beta = 1.634$, $p \leq 0.001$).

These results support the following: scholastic persistence such as academic buoyancy and general academic self-efficacy remains a robust predictor of flourishing even among college students in rural areas. Consistent with professional literature, academic buoyancy is linked with flourishing in the forms of increased engagement and adjustment (Thomas & Allen, 2021), and improved academic

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Table 2

Determinants of flourishing among college students in rural areas

Variables	β	SE	t	p	95%CI	Collinearity Statistics	
						Tolerance	VIF
Academic Buoyancy	0.337	0.111	3.025	0.003*	[0.117, 0.557]	0.614	1.629
General Academic Self-efficacy	0.533	0.165	3.235	0.001**	[0.208, 0.858]	0.681	1.468
Breakfast Frequency	1.010	0.411	2.454	0.015*	[0.198, 1.821]	0.883	1.132
Exercise Frequency	0.537	0.462	1.163	0.246	[-0.373, 1.448]	0.834	1.199
Sleep Average	-0.740	0.493	-1.501	0.135	[-1.713, 0.232]	0.905	1.105
Social Support from Family	0.332	0.503	.046	0.510	[-0.660, 1.325]	0.481	2.078
Social Support from Friends	1.634	0.488	3.350	<0.001**	[0.672, 2.595]	0.598	1.672
Social Support from Significant Others	0.232	0.362	.640	0.523	[-0.482, 0.945]	0.690	1.450
Satisfaction with Life	0.525	0.091	5.753	<0.001**	[0.345, 0.704]	0.620	1.613
Monthly Income	-0.231	0.150	-1.537	0.126	[-0.527, 0.065]	0.986	1.015
$R^2 = .514$							

Note. CI = Confidence interval, *p ≤ .05, **p ≤ .001

performance (Katalbas et al., 2023). Moreover, research also lends proof that it is correlated with reduced academic adversity (Martin & Marsh, 2008), while offering protection against minor adversities and test anxiety (Putwain et al., 2023).

In addition, evidence of academic self-efficacy contributing to positive outcomes among college students is strengthened. Specifically, studies suggest that self-efficacy contributes to greater learning engagement, improved academic performance, and better mental health among college students (Mao et al., 2023). Research that suggests otherwise (i.e., contending no relationship between self-efficacy and academic achievement) is limited, and the samples gathered do not represent the Philippine population (Pratiwi et al., 2021).

On the other hand, the frequency of eating breakfast can support positive health-related outcomes and efforts to promote optimum mental health (Kaiwai et al., 2022). Past research demonstrates that eating breakfast correlates with improved cognitive performance, academic achievement, well-being, and reduced morbidity risk factors (Hanawi et al., 2020). These studies lend credence to the present result of breakfast frequency as one of the significant predictors of flourishing.

In addition, satisfaction with life remains a robust predictor of flourishing even in the rural context. In rural areas, even with the limits to economic resources and opportunities, the abundance of nature (e.g., its fresh air, greens and blues, the availability of affordable but healthy food) the absence

of traffic jams, the no-rush ambience usually associated with these areas can buffer against the negative effects of stress (Counted et al., 2024). Furthermore, the results support previous studies establishing the association of life satisfaction with positive mental health outcomes (e.g., emotional intelligence, health quality, perseverance of effort, lower stress levels) (Durand-Sanchez et al., 2023; Johnson et al., 2023; Qin et al., 2023).

Among college students, social support from friends can explain flourishing better than social support from family and significant others. This result supports studies that suggest that perceived social support from friends may have a greater impact on college students in general as it contributes to their well-being, mental health, life satisfaction, sense of belonging, college success and adjustment, and it helps reduce stress, anxiety, social isolation, and negative affect (McCabe, 2023; Jie et al., 2023).

Moreover, friends are found to provide more emotional support and companionship support that reduces social isolation when in college (McCabe, 2023), especially during college transitions. On the other hand, family support contributes to both positive and negative outcomes (Arroyo et al., 2022). Support from significant others matters during college, however, in the present study, this was not a significant predictor of flourishing. A possible reason for this is that most of the participants were in their first year of college. The transition

from high school to college and the change in context, place, and people may find them in a period of adjustment that may be early enough for some to be in a serious romantic relationship (Shin et al., 2022).

Exercise frequency in this study is not a significant predictor of flourishing ($p = 0.246$). Although the result goes against research that suggests that physical exercise can improve subjective well-being (Wang et al., 2022), it supports literature that indicates that there is a significant decrease in exercise during college years (Alkhateeb et al., 2019). At this point, passing exams and submitting requirements may be pressing. The higher the course load, the longer the time spent studying, and the less vigorous the physical activity one engages in (Wei et al., 2022). Hence, it can be deduced that college students, especially those who spend more time on schoolwork, may find it challenging to engage in regular physical exercise, explaining the non-significant role of exercise frequency on flourishing.

Moreover, the result that sleep duration is not a significant predictor of flourishing among college students is not the same as research on children which establishes a sufficient amount of sleep as a good predictor of flourishing (Okorie & Weber, 2024). Among college students, the non-association is probably because sleep duration does not guarantee sleep quality. Probable insomnia was noted in some to be related to gadget use (King et al., 2023), and sleeping during the daytime to compensate for lack of sleep during the previous night

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alters the body's circadian rhythm, which does not provide the same levels of rest and rejuvenation as regular night time sleep (Jagota, 2023).

Finally, monthly income was not a significant predictor of flourishing. This result has to be approached with care because about 17.1% of this paper's respondents refused to disclose their monthly family income, limiting the reliability of this result. Although professional literature asserts that levels of flourishing increase as income increases, nuances in the results include the observation that regardless of income levels, having more education is associated with better life satisfaction (Lomas, 2024). In a local study in Koronadal, a remote low-income locality in Mindanao, Philippines, income was found to be associated with life satisfaction, however, the strength of the association is very marginal, and the incremental increase in perceived happiness is only 0.016 for every PhP1,000 increase in monthly income. Correspondingly, when a threshold is met (in Koronadal's case, PhP20,000), increase in income ceases to impact life satisfaction (Palanca-Tan, 2021). All these suggest that although there is robust evidence supporting income with well-being outcomes, the unique context of individuals and groups should still be considered to determine nuances in the relationship.

CONCLUSION

This paper sought to determine whether scholastic persistence (i.e., academic buoyancy and academic self-efficacy), health-promoting behaviours (i.e., breakfast frequency, exercise frequency, sleep duration), social support (i.e., social support from family, friends, or significant others), life satisfaction, and monthly family income are predictors of flourishing. The results suggest that scholastic persistence including academic buoyancy and academic self-efficacy, health-promoting behaviour like breakfast frequency (but not exercise frequency and sleep duration), social support from friends (but not social support from family and significant others), and life satisfaction (but not monthly income) significantly predict flourishing among college students in rural areas.

Overall, the key findings of this study provide valuable insights that lead to actionable and practical contributions for educational settings, specifically in the implementation of programs that enhance student flourishing. Furthermore, the theoretical implications strengthen the extant literature by substantiating that psychological factors (academic buoyancy and self-efficacy), alongside life satisfaction and specific behaviour (breakfast frequency), are crucial predictors of flourishing among students in the rural college context.

IMPLICATIONS OF THE STUDY

Programme Development

Practical implications include the following: First, activities and initiatives that build academic buoyancy and self-efficacy can be encouraged. According to Martin and Marsh (2008), building confidence, reducing anxiety, and creating positive teacher-student

relationships can contribute to academic buoyancy. Incidentally, specific activities that support these also boost academic self-efficacy. These include but are not limited to the following: recognising students' strengths in class to help build confidence, teaching mindfulness, meditation, or yoga to help reduce anxiety among students, and counselors coaching faculty members on how to create and sustain positive relationships with students and suggesting reading resources that speak about these may make a significant difference in the students' belief and ability to cope with everyday challenges.

Second, acknowledging the importance of breakfast frequency in predicting flourishing underscores the necessity of advocating for healthy eating habits. However, a proper and nutritious meal usually means an added expense. To address issues of limited finances, collaborative efforts can be explored with governments and non-governmental organisations on how they can help with enabling policies, programs, or projects to capacitate and address concerns related to these. In the school setting, universities, depending on available resources, may consider offering financial subsidies or meal sponsors to cover the breakfast of financially challenged scholars or students.

Third, regarding the social support of friends as a significant predictor of flourishing, colleges can organise Peer Mentoring programmes, and other social activities that can encourage meaningful connections. These activities can address gaps in interactions between students from low socioeconomic backgrounds and those coming from affluent families. Social interactions can nurture students' sense of belonging which is also known to contribute to overall flourishing.

Fourth, the connection between life satisfaction and flourishing supports the importance of cognitive judgment of one's overall life circumstances. Colleges can provide learning materials that teach the cultivation of these constructions. For instance, activities that encourage gratitude despite life's adversities and challenges can promote life satisfaction, which can later lead to flourishing.

Fifth, while exercise frequency, sleep duration, monthly income, and social support from family, and significant others were not found to significantly predict flourishing, these results highlight the complex nature of the construct. Further research can be done to investigate nuances in contexts to validate their association with flourishing.

Sixth, analyses can be done to determine whether certain groups of students might benefit more from interventions targeting specific predictors. For example, programmes on academic self-efficacy could benefit students under academic probation, transferees, and readmitted students while programs on academic buoyancy can benefit those who are highly anxious about grades and performance. On the other hand, programmes promoting healthy eating, adequate sleep, and exercise

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can benefit those who complain of feeling constantly lethargic or physically unhealthy.

In terms of responsive services, counseling interventions can include psycho-education inputs on the importance of these constructs and how to build and sustain them. Specifically, underscoring the values of setting achievable goals, belief in one's ability, health-promoting behaviours, life skills inputs on how to have a growth mindset, and how to create and sustain meaningful connections with peers can aid counseling interventions for a vast array of mental health concerns. Further, counseling techniques such as cognitive behaviour therapy can aid in overcoming negative self-belief, and mindfulness exercises can facilitate keeping a calm but focussed disposition amidst adversities and temporary setbacks.

Limitations and Recommendations for Future Research

Finally, the measurement of flourishing in this study is limited to social and psychological flourishing as conceptualised by Diener (2010). Future research can explore using other conceptualisations (i.e., eudaimonic and hedonic well-being, PERMA) (Rule et al., 2024) to investigate and verify the impact of these predictors on flourishing. Another limitation of the study is the specific context of the research setting, which focussed on college students from rural areas in Bicol and Northern Mindanao, Philippines. While the study provided valuable insights into this specific demographic, future investigations should increase the geographical scope and include students from various rural regions to enhance the generalisability of the findings. Moreover, the results of this study do not indicate causal relationships between predictors and flourishing, hence future research that focusses on controlled trials or longitudinal studies can be considered to address this gap. This can help researchers better understand the efficacy of targeted interventions related to specific predictors and the stability of their effects over time. The results can be used to tailor-fit interventions to diverse student populations to ensure a greater impact on flourishing.

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REFERENCES

Akanni A. A., Oduaran C. A. (2018). Perceived social support and life satisfaction among freshmen: Mediating roles of academic self-efficacy and academic adjustment. *Journal of Psychology in Africa*, 28(2), 89-93. https://doi.org/10.1080/14330237.2018.1454582

Alkhateeb, S. A., Alkhameesi, N. F., Lamfon, G. N., Khawandanh, S. Z., Kurdi, L. K., Faran, M. Y., Khoja, A. A., Bukhari, L. M., Aljahdali, H. R., Ashour, N. A., Bagasi, H. T., Delli, R. A., Khoja, O. A., & Safdar, O. Y. (2019). Pattern of physical exercise practice among university students in the Kingdom of Saudi Arabia (before beginning and during college): A cross-sectional study.

BMC Public Health, *19*(1), Article 1716. https://doi.org/10.1186/s12889-019-8093-2

Álvarez-Rivadulla, M., Camelo, P., Vargas-Serani, M., & Viáfara, D. (2023). The relational costs of crossing class lines. *The British Journal of Sociology, 74*(2), 113-130. https://doi.org/10.1111/1468-4446.12999

Ansong, D., Eisensmith, S. R., Okumu, M., & Chowa, G. A. (2019). The importance of self-efficacy and educational aspirations for academic achievement in resource-limited countries: Evidence from Ghana. *Journal of Adolescence*, *70*, 13-23. https://doi.org/10.1016/j.adolescence.2018.11.003

Arroyo, A., Curran, T., & Ruppel, E. K. (2022). Direct and indirect associations among self-disclosure skills, social support, and psychosocial outcomes during the transition to college. *Journal of Social and Personal Relationships*, *39*(3), 505-525. https://doi.org/10.1177/02654075211036741

Asiones, N. (2023). COVID-19 and the mental health crisis faced by students from a private university in the Philippines: A phenomenological study. *The Family, 32*(2), 277-286. https://doi.org/10.1177/10664807231157036

Bakracheva, M. (2020). The meanings ascribed to happiness, life satisfaction, and flourishing. *Psychology*, *11*(1), Article 1. https://doi.org/10.4236/psych.2020.111007

Baždarić, K., Šverko, D., Salarić, I., Martinović, A., & Lucijanić, M. (2021). The ABC of linear regression analysis: What every author and editor should know. *European Science Editing, 47*, Article e63780. https://doi.org/10.3897/ese.2021.e63780

Bee Seok, C., Lee Ching, P., & Ismail, R. (2020). Exploring the role of Malaysian student's intrapreneurial self-capital in the relationship between satisfaction with life, academic performance, and flourishing. *Sustainability*, *12*(2), Article 2. https://doi.org/10.3390/su12020580

Butler, J., & Kern, M. (2016). The PERMA-profiler: A brief multidimensional measure of flourishing. *International Journal of Well-being, 6*, 1-48. https://doi.org/10.5502/IJW.V6I3.526

Çelik, R., Orçan, F., & Altun, F. (2020). Investigating the relationship between life satisfaction and academic self-efficacy on college students' organisational identification. *International Journal of Psychology and Educational Studies, 7*(1), 76-85. https://doi.org/10.17220/ijpes.2020.01.007

Counted, V., Cowden, R. G., & Lomas, T. (2024). Global diversity in spatial (rural-urban) well-being in over 100 countries. *Cities, 149*, Article 104987. https://doi.org/10.1016/j.cities.2024.104987

Dambi, J., Corten, L., Chiwaridzo, M., Jack, H., Mlambo, T., & Jelsma, J. (2018). A systematic review of the psychometric properties of the cross-cultural translations and adaptations of the multidimensional perceived social support scale (MSPSS). *Health and Quality of Life Outcomes*, *16*, Article 80. https://doi.org/10.1186/s12955-018-0912-0

Dasinger, T., & Gibson, D. (2022). Perceptions of mental health and need satisfaction/frustration among rural university students. *Journal of American College Health, 72*(1), 253-260. https://doi.org/10.1080/07448481.2022.2032089

Datu, J. A. D. (2021). Beyond passion and perseverance: Review and future research initiatives on the science of grit. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.545526

De Leon, A., Jahns, L., Roemmich, J. N., Duke, S. E., & Casperson, S. L. (2022). Consumption of dietary guidelines for Americans types and amounts of vegetables increases mean subjective happiness scale scores: A randomised controlled trial. *Journal of the Academy of Nutrition and Dietetics*, *122*(7), 1355-1362. https://doi.org/10.1016/j.jand.2021.11.009

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*(2), 143-156. https://doi.org/10.1007/s11205-009-9493-y

Durand-Sanchez, E., Ruiz-Alvarado, C., Contreras-Valderrama, R., Morales-García, W., Mamani-Benito, O., Huancahuire-Vega, S., Saintila, J., Morales-García, M., & Mamani, P. (2023). Sociodemographic aspects and healthy behaviours associated with perceived life satisfaction in health professionals. *Journal of Primary Care & Community Health, 14*. https://doi.org/10.1177/21501319221148332

Erck, R., & Sriram, R. (2022). Connecting on campus: Exploring how different interactions predict thriving for college students of colour. *Journal of College Student Development, 63*(5), 555-571. https://doi.org/10.1353/csd.2022.0047

Flores-Román, L. H. (2021). Data privacy. *Journal Law and Economy, 4*(7), 20-23. https://doi.org/10.35429/JLE.2020.7.4.20.23

Gunawardena, H., Merlo, S., & Stevens, R. (2020). The preconditions to flourishing: Structural necessities for achieving well-being in schools. *British Journal of Educational Studies*, *68*(4), 425-442. https://doi.org/10.1080/00071005.2020.1711857

Guzman Villegas-Frei, M., Jubin, J., Bucher, C. O., & Bachmann, A. O. (2024). Self-efficacy, mindfulness, and perceived social support as resources to maintain the mental health of students in Switzerland's universities of applied sciences: A cross-sectional study. *BMC Public Health, 24*(1), Article 335. https://doi.org/10.1186/s12889-024-17692-x

Guzmán, A., Barragán, S., & Cala-Vitery, F. (2022). Comparative analysis of dropout and student permanence in rural higher education. *Sustainability, 14*(14), Article 8871. https://doi.org/10.3390/su14148871

Hanawi, S. A., Saat, N. Z. M., Zulkafly, M., Hazlenah, H., Taibukahn, N. H., Yoganathan, D., Abdul Rahim, N. N., Mohd Bashid, N. A. A., Abdul Aziz, F. A., & Low, F. J. (2020). Impact of a healthy lifestyle on the psychological well-being of university students. *International Journal of Pharmaceutical Research & Allied Sciences*, *9*(2).

Hassan, M., Ramish, M., & Dilshad, W. (2023). A review of educational problems in rural areas of Sindh with role of private NGOs. *Reviews of Management Sciences, 4*(2), 117-129. https://doi.org/10.53909/rms.04.02.0207

Holliman, A. J., Waldeck, D., Jay, B., Murphy, S., Atkinson, E., Collie, R. J., & Martin, A. (2021). Adaptability and social support: Examining links with psychological well-being among uk students and non-students. *Frontiers in Psychology*, *12*, Article 636520. https://doi.org/10.3389/fpsyg.2021.636520

Hou, X., Hu, T., Li, H., Henry, S., Ren, S., Xi, J., & Mõttus, R. (2024a). Construct validity, longitudinal measurement invariance, incremental validity, and predictive validity of the original grit scale in Chinese young adults. *Journal of Personality Assessment, 107*(1), 127-139. https://doi.org/10.1080/00223891.2024.2367547

Hou, Y., Zhang, Y., Cao, X., Lei, G., & Liu, G. (2024b). The association between perceived social support and resilience among Chinese university students: A moderated mediation model. *Psychology in the Schools, 61*(4), 1474-1490. https://doi.org/10.1002/pits.23122

Houghton, N., Báscolo, E., Cohen, R., Vilcarromero, N., Gonzalez, H., Albrecht, D., Koller, T., & Fitzgerald, J. (2023). Identifying access barriers faced by rural and dispersed communities to better address their needs: Implications and lessons learned for rural proofing for health in the Americas and beyond. *Rural and Remote Health*, 23(1), Article 7822. https://doi.org/10.22605/RRH7822

Jagota, A. (2023). Sleep and circadian clock: Novel players in health impacts and aging. In *Sleep and clocks in aging and longevity* (pp. 3-31). Springer International Publishing. https://doi.org/10.1007/978-3-031-22468-3_1

Jie, Y., Jiang, Y., & Saunders, T. (2023). Exploring college students' flourishing: The interplay of demographic characteristics, time allocation in daily activities and responsibilities, and sense of belonging. *Journal of American College Health*, *73*(5), 2174-2190. https://doi.org/10.1080/07448481.2023.2258409

Johnson, M., Krahn, H., & Galambos, N. (2023). Perceived stress trajectories from age 25 to 50 years. *International Journal of Behavioural Development, 47*(3), 233-242. https://doi.org/10.1177/01650254221150887

Jones, A., Young, K., Schreiner, L., & Koo, K. (2023). Thriving among international students in the U.S. during the Trump presidency. *Journal of International Students, 13*(4). https://doi.org/10.32674/jis.v13i4.4992

Kaiwai, C., Winaktu, G. J., Bhanu, B., & Sutanto, L. B. (2022). Overview of knowledge, attitude and practice about breakfast among students in faculty of medicine and health sciences of Krida Wacana Christian University in 2020. *World Nutrition Journal*, *5*(S3), 44-44. https://doi.org/10.25220/WNJ.V05.S3.0031

Katalbas, D. A., Ng, C., & Marquez, V. (2023). An investigation of the relationship between academic buoyancy and academic performance among senior high school students: A quantitative research approach. *International Journal of Metaverse*, *1*, 11-16. https://doi.org/10.54536/ijm.v1i1.1474

Keyes, C. (2016). Why flourishing? In *Well-being and higher education: A strategy for change and the realization of education's greater purposes* (pp. 99-107). Bringing Theory to Practice.

Killingsworth, M., Kahneman, D., & Mellers, B. (2023). Income and emotional well-being: A conflict resolved. *Proc. Natl. Acad. Sci. U.S.A, 120*(10), Article e2208661120. https://doi.org/10.1073/pnas.2208661120

King, N., Pickett, W., Keown-Stoneman, C., Miller, C., Li, M., & Duffy, A. (2023). Changes in sleep and the prevalence of probable insomnia in undergraduate university students over the course of the COVID-19 pandemic: Findings from the U-Flourish cohort study. *BJPsych Open, 9*, Article e597. https://doi.org/10.1192/bjo.2023.597

Kingsford-Smith, A. A., Alonzo, D., Beswick, K., Loughland, T., & Roberts, P. (2024). Perceived autonomy support as a predictor of rural students' academic buoyancy and academic self-efficacy. *Teaching and Teacher Education, 142*, Article 104516. https://doi.org/10.1016/j.tate.2024.104516

Kopels, M., & Roulette, C. (2023). Food insecurity, diet and mental distress among resource insecure students during COVID-19. *Evolution, Medicine, and Public Health, 11*, 18-29. https://doi.org/10.1093/emph/eoad001

Kumar, S., & Singh, S. (2021). Validation of academic buoyancy scale in the Indian context. *Linguistics and Culture Review, 5*(S3). https://doi.org/10.21744/lingcure.v5ns3.1638

Lauzier-Jobin, F., & Houle, J. (2022). A comparison of formal and informal help in the context of mental health recovery. *International Journal of Social Psychiatry, 68*(4), 729-737. https://doi.org/10.1177/00207640211004988

Leonard, J. A., Duckworth, A. L., Schulz, L. E., & Mackey, A. P. (2021). Leveraging cognitive science to foster children's persistence. *Trends in Cognitive Sciences, 25*(8), 642-644. https://doi.org/10.1016/j.tics.2021.05.005

Li, X., Wu, H., Meng, F., Li, L., Wang, Y., & Zhou, M. (2020). Relations of COVID-19-related

Marie Elaine H. Abad-Florece, Kenith B. Villaruel, Roselie B. Ferrer-Rafols, Marie Grace A. Gomez, Carl Michael B. Dela Cruz, Helen Grace Concepcion Q. Fernandez, and Dolores Salvacion F. Tolentino

stressors and social support with Chinese college students' psychological response during the COVID-19 pandemic. *Frontiers in Psychiatry, 11*, Article 551315. https://doi.org/10.3389/fpsyt.2020.551315

Liu, X., Wang, T., Bressington, D., Easpaig, B., Wikander, L., & Tan, J. (2023). Factors influencing retention among regional, rural and remote undergraduate nursing students in Australia: A systematic review of current research evidence. *International Journal of Environmental Research and Public Health, 20*, Article 3983. https://doi.org/10.3390/ijerph20053983

Lomas, T. (2024). Exploring associations between income and wellbeing: New global insights from the Gallup World Poll. *The Journal of Positive Psychology, 19*(4), 629-646. https://doi.org/10.1080/17439760.2023.2248963

Lomas, T., Pawelski, J. O., & VanderWeele, T. J. (2023). A flexible map of flourishing: The dynamics and drivers of flourishing, well-being, health, and happiness. *International Journal of Wellbeing, 13*(4). https://doi.org/10.5502/ijw.v13i4.3665

Luo, H., & Hu, Q. (2024). A re-examination of the influence of human capital on the urban–rural income gap in China: College enrolment expansion, digital economy and spatial spillover. *Economic Analysis and Policy, 81*, 494-519. https://doi.org/10.1016/j.eap.2023.12.018

Mao, Y., Xie, M., Li, M., Gu, C., Chen, Y., Zhang, Z., & Peng, C. (2023). Promoting academic self-efficacy, positive relationships, and psychological resilience for Chinese university students' life satisfaction. *Educational Psychology, 43*(1), 78-97. https://doi.org/10.1080/01443410.2022.2138830

Martin, A. J., & Marsh, H. W. (2008). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology, 46*, 53-83. https://doi.org/10.1016/j.jsp.2007.01.002

Maulud, D., & Abdulazeez, A. (2020). A review on linear regression comprehensive in machine learning. *Journal of Advanced Science and Technology Trends*. https://doi.org/10.38094/jastt1457

McCabe, J. (2023). Friendships and student success in college. *Journal of Postsecondary Student Success*. https://doi.org/10.33009/fsop_jpss132950

Miranda, A., & Rodriguez, M. (2022). Contexts of educational aspirations and school grades of rural students. *RSF: The Russell Sage Foundation Journal of the Social Sciences, 8*(3), 172-188. https://doi.org/10.7758/RSF.2022.8.3.07

Nielsen, T., Dammeyer, J., Vang, M. L., & Makransky, G. (2018). Gender fairness in self-efficacy? A Rasch-based validity study of the general academic self-efficacy scale (GASE). *Scandinavian Journal of Educational Research, 62*(5), 664-681. https://doi.org/10.1080/00313831.2017.1306796

Okorie, I. P., & Weber, A. M. (2024). Sleepless nights, troubled futures: The association between insufficient sleep and child flourishing. *Sleep Medicine*. Advance online publication. https://doi.org/10.1016/j.sleep.2024.07.020

Ozili, P. K. (2023). The acceptable R-square in empirical modelling for social science research. In *Social research methodology and publishing results: A guide to non-native English speakers* (pp. 134-143). IGI Global. https://doi.org/10.4018/978-1-6684-6859-3.ch009

Palanca-Tan, R. (2021). Income and happiness: A Philippine context. *Philippine Journal of Science*. https://doi.org/10.56899/150.05.08

Pratiwi, L. E., Laily, N., & Sholichah, I. F. (2021). The relationship between self-efficacy and academic achievement. *Journal Universitas

Muhammadiyah Gresik Engineering, Social Science, and Health International Conference (UMGESHIC), 1(2), 851-855. https://doi.org/10.30587/umgeshic.v1i2.3462

Putwain, D., van der Wal, J., & van Alphen, T. (2023). Academic buoyancy: Overcoming test anxiety and setbacks. *Journal of Intelligence, 11*(3), Article 42. https://doi.org/10.3390/jintelligence11030042

Qin, Y., Liu, J., & Wu, D. (2023). The impact of emotional intelligence on life satisfaction among Chinese nurses: A chain mediating model. *Frontiers in Psychology, 14*, Article 1125465. https://doi.org/10.3389/fpsyg.2023.1125465

Qureshi, A., Tariq, S., & Mubeen, B. (2023). Social support as predictor of life satisfaction in older adults. *Journal of Professional & Applied Psychology, 4*(1), 53-60. https://doi.org/10.52053/jpap.v4i1.121

Ribeiro, M., & Fernandes, A. (2020). Academic self-efficacy in Portuguese public higher education students. *INTED2020 Proceedings*. https://doi.org/10.21125/inted.2020.2172

Rule, A., Abbey, C., Wang, H., Rozelle, S., & Singh, M. K. (2024). Measurement of flourishing: A scoping review. *Frontiers in Psychology, 15*, Article 1293943. https://doi.org/10.3389/fpsyg.2024.1293943

Sachs, J. (2003). Validation of the satisfaction with life scale in a sample of Hong Kong university students. *Psychologia, 46*(4), 225-234. https://doi.org/10.2117/psysoc.2003.225

Scott, A. J., Webb, T. L., James, M. J., Rowse, G., & Weich, S. (2021). Does improving sleep lead to better mental health? A meta-analysis of randomised controlled trials. *PsyArXiv*. https://doi.org/10.31234/osf.io/t2efb

Sharmila, K., Devi, R., & Shanthi, C. (2022). Review on latest trends and techniques in predictive analytics. *International Journal for Research in*

Applied Science and Engineering Technology, 10(12), 1762-1765. https://doi.org/10.22214/ijraset.2022.48223

Shin, H., & Gyeong, S. (2023). Social support and strain from different relationship sources: Their additive and buffering effects on psychological well-being in adulthood. *Journal of Social and Personal Relationships, 40*, 2538-2567. https://doi.org/10.1177/02654075231153350

Shin, M., Goodboy, A. K., & Dillow, M. R. (2022). A longitudinal investigation of relational turbulence during the transition to college. *Communication Research Reports, 39*(3), 126-135. https://doi.org/10.1080/08824096.2022.2054791

Szcześniak, M., Mazur, P., Rodzeń, W., & Szpunar, K. (2021). Influence of life satisfaction on self-esteem among young adults: The mediating role of self-presentation. *Psychology Research and Behaviour Management, 14*, 1473-1482. https://doi.org/10.2147/PRBM.S322788

Thomas, C. L., & Allen, K. (2021). Driving engagement: Investigating the influence of emotional intelligence and academic buoyancy on student engagement. *Journal of Further and Higher Education, 45*(1), 107-119. https://doi.org/10.1080/0309877X.2020.1741520

Uclaray, A. (2023). Stress and wellbeing of social work students in field instruction. *Journal of Teaching in Social Work, 43*, 99-115. https://doi.org/10.1080/08841233.2022.2120165

Voss, K., Hout, M., & George, K. (2024). Persistent inequalities in college completion, 1980–2010. *Social Problems, 71*(2), 480-508. https://doi.org/10.1093/socpro/spac014

Wang, K., Li, Y., Zhang, T., & Luo, J. (2022). The relationship among college students' physical exercise, self-efficacy, emotional intelligence, and subjective well-being. *International Journal of Environmental Research and Public Health, 19*(18), Article 11596. https://doi.org/10.3390/ijerph191811596

Marie Elaine H. Abad-Florece, Kenith B. Villaruel, Roselie B. Ferrer-Rafols, Marie Grace A. Gomez, Carl Michael B. Dela Cruz, Helen Grace Concepcion Q. Fernandez, and Dolores Salvacion F. Tolentino

Wei, W., Zhuang, J., & He, L. (2022). Cognitive and practical research on exercise load of public PE courses in colleges and universities. *Learning & Education, 10*(7), 165-166. https://doi.org/10.18282/l-e.v10i7.2993

Whitaker, R. C., Dearth-Wesley, T., Herman, A. N., van Wingerden, A.-S. N., & Winn, D. W. (2022). Family connection and flourishing among adolescents in 26 countries. *Pediatrics, 149*(6), Article e2021055263. https://doi.org/10.1542/peds.2021-055263

Wickham, S. R., & Amarasekara, N. A. (2020). The big three health behaviours and mental health and well-being among young adults: A cross-sectional investigation of sleep, exercise, and diet. *Frontiers in Psychology, 11*, Article 579205. https://doi.org/10.3389/fpsyg.2020.579205

Wittenborn, A. K., Natamba, B. K., Rainey, M., Zlotnick, C., & Johnson, J. (2020). Suitability of the multidimensional scale of perceived social support as a measure of functional social support among incarcerated adults with major depressive disorder. *Journal of Community Psychology, 48*(3), 960-976. https://doi.org/10.1002/jcop.22315

Yang, J., Jeon, S., & Lee, H. S. (2022). Predictive models and visualisations according to outcome variables using R: Focussing on regression analyses. *Journal of Health Informatics and Statistics, 47*(Suppl. 2), S21-S30. https://doi.org/10.21032/jhis.2022.47.S2.S21

Yıldırım, M., & Tanrıverdi, F. (2020). Social support, resilience and subjective well-being in college students. *Journal of Positive School Psychology, 5*(2). https://doi.org/10.47602/jpsp.v5i2.229

Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. A. (1990). Psychometric characteristics of the multidimensional scale of perceived social support. *Journal of Personality Assessment, 55*(3-4), 610-617. https://doi.org/10.1080/00223891.1990.9674095