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Exploring The Role of Perfectionism in School Success: A Structural Equation Modeling Approach

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Abstract

Backgrounds: Perfectionism is a multifaceted personality disposition characterized by striving for perfection, pursuing exceedingly high standards, and making highly critical self-evaluations. This disposition can impact mental and behavioral health and influence learning behavior in students.

Perfectionism can foster a mastery orientation, where students commit to challenges and maintain confidence despite failures, or lead to learned helplessness, where students give up in the face of failure, attributing it to a lack of ability. Perfectionistic pressures from the environment, such as those perceived from teachers, may influence students' personal perfectionism and learning behavior, and, in turn, their academic achievement.

Methods: A structural equation modelling approach with latent variables was used to investigate the sequential mediating role of personal perfectionism (standard, order, and discrepancy) and learned helplessness/mastery orientation in the relationship between students' perceptions of teacher perfectionism and their school achievements. We hypothesize that a mismatch between teachers' expectations or evaluations and students' actual performance (Teacher Discrepancy) may lead to students experiencing a gap between their self-perception and their actual abilities (Personal Discrepancy). This misalignment could result in feelings of helplessness and reduced achievement. On the other hand, if students perceive their teachers as having high standards and maintaining good order (adaptive perfectionism), this could encourage students to develop similar high standards and organizational skills (adaptive perfectionism), fostering a mastery-oriented mindset and ultimately enhancing their achievement. The study included 505 Italian high school students (M_{age}=16; *SD* =1.35). The instruments used were the Teacher Almost Perfect Scale, the Italian version of the Almost Perfect Scale-Revised, and the Learned Helplessness Questionnaire.

Results: The SEM analysis revealed significant indirect effects. From Teacher Standards to school achievement via Personal Standards and mastery orientation ($\beta = .12$, $p \leq .01$); from Teacher Discrepancy to School Achievement via Personal Standards and mastery orientation ($\beta = -.04$, $p \leq .01$); from Teacher Discrepancy to School Achievement via Personal Discrepancy and mastery orientation ($\beta = -.04$, $p \leq .01$).

Conclusions: The findings highlight the roles of personal perfectionism (standards and discrepancy) and learning behaviors (learned helplessness/mastery orientation) in mediating the relationship between students' perceptions of their teachers' perfectionism and their academic achievement. This suggests that both the positive and negative dimensions of perceived teacher perfectionism can significantly impact students' learning outcomes, mediated through their own perfectionistic tendencies. This study extends knowledge of factors that can impact students' mental health, with important practical implications for prevent internalizing psychological disorders such as depression and anxiety.

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1. Introduction

Perfectionism is a personality construct that includes striving for perfection, setting extremely high standards, and being overly critical of oneself (Park et al., 2020; Stoeber et al., 2021). Research long suggested that perfectionism was exclusively associated with negative outcomes (Hollender, 1965); more recent research suggests that not all aspects of perfectionism may be maladaptive (Domocus et al., 2019; Stoeber & Otto, 2006). Positive or adaptive perfectionism refers to the tendency to set high personal standards and strive to achieve them (Slade & Owens, 1998), whereas negative or maladaptive perfectionism is associated with excessive worry about making mistakes, overall critical evaluation of oneself (Flett & Hewitt, 2002; Stoeber, 2017), and compromised individuals' functioning and well-being (Mathew et al., 2014; Parks et al., 2021). Indeed, Slaney et al. (2001) distinguished three dimensions of perfectionism: standards (striving for excellence), discrepancy (perceived gap between one's goals and current performance), and order (the need to be an orderly person).

1.1 Perfectionism and achievement

Perfectionism is intertwined with achievement. The relationship between perfectionism and achievement differs according to the dimensions of perfectionism. Students who maintain high personal standards show more positive indices of success, such as mastery goals and high self-efficacy (Endleman et al., 2022). Conversely, students who perceive a discrepancy between what they actually achieve and what they expect to achieve exhibit more negative indices of success (e.g., low self-efficacy, fear of failure, test anxiety, and low achievement) (Bong et al., 2014; Herman et al., 2013). Two recent meta-analytic review, one by Osenk et al. (2020), which included a systematic literature search yielding 67 studies (378 effect sizes), and another by Madigan (2019), which returned 37 studies (156 effect size), both highlighted the differential impact of various dimensions of perfectionism on academic performance. Specifically, the dimension focused on striving for excellence (Personal Standards) was positively associated with academic performance and beneficial academic outcomes. In contrast, Discrepancy was

negatively associated with positive academic outcomes. Therefore, in the school context, perfectionism in the form of pursuing high standards and being an orderly person is seen as a positive individual variable that may motivate students to study hard (Rice et al., 2016) and attribute their achievements to engagement, effort, and persistence after failure (Filippello et al., 2019). Conversely, a high perceived discrepancy between goals and actual achievement may lead to excessive self-criticism and a maladaptive motivational profile characterized by shame, guilt, low self-efficacy, and low commitment (Filippello et al., 2019). This discrepancy often undermines self-efficacy, or confidence in one's abilities, causing individuals to feel inadequate and affecting their performance. It can also evoke feelings of shame, due to a sense of inadequacy, and guilt, from failing to meet specific expectations. As self-efficacy and motivation decline, individuals may experience decreased commitment to their goals, resulting in a cycle of reduced effort and increased self-criticism (Kong et al., 2020). This type of perfectionism, as highlighted by the meta-analysis conducted by Lunn et al. (2023), is closely linked to several psychopathological issues. It often results in heightened anxiety and distress as students struggle with the pressure to meet their own or others' expectations. Perfectionism discrepancy is also strongly associated with depression, as the persistent sense of falling short foster feelings of hopelessness and worthlessness, with students become overly self-critical (Gómez-Tabares et al., 2024). Specifically, a discrepancy between desired and actual control can undermine self-efficacy, leading to feelings of inadequacy and increased depressive symptomology. This aligns with the notion that perfectionistic standards, when not met, can exacerbate psychological distress (Myles & Merlo, 2022). Academic burnout is another severe consequence, characterized by emotional exhaustion, cynicism towards academic tasks, and reduced effectiveness. Additionally, student with high levels of perfectionism discrepancy may engage in avoidance behaviors, such as procrastination and withdrawal from academic and social activities, to escape the discomfort of perceived failures (Buzzai et al., 2020a, 2020b; Buzzai et al., 2021; Curran & Hill, 2019).

1.2 Perfectionism and school environment

Another aspect of perfectionism relates to how it develops in students (Curran & Hill, 2019; Haraldsen et al., 2020). Researchers have conceptualized the development of perfectionism as a response to perfectionist pressures from the environment (especially family and school). These contribute to approval-seeking by students and reinforce a belief in pursuing (imposed) standards (Fernández et al., 2012; Melero et al., 2020). The pressure to be perfect can be exerted by those with the authority to assess students' learning, including teachers (Domocus & Damian, 2018). In particular, during adolescence, formal evaluation, grades, and comparisons are increasingly emphasized in the educational environment, resulting in students becoming more

sensitive to the performance expectations of others. Therefore, for students highly concerned with evaluating their performance against standards of perfection, teacher pressure to achieve perfection may contribute to perceptions of being unable to meet expectations and to feelings of disapproval and disappointment in themselves (Lozano et al., 2019). Furthermore, adolescents who are high achievers may believe that their academic success increases others' expectations and perceive increased external pressure to succeed, which, in turn, may increase their perfectionist concerns (Damian et al., 2017). These students are more likely to develop negative self-evaluations and feelings of failure if they do not meet the standards set for them. All of this has implications for learning contexts: poorer academic outcomes, higher levels of school burnout, and lower levels of engagement (Endleman et al., 2022; Stoeber et al., 2021) hat hinder well-being and academic success (Esposito et al., 2020; Mota et al., 2023). The literature has shown that both individual perfectionism and perceived perfectionist pressure from authority figures are correlated with negative feelings and behavior toward learning (Choi, 2020; Kljajic et al., 2017). For instance, studies (Herman et al., 2013) have found a relationship in perfectionistic students between failure and the development of learned helplessness (LH).

1.3 Perfectionism and Learning behavior

The Learned Helplessness Model was one of the earliest cognitive-behavioral models of depression proposed by Seligman (1975). LH is characterized by the attribution of failure to insufficient ability, rapid abandonment of tasks in the face of failure, negative expectations for future success, and a decline in confidence in one's abilities after repeated failure (Moorman & Pomerantz, 2008; Ziegert et al., 2001). The learned helplessness model offers valuable insights into how a perceived lack of control can undermine self-efficacy and contribute to psychological distress. Specifically, if an individual's personality predisposes them to perceive lower levels of control or to have a high desire for control that remains unmet, it can significantly diminish their self-efficacy—confidence in their own abilities. This reduction in self-efficacy can, in turn, lead to increased psychological distress, including depression (Myles et al., 2020). A "self-reinforcing cycle of failure" is triggered: students continually fail in their learning activities and internalize a history of failure that, in turn, maintains their negative self-perception (Schleider et al., 2014). These students may demonstrate, decreased appetite, hopelessness, and other clinical depressive symptoms (Reivich et al., 2013). Fang and Liu (2022) conducted a comprehensive review on perfectionism, defining it as the pursuit of high-performance standards coupled with a tendency for self-critical evaluation. Their review highlights that perfectionism is closely linked to individual mental health, with negative effects manifesting in psychological disorders and psychosomatic illnesses. Specifically, the review underscores that perfectionism is associated with various psychopathological phenomena, including anxiety and depression. Under these

conditions, students may perceive a discrepancy between their learning expectations and their actual abilities (Gotwals et al., 2012). Therefore, the relationship that is established between perfectionistic concerns (overly critical evaluations and worries about making mistakes) and perceived failures reinforces the maintenance of helplessness behaviors, where individuals experience a complete lack of control over their learning (Madigan, 2019; Sankaran, 2018). This is a relevant characteristic to consider in students, as their performances are continuously evaluated by teachers. Students who perceive that others have imposed unrealistic, or overly high (perfectionistic) expectations may also perceive a lack of control over their future performance and be more likely to develop LH due to a perceived discrepancy between an action and the outcome expected by these others (Domocus & Damian, 2018; Filippello et al., 2017). Enns et al. (2002) claim that harsh and critical environments are typically the growth environments for maladaptive perfectionists. This can lead to a dysfunctional belief that one is unworthy if one is unable to meet high expectations, which ultimately results in depression (Gómez & Grisales, 2023). In line with this, a maladaptive perfectionist may suffer from depression because they believe there is a significant disparity between their "actual self" (who they are) and their "ought self".

While studies indicate that there are relationships between LH and perfectionism, this need not mean that perfectionism is directly involved in helplessness behavior (Flett & Hewitt, 2002; Quchani, 2022). A student who is committed to achieving high standards, has confidence in their abilities, and has a perception of control over their learning is likely to achieve favorable academic results (Quchani, 2022). In fact, an opposite behavior to LH is mastery orientation (MO). MO refers to the tendency to accept challenges, attribute failure to controllable factors, maintain positive expectations for future success, and maintain confidence in one's abilities after failure (Filippello et al., 2017). MO students maintain their focus on the current work and hope for future success even when they fail, and they view failure as an opportunity for growth rather than a lack of ability (Hanchon, 2010; Sorrenti et al., 2015a). These students are intrinsically motivated even when faced with challenging tasks because they value effort (Dickhäuser et al., 2011; Yates, 2009). This approach to learning enables students to take pleasure in setting and meeting high standards for themselves (Foster, 2007) and to cope with excessive self-criticism (Mofield et al., 2016). Studies have confirmed a positive relationship between the adaptive pursuit of perfection and mastery-oriented learning goals (Eum & Rice, 2011; Stoeber & Rambow, 2007). Indeed, when individuals set high personal standards and simultaneously perceive themselves as capable of achieving their expected goals, they experience confidence in their ability to complete effectively and compete for results (Hanchon, 2010). However, despite the existence of studies on the relationship between adaptive perfectionism and MO, we are

unaware of research analyzing the relationship between MO and students' perceptions of teacher pressure to be perfect (at any grade level). Furthermore, few studies have examined the relationship between MO and personal perfectionism.

1.4 The present study

Several studies in both clinical and non-clinical samples (Madigan, 2019; Quchani, 2022; Sankaran, 2018) have shown that perfectionistic concerns, such as overly critical self-evaluations, fears of making mistakes, and perceived gaps between goals and performance, are linked to LH and helplessness thoughts pattern. Students with high perfectionistic concerns may focus more on avoiding failures than on learning, and those who perceive unrealistic expectations from others are more likely to exhibit LH behaviors (Madigan, 2019). Perceived teacher pressure to be perfect can reinforce students' tendencies to seek approval and adopt imposed standards, thereby contributing to negative feelings and behaviors towards learning (Choi, 2020; Filippello et al., 2017). In contrast, students who set high standards for themselves and exhibit low self-criticism are more inclined to embrace challenges, view failure as a growth opportunity, and engage in mastery-oriented behaviors (Eum & Rice, 2011; Mofield et al., 2016).

However, there is a gap in the literature regarding the relationship between students' perceptions of teacher perfectionism, their personal perfectionism, LH/MO, and academic achievement, particularly using the tripartite model of perfectionism (standard, order, discrepancy) applied to teacher perceptions. Although many studies have been conducted on children's perceptions of parental perfectionism according to Slaney and colleagues' (2001) and Wang and colleagues' (2010) three dimensions of perfectionism (standard, order, and discrepancy), no study to date has investigated student perceptions of teacher perfectionism according to this tripartite model. Therefore, the present study (in accordance with their studies of student-perceived parental perfectionism) applied the model to student-perceived teacher perfectionism.

Wang (2010) developed a tool to measure perfectionism perceived from one's family. It includes three subscales parallel to the personal perfectionism construct: Family Standards (degree of perceived parental expectations regarding performance), Family Order (degree of preference for order and tidiness in one's family), and Family Discrepancy (the perceived gap between one's performance and family expectations). We adapted the Italian version of this instrument (Filippello et al., 2016) to students' perceptions of teacher perfectionism. This study was designed to evaluate a comprehensive model that explains the relationships between Student Perceptions of Teacher Perfectionism (Teacher Standards, Teacher Order, and Teacher Discrepancy), Personal Perfectionism (Standards, Order, and Discrepancy), LH/MO, and School Achievement. In particular, we wanted to explore whether Personal Perfectionism

(Standards, Order, and Discrepancy) and LH/MO sequentially mediated the association between Student Perceptions of Teacher Perfectionism (Teacher Standards, Teacher Order, and Teacher Discrepancy) and School Achievement in a sample of adolescent students.

We expected Student Perceptions of Teacher Perfectionism to exhibit a direct relationship with one or more dimensions of Personal Perfectionism and, in turn with LH/MO, to decrease or promote achievement. We hypothesized that a student's perception of their teachers' maladaptive perfectionism (Teacher Discrepancy) can promote student maladaptive personal perfectionism (Personal Discrepancy), thus promoting helplessness learning behavior, which would decrease achievement. In contrast, we expected that perceptions of teacher adaptive perfectionism (both Teacher Standards and Teacher Order) would promote personal adaptive perfectionism (Personal Standards and Personal Order, respectively) and thus promote mastery-oriented behavior, which would promote achievement.

2. Method

This study employs a Structural Equation Modeling (SEM) approach, which is recognized for its complexity and often exploratory nature. As a result, the study was not pre-registered. However, to ensure transparency and replicability, all analytical decisions, have been thoroughly documented.

2.1 Participants

A total of 505 high school students between 12 and 20 years of age (M_{age} = 16; years; *SD* =1.35) participated in this cross-sectional study. To ensure the adequacy of our sample size for detecting meaningful effects and accurately estimating the model structure, we conducted a power analysis (Soper, 2024). The power analysis was based on an anticipated effect size of 0.05, indicative of a small effect, and a desired statistical power level of 0.80, which is typically considered sufficient for detecting effects in behavioral research. Our model included 9 latent variables and 25 observed variables, with a significance level set at 0.05. The results of the power analysis indicated that a minimum sample size of 184 participants would be necessary to detect the small effect size with adequate power. Additionally, a sample size of 236 participants was recommended to ensure reliable estimation of the model structure.

Given that our study included 505 participants, we exceed both the minimum sample size required for detecting effects and the recommended sample size for robust model estimation. This larger sample size provides confidence in the reliability and validity of our findings, ensuring that our analyses are both robust and generalizable. The sample was composed of 218 male (43.2%) and 287 female (56.8%) students, with representation from various school levels: 54 students (10.7%) were in the first year, 68 (13.5%) in the second year, 151 (29.9%) in the

third year, 145 (28.7%) in the fourth year, and 87 (17.2%) in the fifth year. The sample selection was conducted through a convenience sampling method. High schools were chosen based on their willingness to participate and their ability to provide a diverse student population. The data collection took place, from February 12, 2023, to May 20, 2023. All participants were recruited via online surveys, ensuring that the process was accessible and convenient. This approach also facilitated high participation rates, as the study achieved a 100% completion rate among those who provided signed consent. No students withdrew from the study, as the online format eliminated barriers that could otherwise lead to attrition. Inclusion criteria for the study required participants to be enrolled in high school and to provide informed consent. Students with intellectual disabilities or special educational needs were excluded to ensure a homogeneous sample with regard to academic capabilities. Of the students, 99% had Italian nationality, and all spoke Italian. Regarding socioeconomic status (SES; Sirin, 2005), 28% of the students reported a low SES (one or both parents held a lower secondary education diploma), 45.5% were of medium SES (one or both parents held a high school diploma), and 26.5% were of high SES (one or both parents held a university degree).

2.2 Instruments

A demographic questionnaire collected the participants' basic demographic information, including age, gender, nationality, grade level, and SES. School achievement was assessed on the basis of the average grade obtained in all subjects during the current school year. In Italy, school achievement is understood as a numerical grade resulting from the calculation of an arithmetic average of all subjects; it ranges from 0 to 10. An average of less than 6 is considered insufficient, 6 is sufficient, 7 is fair, 8 is good, 9 is distinguished, and 10 is excellent. The school average was 7.72.

To measure Student Perceptions of Teacher Perfectionism, we used the Teacher Almost Perfect Scale (TAPS), which is an adaptation of the Italian version of the Family Almost Perfect Scale (FAPS; Filippello et al., 2019). The TAPS is a 17-item measure with three subscales: Teacher Standards (6 items; e.g., My teachers have high expectations of me), Teacher Discrepancy (7 items; e.g., I rarely live up to my teachers' high standards), and Teacher Order (4 items; e.g., My teachers expect me to be an orderly person). Each item is rated on a 7-point Likert-like scale from "strongly disagree" to "strongly agree." We evaluated the internal consistency of the subscales using both Cronbach's Alpha (α) and McDonald's Omega (ω). The internal consistency for the three subscales was as follows: Teacher Standards (α= .84, ω=.84) indicating excellent reliability; Teacher Order (α=.74, ω=.76) indicating acceptable reliability; Teacher Discrepancy (α=.86, ω=.86) demonstrating excellent reliability. These coefficients suggest that the TAPS subscales provide a reliable measure of students' perceptions of teacher

perfectionism. The measure was designed based on the FAPS by adapting it to teachers. All the researchers wrote the measure individually. The team then discussed the discrepancies between the different versions before finalizing on a definitive version. The teacher version proved to be similar in content to the Italian version of the FAPS. The similarity of the TAPS teacher version to the Italian FAPS version further supports its content validity. To assess the construct validity of the TAPS, we adapted the FAPS to the context of teachers and performed Confirmatory Factor Analysis (CFA). Confirmatory factor analysis (CFA), conduct with Rstudio (RStudio Team, 2015), showed that the fit was good; the indicators were as follows: $\chi^2_{(17)} = 91.062$, $p < .001$, $\chi^2/df = 1.530$, R-CFI = .96, R-RMSEA = .08 (90% CI = .06 –.11). In this study, for the measured variables we had three latent variables representing Teacher Standards, Teacher Order, and Teacher Discrepancy. Overall, the internal consistency, construct validity, and content validity analyses confirm the robustness of the TAPS as a reliable and valid tool for assessing students' perceptions of teacher perfectionism.

The Italian version of the Almost Perfect Scale-Revised (APS-R; Filippello et al., 2016) was used to measure personal perfectionism. The APS-R is a 20-item measures with three subscales: Standards (6 items, e.g., I set very high standards for myself), Order (4 items, e.g., I am an orderly person), and Discrepancy (10 items, e.g., I often feel frustrated because I can't meet my goals). Each item is rated on a 7-point Likert-like scale from "strongly disagree" to "strongly agree". The 20-item Italian version has demonstrated good internal consistency and validity in undergraduate students. We evaluated the internal consistency of the subscales using both Cronbach's Alpha (α) and McDonald's Omega (ω). The internal consistency for the three subscales was as follows: Personal Standards (α= .82, ω= .83) indicating strong reliability; Personal Order (α=.84, ω= .85) reflecting very good reliability; and Personal Discrepancy (α=.90, ω= .90) demonstrating excellent internal consistency. These coefficients suggest that the APS-R subscales are reliable measures of the different dimensions of personal perfectionism, providing a robust assessment of students' perfectionistic tendencies.

LH and MO were measured using the Learned Helplessness Questionnaire (LHQ; Sorrenti et al., 2015b). It is a comprehensive 24-item instrument designed to assess two distinct but related dimensions of students' learning behavior. LH subscale consists of 12 items that capture tendencies related to feelings of discouragement and a lack of persistence when faced with obstacles. Examples of items include, "When you encounter an obstacle in school work, you get discouraged and stop trying" and "You are easily frustrated." The other 12 items on the LHQ assess mastery orientation, which reflects a positive and resilient approach to learning. Items such as "You express enthusiasm about your work" are designed to gauge students' engagement and motivation when confronting academic tasks. This subscale measures students'

tendency to approach challenges with enthusiasm and a growth mindset. Participants respond to each item using a 5-point Likert scale, where responses range from "not true" to "absolutely true". This scale allows for a nuanced capture of the degree to which each statement reflects the participant's experiences and attitudes. The reliability and validity of the Learned Helplessness Questionnaire (LHQ) were confirmed in our study. Specifically, the internal consistency reliability values for our sample were as follows: MO (α=.80, ω= .82) indicating good reliability, and LH (α=.82, ω= .79) reflecting good reliability. These results demonstrate that the LHQ effectively measures the constructs of mastery orientation and learned helplessness with consistent internal reliability in our study sample.

To ensure the robustness of our measures, we conducted Confirmatory Factor Analysis (CFA) for the Teacher Almost Perfect Scale (TAPS), which confirmed the model's validity with favorable fit indices. We assessed internal consistency of the subscales using Cronbach's Alpha (α) and McDonald's Omega (ω), demonstrating overall acceptable reliability. Additionally, the APS-R and the LHQ, well-established tools in Italy, showed strong psychometric properties. These analyses collectively affirm the robustness and validity of the measures used in our study.

2.3 Procedure

This study was performed following the recommendations of the *Ethical Code* of the *Italian Association of Psychology* (AIP) and all subjects were given written informed consent following the Declaration of Helsinki (2013). The protocol was approved by the Ethics Committee of the Centre for Research and Psychological Intervention (CERIP) of the University of Messina (protocol number: 30465).

For this study, informed consent was obtained in a two-step process. First, a letter detailing the purpose and procedures of the study, along with the informed consent form, was sent to the parents or legal guardians of all participating students. This initial consent was crucial for enrolling minor participants in the study. Parents or legal guardians of minor students were required to provide written informed consent. This consent form explained the nature of the study, including its aims, procedures, and any potential risks or benefits. Only students whose parents provided this consent were eligible to participate. Additionally, students themselves were given the option to assent to participate. They were informed that they could refuse to take part in the study even if their parents had consented. Students who were 18 years or older provided their own written informed consent. These participants signed the consent form directly, acknowledging their understanding of the study's aims and their voluntary participation.

Once consent was obtained, participants completed the questionnaires during a single session in their classrooms. The administration of the questionnaires was conducted through Google

Forms, an online platform that facilitated secure and efficient data collection. The session was scheduled during regular school hours and lasted between 20 to 30 minutes. During this time, students were assured that their responses would remain confidential and anonymous, with measures in place to protect their privacy. Each participant was individually informed about the procedure and given an opportunity to ask questions before beginning the questionnaire. This thorough consent process ensured that all participants, whether minors or adults, were fully informed and voluntarily agreed to participate in the study.

2.4 Data Analysis

Jamovi software (The Jamovi, 2022) was used to calculate descriptive statistics and Cronbach's alpha. To carry out structural equation modelling (SEM) of the latent variables, RStudio (RStudio Team, 2020) with the lavaan package (Rosseel, 2012) was used. The SEM approach reduces the probability of type-I errors and has been demonstrated to be superior to traditional univariate and multivariate approaches (Iacobucci et al., 2007; Kline, 2015). Moreover, this approach provides the opportunity to specify latent variables rather than measured variables because measured variables are assumed to be measured without error (Coffman & MacCallum, 2005). SEM with latent variables treats constructs measured using the questionnaire as the latent variables, and multiple indicators are required for all the constructs evaluated. Each latent construct's parcel consisted of the aggregated mean on a common scale of group items from the questionnaire items to which participant responded. Parcel (group) of item for all constructs examined in this research were used as indicators. The parcelling procedure improves the communality across indicators, reduce random error, increase modelling efficiency, and yields normalized distributions rather than individual items and of total scale scores (Coffman & MacCallum, 2005; Little et al., 2002; Matsunaga, 2008). A parcel is an aggregate-level indicator comprising the sum or average of two or more responses or items (Little et al., 2002). The parcelling procedure has psychometric merits relative to the items (Bagozzi & Heatherton, 1994; Hau & Marsh, 2004; Kishton & Widaman, 1994; MacCallum et al., 1999). In accordance with previous studies, we created each parceling combining the items with the highest and lowest item-total correlations, reflecting a strategy of equalizing the influence of the factor across item parcels (Hall et al., 1999). Indexes of model fit are usually more acceptable when parcels are modeled rather than items because of the psychometric and estimation advantages of parcels. Therefore, in the parceling procedure, item indicators serve as tools that allow one to build a measurement model for a clear latent construct (Little et al., 2002). To evaluate the indirect effect of X on Y through M1 and M2, one tests a sequential mediation chain in which two or more mediators are sequentially measured (Tofighi & Kelley, 2020). We aimed to understand how personal perfectionism and LH/MO mediate the relationship between students'

perceptions of teacher perfectionism and their academic achievements. Our primary independent variable is students' perceptions of teacher perfectionism. This variable represents how students view their teachers' perfectionistic behaviors and expectations. We hypothesized that these perceptions would influence students' academic outcomes. The dependent variable in our study is school achievement, which reflects students' academic performance. We sought to determine how this outcome is affected by the perceived perfectionism of teachers, through the mediating effects of personal perfectionism and LH/MO. In this study, we used confidence intervals of the direct and indirect effects with 5,000 bootstrap replication samples. In accordance with Preacher and Hayes (2008) Shrout and Bolger (2002), and Wu and Jia (2013) a 95% bias-corrected confidence interval (CI) was applied. Several indexes of fit were examined: the Chi-square ($\chi 2$) value; $\chi 2/df$, the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) with its 90 % confidence interval (CI) (for a description of these indices, see Hair et al. 1998). The cutoff for a good model fit was CFI values are > 0.90 and the RMSEA are < 0.08 (Kline, 2015). Gender and age were also included in the model as control variables.

3. Results

3.1. Descriptive statistics and reliability

Table 1 presents the descriptive statistics and internal reliability estimates for all measures used in the study. The measures include perceptions of Teacher and Personal perfectionism, LH, MO, and school achievements. The table provides the mean (M), standard deviation (DS), skewness, kurtosis, and Cronbach's alpha (α) for each measure.

Table 1. Descriptive Statistics and reliability

	M	DS	Skews	Kurtosis	Cronbach
Teacher Standards	5,03	1,16	-.98	1.32	α=.84
Teachers Order	5,05	1,19	-.85	.74	α=.74
Teachers Discrepancy	3,50	1,31	.23	-.49	α=.86
Personal Standards	5,19	1,94	-.83	.81	α=.82
Personal Order	4,97	1,41	-.50	-.29	α=.84
Personal Discrepancy	3,99	1,35	.08	-.40	α=.90
Learned Helplessness	2,79	,97	.23	-.61	α=.82
Mastery Orientation	3,78	,70	-.77	.75	α=.80
School Achievements	7,72	,98	-.90	1.98	-

Note. N=505.

For Teacher Standards, the mean score was 5.03 (DS= 1.16). The distribution of the responses was slightly skewed to the left (Skews= -.98), and the distribution had a moderate peal (kurtosis= 1.32). The measure showed good internal consistency (α=.84). Teacher Order had a mean score of 5.05 (DS= 1.19). The responses were somewhat skewed to the left (Skews= -.85), and the distribution was close to normal (kurtosis= .74). The reliability of this measure was acceptable (α=.74). For Teacher Discrepancy, the mean score was 3.50 (DS= 1.31). The distribution was nearly symmetrical, with a skewness of .23, and slightly flatter than normal, as shown by a kurtosis of -.49. This measure demonstrated excellent internal reliability (α=.86). Regarding Personal Standards, the mean score was 5.19 (DS= 1.94). The responses were left-skewed (Skews = -.83), and the distribution had a moderate peak (kurtosis= .81). This measure had high internal reliability (α=.82). Personal Order had a mean of 4.97 (DS= 1.41). The distribution was slightly skewed to the left (skews = -.50) and slightly flatter than normal (kurtosis =-.29). The Cronbach's alpha of .84 demonstrates strong internal reliability. For Personal Discrepancy, the mean score was 3.99 (DS= 1.35). The distribution was nearly symmetrical (skews= .08), and slightly flatter than normal (kurtosis= -.40). This measure showed excellent reliability (α=.90). Learned Helplessness had a mean score of 2.79 (DS= .97). The distribution of responses was nearly normal (skews = .23; kurtosis= -.61). It had a strong internal consistency (α=.82). Mastery Orientation had a mean score of 3.78 (DS= .70). The responses were slightly skewed to the left (skews =-.77), and the distribution had a moderate peak (kurtosis =.75). This measure showed good internal reliability (α=.80). Finally, for School Achievements, the mean score was 7.72 (DS=.98). This measure was a single-item assessment, it did not have a reported Cronbach's alpha.

The table demonstrates that all measures exhibited acceptable to excellent internal reliability, indicating that the instruments used in the study were reliable for assessing the various constructs. The descriptive statistics provide insight into the distribution and variability of responses for each measure.

4.2 Mediation

Structural Equation Modeling (SEM) was employed with latent variables to investigate the sequential mediating role of Personal Perfectionism (Standards, Discrepancy and Orders) and LH/MO on the relationship between student's perception of their teacher perfectionism (Teachers Standards, Teachers Order and Teachers Discrepancy) and school achievement.

The SEM analysis demonstrated a very good fit for the model, with fit indices indicating strong model performance: $\chi^2_{(249)}$ = 630.426, p=.000, CFI = .95, SRMR = .04, RMSEA (90%CI) = .05(.050, 0.060). These indices suggest that the model accurately represents the data, and the

internal consistency of the latent variables was confirmed, with factor loadings ranging from .71 to .90.

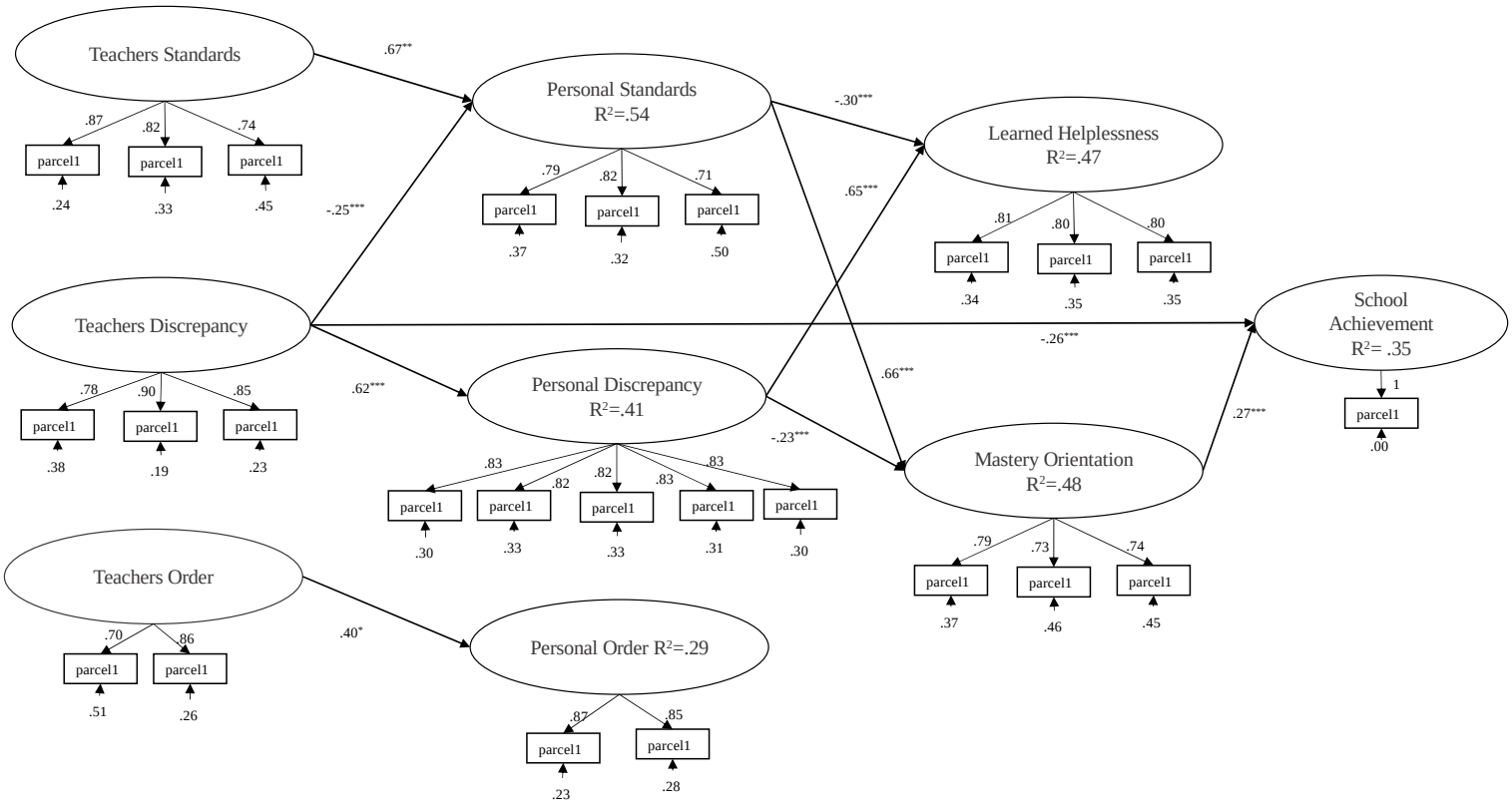

Figure 1. ***p ≤.001, **p ≤ .01, *p ≤.05. Coefficients shown are standardized direct path coefficients. The insignificant paths have not been inserted. Coefficients' Correlation: Teachers Standards <--> Teachers Order: .85***; Teachers Discrepancy <--> Teachers Order: .15*; Personal Standards <--> Personal Order: .60***; Personal Discrepancy<--> Personal Order: .26***. Structural model including a latent variable with a single item (the error variance of this item is set to zero).

The SEM results revealed several significant direct effects (Figure 1). Results showed that Personal Standards were positively predicted by Teachers Standards (β = .67, p <.01), indicating that higher perfections of teacher standards lead to higher personal standards in students. Conversely, Teacher Discrepancy negatively predicted Personal Standards (β = -.25, p <.001), suggesting that higher perceptions of discrepancies between teacher expectations and actual performance were associated with lower personal standards. Personal Order was positively predicted by Teachers Order (β = .40, p <.05). This indicates that students who perceive their teachers as having high standards for order and organization tend to also have higher personal preferences for order. Personal Discrepancy was positively predicted by Teachers Discrepancy (β = .62, p <.001). This finding suggests that students who perceive a larger gap between teacher expectations and their own performance are more likely to experience high levels of personal discrepancy. LH was positively predicted by Personal Discrepancy (β = .65, p <.001), and

negatively predicted by Personal Standards (β = -.30, p <.001). This means that higher personal discrepancy is associated with greater feelings of helplessness, while higher personal standards are linked to lower levels of helplessness. MO was positively predicted by Personal Standards (β = .66, p <.001) and negatively predicted by Personal Discrepancy (β = -.23, p <.001). Students with higher personal standards are more likely to adopt a mastery-oriented approach, whereas those with higher personal discrepancy tend to have lower mastery orientation. School achievement was positively predicted by MO (β = .27, p <.001) and negatively predicted by Teachers Discrepancy (β = -.26, p <.001). This implies that students who are more mastery-oriented tend to achieve better academically, while higher perceptions of teacher discrepancy are associated with lower school achievement.

Table 2. Path estimates, SEs and 95% Cis

	β	***SE***	***Lower bound (BC) 95% CI***	***Upperbound (BC) 95% CI***	***p***
Direct Effect					
Teachers Standards → Personal Standards	.67	.25	.41	1.07	≤.01
Teachers Discrepancy → Personal Standards	-.25	.05	-.32	-.13	≤.001
Teachers Discrepancy → Personal Discrepancy	.62	.05	.55	.78	≤.001
Teachers Order → Personal Order	.40	.25	.17	1.08	≤.05
Personal Standards → Learned Helplessness	-.30	.06	-.35	-.10	≤.001
Personal Discrepancy → Learned Helplessness	.65	.03	.38	.52	≤.001
Personal Standards → Mastery Orientation	.66	.05	.32	.53	≤.001
Personal Discrepancy → Mastery Orientation	-.23	.02	-.18	-.07	≤.001
Mastery Orientation → School achievement	.27	.10	.17	.60	≤.001
Teachers Discrepancy → School achievement	-.26	.05	-.32	-.10	≤.001
Indirect effect via Personal Standard and Mastery Orientation					
Teachers Standards → School achievement	.12	.03	.04	.18	≤.01
Indirect Effect via Personal Standard and Mastery Orientation					
Teachers Discrepancy → School achievement	-.04	.01	-.06	-.01	≤.01
Indirect Effect via Personal Discrepancy and Mastery Orientation					
Teachers Discrepancy → School achievement	-.04	.01	-.05	-.01	≤.01
Total Effects					
Teachers Discrepancy → School achievement	-.38	.04	-.40	-.21	≤.001

The examination of indirect effects further clarified the pathways through which perceptions of teacher perfectionism is related with school achievement. Examination of the indirect effects of student's perception of their teacher perfectionism on school achievement of the students were examined (Table 2). The results showed the following significant indirect effects: Teacher Standards had a significant positive indirect effect on school achievement though Personal Standards and MO ($\beta = .12$, $p \leq .01$). This means that students who perceive high standards from their teachers tend to set higher personal standards, which in turn promote mastery orientation and better achievement. Teachers Discrepancy had a negative indirect effect on school achievement though Personal Standards and MO ($\beta = -.04$, $p \leq .01$), suggesting that high perceptions of teacher discrepancy lead to lower personal standards and mastery orientation, negatively affecting school achievement. Teachers Discrepancy also had a negative indirect effect on school achievement though Personal Discrepancy and MO ($\beta = -.04$, $p \leq .01$). High perceptions of teacher discrepancy increase personal discrepancy, which in turn reduces mastery orientation and negatively impacts school achievement.

4. Discussion

Despite previous studies (Bong et al., 2014; Filippello et al., 2019; Rice et al., 2016) having underlined how personal perfectionism, LH, and MO influence school achievement, no previous studies have identified how students' perceptions of teacher perfectionism contribute to their personal perfectionism, influencing LH/MO and thus achievement. Therefore, in accordance with the Slaney et al. (2001) and Wangs et al. (2010) model of perfectionism, the aim of this study was to determine whether there is preliminary support for the indirect relationship between student perceptions of teacher perfectionism (teacher standards, teacher order, and teacher discrepancy), as well as school achievement, through students' personal perfectionism (personal standards, personal order, and personal discrepancy) and LH/MO. We expected that student perceptions of teacher perfectionism would be related to one or more dimensions of students' personal perfectionism and thus indirectly related to LH/MO, reducing/increasing achievement. The results confirmed our hypotheses.

Our data from the structural equation model (SEM) with latent variables revealed a direct relationship between students' perceptions of their teachers' high perfectionist standards and the students' own pursuit of personal standards. Additionally, we found that when teachers are perceived as being highly order-oriented in the perfectionism, this tends to instill a similar drive for order in the student. These findings align with previous research suggesting that students often mirror the perfectionistic attitudes of significant adults in their lives. They do this either by adopting these perfectionistic beliefs and behaviors themselves or by trying to be 'perfect' in

the same way (Domocus et al., 2019; Speirs Neumeister, 2004; Speirs Neumeister et al., 2009). This process is reinforced by the authority and evaluative role that teachers occupy within the school environment, making their standards particularly influential. As highlighted by Hattie (2009), when students observe their teachers setting clear and high expectations, they tend to internalize these standards and adopt similar high standards in their own work. Moreover, research by Fletcher et al. (2012) indicates that the need for order and structure is a significant aspect of perfectionism. When teachers emphasize the importance of order and organization, they create an environment that values these traits. Consequently, students develop a similar drive for order, aiming to meet the expectations set by their teachers.

Moreover, our results indicate that students who perceive a gap between their performance and their teachers' expectations (Teacher Discrepancy) are more likely to perceive a discrepancy between their own expectations and accomplishments (Personal Discrepancy) and are less likely to pursue Personal Standards. This finding aligns with previous research by Domocus et al. (2019), which suggest that when individuals feel pressured to be perfect, personal perfectionism can develop as a way to gain approval. Since teachers hold positions of authority and are responsible for evaluating student performance, their expectations can create a significant pressure on students to strive for perfection. This pressure often leads to the development of perfectionistic tendencies, based on the belief that there is a notable gap between the students' performance and what is being demanded by their teachers (Domocus et al., 2019; Schuler, 2000).

Furthermore, our findings show that students who strive to achieve perfect grades or excel in their academic pursuits (Personal Standards) are less likely to develop LH and are more likely to adopt a MO. This supports the findings by Eum and Rice (2011), who noted that students with high personal standards often exhibit greater persistence, effort, and time management skill. This makes them less prone to experiencing learned helplessness, as they believe their efforts can lead to success and see failures as specific and changeable. According to (Enns & Cox, 2002), this belief helps them avoid the trap of LH and make them more mastery- oriented.

Moreover, our results highlight that students who perceive a discrepancy between their goals and their current performance (Personal Discrepancy) are more likely to develop LH and less likely to pursue MO. These findings corroborate Foster's (2007) work, which underscore the detrimental effects of worry, self-doubt, and failure on learning behavior. More recent studies by Klibert et al. (2014) and Dunkley et al. (2018) have shown that students with high personal discrepancy often engage in self-critical rumination, which exacerbates feelings of incompetence and helplessness. This rumination not only impedes their ability to adopt a mastery orientation but also perpetuates a cycle of negative emotional responses towards learning (LH). Our

findings reveal that Teacher Discrepancy negatively impacts academic achievement. Morris and Wang (2023) and Tannenbaum and Lauer (2022), highlight that students who perceive their teachers as having unrealistic expectations experience increased academic stress and disengagement. This discrepancy exacerbates feelings of inadequacy, undermines motivation and confidence, and ultimately leads to poorer academic results. Moreover, our findings reveal a positive relationship between MO and academic achievement. This aligns with research demonstrating that mastery-oriented students focus on learning and self-improvement, viewing challenges as opportunities for growth (Liu et al., 2020). This approach fosters persistence and resilience (Kong & You, 2021; Sardella et al., 2021) and leads to the adoption of more effective learning behaviors and strategies, ultimately resulting in better academic outcomes.

Three indirect relationships underlined these findings. Our results indicate that student who perceive their teachers as having high perfectionistic standards (Teacher Standards) are more likely to pursue Personal Standards, which in turn fosters MO and leads to better academic performance. Morris and Wang (2023) found that students who perceive their teachers as setting high standards are more inclined to set their own ambitious goals, which enhances their engagement and academic success. Additionally, Nguyen et al. (2022) and Lee and Kim (2021) have demonstrated that when students internalize high expectations from their teachers, they are more likely to develop a mastery-oriented approach. This approach, characterized by a focus on learning and self-improvement, positively affects their academic performance. Conversely, our results highlight that students who perceive a discrepancy between their performance and teacher expectations (Teacher Discrepancy) are less likely to pursue higher Personal Standards, thus reducing the probability of mastery-oriented behavior and better performance. At the same time, Teacher Discrepancy promotes in students the feeling of a gap between their performance and their standards (Personal Discrepancy), which leads to their being less motivated to engage in mastery-oriented behavior and thus results in worse performance. This result can be understood by considering that when students perceive their teachers as having unrealistic expectations and feel that their current performance does not meet these expectations, it can lead to increased academic stress and disengagement (Morris & Wang 2023). This stress diminishes students' self-efficacy and decreases their engagement in mastery-oriented behaviors. Students who feel inadequate are less likely to strive for improvement or persist through difficulties. Consequently, these negative feelings further discourage students from setting high personal standards or pursuing mastery-oriented goals, ultimately leading to poorer academic results (Nguyen et al., 2022). The results of our study support our hypotheses regarding the mediating role of personal perfectionism and learning behavior in the relationship between teacher perfectionism and academic outcomes. Specifically, we found that personal

perfectionism (in both its standards and discrepancy dimensions), and MO function as sequential mediators. This suggests that students who perceive their teachers as setting high standards of perfection are likely to adopt similar goals for themselves. Such perceptions can enhance their intrinsic enjoyment of learning, thereby improving their academic performance. Conversely, when students perceive teacher expectations as promoting discrepancies or inconsistencies, this can heighten their own perceived discrepancies and diminish their learning intrinsic motivation, potentially leading to poorer academic outcomes. However, these findings must be considered within the broader context of socio-economic background and family environment, which significantly influence how students experience and respond to perceived teacher expectations. Students from lower socio-economic backgrounds often face additional challenges that can exacerbate the stress associated with high perfectionistic standards. Limited access to educational resources, reduced parental support, and increased financial pressures can contribute to heightened stress and affect students' academic performance and perceptions of teacher expectations (Munir et al., 2023). These students might perceive teacher perfectionism as an additional burden, which can further increase their stress and decrease their intrinsic motivation. On the other hand, students from more affluent backgrounds may benefit from greater access to resources and support, which can help buffer the effects of perceived teacher perfectionism. These students are better positioned to meet high standards and may experience less stress related to academic expectations (Conger & Donnellan, 2007).

The family environment also plays a crucial role in shaping students' responses to perceived teacher perfectionism. Families that emphasize a growth mindset and provide consistent support can help students manage perfectionistic tendencies more effectively. A growth mindset, which values effort and learning over innate ability, can mitigate the negative effects of high perfectionistic standards and support adaptive coping strategies (Dweck, 2006). Conversely, families that emphasize high achievement and perfectionism may inadvertently heighten students' own perfectionistic tendencies, complicating their responses to teacher expectations. Such family pressures can exacerbate students' experiences of discrepancy and negatively impact their motivation and academic performance (Elliot & Thrash, 2002; Stoeber & Otto, 2006).

However, contrary to our hypothesis, our study found no significant relationship between order-based perfectionism (both Teacher and Personal) and LH, MO, or academic achievement. This aligns with previous research suggesting that while high standards and excellence in perfectionism often correlate with better academic performance and engagement (Cox et al., 2002; Fletcher et al., 2012), order-based perfectionism does not necessarily share these associations. Indeed, order-based perfectionism, which focuses on structure, neatness, and

organization, may not influence academic outcomes as strongly as standards-based perfectionism. Studies such as Kim et al. (2015) have shown that the need for order does not have a significant impact on learning behaviors or academic achievement. This suggests that while students with order-based perfectionism may prioritize organizational aspects, this does not directly affect their engagement or performance in academic tasks.

Our study highlights, contrary to our hypothesis, that dimension of order does not appear to have a direct or indirect role on academic outcomes. This result aligns with previous studies, which have suggested that although order is relevant in other aspects of perfectionism, it does not exert a significant mediating influence on the relationship between perfectionism and academic performance. In summary, our findings underscore the importance of differentiating between various dimensions of perfectionism when analyzing their implications for academic performance. The dimensions of standards and discrepancy are particularly significant for understanding how high expectations and perceived discrepancies affect student motivation and performance. Furthermore, external factors such as peer pressure and involvement in extracurricular activities significantly influence students' academic performance and perceptions of teacher perfectionism. Peer pressure can drive students to align their academic behaviors with those of their peers, potentially leading to increased stress or decreased motivation, depending on the norms of their peer group (Melero et al., 2020). If peers value high achievement, students might feel pressured to meet high standards, which can exacerbate the effects of perceived teacher perfectionism. Conversely, a lack of academic focus within peer groups can diminish students' motivation and engagement. Participation in extracurricular activities provides students with alternative sources of achievement and validation, which can buffer the negative effects of perceived teacher perfectionism (Fredricks & Eccles, 2006). These activities often enhance students' self-esteem and offer a sense of accomplishment outside the academic sphere, helping them manage academic stress more effectively. Additionally, involvement in extracurriculars can foster skills such as teamwork and resilience, which positively influence academic motivation and performance.

5. Strengths and Limitations

This study has several limitations that should be addressed in future studies. First, it was a cross-sectional study, therefore not allowing for causal associations. However, experimental or longitudinal research may attempt to explore the causal direction of the relationships. Another limitation is the use of self-reporting. Future studies can include other methods of data collection, such as direct observation. Moreover, in our study, it is important to acknowledge a significant limitation related to cultural bias, as 99% of participants were from the same

nationality. This lack of cultural diversity may impact the generalizability of our predictive model to other cultural contexts. Cultural differences can influence how variables are perceived and interacted with, potentially affecting the model's applicability in diverse settings. To address this limitation, future research should include participants from various cultural backgrounds to test the model's validity across different cultures. By expanding the participant pool and conducting cross-cultural comparisons, we can enhance the robustness and generalizability of our findings. This will contribute to a more comprehensive understanding of the model's effectiveness in diverse environments.

Despite these limitations, the present study makes an important contribution to the literature by extending knowledge of the factors that may influence LH and MO and by enriching the framework of Slaney and colleagues' (2001) model of perfectionism. Few studies have focused on student perceptions of teacher perfectionism; even fewer studies have examined the role of these perceptions on students' own perfectionism and, consequently, on learning behavior (LH and MO) and academic achievement. To our knowledge, this is the first study to examine the sequential mediating role of personal perfectionism and learning behavior (LH/MO) in the relationship between perceived teacher perfectionism and academic achievement in adolescence. It also represents the first effort to validate student perfectionism and perceived teacher perfectionism validated together in the same sequential mediation model. Therefore, compared to what is often observed in perfectionism and LH/MO research, the documentation of sequential mediation offers a more fine-grained understanding of mediational processes. Sequential mediation investigations are rarely used in education, despite their obvious advantages. Furthermore, this study is the first to assess perceived teacher perfectionism using the FAPS (Filippello et al., 2019), following the model of Wang (2010) and Slaney et al. (2001). Our findings extend knowledge of factors that may influence personal perfectionism in adolescent students. The findings have important implications, particularly from a preventative perspective regarding issues that may negatively impact students' current and future academic performance. It also highlights the potential to prevent the development and persistence of depressive symptoms and other psychopathologies. Implementing interventions that promote self-compassion, healthy coping mechanisms, and realistic goal-setting can mitigate the negative impacts of perfectionism, thereby improving students' mental health and academic outcomes. A practical implication is that teacher training should aim to increase teachers' support for students' high standards, encouraging students to pursue them, to engage in challenging tasks, to persist even in the face of imminent failure, and to inspire them to an adaptive form of perfectionism. Consistent with our findings, this could have implications for students' personal perfectionism, LH/MO, and academic achievement. Teachers' standards could therefore

promote students' personal standards, thereby encouraging a mastery-oriented response and, in turn, the achievement of better academic performance. The training offered to pupils should aim to increase their self-efficacy and promote a greater willingness to iteratively improve their skills and competences. Students should not be overly concerned when faced with failure. All this could promote a greater willingness to pursue mastery goals, with positive effects on school performance. In addition, future research should deepen investigation of the relationship between personal perfectionism and that induced by others by considering the main life contexts of adolescents from a systemic/ecological perspective (family, school, and parent group) and its repercussions on learning behavior, academic achievement and mental health. Understanding these dynamics can reveal how the social pressures from environments contribute to anxiety, depression, and other mental health issues, providing insights for developing targeted interventions to support adolescents' overall well-being, academic success and personal growth. Furthermore, o enriches our understanding of how perceived teacher perfectionism influences academic outcomes, future research should consider additional variables that could directly, indirectly, or as mediators affect these relationships. For instance, exploring socio-emotional factors such as stress and anxiety could reveal how these elements mediate the effects of perceived teacher perfectionism on academic performance. Investigating personality traits like resilience and self-esteem might also provide insights into how individual differences shape responses to teacher expectations. Additionally, considering family dynamics, such as parenting styles and parental expectations, could shed light on how family environment interacts with perceived teacher perfectionism.

Moreover, while existing research acknowledges the dual nature of perfectionism, there has been a predominant focus on its negative aspects, often characterizing it as pathological or abnormal. In contrast, there is a noticeable gap in research examining positive perfectionism (Fang & Liu, 2022). Future studies could explore how perfectionism, when viewed through a positive psychological lens, influences mental health outcomes and patterns of thoughts characterized by feelings of helplessness and hopelessness, which increase the risk of depression. This approach would offer a more balanced understanding of perfectionism's effects, potentially uncovering adaptive aspects and beneficial outcomes associated with high standards and achievement striving.

6. Conclusion

This study extends research on perceived parental perfectionism to perceived teacher perfectionism. It has identified an explanatory model of how student perceptions of teacher perfectionism (teacher standards, teacher order, and teacher discrepancy) are related to academic

achievement through the sequential mediating role of students' personal perfectionism (standards, order, and discrepancy) and LH/MO. Furthermore, consistent with previous studies (Filippello et al., 2019; Sankaran, 2018), direct relationships were observed between personal perfectionism (standards and order) and LH, in fact, feelings of defeat in the face of failure, greater concern about one's mistakes, and doubts about one's abilities prevail, all of which can undermine an individual's adaptive perfectionistic drives. In contrast, perfectionists who strive to achieve high standards are less likely to develop LH (Quchani, 2022). However, despite these findings, our study did not find data supporting a sequential mediating role of personal perfectionism and LH in the relationship between perceived teacher pressure to be perfect and academic achievement. This result could be explained considering that LH and perfectionism share common problems, but that does not necessarily mean that perfectionism is directly involved in helplessness behavior (Flett & Hewitt, 2002; Quchani, 2022). Therefore, the role of LH in the sequential relationship between perceptions of teacher perfectionism, personal perfectionism, and academic achievement should be further investigated in future. Furthermore, maladaptive perfectionism, both self-oriented and socially prescribed, is strongly linked to increased vulnerability to depression and various psychopathologies. Specifically, perfectionism is associated with feelings of failure, anger, anxiety, impaired emotional regulation, lack of self-compassion, and helplessness. These feeling are closely related to depression, suicidal ideation, and ultimately result in a poorer quality of life (Fang & Liu, 2022; Jauhari et al., 2022; Patterson et al., 2021). In conclusion, our study highlights the importance of understanding how perceptions of teacher perfectionism affect students' academic outcomes through personal perfectionism and learning behaviors. Future research should explore the intricate relationships between these variables and consider additional factors that may contribute to the observed effects. Such insights are essential for developing effective strategies to support students in managing perfectionistic tendencies and fostering adaptive learning behaviors.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the recommendations of the Ethical Code of the Italian Association of Psychology (AIP) and all subjects were given written informed consent in accordance with the Declaration of Helsinki (2013). The protocol was approved by the Ethics Committee of the Centre for Research and Psychological Intervention (CERIP) of the University of Messina (protocol number: 30465; March 26, 2019). This article does not contain any studies with animals performed by any of the authors.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Data Availability Statement

The dataset analyzed during the current study are available from the corresponding author on reasonable request.

Conflict of interest statement

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Author Contributions

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by CC and PF. The first draft of the manuscript was written by LS and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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