

The relationship between perfectionism and psychological well-being: the mediating role of mindsets

Cassandra Sofia R. Firmalo* & Marie Chiela C. Malcampo

Philippine Normal University, Manila (Philippines)

KEYWORDS

Evaluative concerns
Positive strivings
Growth mindset
Fixed mindset
Psychological functioning

ABSTRACT

This study explores the relationship between perfectionism dimensions: perfectionistic concerns and perfectionistic strivings, as well as psychological well-being, with mindset as a mediating factor. Perfectionistic concerns are typically linked to maladaptive outcomes, while perfectionistic strivings are associated with positive psychological functioning. A total of 323 Filipino undergraduates (74.9% female) participated in this correlational research. In analyzing the results, Structural Equation Modeling with mediation analysis was employed. Findings from the study showed that perfectionistic concerns was not significantly related to fixed mindset but was negatively related to some aspects of well-being, particularly environmental mastery, purpose in life, and self-acceptance. In contrast, perfectionistic strivings was positively associated with growth mindset and is related to higher levels of autonomy, personal growth, positive relationships, and self-acceptance. However, it is negatively linked to environmental mastery. Mediation analysis revealed that students with higher perfectionistic strivings were more likely to endorse a growth mindset, which in turn was like to enhanced well-being. Both growth and fixed mindsets predicted certain well-being components, suggesting that a fixed mindset may not be entirely harmful. This study highlights the role of mindset in the relationship between perfectionism, particularly perfectionistic strivings, and students' psychological well-being and functioning, with implications for the development of mindset-based interventions.

La relación entre el perfeccionismo y el bienestar psicológico: rol mediador del tipo de mentalidad

PALABRAS CLAVE

Preocupaciones evaluativas
Esfuerzos positivos
Mentalidad de crecimiento
Mentalidad fija
Funcionamiento psicológico

RESUMEN

Este estudio explora la relación entre las dimensiones del perfeccionismo: preocupaciones perfeccionistas y esfuerzos perfeccionistas; y el bienestar psicológico, con el tipo de mentalidad como factor mediador. Las preocupaciones perfeccionistas suelen vincularse con resultados desadaptativos, mientras que los esfuerzos perfeccionistas se asocian con un funcionamiento psicológico positivo. Un total de 323 estudiantes universitarios filipinos (74.9% mujeres) participaron en esta investigación correlacional. Para el análisis de los resultados se empleó el Modelamiento de Ecuaciones Estructurales con análisis de mediación. Los hallazgos del estudio mostraron que las preocupaciones perfeccionistas no se relacionaron significativamente con una mentalidad fija, pero sí se asociaron negativamente con aspectos del bienestar, en particular, el dominio del entorno, el propósito en la vida y la autoaceptación. En contraste, los esfuerzos perfeccionistas se asociaron positivamente con una mentalidad de crecimiento y con niveles más altos de autonomía, crecimiento personal, relaciones positivas y autoaceptación. Sin embargo, se relaciona negativamente con el dominio del entorno. Los estudiantes con mayores esfuerzos perfeccionistas tenían más probabilidades de adoptar una mentalidad de crecimiento, lo que a su vez se asociaba con un mayor bienestar. Tanto la mentalidad de crecimiento como la mentalidad fija se asociaron con ciertos componentes del bienestar, lo que sugiere que una mentalidad fija puede no ser completamente perjudicial. Este estudio destaca el papel de la mentalidad en la relación entre el perfeccionismo, sobre todo las aspiraciones perfeccionistas, y el bienestar psicológico y funcionamiento de los estudiantes, con implicaciones para el desarrollo de intervenciones basadas en la mentalidad.

* *Corresponding author:* Cassandra Sofia Firmalo. Psychology and Counseling, Faculty of Behavioral and Social Sciences, Philippine Normal University, Taft Avenue, Ermita, 1000, Manila, Philippines. cassandrafirmalo@gmail.com

Cite this article as: Firmalo, C. S. R., & Malcampo, M. C. C. (2026). The relationship between perfectionism and psychological well-being: the mediating role of mindsets. *Psychology, Society & Education*, 18(2), 30-40. <https://doi.org/10.21071/pse.v18i2.18632>

Received: 23 September 2025. *First review:* 16 February 2026. *Accepted:* 24 April 2026.

Psychology, Society & Education is published under Creative Commons License ([CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/)).

ISSN 1989-709X | © 2026. Psy, Soc & Educ.



Higher education brings major adjustments, including academic pressures, independent living, and social challenges (Laidlaw et al., 2015). These demands contribute to increased mental health issues among college students (Auerbach et al., 2016), with factors such as academic pressure, environmental changes, and social expectations (Limone & Toto, 2022). One factor increasingly linked to students' psychological well-being is perfectionism (Fernández-García et al., 2022), which has notably intensified among younger generations (Curran & Hill, 2019).

Perfectionism is a personality disposition characterized by setting excessively high standards and self-criticism (Frost et al., 1990). Although often linked to negative outcomes such as low self-esteem, anxiety, and mental health problems (Hewitt & Flett, 1991), it can also be adaptive in academic contexts when associated with achievement and goal-setting (OECD, 2016). Among Filipinos, perfectionism is shaped by family and social expectations (Bernardo, 2008), and within *Sikolohiyang Pilipino*, unmet expectations may evoke *hiya* and *kahihyan*, emotions rooted in social relationships and communal judgment (Enriquez, 1992; Tan, 2023). Perceived parental support has also been shown to foster adaptive perfectionism and optimism, contributing to well-being (Sorrenti et al., 2025).

Contemporary research highlights the multidimensional nature of perfectionism. Early work by Frost et al. (1990) identified components such as personal standards, concern over mistakes, and parental expectations, which were later consolidated by Burgess (2016) into two broader dimensions: positive strivings and evaluative concerns. These are now commonly referred to as Perfectionistic Strivings (PS) and Perfectionistic Concerns (PC), although terminology varies across studies. PS reflects achievement motivation and goal orientation, whereas PC involves fear of failure and self-criticism. PS is generally linked to adaptive outcomes and PC to maladaptive ones (Lo & Abbott, 2013; Montano, 2023); however, emerging evidence shows that both dimensions are associated with a range of psychopathological symptoms, indicating more complex and context-dependent effects (Hill, 2024; Limburg et al., 2016). Understanding these mechanisms is essential for clarifying how PS and PC influence psychological functioning and well-being.

Psychological well-being is defined as a state in which an individual is able to develop their abilities, engage effectively and creatively in work, and cope with everyday stresses (Wan et al., 2025). It includes six dimensions: autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance (Ryff, 1989). This multidimensional framework is essential in understanding how individuals evaluate their lives and function socially and emotionally (Ryff & Keyes, 1995). While PC are linked to negative outcomes and PS to well-being, existing research largely focuses on Western samples and deficits (Lo & Abbott, 2013). This study addresses this gap by examining perfectionism and psychological well-being among Filipino emerging adults.

This study examines mindset, which refers to individuals' beliefs about the malleability of intelligence (Dweck, 2006), as a potential mediator because it shapes how perfectionistic tendencies are translated into psychological outcomes. Mindsets are

commonly categorized as fixed (entity) or growth (incremental) and influence how individuals interpret feedback, respond to challenges, and regulate goal-directed behavior, which in turn affects psychological well-being (King, 2012). In particular, feedback that emphasizes effort and development can foster a growth mindset (Suman, 2023). Prior research shows that fixed mindset is associated with PC, whereas growth mindset aligns with PS (Mofield & Peters, 2019), suggesting that mindset may explain how different forms of perfectionism influence psychological well-being and academic adjustment (Costa & Faria, 2018).

The present study

This study examined the relationships among perfectionism, mindset, and psychological well-being, focusing on the mediating role of mindset. It was hypothesized that PC would be positively related to a fixed mindset (H1) and negatively related to autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance (H2); whereas PS would be positively related to a growth mindset (H3) and these same dimensions (H4). Additionally, fixed mindset was expected to be negatively associated with autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance (H5), while growth mindset was expected to be positively associated with these dimensions (H6). Finally, fixed mindset was hypothesized to mediate the relationships between PC and autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance (H7), whereas growth mindset was hypothesized to mediate the relationships between PS and these same dimensions (H8).

Method

Participants

A total of 323 Filipino undergraduate students (81 males, 242 females), aged 18-29 years ($M = 20.67$, $SD = 1.32$), participated in the study. Ages 18-29 correspond to emerging adulthood, marked by growing independence and evolving social roles (Auerbach, 2018). Participants were enrolled in a degree program at a Philippine university, which follows a four-year undergraduate system with fifth and sixth-year level for certain programs. The sample included 34 first-year students (10.5%), 69 second-year students (21.4%), 143 third-year students (44.3%), 74 fourth-year students (22.9%), two fifth-year students (0.6%), and one sixth-year student (0.3%). The minimum required sample size was 269 for this study, based on a 0.3 effect size, 0.8 power, five latent variables, 32 observed variables, and a 0.05 probability level (Soper, 2022). The study's sample exceeded this minimum. Convenience sampling was employed due to its cost-effectiveness and time efficiency (Golzar et al., 2022).

Instruments

Perfectionism. The shortened *Frost Multidimensional Perfectionism Scale* (Burgess et al., 2016) was used. It is an eight-

item Likert-type measure assessing Perfectionistic Strivings (PS) and Perfectionistic Concerns (PC), validated in the Philippine context (Simon, 2020). It is rated from 1 = *Strongly disagree* to 5 = *Strongly agree*. Initial analyses showed acceptable reliability ($\alpha = .82$) and fit (CFI = .93, TLI = .96, RMSEA = .09, SRMR = .05). Two items were removed to improve model fit. Specifically, Item 1 from the PC dimension had a factor loading of .72, while Item 3 had a loading of .77. Despite their acceptable loadings, their exclusion resulted in better overall model fit. Although these items “If I fail at work/school, I am a failure as a person” and “If someone does a task at work/school better than me, then I feel like I failed the whole task” are core indicators of evaluative concerns in the F-MPS-Brief (Burgess et al., 2016), they showed localized misfit in the Filipino sample. Modification indices indicated overlap with self-worth contingencies and social comparison, consistent with cross-loading issues in perfectionism measures (Burgess et al., 2016; DiBartolo et al., 2004). This may reflect the collectivist context, where self-evaluation is shaped by others’ expectations and relationships (Bernardo, 2008; Enriquez, 1992). The retained PC items “If I do not do well all the time, people will not respect me” and “The fewer mistakes I make, the more people will like me” provided a more contextually precise operationalization, and removing the two items improved model fit (CFI = .98, TLI = .96, RMSEA = .07, SRMR = .03) while maintaining reliability ($\alpha = .82$). Reliability estimates for each dimension were also acceptable, with $\alpha = .7$ for PC and $\alpha = .84$ for PS.

Psychological well-being. The short-form *Psychological Well-Being Scale* (PWBS) by Ryff (1989) was used. The original scale consists of 42 items rated on a six-point Likert scale, with seven items per dimension: self-acceptance, positive relations, autonomy, environmental mastery, purpose in life, and personal growth. A sample item is “The demands of everyday life often get me down”, rated from 1 = *Strongly disagree* to 6 = *Strongly Agree*. The study conducted by Villarosa and Ganotice (2018) on Filipino population, specifically among Filipino teachers, showed that the instrument is applicable and acceptable in Filipino context. To improve model fit and validity, 18 items (three per dimension) were selected from the original scale (See Table A1 in the Appendix). While the full version demonstrated excellent reliability ($\alpha = .9$), it showed inadequate model fit indices (CFI = .6, TLI = .58, RMSEA = .08, SRMR = .1). The reduced version exhibited good reliability ($\alpha = .8$) and acceptable model fit (CFI = .94, TLI = .92, RMSEA = .05, SRMR = .06). The reliability estimates for each dimension were as follows: autonomy ($\alpha = .62$), environmental mastery ($\alpha = .62$), personal growth ($\alpha = .49$), positive relations with others ($\alpha = .69$), purpose in life ($\alpha = .6$), and self-acceptance ($\alpha = .69$). The personal growth dimension showed relatively low reliability, with one indicator reflecting a low factor loading ($\lambda = .31$).

Mindset. The *Implicit Theories of Intelligence Scale-Self Form for Adults* (Dweck, 1999) was used to assess students’ mindsets, with three items each for entity and incremental theories. Responses were rated on a six-point Likert scale, where 1 = *Strongly agree* to 6 = *Strongly disagree*. This scale was used in the Filipino population and yielded acceptable results by Montano (2023). An example item from the scale is “You can always substantially change how intelligent you are”. The

overall scale demonstrated good reliability ($\alpha = .82$) and acceptable model fit indices: CFI = .96, TLI = .94, RMSEA = .08, and SRMR = .04. Per dimension, reliability coefficients were as follows: entity theory ($\alpha = .81$) and incremental theory ($\alpha = .8$).

Procedure

The study employed a quantitative-correlational design. Data were collected through an online self-administered Google Forms questionnaire distributed via Facebook, Instagram, Messenger, and email. The survey included informed consent, demographic questions, the brief *Frost Multidimensional Perfectionism Scale* (F-MPS), the short-form *Psychological Well-Being Scale* (PWBS), and the *Implicit Theories of Intelligence Scale-Self Form for Adults*. Participants completed the questionnaire in approximately 10-15 minutes. Ethical approval was obtained from the Philippine Normal University Research Ethics Board on May 28, 2024, and data collection was conducted from June 26 to August 20, 2024.

Data analysis

Preliminary analyses followed the Tabachnick and Fidell’s (2007) guidelines were conducted. Including checks for missing data and statistical assumptions. No missing data were observed, and no cases were deleted, as the Google Forms used was configured to require responses to all necessary items before submission, thereby preventing incomplete entries. Descriptive statistics were computed to assess means, standard deviations, and relationships among variables. Normality was evaluated using skewness and kurtosis values, which met the acceptable ranges of ± 2 and ± 7 suggested by Finney and DiStefano (2013). Construct validity was assessed through separate confirmatory factor analyses conducted in JASP. Mediation was examined using Structural Equation Modeling (SEM) with 5,000 bootstrap samples to test indirect effects (Hayes, 2017). SEM was employed to examine multiple relationships and mediation effects simultaneously within a single model (Creswell & Creswell, 2018). The analysis was conducted using JASP, which utilizes the *lavaan* package version 0.5-12 (BETA) in R.

Results

Preliminary analyses

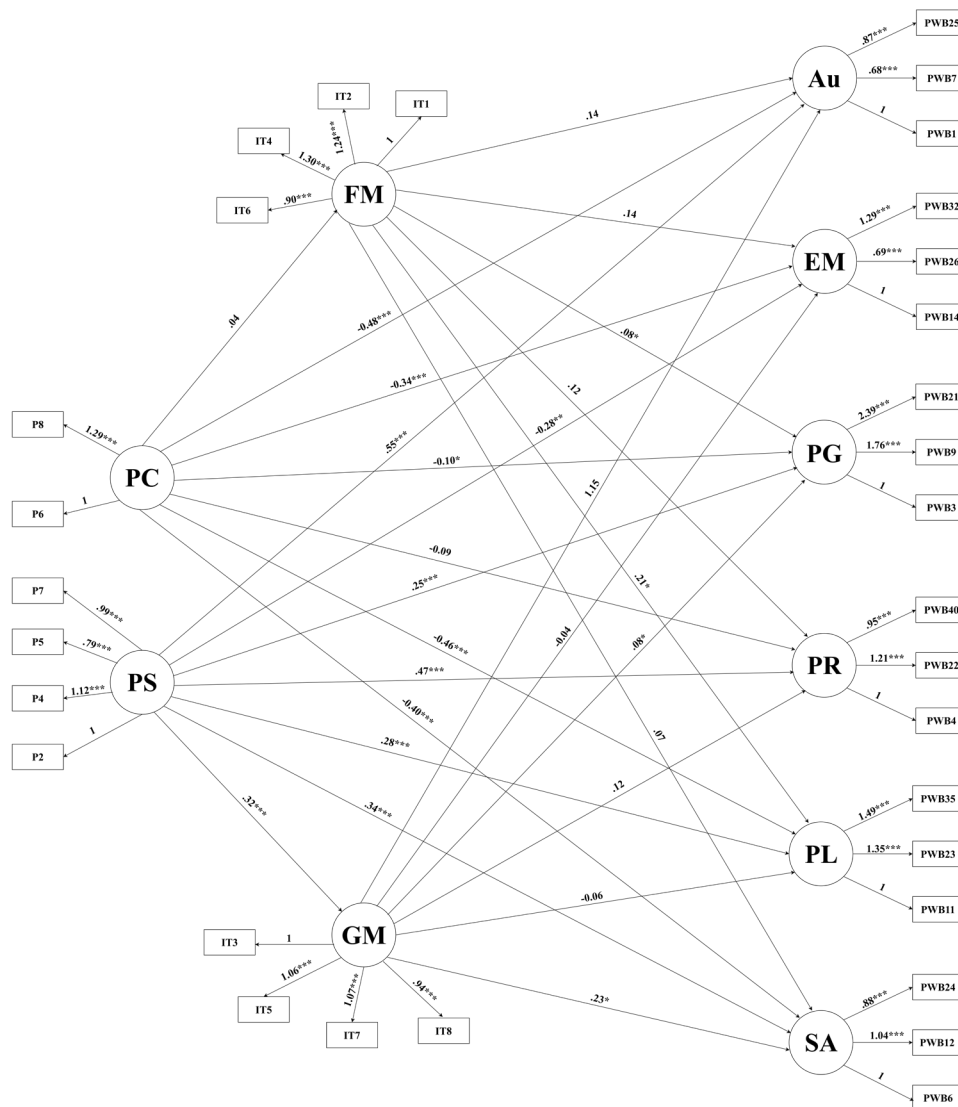
Descriptive statistics and Pearson’s bivariate correlations were conducted to examine the measures (see Table 1 for means, SDs, and correlations). PC was not significantly related to fixed mindset, whereas However, PS was negatively related to environmental mastery. PC was negatively related to environmental mastery, purpose in life, and self-acceptance, but positively related to positive relations with others. In contrast, PS was positively related to autonomy, personal growth, positive relations with others, and self-acceptance. Both fixed and growth mindsets were positively correlated with autonomy, personal growth, positive relations with others, and self-acceptance.

Table 1
Descriptive statistics and correlation matrix

Variables	Mean	SD	α	Skewness	Kurtosis	1	2	3	4	5	6	7	8	9	10
1. PC	2.82	1.24	0.7	0.04	-1.09	-									
2. PS	3.15	1.05	0.84	-0.35	-0.72	0.44***	-								
3. FM	3.7	1.05	0.81	-0.22	-0.5	-0.003	-0.02	-							
4. GM	4.48	0.9	0.8	-0.72	0.58	0.09	0.32***	0.42***	-						
5. Au	4.09	0.95	0.62	-0.16	-0.04	-0.11	0.27***	0.12*	0.27***	-					
6. EM	3.59	1.05	0.62	-0.09	-0.25	-0.36***	-0.34***	0.07	-0.07	0.07	-				
7. PG	4.79	0.84	0.49	-0.44	-0.49	0.04	0.4***	0.18**	0.31***	0.4***	-0.06	-			
8. PR	4.63	0.98	0.69	-0.69	0.12	0.14*	0.43***	0.13*	0.32***	0.42***	-0.18**	0.56***	-		
9. PL	4.37	0.99	0.6	-0.33	-0.13	-0.27***	-0.08	0.07	-0.04	0.22***	0.5***	0.18**	0.08	-	
10. SA	4.33	0.94	0.69	-0.38	-0.1	-0.16**	0.2***	0.13*	0.28***	0.49***	0.23***	0.48***	0.54***	0.39***	-

Note. PC = Perfectionistic Concerns; PS = Perfectionistic strivings; FM = Fixed mindset; GM = Growth mindset; Au = Autonomy; EM = Environmental mastery; PG = Personal growth; PR = Positive relations with others; PL = Purpose in life; SA = Self-acceptance.
* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure 1
Structural equation modeling for the mediating role of mindset in the relationship between perfectionism and psychological well-being



Note. PC = Perfectionistic concerns; PS = Perfectionistic strivings; FM = Fixed mindset; GM = Growth mindset; Au = Autonomy; EM = Environmental mastery; PG = Personal growth; PR = Positive relations with others; PL = Purpose in life; SA = Self-acceptance.

Table 2
Mediation between perfectionism and psychological well-being

Predictors	Fixed mindset		Autonomy	
	β	z	β	z
PC	-0.003	-0.06	-0.08*	-1.97
Fixed mindset			0.12*	2.14
R^2	< .001		0.03	
Predictors	Growth mindset		Autonomy	
	β	z	β	z
PS	0.3***	6.06	0.19***	3.72
Growth mindset			0.22***	3.76
R^2	.1		.11	
Predictors	Fixed mindset		Environmental mastery	
	β	z	β	z
PC	-0.003	-0.06	-0.31***	-7.04
Fixed mindset			0.07	1.41
R^2	< .001		.14	
Predictors	Growth mindset		Environmental mastery	
	β	z	β	z
PS	0.3***	6.06	-0.35***	-6.46
Growth mindset			0.05	0.78
R^2	.1		.12	
Predictors	Fixed mindset		Personal growth	
	β	z	β	z
PC	-0.003	-0.06	0.03	0.72
Fixed Mindset			0.14***	3.28
R^2	< .001		.03	
Predictors	Growth mindset		Personal growth	
	β	z	β	z
PS	0.3***	6.06	0.27***	6.33
Growth Mindset			0.19***	3.96
R^2	.1		.20	
Predictors	Fixed mindset		Positive relations with others	
	β	z	β	z
PC	-0.003	-0.06	0.11*	2.48
Fixed mindset			0.12*	2.3
R^2	< .001		0.03	
Predictors	Growth mindset		Positive relations with others	
	β	z	β	z
PS	0.3***	6.06	0.34***	6.93
Growth Mindset			0.22***	3.93
R^2	.1		.22	
Predictors	Fixed mindset		Purpose in life	
	β	z	β	z
PC	-0.003	-0.06	-0.22***	-5.08
Fixed mindset			0.06	1.2
R^2	< .001		.08	
Predictors	Growth mindset		Purpose in life	
	β	z	β	z
PS	0.3***	6.06	-0.07	-1.32
Growth mindset			-0.02	-0.24
R^2	.1		.007	
Predictors	Fixed mindset		Self-acceptance	
	β	z	β	z
PC	-0.003	-0.06	-0.12**	-3
Fixed mindset			0.12*	2.38
R^2	< .001		.04	
Predictors	Growth mindset		Self-acceptance	
	β	z	β	z
PS	0.3***	6.06	0.12*	2.16
Growth mindset			0.25***	4.21
R^2	.1		.09	

Note. PS = Perfectionistic strivings; PC = Perfectionistic concerns.

Results of the structural equation modeling

The results indicated that the model demonstrated acceptable fit to the data, $\chi^2 = 579.6$; $df = 411$, with fit indices within recommended thresholds (CFI = .95, TLI = .94, RMSEA = .04, SRMR = .04). The model specified latent constructs as distinct dimensions, including PC and strivings, fixed and growth mindsets, and multiple dimensions of psychological well-being (autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance).

The structural model displays the path coefficients among the different dimensions of mindsets, perfectionism, and psychological well-being. These values provide insight into the strength and direction of the relationships between these variables.

A separate mediation analysis was also conducted to analyze the mediating role of mindset in the relationship between perfectionism and psychological well-being. The results of the bias-corrected bootstrapping based on 5,000 samples demonstrate that growth mindset mediated the relationship between PS and autonomy ($\beta = 0.06$, $p = .001$), PS and personal growth ($\beta = 0.05$, $p < .001$), PS and positive relations with others ($\beta = 0.06$, $p < .001$), and PS and self-acceptance ($\beta = 0.06$, $p < .001$). Since there are both significant direct and indirect effects in the mediation in these four psychological well-being dimensions, it can be said that there is a partial mediation.

Furthermore, the results of the mediation analyses indicate that there is no direct and indirect effect during the testing for the mediation of PC in the association between fixed mindset and psychological well-being dimension personal growth. However, results showed that PC and PS have had significant direct effects on other psychological well-being dimensions: PC and autonomy ($\beta = -0.08$, $p = .049$), PC and environmental mastery ($\beta = -0.31$, $p < .001$), PS and environmental mastery ($\beta = -0.35$, $p < .001$), PC and positive relations with others ($\beta = 0.11$, $p = .013$), PC and purpose in life ($\beta = -0.22$, $p < .001$), and PC and self-acceptance ($\beta = -0.12$, $p = .003$). Moreover, the mediation analysis showed that a number of hypothesized paths were not statistically significant. PC was not significantly related to fixed mindset ($\beta = -0.003$, $p = .95$) and personal growth ($\beta = 0.03$, $p = .47$). Fixed mindset did not significantly predict environmental mastery ($\beta = 0.07$, $p = .16$) and purpose in life ($\beta = 0.06$, $p = .23$), while growth mindset did not significantly predict environmental mastery ($\beta = 0.05$, $p = .44$) and purpose in life ($\beta = -0.02$, $p = .81$). In addition, PS did not significantly predict purpose in life ($\beta = -0.07$, $p = .19$).

Overall, results showed that PC was not related to a fixed mindset but negatively affected specific psychological well-being dimensions. PS was positively linked to a growth mindset and greater psychological well-being in specific dimensions. Mediation analysis indicated that PS was associated with growth mindset, which in turn enhanced certain dimensions of psychological well-being.

Discussion

This study examined how perfectionism relates to psychological well-being, with mindset as a mediator. The model tested

theoretically derived relations among perfectionism, mindset, and well-being.

Perfectionism and mindsets

Findings showed no significant relationship between PC and fixed mindset, contrary to expected results (H1) and earlier studies (Mofield & Parker Peters, 2019; Montano, 2023), despite theoretical links suggesting that self-critical perfectionists may view intelligence as unchangeable (Dweck, 2006). In contrast, PS showed a significant positive relationship with growth mindset, consistent with hypothesis 3 and prior research (Mofield & Parker Peters, 2019), suggesting that adaptive perfectionists view intelligence as malleable, which supports persistence and constructive responses to challenges (Yeager & Dweck, 2012).

Perfectionism and psychological well-being

The findings indicate a negative relationship between PC and several dimensions of psychological well-being, namely environmental mastery, purpose in life, and self-acceptance, confirming the hypothesized results (H2). Consistent with Van der Kaap-Deeder et al. (2016), high levels of PC are linked to rumination, which heightens psychological distress, and have been associated with maladaptive outcomes such as anxiety and depression (Hewitt & Flett, 1991; Limburg et al., 2017). These ruminative and fear-driven tendencies may hinder adaptive self-regulation, realistic goal setting, a clear sense of purpose, and positive self-acceptance.

PS showed a significant positive relationship with autonomy, personal growth, positive relations with others, and self-acceptance, which also confirms the hypothesis (H4). High levels of PS, characterized by setting high personal standards, are associated with independent decision-making, continued personal development, healthy interpersonal relationships, and positive self-acceptance. Xing and Cheong (2021) found that PS is closely linked to a growth mindset, suggesting that individuals with PS are more likely to view challenges as opportunities for learning and improvement. Separately, Buliņa (2014) reported that PS is associated with increased positive emotions and higher self-efficacy. Additionally, interestingly, PS was negatively linked to environmental mastery, contrary to H4. This finding suggests that having high goals or standards may be associated with a reduced sense of control in managing one's environment. This is consistent with Gschneidner and Kortsch (2025), who suggested that motivational goals may intensify stress when they are accompanied by avoidance concerns, conflict schemas, or incongruence between goals and reality. Thus, students with higher PS may experience greater pressure to meet their standards, which could make daily responsibilities and external demands feel harder to manage. The findings highlight the changing role of PS in relation to psychological well-being. Zero-order correlations showed a significant negative relationship between PS and environmental mastery, but no significant relationship between PS and purpose in life. However, the total effects revealed a significant negative relationship with both dimensions, which became non-significant

again when growth mindset was included as a mediator. These results contrast with the expected positive associations.

The changing role was shown in PC and its relationship with positive relations with others. The zero-order correlations indicate that there is a significant and positive link between the two variables. However, the total effect showed that they have no significant relationship. With the addition of fixed mindset as a mediator, the relationship became positive and direct. These findings were also contrary as expected in which there will be a negative association. The scholarly literature has extensively addressed these inconsistencies (Stoeber, 2011, 2018). According to Stoeber (2011), PS and PC dimensions of perfectionism frequently overlap with each other. These show how the two dimensions may suppress the functions of the other dimension on psychological well-being, specifically, how PC suppress the adaptive function of PS. In the results, this suppression is exhibited in the relationship between PS and environmental mastery.

Mindsets and psychological well-being

Growth mindset was positively correlated with autonomy, personal growth, self-acceptance, and positive relations, supporting the hypothesis 6 and findings that it fosters resilience and emotional well-being (King, 2012; Schroder et al., 2019). Interestingly, fixed mindset also showed a positive correlation with these well-being dimensions, diverging from the hypothesis (H5) and past research linking it to negative outcomes (Burnette et al., 2013). This may be explained by the tendency of fixed mindset individuals to avoid risk and seek familiar, success-assured tasks, which may indirectly support self-esteem and well-being in certain contexts (Whittington et al., 2017). These findings highlight the need for further investigation into the beneficial aspects of fixed mindset.

Mediating role of mindsets

With the addition of mediators, growth and fixed mindset, the findings revealed a direct and indirect effect. PC had a negative direct effect with environmental mastery, purpose in life, self-acceptance. This indicates that concerns with criticisms or evaluations are directly correlated with having the capability to control oneself and environment, perceiving one's experiences as meaningful and significant, and being able to accept the different aspects of oneself.

The mediation analyses showed that fixed mindset did not mediate the relationship between PC and any dimension of psychological well-being, contrary to the expected findings (H7). This suggests that heightened concerns about mistakes and the belief that intelligence is fixed do not necessarily affect well-being. These findings are consistent with Montano (2023), who found that fixed mindset did not mediate the relationship between PC and peace of mind, a well-being construct valued in collectivist contexts and linked to lower anxiety and depression. This indicates that, although PC and fixed mindset are often associated with maladaptive outcomes, their interaction may not directly influence well-being in this population.

The results showed that growth mindset partially mediated the relationship between PS and four dimensions of psychological well-being: autonomy, personal growth, positive relations with others, and self-acceptance, which confirms the hypothesis 8. This partial mediation suggests that individuals high in PS tend to view intelligence as developable through effort, which in turn enhances their sense of autonomy, continued growth, positive relationships, and self-acceptance.

A growth mindset involves believing that intelligence can be developed, helping explain how setting high goals influences motivation and personal growth. Dweck (2006) stated that this belief promotes persistence and engagement in learning, while the positive link between PS and personal growth may also reflect greater hope for success (Slade & Owens, 1998) and effort, resulting for an individual to have an increased sense of growth. Since having a growth mindset is associated with adaptive outcomes, it can also explain the relationship of individuals striving for achievement and having more healthy relationships, as their perception on intelligence gives them better mental health outcomes. According to Burnette et al. (2013), mindset shapes how people handle challenges and relate to others. Those with a growth mindset are less likely to be self-critical and are more open to feedback, helping them build stronger relationships and enhance well-being.

Self-acceptance involves embracing one's strengths and weaknesses, maintaining positive feelings about the past, and holding a favorable self-view. PS supports self-acceptance through a growth mindset. According to Schroder et al. (2016), having high levels of incremental beliefs (growth mindset) promote a positive outlook and adaptive responses to mistakes. Thus, having high goals is tied with having a positive self-view and self-acceptance, as this mindset enables individuals to recognize mistakes as opportunities for growth and view past experiences as part of their development.

Cultural context implications

Filipino cultural factors may shape how perfectionism and mindset influence well-being. Studies show that growth mindset aligns with adaptive outcomes in Philippine settings (Buenconsejo & Datu, 2020; King & Dela Rosa, 2019), supported by Control-Value Theory (Pekrun, 2006). In competitive academic environments, students may internalize fixed beliefs about intelligence, tying failure to self-worth (Dweck, 2008). Shame (hiya) and social pressure may reinforce these beliefs (Enriquez, 1992). Extending this view, Sorrenti et al. (2025) offer a developmentally sensitive and relational perspective, suggesting that perfectionism and related cognitive beliefs are shaped by contextual influences such as parental control and support, which subsequently affect well-being. However, collectivist values may also promote effort-focused growth mindsets (Heine et al., 2001), although recent findings show mixed results (Dong & Kang, 2022). Within collectivist contexts like the Philippines, perfectionism and fixed mindset beliefs may not be uniformly maladaptive; instead, they may function adaptively in environments characterized by high expectations coupled with relational support. This may help explain why fixed mindset showed non-detrimental or even posi-

tive associations with certain dimensions of well-being in the present study, as students may interpret fixed beliefs as standards for responsibility and self-regulation rather than personal inadequacy.

Limitations and future directions

This study relied on self-report measures and convenience sampling of predominantly female Filipino undergraduates, which limits generalizability. Gender was not included as a control variable because it was not part of the study's causal theory for the processes, and indiscriminate inclusion of controls may bias estimates and increase model complexity given the sample size (Memon, 2024). Future studies with larger, more gender-balanced samples are encouraged to examine gender differences using multiple-group or invariance analyses. Additionally, the nonsignificant association between PC and fixed mindset warrants further investigation of potentially adaptive aspects of fixed mindset across cultural contexts.

Most constructs demonstrated acceptable reliability, although some subscales exhibited lower internal consistency. Despite the relatively low reliability of the Personal Growth dimension following item reduction, the subscale was retained because it represents a theoretically central component of the multidimensional model of Ryff (1989) on psychological well-being. Removing this dimension, along with its remaining indicators, would reduce the conceptual coverage of the construct and limit comparability with prior research. Moreover, the Personal Growth subscale captures aspects of well-being not assessed by other dimensions and has been consistently supported in previous studies. Additionally, the Cronbach's alpha is sensitive to the number of items in a scale; subscales with a small number of items (e.g., fewer than five) tend to yield lower reliability estimates (Menon et al., 2025). Nonetheless, findings involving this dimension should be interpreted with caution, and future research may benefit from using longer or alternative measures to enhance reliability.

Practical implications

This study supports prior findings on the benefits of a growth mindset and adaptive PS for Filipino students' psychological well-being. Specifically, interventions should focus on reframing PS through a growth-oriented lens, helping students view academic setbacks as learning opportunities rather than permanent reflections of their self-worth. Given the role of feedback in shaping beliefs about intelligence, training parents and teachers to provide effort-focused praise may further support healthy mindset development, particularly in collectivist contexts. Additionally, while Ryff's (1989) well-being scale remains valuable, its shorter version may be more practical for time-limited educational and counseling settings.

Conclusions

This study contributes to the literature by reinforcing the multidimensional nature of perfectionism and its distinct effects across PS and PC. The findings support prior research linking

growth mindset and high PS to better psychological well-being. However, contrary to previous studies, a fixed mindset was not consistently detrimental, particularly for autonomy, personal growth, positive relations, and self-acceptance, highlighting the need to consider cultural and contextual factors. Overall, the study highlights the role of mindset in the relationship between perfectionism and well-being and informs the development of mindset-based interventions to support student well-being.

Author contributions

Conceptualization: C.S.F.
 Data curation: C.S.F.
 Formal analysis: C.S.F.
 Investigation: C.S.F.
 Methodology: C.S.F., M.C.M.
 Project Administration: C.S.F., M.C.M.
 Resources: C.S.F., M.C.M.
 Software: C.S.F.
 Supervision: C.S.F., M.C.M.
 Validation: C.S.F.
 Visualization: C.S.F.
 Writing – Original draft: C.S.F.
 Writing – Review & editing: C.S.F., M.C.M.

Acknowledgements

The authors would like to thank the Faculty of Behavioral and Social Sciences, Philippine Normal University, for their support in the conduct of this research and its outcomes.

Funding

This research did not receive any specific grant from public, commercial, or non-profit funding agencies.

Declaration of interests

The authors declare that there is no conflict of interest.

Data availability statement

The data that support the findings of this study are available on request from the corresponding/first author.

References

- Auerbach, R., Alonso, J., Axinn, W., Cuijpers, P., Ebert, D., Green, J., Hwang, I., Kessler, R., Liu, H., Mortier, P., Nock, M., Pinder-Amaker, S., Sampson, N., Aguilar-Gaxiola, S., Al-Hamzawi, A., Andrade, L., Benjet, C., Caldas-de-Almeida, J., Demyttenaere, K., ... Florescu, S. (2016). Mental disorders among college students in the World Health Organization world mental health surveys. *Psychological Medicine*, 46(14), 2955-2970. <https://doi.org/10.1017/S0033291716001665>
- Auerbach, R., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., Demyttenaere, K., Ebert, D., Green, J., Hasking, P., Murray, E.,

- Nock, M., Pinder-Amaker, S., Sampson, N., Stein, D., Vilagut, G., Zaslavsky, A., & Kessler, R. (2018). WHO World Mental Health surveys international college student project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology, 127*(7), 623-638. <https://doi.org/10.1037/abn0000362>
- Bernardo, A., Salanga, M., & Aguas, K. (2008). Filipino adolescent students' conceptions of learning goals. In O. Seng, D. M. McInerney, A. D. Liem, & A-G. Tan (Eds.), *What the West can learn from the East: Asian perspectives on the psychology of learning and motivation* (pp. 169-190). Information Age Publishing, Inc. <https://doi.org/10.1108/978-1-60752-998-920251009>
- Buenconsejo, J. U., & Datu, J. A. D. (2020). Growth and fixed mindsets about talent matter for career development self-efficacy in selected Filipino adolescents. *Children and Youth Services Review, 118*, Article 105470. <https://doi.org/10.1016/j.chilcyouth.2020.105470>
- Bulina, R. (2014). Relations between adaptive and maladaptive perfectionism, self-efficacy, and subjective well-being. *Psychology Research, 4*(10), 835-842. <https://doi.org/10.17265/2159-5542/2014.10.008>
- Burgess, A., Frost, R., & DiBartolo, P. (2016). Development and validation of the frost multidimensional perfectionism scale-brief. *Journal of Psychoeducational Assessment, 34*(7), 620-633. <https://doi.org/10.1177/0734282916651359>
- Burnette, J., O'Boyle, E., VanEpps, E., Pollack, J., & Finkel, E. (2013). Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychological Bulletin, 139*(3), 655-701. <https://doi.org/10.1037/a0029531>
- Costa, A., & Faria, L. (2018). Implicit theories of intelligence and academic achievement: A meta-analytic review. *Frontiers in Psychology, 9*, Article 829. <https://doi.org/10.3389/fpsyg.2018.00829>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Curran, T., & Hill, A. (2019). Perfectionism is increasing over time: a meta-analysis of birth cohort differences from 1989 to 2016. *Psychological Bulletin, 145*(4), 410-429. <https://doi.org/10.1037/bul0000138>
- DiBartolo, P. M., Frost, R. O., Chang, P., LaSota, M. & Grills, A. E. (2004). Shedding light on the relationship between personal standards and psychopathology: The case for contingent self-worth. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 22*(4), 237-250. <https://doi.org/10.1023/B:JORE.0000047310.94044.ac>
- Dong, L., & Kang, Y. (2022). Cultural differences in mindset beliefs regarding mathematics learning. *Current Opinion in Behavioral Sciences, 46*, Article 101159. <https://doi.org/10.1016/j.cobeha.2022.101159>
- Dweck, C. S. (2008). Can personality be changed? The role of beliefs in personality and change. *Current Directions in Psychological Science, 17*(6), 391-394. <https://doi.org/10.1111/j.1467-8721.2008.00612.x>
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House.
- Dweck, C. S. (1999). *Self-Theories: Their role in motivation, personality, and development*. Psychology Press. <https://doi.org/10.4324/9781315783048>
- Enriquez, V. (1992). The Filipinization of Filipino personality theory. In V. G. Enriquez (Ed.), *From colonial to liberation psychology: the Philippine experience* (pp. 69-96). University of the Philippines Press.
- Fernández-García, O., Gil-Llario, M., Castro-Calvo, J., Morell-Mengual, V., Ballester-Arnal, R., & Estruch-García, V. (2022). Academic perfectionism, psychological well-being, and suicidal ideation in college students. *International Journal of Environmental Research and Public Health, 20*(1), Article 85. <https://doi.org/10.3390/ijerph20010085>
- Finney, S. J., & DiStefano, C. (2013). Nonnormal and categorical data in structural equation modeling. In G. R. Hancock & R. O. Mueller (Eds.), *Structural equation modeling: a second course* (pp. 439-492). IAP Information Age Publishing.
- Flett, G. L., & Hewitt, P. L. (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 5-31). American Psychological Association. <https://doi.org/10.1037/10458-001>
- Frost, R., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14*(5), 449-468. <https://doi.org/10.1007/BF01172967>
- Golzar, J., Noor, S. and Tajik, O. (2022). Convenience Sampling. *International Journal of Education & Language Studies, 1*(2), 72-77. <https://doi.org/10.22034/ijels.2022.162981>
- Gschneidner, T., & Kortsch, T. (2025). The Hidden Cost of High Aspirations: Examining the Stress-Enhancing Effect of Motivational Goals Using Vignette Methodology. *European Journal of Investigation in Health, Psychology and Education, 15*(7), Article 128. <https://doi.org/10.3390/ejihpe15070128>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach* (2nd ed.). Guilford Press.
- Heine, S. J., Kitayama, S., Lehman, D. R., Takata, T., Ide, E., Leung, C., & Matsumoto, H. (2001). Divergent consequences of success and failure in Japan and North America: an investigation of self-improving motivations and malleable selves. *Journal of Personality and Social Psychology, 81*(4), 599-615. <https://doi.org/10.1037/0022-3514.81.4.599>
- Hewitt, P., & Flett, G. (1991). Perfectionism in the self and social contexts: conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology, 60*(3), 456-470. <https://doi.org/10.1037/0022-3514.60.3.456>
- Hill, A. P. (2024). An umbrella review of meta-analyses of the correlates of multidimensional perfectionism. *PsychArchives*. <https://doi.org/10.23668/psycharchives.15549>
- Hong, Y.-y., Chiu, C.-y., Dweck, C. S., Lin, D. M.-S., & Wan, W. (1999). Implicit theories, attributions, and coping: a meaning system approach. *Journal of Personality and Social Psychology, 77*(3), 588-599. <https://doi.org/10.1037/0022-3514.77.3.588>
- Kanten, P., & Yesiltas, M. (2015). The effects of positive and negative perfectionism on work engagement, psychological well-being and emotional exhaustion. *Procedia Economics and Finance, 23*, 1367-1375. [https://doi.org/10.1016/S2212-5671\(15\)00522-5](https://doi.org/10.1016/S2212-5671(15)00522-5)
- King, R. (2012). How you think about your intelligence influences how adjusted you are: Implicit theories and adjustment outcomes. *Personality and Individual Differences, 53*(5), 705-709. <https://doi.org/10.1016/j.paid.2012.05.031>
- King, R. B., & dela Rosa, E. D. (2019). Are your emotions under your control or not? Implicit theories of emotion predict well-being via cognitive reappraisal. *Personality and Individual Differences, 138*, 177-182. <https://doi.org/10.1016/j.paid.2018.09.040>
- Laidlaw, A., McLellan, J., & Ozakinci, G. (2015). Understanding undergraduate student perceptions of mental health, mental well-being and help-seeking behaviour. *Studies in Higher Education, 41*(12), 2156-2168. <https://doi.org/10.1080/03075079.2015.1026890>
- Lillard, A. (1998). Ethnopsychologies: Cultural variations in theories of mind. *Psychological Bulletin, 123*(1), 3-32. <https://doi.org/10.1037/0033-2909.123.1.3>

- Limburg, K., Watson, H., Hagger, M., & Egan, S. (2017). The relationship between perfectionism and psychopathology: A meta-analysis. *Journal of Clinical Psychology, 73*(10), 1301-1326. <https://doi.org/10.1002/jclp.22435>
- Limone, P., & Toto, G. (2022). Factors that predispose undergraduates to mental issues: a cumulative literature review for future research perspectives. *Frontiers in Public Health, 10*, Article 831349. <https://doi.org/10.3389/fpubh.2022.831349>
- Lo, A., & Abbott, M. (2013). Review of the theoretical, empirical, and clinical status of adaptive and maladaptive perfectionism. *Behaviour Change, 30*(2), 96-116. <https://doi.org/10.1017/bec.2013.9>
- Memon, M. A. (2024). Control variables: a review and proposed guidelines. *Journal of Applied Structural Equation Modeling, 8*(2), 1-14. [https://doi.org/10.47263/jasem.8\(2\)01](https://doi.org/10.47263/jasem.8(2)01)
- Menon, V., Grover, S., Gupta, S., Indu, P. V., Chacko, D., & Vidhukumar, K. (2025). A primer on reliability testing of a rating scale. *Indian Journal of Psychiatry, 67*(7), 725-729. https://doi.org/10.4103/indianjpsychiatry_584_25
- Mofield, E., & Parker Peters, M. (2019). Understanding underachievement: mindset, perfectionism, and achievement attitudes among gifted students. *Journal for the Education of the Gifted, 42*(2), 107-134. <https://doi.org/10.1177/0162353219836737>
- Molden, D. C., & Dweck, C. S. (2006). Finding "meaning" in psychology: a lay theories approach to self-regulation, social perception, and social development. *American Psychologist, 61*(3), 192-203. <https://doi.org/10.1037/0003-066X.61.3.192>
- Montano, R. (2023). The relationship of perfectionism and peace of mind: the mediating role of implicit theories of intelligence. *Psychological Studies, 68*(3), 447-462. <https://doi.org/10.1007/s12646-023-00739-1>
- OECD. *Education at a Glance 2016: OECD Indicators*. OECD Publishing.
- Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2015). College students: mental health problems and treatment considerations. *Academic Psychiatry, 39*(5), 503-511. <https://doi.org/10.1007/s40596-014-0205-9>
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review, 18*(4), 315-341. <https://doi.org/10.1007/s10648-006-9029-9>
- Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069-1081. <https://doi.org/10.1037/0022-3514.57.6.1069>
- Ryff, C. & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*(4), 719-727. <https://doi.org/10.1037/0022-3514.69.4.719>
- Seeram, E. (2019). An overview of correlational research. *Radiologic Technology, 91*(2), 176-179. <https://pubmed.ncbi.nlm.nih.gov/31685592/>
- Simon, P. D. (2020). Factor structure and longitudinal measurement invariance of the frost multidimensional perfectionism scale-brief on a Filipino sample. *International Journal of School & Educational Psychology, 10*(3), 350-359. <https://doi.org/10.1080/21683603.2020.1837702>
- Slade, P.D., & Owens, R. G. (1998). A dual process model of perfectionism based on reinforcement theory. *Behavior Modification, 22*(3), 372-390. <https://doi.org/10.1177/01454455980223010>
- Schroder, H. S., Callahan, C. P., Gornik, A. E., & Moser, J. S. (2019). The fixed mindset of anxiety predicts future distress: A longitudinal study. *Behavior Therapy, 50*(4), 710-717. <https://doi.org/10.1016/j.beth.2018.11.001>
- Schroder, H. S., Dawood, S., Yalch, M. M., Donnellan, M. B., & Moser, J. S. (2016). Evaluating the domain specificity of mental health-related mind-sets. *Social Psychological and Personality Science, 7*(6), 508-520. <https://doi.org/10.1177/1948550616644657>
- Sorrenti, L., Imbesi, M., Meduri, C. F., Fumia, A., & Filippello, P. (2025). The mediating role of dispositional optimism and perfectionism on the relationship between perceived parental psychological control and support and adolescents' well-being. *European Journal of Investigation in Health, Psychology and Education, 15*(8), Article 160. <https://doi.org/10.3390/ejihpe15080160>
- Stevenson, H. W., Lee, S.-y., Chen, C., Stigler, J. W., Hsu, C.-C., Kitamura, S., & Hatano, G. (1990). Contexts of achievement: A study of American, Chinese, and Japanese children. *Monographs of the Society for Research in Child Development, 55*(1-2), Article 123. <https://doi.org/10.2307/1166090>
- Stevenson, H., & Stigler, J. W. (1994). *Learning gap: Why our schools are failing and what we can learn from Japanese and Chinese educ.* Simon and Schuster.
- Stoeber, J. (2011). The dual nature of perfectionism in sports: relationships with emotion, motivation, and performance. *International Review of Sport and Exercise Psychology, 4*(2), 128-145. <https://doi.org/10.1080/1750984X.2011.604789>
- Stoeber, J. (2018). The psychology of perfectionism: An introduction. In J. Stoeber (Ed.), *The psychology of perfectionism: theory, research, applications* (pp. 3-16). Routledge. <https://doi.org/10.4324/9781315536255>
- Suman, C. (2023). Implication of feedback and praise on mindset. *Analysis, 39*-54. <https://doi.org/10.5281/zenodo.8154639>
- Sun, X., Nancekivell, S., Gelman, S. A., & Shah, P. (2021). Growth mindset and academic outcomes: a comparison of US and Chinese students. *NPJ Science of Learning, 6*(1), 21. <https://doi.org/10.1038/s41539-021-00100-z>
- Tabachnick, B. & Fidell, L. (2007). *Using multivariate statistics* (5th ed.). Pearson Education.
- Tan, J. (2023). The mediating role of self-compassion in the relationship between trait perfectionism and psychological resilience among Filipino university students. *Cogent Psychology, 10*(1), 2168424. <https://doi.org/10.1080/23311908.2023.2168424>
- Van der Kaap-Deeder, J., Soenens, B., Boone, L., Vandenkerckhove, B., Stengée, E., & Vansteenkiste, M. (2016). Evaluative concerns perfectionism and coping with failure: effects on rumination, avoidance, and acceptance. *Personality and Individual Differences, 101*, 114-119. <https://doi.org/10.1016/j.paid.2016.05.063>
- Villarosa, J. B., & Ganotice, F. A. (2018). Construct validation of Ryff's psychological well-being scale: Evidence from Filipino teachers in the Philippines. *Philippine Journal of Psychology, 51*(1), 1-20. <https://doi.org/10.31710/PJP/0051.01.01>
- Wan, J., Wee, L. H., Siau, C. S., & Wong, Y. H. (2025). Psychological well-being and its associated factors among university students in Sichuan, China. *Frontiers in Psychology, 16*, Article 1473871. <https://doi.org/10.3389/fpsyg.2025.1473871>
- Whittington, R. E., Rhind, S., Loads, D., & Handel, I. (2017). Exploring the link between mindset and psychological well-being among veterinary students. *Journal of Veterinary Medical Education, 44*(1), 134-140. <https://doi.org/10.3138/jvme.1215-192R>
- Xing, Y., & Cheong, L. S. (2021). The relationship between perfectionism and perceived stress among undergraduates: the role of mindsets. *Journal of Advanced Research in Social Sciences, 4*(2), 1-13. <https://doi.org/10.33422/jarss.v4i2.641>
- Yeager, D. S., & Dweck, C. (2012). Mindsets that promote resilience: when students believe that personal characteristics can be developed. *Educational Psychology, 47*(4), 302-314. <https://doi.org/10.1080/00461520.2012.722805>

Appendix

Table A1

Initial and final factor loadings of psychological well-being dimensions (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, self-acceptance)

Factor	Indicator	Initial loading	Final loading	Status
Autonomy	PWB1	.82***	.83***	Retained
	PWB7	.64***	.59***	Retained
	PWB13	.47***	-	Removed
	PWB19	.33***	-	Removed
	PWB25	.76***	.83***	Retained
	PWB31	.68***	-	Removed
	PWB37	.57***	-	Removed
Environmental mastery	PWB2	.46***	-	Removed
	PWB8	.51***	-	Removed
	PWB14	.73***	.82***	Retained
	PWB20	.54***	-	Removed
	PWB26	.42***	.62***	Retained
	PWB32	.81***	1.11***	Retained
	PWB38	.54***	-	Removed
Personal growth	PWB3	.45***	.31***	Retained
	PWB9	.6***	.63***	Retained
	PWB15	.51***	-	Removed
	PWB21	.86***	.9***	Retained
	PWB27	.34***	-	Removed
	PWB33	.52***	-	Removed
	PWB39	.4***	-	Removed
Positive relations with others	PWB4	.76***	.76***	Retained
	PWB10	.41***	-	Removed
	PWB16	.69***	-	Removed
	PWB22	.89***	.95***	Retained
	PWB28	.68***	-	Removed
	PWB34	.63***	-	Removed
	PWB40	.76***	.74***	Retained
Purpose in life	PWB5	.08	-	Removed
	PWB11	.73***	.76***	Retained
	PWB17	.71***	-	Removed
	PWB23	.98***	1***	Retained
	PWB29	.43***	-	Removed
	PWB35	.51***	.56***	Retained
	PWB41	-.09	-	Removed
Self-acceptance	PWB6	.77***	.8***	Retained
	PWB12	.76***	.83***	Retained
	PWB18	.77***	-	Removed
	PWB24	.64***	.71***	Retained
	PWB30	.77***	-	Removed
	PWB36	.57***	-	Removed
	PWB42	.13***	-	Removed