

An examination of factors related to self-compassion and academic resilience among Taiwanese university students

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ABSTRACT

This study aimed to investigate the relationships between academic resilience and several potential predictors. Given that self-compassion may serve as a fundamental precursor to resilience, the present study was also intended to explore factors that contribute to the development of each component of self-compassion. Five hundred and four Taiwanese undergraduate students completed a self-reported survey assessing parental influences, self-compassion, social support, perceived competence, perfectionistic tendencies, and academic resilience. Hierarchical regression analyses were performed to determine the significant predictors of the components of self-compassion as well as academic resilience. The findings suggested that both social support and perceived competence were positively related to all components of self-compassion. In contrast, parental criticism and perfectionistic concerns were negatively linked to each component. Notably, perfectionistic strivings significantly predicted mindfulness but not other aspects of self-compassion. With regard to academic resilience, students' self-compassion, perceived competence, and perfectionistic strivings were found to positively predict their academic resilience, whereas parental criticism and perfectionistic concerns emerged as negative predictors. Collectively, these factors accounted for 61% of the variance in resilience. The findings highlight the critical role of self-compassion and perceived competence in fostering resilience. Implications for practice are discussed.

Keywords: *Academic resilience, perceived competence, perfectionism, self-compassion, social support.*

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Highlights of this paper

- This study explored factors influencing academic resilience in Taiwanese university students, focusing on self-compassion, perceived competence, social support, and perfectionism.
- Self-kindness, mindfulness, perceived competence, and perfectionistic strivings positively predicted resilience, whereas parental criticism and perfectionistic concerns had negative impacts.
- These variables collectively accounted for 61% of the variance in academic resilience, highlighting the importance of internal resources in helping students cope with academic challenges.

1. INTRODUCTION

The pursuit of higher education in the twenty-first century is often accompanied by significant stress, stemming from challenges such as transitioning to independent living, demanding academic workloads, financial pressures, and uncertainty about future employment. Research has highlighted resilience as a key factor in helping students effectively manage these stressors (Brewer et al., 2019; de los Reyes, Blannin, Cohrsen, & Mahat, 2022), leading to growing scholarly interest in the concept within higher education over the past decade (McArthur et al., 2017; Ross, Scanes, & Locke, 2024). Resilience is defined as a dynamic process through which individuals draw upon personal and environmental resources to cope with adversity and maintain adaptive functioning (Brewer et al., 2019; Jowkar, Kojuri, Kohoulat, & Hayat, 2014). University students, in particular, face academic pressures such as high-stakes exams, heavy coursework, and tight deadlines (Garcia-Izquierdo, Rios-Risquez, Carrillo-Garcia, & Sabuco-Tebar, 2018; Price, 2023). Those who exhibit academic resilience can sustain motivation and performance despite challenges that might otherwise hinder academic success or persistence (Alva, 1991).

Recent research has initiated a comprehensive examination of factors influencing academic resilience (de los Reyes et al., 2022; Yang & Wang, 2022; Ye, Strietholt, & Blömeke, 2021). However, there remains a significant gap in identifying these predictive factors within non-Western university student populations. This study aims to address this gap by investigating the relationships between academic resilience and several potential predictors, specifically self-compassion, perfectionism, social support, and perceived competence, among university students in Taiwan.. Jowkar et al. (2014) proposed a dichotomous framework for understanding academic resilience factors, categorizing them as either external or internal protective factors. External protective factors encompass environmental resources that interact with academic stressors to provide protection. In contrast, internal protective factors comprise individual traits and characteristics that enhance cognitive and emotional regulation when facing challenges. The predictors examined in this research align with these categories: self-compassion, perfectionism, and perceived competence represent internal protective factors, while social support functions as an external protective factor. This study seeks to clarify the relative contributions of these internal and external factors to academic resilience among Taiwanese university students, thereby expanding our understanding beyond Western contexts.

2. LITERATURE REVIEW

2.1. Self-Compassion

Self-compassion, as a psychological construct related to the self, holds significant potential for enhancing resilience (Egan, O'Hara, Cook, & Mantzios, 2022; Lee & Lee, 2022; Liu, Lin, & Xiong, 2024). This construct allows individuals to confront their experiences of suffering with warmth, kindness, and empathetic understanding. It enables individuals to approach their experiences of suffering with warmth, kindness, and empathetic understanding. Neff (2023) conceptualizes self-compassion as a multidimensional construct comprising three interrelated components. The first, self-kindness, involves treating oneself with care and understanding during difficult times, rather than resorting to harsh self-criticism. The second, common humanity, emphasizes the recognition that suffering and personal shortcomings are part of the shared human experience, which helps reduce feelings of isolation

in the face of adversity. The third, mindfulness, entails maintaining a balanced awareness of painful thoughts and emotions in the present moment, without exaggerating or suppressing them. Together, these components foster a comprehensive and resilient self-compassionate mindset.

Self-compassion has been identified as a potential mechanism for fostering resilience (Egan et al., 2022; Gunnell, Mosewich, McEwen, Eklund, & Crocker, 2017; Trompetter, De Kleine, & Bohlmeijer, 2017). Empirical studies have consistently demonstrated positive associations between self-compassion and a range of adaptive outcomes, including greater life satisfaction, enhanced happiness, increased optimism, stronger personal initiative, and improved social connectedness (Neff, 2023). Conversely, self-compassion has been negatively associated with various maladaptive psychological conditions, such as depression, anxiety, negative self-perception, and elevated stress levels (Ehret, Joormann, & Berking, 2018; Muris & Petrocchi, 2017). Within educational contexts, students with higher levels of self-compassion have reported increased intrinsic motivation, alongside reduced fear of failure, academic anxiety, and procrastination (Neff, Hsieh, & Dejitterat, 2005; Williams, Stark, & Foster, 2008). The present study aims to examine the unique contributions of each component of self-compassion to academic resilience. Since self-compassion may serve as a foundational precursor to resilience, this research also seeks to identify potential factors influencing its development. Previous findings by Gilbert and Procter (2006) and Neff and McGehee (2010) have suggested that maternal support can enhance an individual's capacity for self-compassion, whereas maternal criticism is often associated with increased self-criticism. Based on this, the current study hypothesizes that social support and parental criticism will be significantly associated with both self-compassion and academic resilience.

2.2. Social Support and Perceived Competence

Perceived social support is defined as the assistance that an individual can access when needed (Hale, Hannum, & Espelage, 2005). This support primarily originates from two key sources: family members and peers. Supportive relationships within these contexts can significantly bolster academic resilience (Sabouripour & Roslan, 2015). As noted by Sabouripour and Roslan (2015), social support is expressed through various interpersonal interactions, which include feelings of being valued, respected, and integrated within one's social network. Prior research has indicated that psychological distress is associated with a smaller social network, fewer intimate relationships, and a lower perception of support. In contrast, strong social support has been identified as a protective factor against depression and has been shown to enhance resilience when encountering stressors. (Armstrong, Birnie-Lefcovitch, & Ungar, 2005; Ozbay, Fitterling, Charney, & Southwick, 2008). Among university students, social support has been positively correlated with psychological well-being, academic adjustment, adaptive coping strategies, and academic performance (Bernardon, Babb, Hakim-Larson, & Gragg, 2011). The present study seeks to investigate the impact of social support from family and peers on students' self-compassion and academic resilience, thereby affirming the advantages of this external factor within the specified population.

In addition to social support, perceived competence has been recognized as a key resource in fostering academic resilience (Korhonen, Tapola, Linnanmäki, & Aunio, 2016). Perceived competence refers to students' self-assessment of their ability to successfully complete academic tasks. This construct has been strongly linked to positive educational outcomes, including sustained academic engagement and achievement (Deci & Ryan, 2002). Furthermore, research has identified a reciprocal developmental relationship between academic achievement, perceived competence, and interest one that becomes increasingly influential over time as students progress through their educational journey (Möller, Retelsdorf, Köller, & Marsh, 2011). These findings suggest that perceived competence and academic interest can reinforce each other, thereby contributing to greater academic resilience. Importantly, perceived competence may also play a role in promoting self-compassion. When individuals believe in their ability to manage academic demands,

they may be more inclined to respond to setbacks with self-understanding rather than self-criticism (Manavipour & Saeedian, 2016). As such, perceived competence can be viewed as an internal protective factor, and it is hypothesized that it positively predicts both self-compassion and academic resilience.

2.3. Perfectionism

Another factor that may be relevant to both self-compassion and academic resilience among university students is perfectionism, a trait commonly observed in academic environments (Stoeber, 2017). Frost, Marten, Lahart, and Rosenblate (1990) conceptualized perfectionism as a multidimensional construct comprising six distinct dimensions. The first, personal standards, reflects individuals' tendency to set high expectations for their own performance. The second concern over mistakes involves heightened anxiety about making errors and viewing failure as an indication of personal inadequacy. The third, doubts about actions, captures the uncertainty individuals feel regarding whether their decisions or actions are appropriate. The fourth dimension, organization, denotes a preference for structure, orderliness, and systematic approaches. The remaining two dimensions pertain to perceived parental influences: parental expectations reflect the perceived pressure to meet high standards imposed by parents, while parental criticism refers to feelings of being harshly judged or disapproved of by parents when those expectations are not met (Frost et al., 1990; Stoeber, 2017).

In the study of perfectionism, researchers (Burgess, Frost, & DiBartolo, 2016; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993) have identified two broad latent dimensions: perfectionistic strivings and perfectionistic concerns. Perfectionistic strivings involve the pursuit of excellence and the setting of high personal standards, while perfectionistic concerns reflect anxiety about making mistakes and doubts regarding the adequacy of one's performance. Studies have shown that perfectionistic strivings are positively associated with adaptive characteristics, such as problem-focused coping, a strong sense of responsibility, and approach-oriented motivation (Burnam, Komarraju, Hamel, & Nadler, 2014; Stoeber, 2017). These adaptive traits suggest that individuals high in perfectionistic strivings may be more likely to develop self-compassion by viewing setbacks constructively and demonstrate academic resilience through active engagement and persistence in their academic pursuits. In contrast, perfectionistic concerns, which encompass persistent self-criticism, a motivation to evade failure, and apprehension about negative evaluations, are anticipated to have a detrimental relationship with self-compassion (Linnett & Kibowski, 2020). Furthermore, these concerns are likely to exacerbate academic stress and undermine academic resilience (Doyle & Catling, 2022; Ferrari, Yap, Scott, Einstein, & Ciarrochi, 2018). In terms of parental influence, Neff and McGehee (2010) found that individuals raised by emotionally distant or excessively critical parents often internalized similar critical attitudes towards themselves. As a result, parental criticism is thought to negatively predict students' levels of self-compassion and academic resilience. The implications of parental expectations warrant further exploration to fully understand their impact.

2.4. The Present Study

In summary, the current research aims to investigate the interconnections among perceived parental influences, self-compassion, perceived social support, perceived competence, perfectionistic tendencies, and academic resilience within a sample of Taiwanese university students. Drawing upon prior empirical studies, the following hypotheses are formulated.

(1) Students' perceptions of parental influences, including parental expectations and criticism, as well as their perceived social support, perceived competence, and perfectionistic tendencies (which encompass both perfectionistic

strivings and concerns), would exhibit significant correlations with each dimension of self-compassion (i.e., self-kindness, common humanity, and mindfulness).

(2) The three dimensions of self-compassion, alongside students' perceptions of parental influences, perceived social support, perceived competence, and perfectionistic tendencies, would show significant relationships with academic resilience.

3. METHOD

3.1. Participants

The participants were 504 Taiwanese undergraduate students (215 men, 289 women) enrolled in four top-ranking universities in the northern part of Taiwan. The four universities include National Taiwan University, National Taiwan University of Science and Technology, National Taiwan Normal University, and National Chengchi University. All students were recruited from colleges of liberal arts (20%), engineering (18.5%), commerce (50.8%), and social sciences (10.7%) and were offered an NT\$100 gift card for completing the survey. The vast majority of participating students were in their third or fourth year of study. The participants had a mean age of 21.67 years ($SD = 1.47$ years), with ranges from 19.5 to 30.5 years. Participants were all full-time students.

3.2. Procedure

Data were gathered through a survey distributed to 504 participants at the beginning of the academic year 2020/21. Consent for student participation was secured from the instructors of the pertinent classes. All participants engaged in the study voluntarily. Students were invited to complete a survey (which is elaborated upon in the subsequent sections) at the conclusion of the class sessions. The questionnaire required approximately 15 minutes for participants to complete. Each class was attended by two research assistants responsible for data collection. Prior to the administration of the survey, participants were informed about the objectives of the study. The completion of the questionnaire was conducted anonymously, with assurances of confidentiality provided to all participants.

3.3. Measures

Participants were directed to provide responses to all items utilizing a six-point Likert scale, with values ranging from 1 (Strongly disagree) to 6 (Strongly agree). A Chinese language version of the self-report survey was employed. All measures used in the current study underwent translation into Chinese, followed by back-translation into English. Detailed information regarding each scale employed in this study is provided below.

3.3.1. Academic Resilience

Students' academic resilience was assessed by the scale adapted from the Academic Resilience (Martin & Marsh, 2006) and the Academic Resilience Scale-30 (ARS-30, Cassidy, 2016). The 12-item scale measures students' ability to effectively deal with setbacks, challenges, adversities, and pressures in the academic setting (e.g., I believe I am mentally tough when it comes to exams). Some items adapted from ARS-30 assess students' perseverance when encountering academic difficulties (e.g., When faced with academic setbacks, I would try to think of new solutions). Higher scores represent higher levels of academic resilience. The scale shows good reliability ($\alpha = 0.90$).

3.3.2. Self-Compassion

The Self-Compassion Scale (SCS, Neff, 2023) was developed to explicitly represent the thoughts, emotions, and behaviors associated with the various components of self-compassion. The 26-item scale assesses the three main

components of self-compassion: self-kindness (vs. self-judgment), common humanity (vs. isolation), and mindfulness (vs. over-identification). It uses both positively and negatively scored items for each component subscale. Given that the present study aimed to examine the protective factors conducive to academic resilience, the subscales of positive self-compassion components, including self-kindness (e.g., “I’m kind to myself when I’m experiencing suffering”; 5 items; $\alpha = 0.77$), common humanity (e.g., “I try to see my failings as part of the human condition”; 4 items; $\alpha = 0.77$), and mindfulness (e.g., “When something painful happens, I try to take a balanced view of the situation”; 4 items; $\alpha = 0.73$), were employed. Higher scores indicate higher trait levels of self-compassion.

3.3.3. Social Support

Students’ perceptions of social support were assessed by the Scales of Perceived Social Support (SPSS, Macdonald, 1998). The SPSS measures an individual’s satisfaction or positive evaluation of support from family and friends. In terms of social support content, four areas are included: emotional support (e.g., “I feel very close to my family”), appraisal support (e.g., “My friends praise me when I do well”), informational support (e.g., “My family advises me when I have to make a difficult decision”), and instrumental support (e.g., “If I were short of cash, my friends would help me out”). Each subscale consists of 14 items representing a specific support content from family or friends. The subscales assessing emotional support from both family and friends were employed in the present study. Scores for support from family and friends were averaged to form a composite of social support ($\alpha = 0.81$). Higher scores indicate higher levels of perceived emotional support from family and friends.

3.3.4. Perceived Competence

Students’ perceptions of their competence in learning were assessed by the Perceived Competence Scale (PCS, Williams and Deci, 1996). This scale consists of 4 items that measure students’ feelings of competence regarding mastering the materials in college courses or undertaking the challenges of learning (e.g., “I am able to achieve my goals in the courses I take,” $\alpha = 0.83$). Higher scores indicate that students perceive higher levels of their competence in learning.

3.3.5. Parental Expectations and Parental Criticism

Parental expectations and parental criticism scales were adapted from the Multidimensional Perfectionism Scale (MPS; Frost et al., 1990). The MPS measures perfectionism across six dimensions, including personal standards, organization, concern over mistakes, doubts about actions, parental expectations, and parental criticism. The subscales assessing parental expectations and criticism evaluate different aspects of an individual’s experiences with their parents. Parental expectations and parental criticism are both considered to be the theorized roots of perfectionism (Frost et al., 1990). Students’ perceptions of parental expectations were assessed using a 5-item self-report scale (e.g., “My parents set very high standards for me,” $\alpha = 0.85$). Parental criticism scale consists of 4 items (e.g., “As a child, I was punished for doing things less than perfect,” $\alpha = 0.70$). Higher scores reflect higher levels of parental expectations or criticism.

3.3.6. Perfectionistic Strivings and Perfectionistic Concerns

The scales assessing students’ perfectionistic tendencies were also adapted from the MPS (Frost et al., 1990). The subscales of personal standards (e.g., “I set higher goals than most people”; 4 items; $\alpha = 0.81$), organization (e.g., “I try to be an organized person”; 5 items; $\alpha = 0.85$), concern over mistakes (e.g., “People will probably think less of me if I make a mistake”; 4 items; $\alpha = 0.82$), and doubts about actions (e.g., “I usually have doubts about the simple

everyday things I do”; 4 items; $\alpha = 0.65$) were used in the current study to measure perfectionistic expectations the student has for him- or herself. According to Frost et al. (1993), subscales assessing personal standards and organization were combined to create the measure of perfectionistic strivings ($r = 0.55$, $p < 0.001$; $\alpha = 0.87$). Also, scores for concern over mistakes and doubts about actions were averaged to form a composite of perfectionistic concerns ($r = 0.62$, $p < 0.001$; $\alpha = 0.84$). Higher scores represent higher levels of perfectionistic strivings or perfectionistic concerns.

4. RESULTS

4.1. Regression Analyses

Table 1 presents descriptive statistics and correlations for the study variables. The findings from the regression analyses are initially reported for the three components of self-compassion, followed by the analysis of students' academic resilience. In the preliminary analysis, gender was incorporated as the first variable in the regression models. The results indicated that gender did not serve as a significant predictor for any of the outcome variables of interest. Consequently, gender was excluded as a predictive variable in the current study.

In the initial step of the hierarchical regression analyses, predicting the three dimensions of self-compassion, students' perceptions of parental expectations and parental criticism were included as predictor variables. In the second step, social support and perceived competence were incorporated into the regression models. The third step involved the introduction of both perfectionistic strivings and perfectionistic concerns. The prioritization of students' perceptions of parental expectations and criticism was based on the assumption that these factors are causally antecedent to perfectionistic tendencies (Tabachnick & Fidell, 2019). For the outcome regarding academic resilience, a hierarchical multiple regression analysis was also conducted. In the first step, the three components of self-compassion were entered to evaluate their individual contributions to academic resilience. Subsequently, students' perceptions of parental expectations and criticism were included in the second step. The third step introduced the variables of social support and perceived competence. Finally, in the fourth step, perfectionistic strivings and perfectionistic concerns were added as predictors. The independent variables from Steps 2 through 4 were analyzed to ascertain whether they accounted for significant incremental variance in academic resilience beyond what was explained by the components of self-compassion.

Table 1. Descriptive statistics and correlations for study variables (N =504).

Variable	1	2	3	4	5	6	7	8	9	10
1. Academic resilience	-									
2. Self-kindness	0.59***	-								
3. Common humanity	0.38***	0.59***	-							
4. Mindfulness	0.50***	0.60***	0.45***	-						
5. Social support	0.36***	0.34***	0.27***	0.29***	-					
6. Perceived competence	0.69***	0.36***	0.25***	0.37***	0.32***	-				
7. Parental expectations	-0.11**	-0.12**	-0.04	-0.03	-0.24***	0.21***	-			
8. Parental criticism	-0.28***	-0.23***	-0.14**	-0.15**	-0.48***	-0.22***	0.66***	-		
9. Perfectionistic strivings	0.33***	0.10**	0.14**	0.24***	0.17***	0.34***	0.15**	0.84***	-	
10. Perfectionistic concerns	-0.38***	-0.38***	-0.21***	-0.27***	-0.27***	-0.28***	0.33***	0.51***	0.26***	-
<i>M</i>	4.51	3.95	4.03	4.11	4.55	4.57	3.11	2.7	4.45	3.44
<i>SD</i>	0.67	0.74	0.86	0.71	0.79	0.77	1.15	1.01	0.71	0.83

Note: ** p < 0.01. *** p < 0.001.

4.2. Hierarchical Regressions Predicting Students' Self-Compassion

4.2.1. Self-Kindness

Results of hierarchical regression analyses predicting the three components of self-compassion are displayed in Table 2. Parental expectations and criticism were entered in the first step and explained a significant amount of variance (6%) in self-kindness, $F(2, 501) = 15.32, p < .001$. Parental criticism emerged as the only significant predictor of self-kindness, $\beta = -0.28, p < .001$. Adding social support and students' perceived competence in Step 2 increased the amount of variance explained for self-kindness by 13%, $F(4, 499) = 28.53, p < 0.001$. Both social support and perceived competence were positively related to self-kindness, $\beta = 0.22, p < .001$ and $\beta = 0.27, p < 0.001$, respectively. In Step 3, the two types of perfectionistic tendencies were entered. Adding these variables increased the amount of variance explained for self-kindness by 7%, $F(6, 497) = 28.52, p < 0.001$. Perfectionistic concerns were negatively associated with self-kindness, $\beta = -0.34, p < 0.001$. The independent variables entered in the final regression model in total explained 26% of the variance in self-kindness. According to Cohen (1988), benchmarks for effect size in regression, R^2 values ranging from 0.02 to 0.12 are classified as weak (small), from 0.13 to 0.26 as moderate (medium), and R^2 values exceeding 0.26 as substantial (large) effects. Thus, the predictive effects of the independent variables on self-kindness can be considered moderate. The hypothesis concerning the determinants of this dimension of self-compassion received partial support, as parental criticism, social support, perceived competence, and perfectionistic concerns were identified as significant predictors.

4.2.2. Common Humanity

In the initial phase of the analysis, parental expectations and parental criticism accounted for a significant 2% of the variance in common humanity, $F(2, 501) = 6.20, p < 0.01$. Notably, parental criticism exhibited a negative correlation with common humanity, $\beta = -0.20, p < 0.001$. The introduction of social support and perceived competence in the second step resulted in an additional 8% increase in the explained variance for common humanity, $F(4, 499) = 14.21, p < 0.001$. Both social support and perceived competence emerged as positive predictors of common humanity, $\beta = 0.21, p < 0.001$, and $\beta = 0.27, p < 0.001$, respectively. The inclusion of perfectionistic tendencies in the third step further augmented the explained variance by 3%, $F(6, 497) = 12.12, p < .001$. Perfectionistic concerns were found to negatively predict common humanity, $\beta = -0.20, p < 0.001$. Collectively, the independent variables incorporated in the final model accounted for 13% of the variance in common humanity. According to Cohen's (1988) criteria, the effects of these predictors in the final regression model were deemed moderate. The hypothesis concerning the predictors of this aspect of self-compassion was partially substantiated, with significant predictors identified as parental criticism, social support, perceived competence, and perfectionistic concerns.

4.2.3. Mindfulness

In the initial step of the analysis, parental expectations and criticism were incorporated, accounting for a significant proportion of variance (3%) in mindfulness, $F(2, 501) = 8.46, p < 0.001$. Parental criticism exhibited a negative correlation with mindfulness, $\beta = -0.24, p < 0.001$. The findings from Step 2 revealed that the inclusion of social support and perceived competence augmented the explained variance in mindfulness by 14%, $F(4, 499) = 26.04, p < 0.001$. Both social support and perceived competence emerged as positive predictors of mindfulness, $\beta = 0.19, p < 0.001$, and $\beta = 0.31, p < 0.001$, respectively. In the final step, the analysis incorporated two types of perfectionistic tendencies, which further increased the explained variance in mindfulness by 6%, $F(6, 497) = 24.73, p < 0.001$. Specifically, perfectionistic strivings were positively associated with mindfulness, $\beta = 0.22, p < 0.001$, while perfectionistic concerns were negatively correlated with mindfulness, $\beta = -0.28, p < 0.001$. Collectively, the

independent variables included in the final model accounted for 23% of the variance in mindfulness. According to [Cohen \(1988\)](#) benchmarks, the predictive effects of these independent variables on mindfulness were deemed moderate. The hypothesis concerning the predictors of mindfulness was partially substantiated, as parental criticism, social support, perceived competence, perfectionistic strivings, and perfectionistic concerns were identified as significant predictors.

Table 2. Summary of hierarchical regression analyses predicting each component of self-compassion (N= 504).

Variable	Self-kindness			ΔR^2	Common humanity			ΔR^2	Mindfulness			
	<i>B</i>	β	95% <i>CI</i>		<i>B</i>	β	95% <i>CI</i>		<i>B</i>	β	95% <i>CI</i>	ΔR^2
Step 1				0.06				0.02				0.03
Parental expectations	0.05	0.07	-0.03, 0.12		0.07	0.1	-0.01, 0.16		0.08	0.12	0.01, 0.15	
Parental criticism	-0.21***	-0.28***	-0.29, 0.12		-0.17***	-0.20***	-0.27, 0.07		-0.17***	-0.24***	-0.26, -0.09	
Step 2				0.13				0.08				0.14
Parental expectations	-0.01	-0.01	-0.14, 0.04		0.03	0.04	-0.06, 0.11		0.03	0.05	-0.04, 0.10	
Parental criticism	-0.05	-0.07	-0.14, 0.04		-0.02	-0.02	-0.13, 0.09		-0.02	-0.03	-0.11, 0.07	
Social support	0.20***	0.22***	0.12, 0.29		0.23***	0.21***	0.13, 0.34		0.18***	0.19***	0.09, 0.27	
Perceived competence	0.26***	0.27***	0.18, 0.34		0.20***	0.18***	0.10, 0.29		0.29***	0.31***	0.21, 0.37	
Step 3				0.07				0.03				0.06
Parental expectations	-0.01	-0.02	-0.08, 0.05		0.02	0.02	-0.07, 0.10		0.01	0.01	-0.06, 0.07	
Parental criticism	0.07	0.09	-0.02, 0.16		0.06	0.07	-0.05, 0.17		0.07	0.1	-0.02, 0.16	
Social support	0.20***	0.21***	0.11, 0.28		0.22***	0.20***	0.11, 0.32		0.16***	0.17***	0.07, 0.24	
Perceived competence	0.17***	0.18***	0.09, 0.26		0.11	0.1	0.01, 0.22		0.18***	0.19***	0.09, 0.25	
Perfectionistic strivings	0.1	0.1	0.04, 0.19		0.14	0.11	0.02, 0.26		0.23***	0.22***	0.13, 0.32	
Perfectionistic concerns	-0.30***	-0.34***	-0.39, -0.22		-0.21***	-0.20***	-0.32, -0.10		-0.25***	-0.28***	-0.33, -0.16	
Note: *** p < 0.01. **** p < 0.001.												

4.3. Hierarchical Regressions Predicting Students' Academic Resilience

Table 3 presents the results of hierarchical regression analyses predicting students' academic resilience. In Model 1, the three components of self-compassion were entered and accounted for a significant proportion of variance (31%), $F(3, 500) = 74.57, p < 0.001$. Within this model, self-kindness ($\beta = 0.25, p < 0.001$) and mindfulness ($\beta = 0.31, p < 0.001$) emerged as significant predictors of academic resilience. The inclusion of parental expectations and criticism in Model 2 yielded an additional 3% of explained variance, $F(5, 498) = 50.84, p < 0.001$, with parental criticism demonstrating a significant negative association with academic resilience ($\beta = -0.21, p < 0.001$).

Model 3 incorporated social support and perceived competence, increasing the explained variance by 24%, $F(7, 496) = 94.89, p < 0.001$. Notably, perceived competence emerged as a robust predictor ($\beta = 0.53, p < 0.001$). In the final model, the addition of perfectionistic tendencies contributed an additional 3% of explained variance, $F(9, 494) = 83.15, p < 0.001$. Results indicated that perfectionistic strivings were positively associated with academic resilience ($\beta = 0.18, p < 0.001$), whereas perfectionistic concerns demonstrated a significant negative relationship ($\beta = -.20, p < 0.001$). Collectively, the predictor variables in the final model explained 61% of the variance in academic resilience, representing a substantial effect according to Cohen's (1988) benchmarks. Further, the predictors entered in Models 2 through 4 accounted for 30% of the incremental variance beyond that explained by self-compassion components. The hypothesis regarding the predictors of academic resilience was partially confirmed. Self-kindness, mindfulness, parental criticism, perceived competence, perfectionistic strivings, and perfectionistic concerns significantly predicted academic resilience.

Table 3. Summary of hierarchical regression analyses predicting academic resilience (N= 504).

Variable	Academic resilience			
	<i>B</i>	β	95% CI	ΔR
Step 1	0.25***		0.13, 0.31	
Common humanity	0.07	0.09	-0.002, 0.14	
Mindfulness	0.29***	0.31***	0.20, 0.37	
Step 2				0.03
Self-kindness	0.19***	0.21***	0.10, 0.28	
Common humanity	0.07	0.09	-0.002, 0.14	
Mindfulness	0.28***	0.31***	0.20, 0.36	
Parental expectations	0.04			0.31
Self-kindness	0.22***	0.06	-0.02, 0.09	
Parental criticism	-0.14***	-0.21***	-0.20, -0.07	
Step 3				0.24
Self-kindness	0.10**	0.11**	0.03, 0.18	
Common humanity	0.06	0.08	0.002, 0.12	
Mindfulness	0.16***	0.18***	0.09, 0.23	
Parental expectations	-0.003	-0.005	-0.05, 0.04	
Parental criticism	-0.045	-0.069	-0.10, 0.01	
Social support	0.04	0.05	-0.02, 0.10	
Perceived competence	0.46***	0.53***	0.40, 0.52	
Step 4				0.03
Self-kindness	0.08	0.09	0.01, 0.16	
Common humanity	0.06	0.07	0.00, 0.11	
Mindfulness	0.13***	0.14***	0.06, 0.19	
Parental expectations	-0.02	-0.03	-0.06, 0.03	
Parental criticism	0.01	0.02	-0.05, 0.07	
Social support	0.04	0.04	-0.02, 0.09	
Perceived competence	0.40***	0.46***	0.34, 0.46	
Perfectionistic strivings	0.17***	0.18***	0.10, 0.23	
Perfectionistic concerns	-0.16***	-0.20***	-0.22, -0.10	

Note: ** $p < 0.01$. *** $p < 0.001$.

5. DISCUSSION AND CONCLUSION

The majority of existing research on self-compassion and academic resilience among college students has primarily been conducted in Western contexts. The findings of the present study contribute to the literature by elucidating the factors associated with self-compassion and academic resilience specifically within the population of Taiwanese university students. Hierarchical regression analyses indicate that both social support and perceived competence are positively correlated with all three dimensions of self-compassion. Conversely, parental criticism and perfectionistic concerns demonstrate negative correlations with each dimension. Notably, perfectionistic strivings are identified as a significant predictor solely for the mindfulness component. In terms of academic resilience, the results indicate that self-compassion, perceived competence, and perfectionistic strivings serve as positive predictors, while parental criticism and perfectionistic concerns act as negative predictors. Collectively, these variables account for a considerable proportion of variance (61%) in academic resilience. Several key findings merit further discussion below.

5.1. Predictors of Self-Compassion

The findings of the current study reveal a negative correlation between parental criticism and all dimensions of self-compassion. Consistent with prior research, [Gilbert and Procter \(2006\)](#) and [Neff and McGehee \(2010\)](#) students' perceptions of parental criticism adversely affect their ability to exhibit self-kindness, recognize that imperfections are an inherent aspect of the human experience, and sustain a balanced perspective without exacerbating negative emotions in response to challenges and stressors. Conversely, students' perceptions of social support and their sense of personal competence are positively correlated with each aspect of self-compassion. As anticipated, these external and internal protective factors play a significant role in enhancing psychological well-being. The provision of emotional support from others, along with a belief in one's capacity to navigate academic difficulties, is likely to foster greater self-compassion.

Additionally, students' perfectionistic tendencies are associated with self-compassion. In line with the detrimental effects of parental criticism, perfectionistic concerns negatively influence all components of self-compassion. The anxiety associated with making mistakes, along with uncertainties regarding the quality of one's work, diminishes levels of self-kindness, common humanity, and mindfulness. In contrast, perfectionistic strivings exhibit positive effects on the mindfulness component. The motivation driven by perfectionistic strivings may empower students to confront challenging situations rather than evade them. As such, students are likely to maintain a constructive outlook while grappling with academic demands ([Stoeber, 2017](#)). These findings substantiate the majority of the hypotheses posited in the present study concerning the predictors of self-compassion.

5.2. Predictors of Academic Resilience

The current findings provide empirical support for the beneficial impact of self-compassion on students' academic resilience. While self-compassion has been viewed as a mechanism for fostering resilience ([Trompetter et al., 2017](#)), prior research has not thoroughly investigated the effects of its individual components. One of the strengths of the present study is its focus on the specific contributions of each component of self-compassion to academic resilience. The results indicate that self-kindness and mindfulness are positively correlated with academic resilience. The capacity to recognize and accept one's thoughts and emotions without engaging in self-criticism during periods of failure and challenge is essential for students' success in managing academic demands and pressures. Remarkably, these two components account for approximately one-third of the variance (31%) in academic resilience. According to the effect size criteria established by [Cohen \(1988\)](#), the influence of self-compassion on students' academic resilience

is significant. Evidently, self-kindness and mindfulness are vital to university students' ability to recover from setbacks.

In addition to self-compassion, perceived competence emerges as a positive predictor of academic resilience. As an internal protective factor, perceived competence alone explains around one-quarter of the variance (24%) in academic resilience when considering all components of self-compassion. This suggests that students' confidence in their ability to tackle academic challenges is a significant predictor of their capacity to maintain adaptive academic functioning under great pressure. In contrast to the strong relationship between perceived competence and academic resilience, the external factor of social support does not exhibit a significant correlation with students' ability to effectively cope with academic adversity. Instead, internal factors, specifically self-compassion and perceived competence, account for more than half of the variance (55%) in academic resilience. This substantial explained variance highlights the critical role of these internal protective resources in enhancing students' resilience within the academic context.

Parental criticism and perfectionistic concerns are inversely associated with academic resilience. The current study substantiates the effects of these two factors on students' abilities to engage in self-care and effectively navigate academic challenges and setbacks. University students who encounter parental criticism, as well as those who engage in self-criticism due to perceived failures in meeting high standards established by their parents or themselves, demonstrate a reduced likelihood of utilizing adaptive strategies when faced with difficult challenges. Importantly, parental expectations do not show a significant correlation with academic resilience. In terms of parental influences on students' resilience capabilities, the expectation of strong academic performance appears to be considerably less detrimental than criticism regarding students' inability to meet parental expectations.

In contrast to the negative effects of parental criticism and perfectionistic concerns, perfectionistic strivings are positively correlated with academic resilience. The differing impacts of perfectionistic strivings and perfectionistic concerns on academic resilience support the two-factor model of perfectionism proposed by [Stoeber \(2017\)](#). The ambition to set high standards and pursue perfection may inspire students to achieve academic success with steadfast determination and exceptional perseverance. Conversely, concerns about making mistakes and the fear of failure can significantly hinder students' proactive engagement in problem-solving strategies when faced with academic setbacks. These dimensions of perfectionism represent fundamentally distinct motivational orientations that can either enhance or detract from academic resilience. The present research empirically confirms most of the hypothesized relationships related to academic resilience. The significant predictors collectively account for over 60% of the variance in academic resilience within the comprehensive model. Beyond the components of self-compassion, the remaining factors contribute an additional 30% to the explained variance in academic resilience, underscoring the complicated nature of this construct.

5.3. Implications for Practice

The findings of the present study highlight the substantial positive effects of self-kindness and mindfulness on academic resilience. Therefore, intervention strategies should prioritize the enhancement of students' self-compassion capabilities. Specifically, these interventions ought to cultivate students' abilities to offer themselves intrinsic warmth and unconditional self-acceptance in the face of academic challenges, while also maintaining a balanced and non-judgmental awareness of their experiences. Perceived competence is identified as a crucial factor affecting academic resilience. Intervention strategies should systematically address students' essential need for competence through targeted academic support. Drawing on the work of [Jang, Reeve, and Deci \(2010\)](#) this can be implemented by providing explicit instructions, structured procedures, clear guidelines, and constructive feedback during academic

activities. Such support mechanisms not only facilitate the achievement of academic goals but also progressively enhance students' intrinsic sense of academic efficacy and competence.

The detrimental impacts of parental criticism and students' perfectionistic tendencies on self-compassion and academic resilience warrant consideration, too. It is important to recognize that parental criticism may serve as a developmental precursor to perfectionistic concerns (Frost et al., 1990). Therefore, parental guidance strategies should focus on supportive and constructive approaches. When students do not meet established academic or familial expectations, parental responses characterized by empathetic support, rather than punitive criticism, represent a fundamental aspect of effective developmental scaffolding. The anticipated outcome of such supportive parental involvement is the promotion of greater self-compassion, which in turn contributes to enhanced academic resilience.

5.4. Limitations and Future Research

The present study incorporates several methodological considerations that merit further exploration in future research initiatives. Firstly, while social support from family and peer networks does not exhibit a direct correlation with academic resilience, it shows significant positive associations with each component of self-compassion. Given the strong relationship identified between self-compassion and academic resilience in this investigation, there arises a hypothesis regarding a potential full mediation effect. Specifically, self-compassion may function as a comprehensive mediating mechanism through which social support impacts academic resilience. Future research should empirically test this proposed path model utilizing structural equation modeling techniques. Such an inquiry would not only substantiate the current speculative framework but also yield nuanced insights into the complex mechanisms that underpin academic resilience.

Secondly, the explanatory model presented in this study accounts for approximately 60% of the variance in academic resilience, leaving around 40% of the variance unexplained by the current variables. This substantial unexplained variance underscores the need for thorough exploratory research. Future studies should systematically identify and assess additional potential predictors that may contribute to academic resilience. Such expansive investigations have the potential to significantly enhance our understanding of the determinants of academic resilience, ultimately informing more targeted and effective intervention strategies aimed at nurturing university students' abilities to navigate and overcome academic challenges.

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