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The Role of Perfectionism on Academic Burnout in Medical Students: Testing the 2 x 2 Model of Perfectionism

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ABSTRACT

Academic burnout affects medical students, impacting their academic endeavors, mental health, and professional conduct. This cross-sectional research examined how different subtypes of perfectionism, as outlined in Gaudreau's and Thompson's 2 x 2 model of perfectionism—comprising pure perfectionistic strivings (PS), pure perfectionistic concerns (PC), mixed perfectionist, and non-perfectionist—contribute to academic burnout in this demographic ($n=264$). Employing robust factorial ANOVA with trimmed means and simple effect analysis using the bootstrap method with MBI-SS and brief versions of FMPS and HFMPs through online questionnaires, findings revealed significant variations in burnout levels among the subtypes. Specifically, pure PS medical students experienced the lowest burnout, while those with pure PC reported the highest, supporting the superiority of pure PS and the inferiority of pure PC. These underscore the need for medical education programs to address perfectionistic tendencies among students, targeting interventions that increase PS and reduce PC, thereby mitigating academic burnout.

Keywords: *academic burnout, medical students, perfectionism subtypes, the 2 x 2 model of perfectionism*

ABSTRAK

Academic burnout berdampak terhadap mahasiswa kedokteran, termasuk prestasi belajar, kesehatan mental, dan profesionalitas. Penelitian *cross-sectional* ini mengkaji bagaimana peran sub tipe perfeksionisme, sebagaimana diuraikan dalam model perfeksionisme 2 x 2 Gaudreau dan Thompson—yang terdiri dari *perfectionistic strivings* (PS) murni, *perfectionistic concerns* (PC) murni, perfeksionis gabungan, dan nonperfeksionis, terhadap *academic burnout* dalam demografi ini ($n=264$). Dengan menggunakan ANOVA faktorial *robust* dengan *trimmed means* dan *simple effect analysis* dengan metode *bootstrap* dengan MBI-SS dan versi singkat FMPS dan HFMPs melalui kuesioner secara daring, temuan penelitian menunjukkan variasi signifikan dalam tingkat *burnout* di antara sub tipe perfeksionisme. Secara khusus, mahasiswa kedokteran PS murni mengalami *burnout* terendah, sedangkan mahasiswa kedokteran PC murni mengalami *burnout* tertinggi, mendukung keunggulan PS murni dan kekurangan PC murni. Hasil penelitian ini menekankan pentingnya bagi program pendidikan kedokteran untuk memperhatikan kecenderungan perfeksionis di kalangan mahasiswa kedokteran, dengan menargetkan intervensi yang meningkatkan PS dan mengurangi PC, sehingga menekan *academic burnout*.

Kata kunci: *academic burnout, mahasiswa kedokteran, perfeksionisme model 2 x 2, sub tipe perfeksionisme*

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INTRODUCTION

Generally, college students face various challenges and problems when balancing their studies and personal lives. However, medical students are considered to experience worse than those in other majors (Morocos & Awan, 2022). Medical students are required to read and absorb many sources of literature and information, achieve high practice standards, and follow a tight schedule and materials, as well as have minimum time to rest due to the block form of lectures (Iorga et al., 2018; Wolf & Rosenstock, 2016; Xiu, 2022). In facing these challenges, medical students tend to set very high standards, leading to health problems and difficulty maintaining interpersonal relationships (Morocos & Awan, 2022). Consequently, medical students are more prone to academic burnout than students from other majors.

Frajerman et al. (2019) found that generally, the estimated prevalence of academic burnout in medical students is 44.2%, which means that medical majors are one of the majors with the highest prevalence of academic burnout compared to those in other majors (Rosales-Ricardo et al., 2021). In addition, research conducted by Khatami (2018) in Indonesia on 369 medical students in the first and final year of UIN Syarif Hidayatullah Jakarta and Putri et al. (2022) on 231 medical students in the first to third year of Mataram University support the findings on the high level of academic burnout in medical students. Some of the results of this study indicate that academic burnout is a common issue among medical students.

Academic burnout is a complex psychological syndrome defined by its three symptoms and dimensions—exhaustion, cynicism, and reduced efficacy (Lee & Lee, 2018; Schaufeli et al., 2002). Exhaustion is the feeling of tension due to heavy academic demands. Cynicism is the attitude of indifference, distancing from, and/or loss of interest in academics. Reduced efficacy is feelings of reduced competence and accomplishment in specific or overall academic activities.

Academic burnout has founded to have a wide range of negative impacts on medical students. Academically, it leads to adaptation difficulties in school due to psychological maladjustment (Lee & Lee, 2018), cognitive and academic performance problems, such as problem-solving and attention (May et al., 2015), lower academic engagement (Tuominen-Soini & Salmela-Aro, 2014), lower academic achievement (Madigan & Curran, 2020), and dropout intentions (Abreu Alves et al., 2022). In mental health, academic burnout leads to lower well-being and self-esteem (Tuominen-Soini & Salmela-Aro, 2014), increased risk of internalizing problems, such as depressive symptoms (Tang et al., 2021), and increased suicidal ideation, especially in medical students up to 3.5 times (Dyrbye et al., 2008; Seo et al., 2021). In addition, various studies (Dyrbye et al., 2010; Ebrahimi & Atazadeh, 2018) show that academic burnout is associated with poor professional behavior and ethics, affecting medical students' commitment to professionalism as doctors in the future. Finally, in the classroom as a community, academic burnout was found over time to spread across students, resulting in a burned-out classroom climate (burnout as a collective classroom experience), leading to a decrease in intrinsic classroom motivation and overall classroom academic engagement (Cho et al., 2023).

Understanding the causes of academic burnout is necessary to address its problem effectively. This psychological syndrome is closely related to the process of stress—academic burnout occurs as a result of the stress of an imbalance between the emotional and situational demands experienced by students, as well as the available resources (family support, social and economic conditions, resilience [Amelia,



2022; Lin & Yang, 2021]) to handle these demands over time (Jagodics & Szabó, 2022; Rice et al., 2015; Schaufeli et al., 2002). In other words, not only the severity of the challenges experienced but also the student's capabilities, including personality characteristics, in dealing with these demands play a role in the process of academic burnout. Various studies (Chang et al., 2020; Garratt-Reed et al., 2018) have shown that personality characteristics such as perfectionism are closely related to academic burnout.

Perfectionism is a personality trait that represents two characteristics of the global dimension of perfectionism altogether, i.e., perfectionistic strivings (PS)—characteristic of setting and striving to achieve high standards, and perfectionistic concerns (PC)—the tendency to evaluate oneself based on concerns about external negative evaluations (Stoeber, 2018). This concept refers to bidimensional perfectionism (Frost et al., 1990; Stoeber, 2018), based on perfectionism's link to various psychological effects and processes. In the development of the concept of perfectionism, Gaudreau and Thompson (2010) propose a 2 x 2 model of perfectionism (Figure 1), where the two global dimensions of perfectionism, considered jointly rather than separately, are more meaningful in assessing various psychological processes and impacts on individuals. PS and PC exist and interact within each individual, forming four subtypes of perfectionism: Pure PS (high PS-low PC), pure PC (low PS-high PC), mixed perfectionist (high PS-high PC), and non-perfectionist (low PS-low PC).

The 2 x 2 model of perfectionism proposes four hypotheses of the expected relationships of the four perfectionisms with various psychological processes and effects on individuals (Gaudreau & Thompson, 2010) (Figure 1). The first hypothesis is that pure PS is associated with better, worse, or equal effect (hypotheses 1_a, 1_b, and 1_c, respectively) compared to non-perfectionists. The multiple directions in the first hypothesis indicate the association of PS with different forms of impact. The second hypothesis is that pure PC is associated with a worse impact compared to non-perfectionists. The third and fourth hypotheses were that mixed perfectionism was associated with better impact than pure PC (hypothesis 3) but worse than pure PS (hypothesis 4).

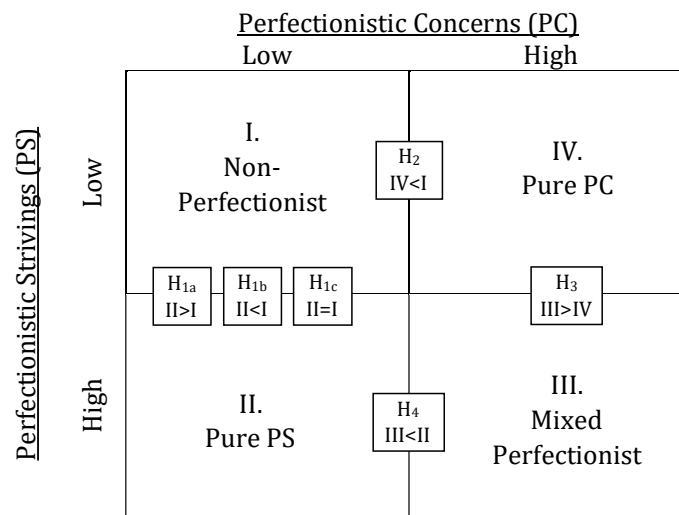


Figure 1. The 2 x 2 Model of Perfectionism (Gaudreau & Thompson, 2010)

Notes. H_{1a}=hypothesis 1_a, H_{1b}=hypothesis 1_b, H_{1c}=hypothesis 1_c, H₂=hypothesis 2, H₃=hypothesis 3, and H₄=hypothesis 4; ">" denotes better outcome, "<" denotes worse outcome, and "=" denotes equivalent outcome.

The role of the four perfectionism subtypes on academic burnout can be viewed from the two global dimensions of perfectionism. PS and PC levels indicate individual resources in dealing with various emotional and situational demands that lead to increased/decreased academic burnout. Pure PSs who are only high in the PS level tend to have better resources in dealing with various demands, such as the

use of active coping and the assessment of potential stressors as challenges rather than threats and losses (Bender et al., 2022; Park & Jeong, 2015; Stoeber & Rennert, 2008). The greater self-confidence, achievement motivation, and goal-directed behavior maintenance associated with PS support pure PSs in coping with multiple demands (Stoeber et al., 2007; Stoeber et al., 2018). A person with high PS tends to have appropriate self-regulation strategies, which strengthen positive self-evaluation (self-esteem) to reduce academic burnout (Luo et al., 2016).

On the other hand, pure PCs who are only high on PC levels tend to have poor resources in dealing with emotional and situational demands, characterized by a tendency to use avoidance coping, appraisal of potential stressors as threats and losses, demoralization, excessive attention to external expectations and criticism, self-doubt, and rigid self-evaluations (such as all-or-nothing thinking, overgeneralization of bad experiences, rumination on failures, high self-validation needs) (Bender et al., 2022; Flett et al., 2015; Stoeber & Rennert, 2008). Furthermore, high levels of PC are associated with external locus of control, where the pursuit of high standards is based on the need to be loved or accepted by others. The evaluation of self-performance is based on comparisons between self and others, making it seem as if others are in control of the self, leading to vulnerability to academic burnout (Chang et al., 2016; Kiral, 2015). Not only that, someone with low self-esteem tends to have a fear of failure (a form of PC) and negative self-ideas, so they are more likely to experience academic burnout (Luo et al., 2016).

In mixed perfectionists, PS and PC are both at high levels, bringing together good and bad coping resources that—in the long run can lead to academic burnout. This results in mixed perfectionists tending to experience academic burnout that is higher than pure PSs but lower than pure PCs. On the other hand, non-perfectionist individuals have equally low levels of PS and PC. Non-perfectionist individuals tend to experience higher academic burnout than pure PSs due to the absence of good coping resources but lower than pure PCs due to the absence of poor coping resources.

Based on the existing literature reviews, no previous research examined the four subtypes of perfectionism based on the 2 x 2 model of perfectionism on academic burnout in medical students. There have only been two past studies that examined this, but they focused on students in general. Kljajic et al. (2017) fully supported hypotheses 1_a, 2, 3, and 4 of the 2 x 2 model of perfectionism on academic burnout in general students, while Seong and Chang (2021) concluded that among the four perfectionism subtypes, pure PS is the most adaptive and pure PC is the most maladaptive to academic burnout in adolescent students, although only partially supporting the hypotheses of the 2 x 2 model of perfectionism. Furthermore, Gaudreau et al. (2018) and Hill and Curran (2016) suggested that replication of research and expansion of findings on the link between perfectionism subtypes and academic burnout are still needed. In addition, most of the risk factors for academic burnout discussed in various studies are school-related interpersonal variables (Walburg, 2014), while the internal risk factors of students are less comprehensively examined (Farina et al., 2020). Thus, further research on the 2 x 2 model of perfectionism on academic burnout is needed to enrich the existing findings.

Considering the above description of the phenomenon, this study is interested in looking at the differences in academic burnout based on perfectionism subtypes of the 2 x 2 model of perfectionism in medical students. We predicted that in medical students, pure PS has significantly lower academic burnout than non-perfectionists (hypothesis 1). In comparison, pure PC has significantly higher academic burnout (hypothesis 2), and mixed perfectionists have way higher academic burnout than pure PS (hypothesis 3) but lower than pure PC (hypothesis 4).

METHOD

Research Design

This study was designed with a quantitative approach (Gravetter & Forzano, 2018) and a cross-sectional research design (Setia, 2023). Exposure, outcomes, or variables data in this research were collected from participants at one time without any intervention to determine differences in academic burnout based on perfectionism subtypes in the 2 x 2 model of perfectionism.

Participants

The population of this study was active undergraduate medical students, Faculty of Medicine, Universitas Andalas, from the first to the fourth year ($N=839$). The sampling technique used was a proportional stratified random sampling technique where participants were randomly and proportionally drawn from each population stratum (Azwar, 2017). Using the Krejcie and Morgan (1970) formula with a confidence level of 95% and a margin of error of 0.05—a total of 264 participants were obtained. Table 1 shows details of the total population and samples in each stratum in this study. The age of the participants ranged from 17 to 23 years old ($M=19.96$, $SD=1.20$), with more female participants (64.39%; 170 people) than male participants (35.60%; 94 people). Data collection was conducted from May to June 2023.

Table 1. Population and Sample of Each Research Stratum

Strata	Total Population ($N=839$)	Total Sample ($N=264$)
First year	249	78
Second year	251	79
Third year	233	73
Fourth year	106	34

This study has been ethically approved by the Research Ethics Commission of the Faculty of Medicine, Universitas Andalas (Letter Number: 217/UN.16.2/KEP-FK/2023). This study was conducted online by contacting selected participants to fill out an online questionnaire consisting of 4 parts: informed consent, statement of agreement to participate, demographic data, and three measuring instruments.

Measurements

This study used three instruments, i.e. Maslach Burnout Inventory-Student Survey (MBI-SS) by Schaufeli et al. (2002) to measure academic burnout, and brief versions of Frost Multidimensional Perfectionistic Scale (FMPS) (Frost et al., 1990) and Hewitt and Flett Multidimensional Perfectionistic Scale (HFMP) (Hewitt & Flett, 1991) developed and validated by Cox et al. (2002) to measure perfectionism subtypes. Following the guidelines of Borsa et al. (2012), these three measurement tools were adapted into Indonesian with the following steps: 1) translation of the measuring instruments into Indonesian by a certified English-Indonesian translator and two undergraduate psychology graduates, 2) synthesis of the translation of the measuring instruments, 3) evaluation of the synthesis of the translation of the measuring instruments by one psychology scientist and one educational psychologist, 4) evaluation of the measuring instruments by the target population to 19 general students outside the study population, 5) back-translation by a certified English-Indonesian translator and a psychology graduate, and 6) pilot study to 155 general students outside the study population.

The MBI-SS measures the three dimensions of academic burnout in three subscales, namely exhaustion (5 items), cynicism (4 items), and reduced efficacy (6 items), with a 7-point Likert scale (0="never", 6="always"). Brenninkmeijer and VanYperen (2003) pointed out that a unidimensional approach to burnout makes it possible to obtain a whole concept of burnout as a psychological syndrome. Thus, in this study, academic burnout was measured entirely by producing a total academic burnout score. The

MBI-SS has a reliability coefficient alpha (α) of 0.94 with a corrected item-total correlation (r_{ix}) value of 0.54–0.84.

The brief version of the FMPS measures perfectionism with five subscales: concern over mistakes, personal standards, parental perceptions, doubts about actions, and organization, with a 5-point Likert scale (1="strongly disagree" to 5="strongly agree"), while the brief version of the HFMPs measures perfectionism with three subscales: self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism, with a 7-point Likert scale (1="strongly disagree" to 7="strongly agree"). Gaudreau and Thompson (2010) have used the brief version of the FMPS and the brief version of the HFMPs in measuring perfectionism subtypes. As outlined by Stoeber (2018), in this study, PS was measured by the personal standards subscale of the FMPS and the self-oriented perfectionism subscale of the HFMPs. In contrast, PC was measured by the concern over mistakes and doubts about the actions of the FMPS and the socially prescribed perfectionism subscale of the HFMPs. Thus, the brief version of the FMPS was used in measuring concern over mistakes ($\alpha=0.90$; $r_{ix}=0.54-0.83$), personal standards (5 items; $\alpha=0.84$; $r_{ix}=0.56-0.76$), and doubts about actions (3 items; $\alpha=0.63$; $r_{ix}=0.33-0.56$), while the brief version of HFMPs was used in measuring self-oriented perfectionism (5 items; $\alpha=0.80$; $r_{ix}=0.46-0.66$) and socially prescribed perfectionism (5 items; $\alpha=0.87$; $r_{ix}=0.61-0.78$). Exploratory factor analysis using principal axis extraction and oblique rotation (direct oblimin) indicated that the two-factor model explained 51% of the variance. Following Stoeber's explanation, personal standards ($\lambda=0.63$) and self-oriented perfectionism ($\lambda=0.64$) loaded on the PS factor, while concern over mistakes ($\lambda=0.75$), doubts about actions ($\lambda=0.63$), and socially prescribed perfectionism ($\lambda=0.66$) loaded on the PC factor. The correlation between PS and PC was found to be 0.30. Thus, the subscales merged into the PS ($\alpha=0.89$) and PC ($\alpha=0.93$) dimensions. Since the brief version of the FMPS and the brief version of the HFMPs were measured on Likert scales with different number of points, equalizing the number of Likert scale points of the brief version FMPS and HFMPs was done by converting the measurement results of the brief version of the FMPS, which has a 5-point Likert scale, to a 7-point Likert scale (Transforming Different Likert Scales to a Common Scale, 2020; Lewis & Sauro, 2020).

Data Analysis

The factorial ANOVA analysis technique (or can be called factorial design analysis) (Field, 2024; Gravetter & Wallnau, 2017) was used to determine the significance of the influence of PS and PC, each of which has two categories (low and high) on burnout, along with their interaction. If the interaction between PS and PC is significant, simple effect analysis (Field, 2024) can be conducted to determine the significance of academic burnout differences between each PS level and each PC level or between groups of combinations of categories between PS and PC (i.e. between subtypes of perfectionism: between non-perfectionist [low PC-Low PS] and pure PS [high PC-Low PS], non-perfectionist and pure PC [low PC-high PS], mixed perfectionist [high PC-high PS] and pure PS, and mixed perfectionist and pure PC). Normality test and homogeneity test were conducted to check the assumptions of this analysis technique, and it was found that the data were normally distributed based on the Kolmogorov-Smirnov test with Lilliefors correction ($D(264)=0.05$, $p=0.200$) and homogeneous based on Levene's test ($F(3, 260)=0.07$, $p=0.63$). However, the sample sizes between perfectionism subtypes as a result of the factorial ANOVA test were found to be unequal (Table 3). Thus, to obtain more robust results, a robust factorial ANOVA test with trimmed means of 20% (Field, 2024; Mair & Wilcox, 2020) was used, and the bias-corrected and accelerated (BC_a) bootstrap method with 95% confidence intervals using 5,000 bootstrap samples was conducted in the simple effect analysis (Efron & Tibshirani, 1998; Field, 2024). Data were analyzed using IBM SPSS Statistics 29 and RStudio 2023.12.1 build 402 with the WRS2 package.

RESULTS

Table 2 shows the descriptive results of the minimum, maximum, mean, and standard deviation of the two research variables. Academic burnout measured using the MBI-SS produces a total score with a range of 0–90. In this study, the mean score of academic burnout was 31.28 ($SD=11.94$), with a minimum score of 0 and a maximum score of 72. Perfectionism for the PS and PC dimensions measured using the FMPS and HFMPs resulted in a total score with a range of 10–70 for PS and 13–91 for PC. The mean score of PS is 50.32 ($SD=8.78$) and PC is 47.52 ($SD=11.60$), where PS has a minimum score of 18 and a maximum of 70, and PC has a minimum score of 23 and a maximum of 84.50.

Table 2. Descriptive Data of Research Variables

Variables	Min.	Max.	Mean	SD
Academic Burnout	0	72	31.28	11.94
Perfectionism				
Perfectionistic Strivings (PS)	18	70	50.32	8.78
Perfectionistic Concerns (PC)	23	84.50	47.52	11.60

Table 3 illustrates the percentage of academic burnout and perfectionism subtypes in participants. The academic burnout data is divided into three categories: low, moderate, and high. Almost half of the participants (49.62%) experienced moderate academic burnout. Then, perfectionism data was divided into two categories for each dimension: low and high. The categorization of both variables was obtained based on hypothetical statistics (Azwar, 2021). Following the description of perfectionism subtypes in the 2 x 2 model (Gaudreau & Thompson, 2010), the combination of PS and PC levels became the basis for determining perfectionism subtypes. Table 3 shows that most participants (60.98%) had a pure PS perfectionism subtype.

Table 3. Descriptive Data of Categorization of Research Variables

Categorization of Variables	Frequency (n=264)	Percentage
<i>Academic Burnout</i>		
Low	127	48.11%
Moderate	131	49.62%
High	6	2.27%
<i>Perfectionism</i>		
Pure PS (high PS-low PC)	161	60.98%
Pure PC (low PS-high PC)	16	6.06%
Mixed perfectionist (high PS-high PC)	64	24.24%
Non-perfectionist (low PS-low PC)	23	8.71%

A robust factorial ANOVA test with trimmed means of 20% was conducted to evaluate the significance of PS and PC, each of which has two categories (low and high) on academic burnout. The mean and standard deviation of academic burnout based on the four perfectionism subtypes are listed in Table 4. Results indicated the significance of PS ($F_t=46.74, p=0.001$) and PC ($F_t=48.16, p=0.001$), as well as the interaction between PS and PC ($F_t=4.51, p=0.042$) on academic burnout. Since the interaction of PS and PC was significant, simple effect analysis was conducted to see the significance of differences in academic burnout at both levels of PS with both levels of PC (between groups of combinations of PS and PC categories; between non-perfectionist and pure PS, non-perfectionist and pure PC, mixed perfectionist and pure PS, and mixed perfectionist and pure PC). The results of simple effect analysis with a bootstrap method with BC_a with 95% confidence intervals using 5,000 bootstrap samples in table 5 show that 1) Pure PS (high PS-low PC) is significantly higher than non-perfectionist (low PS-low PC) ($\bar{X}_{Difference(1-2)}=8.50 [4.60, 12.34], p<0.001$), 2) Pure PC (low PS-high PC) was significantly lower compared to non-perfectionist (low PS-low PC) ($\bar{X}_{Difference(1-2)}=-18.50 [-24.55, -12.83], p<0.001$), and 3,4) mixed

perfectionist (high PS-high PC) were significantly higher compared to pure PS ($\bar{X}_{Difference(1-2)}=9.17$ [6.26, 12.20], $p<0.001$) and significantly lower points compared to pure PC (low-PC high PS) ($\bar{X}_{Difference(1-2)} = -17.91$ [-23.47, -12.61], $p<0.001$). Thus, it can be concluded that the results support hypotheses 1, 2, 3, and 4 of the study.

Table 4. Descriptive Data of Factorial ANOVA Test of PS and PC on Academic Burnout

Perfectionism Subtype	M	SD
Pure PS (high PS-low PC)	26.67	9.36
Pure PC (low PS-high PC)	53.75	9.63
Mixed perfectionist (high PS-high PC)	35.84	10.70
Non-perfectionist (low PS-low PC)	35.17	8.71

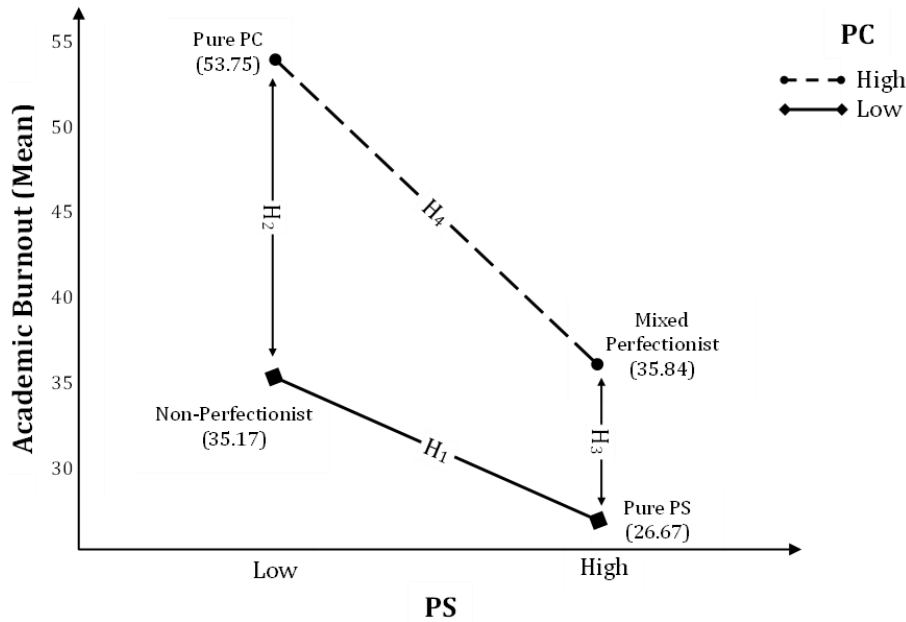


Figure 2. Interaction of PS and PC (Perfectionism Subtypes) on Academic Burnout
 Notes. H₁ = hypothesis 1; H₂ = hypothesis 2; H₃ = hypothesis 3; H₄ = hypothesis 4

Table 5. Results of Simple Effect Analysis of Perfectionism Subtype on Academic Burnout

Comparison		Mean Difference (1-2)	p	Bootstrap* BC _a 95% Confidence Interval	
Perfectionism Subtype (1)	Perfectionism Subtype (2)			Lower	Upper
Non-perfectionist (low PS-low PC)	- Pure PS (high PS-low PC)	8.50	<0.001	4.60	12.34
Non-perfectionist (low PS-low PC)	- Pure PC (low PS-high PC)	-18.58	<0.001	-24.55	-12.83
Mixed perfectionist (high PS-high PC)	- Pure PS (high PS-low PC)	9.17	<0.001	6.26	12.20
Mixed perfectionist (high PS-high PC)	- Pure PC (low PS-high PC)	-17.91	<0.001	-23.47	-12.61

Notes. Results obtained from 5,000 bootstrap samples



DISCUSSION

This study aims to examine whether the four subtypes of perfectionism in the 2 x 2 model of perfectionism produce significant differences in academic burnout in medical students. The results of this study showed that pure PS medical students experienced significantly lower academic burnout compared to non-perfectionist (hypothesis 1) and mixed perfectionist (hypothesis 3) medical students. Then, it was found that pure PC medical students experienced significantly higher academic burnout compared to non-perfectionist (hypothesis 2) and mixed perfectionist (hypothesis 4) medical students. These results support the superiority of pure PS and the shortcomings of pure PC in the context of academic burnout in medical students. These findings are important for understanding the complex relationship between perfectionism and academic burnout in medical students.

Hypothesis 1 of the study was proven when it was found that pure PS medical students (high PS-low PC) experienced significantly lower academic burnout compared to non-perfectionist medical students (low PS-low PC). The high level of PS in pure PS medical students indicates that they tend to have characteristics that act as positive resources in dealing with the emotional and situational demands of lecture activities so that academic burnout can be suppressed. These positive resources include the tendency to use active coping when facing stressors (such as directly confronting stressors, planning for resolution attempts, suppressing distraction, and seeking social support) and stressors tend to be assessed as potential challenges rather than threats and losses (Bender et al., 2022; Park & Jeong, 2015; Stoeber & Rennert, 2008), higher self-confidence, higher achievement motivation, and more maintained goal-directed behavior (Stoeber et al., 2007; Stoeber et al., 2018), as well as positive self-evaluations of various roles and domains (Luo et al., 2016). On the other hand, non-perfectionist medical students have low levels of PS, indicating that they tend to lack characteristics that act as good resources in suppressing academic burnout.

In line with hypothesis 2, it can be concluded that pure PC medical students (low PS-high PC) experience significantly higher academic burnout compared to non-perfectionist medical students. The high level of PC in pure PC medical students indicates that they tend to have characteristics that act as poor resources in suppressing academic burnout, such as the tendency to use avoidance coping when facing stressors, stressors are perceived as threats and losses rather than challenges, demoralization, the tendency to overvalue external expectations and criticism, self-doubt, and rigid self-evaluation (Bender et al., 2022; Flett et al., 2015; Stoeber & Rennert, 2008), the tendency to judge events in their lives as beyond their control (external locus of control; Chang et al., 2016; Kiral, 2015), and low self-esteem leading to fear of failure (Luo et al., 2016). Non-perfectionist medical students have low levels of PC, suggesting that they are less likely to have characteristics that act as poor resources in suppressing academic burnout.

Hypothesis 3 of this study was proven, where mixed perfectionist medical students (high PS-high PC) experienced significantly higher academic burnout than pure PS medical students. Although both have characteristics that tend to act as good resources in suppressing academic burnout (PS dimension), mixed perfectionist medical students also have high levels of PC, which acts as a poor resource in dealing with stressors that lead to the onset of academic burnout, in contrast to pure PSs who are low in PC levels. On the other hand, mixed perfectionist medical students had lower academic burnout compared to pure PCs. Although both have characteristics that tend to act as a poor resource in dealing with various stressors (PC dimension), mixed perfectionists also have a high level of PS, which acts as a good resource in suppressing academic burnout, in contrast to pure PCs, who are low in PS level.

The results of this study are in line with two previous studies that reviewed the four subtypes of perfectionism in a 2 x 2 model of perfectionism on academic burnout. This study found a comparative relationship pattern between perfectionism subtypes in the 2 x 2 model of perfectionism, in line with

Kljajic et al. (2017) on university students in general. This study also obtained the same conclusion as Seong and Chang's (2021) research on adolescent students, where among the four subtypes of perfectionism in the 2 x 2 model of perfectionism, the superiority of pure PS and the shortcomings of pure PC on academic burnout. Unlike these two studies that used a multidimensional approach to academic burnout, this study used a unidimensional approach to review academic burnout as a whole in each subtype of perfectionism in the 2 x 2 model of perfectionism.

This study has important implications in the context of medical education. The results of this study emphasize the importance of internalizing the setting and achieving of high standards and avoiding the prosecution of these high standards externally in medical education to encourage the development and maintenance of pure PS subtype, rather than pure PC, in reducing academic burnout. This is reinforced by several studies (Bynum et al., 2018; Cope et al., 2017; LaDonna et al., 2018; Yanes, 2017), which suggest that although perfectionism is a personality disposition, medical education can influence the development and enhancement of perfectionism. The demand for and appreciation of the value of precision and perfection that often occurs in medical school education was found to raise personal standards in all efforts to achieve high competence (PS dimension). However, this can also lead to the maintenance of a "perfect image" in various settings (classroom, library, social media) as a manifestation of self-critical tendencies and fears of negative external judgment (PC dimension). This can be driven by self-assessments of lack of effort, projections and dissatisfaction with past performance and achievements, and feelings of shame and sensitivity due to experiences of failure in attempting to meet high standards (PC dimension).

The implications for medical students lie in the benefits of understanding perfectionism subtypes in general and the subtypes of perfectionism they have. This is useful for optimizing reflection of potential and self-coping, as well as self-adjustment to the various demands of lectures. For the universities, either lecturers, university counselors, or other related parties, this understanding plays a role in the application/implementation of the role as a provider of feedback and academic evaluation for medical students, especially in reflecting and adjusting medical students to overcome poor internal resources in overcoming external demands, especially medical students who have high levels of PC (pure PCs and mixed perfectionists). In addition, understanding the differences in academic burnout in each subtype of perfectionism can also be used as a basis for medical education programs towards the development of pure PSs, people who can set high standards internally without worrying about external demands through interventions to increase pure PS and reduce pure PC. Ideally, education should create a positive environment that promotes the development of students' resources to face future challenges: behavioral control, emotion regulation, judgment and responsibility, self-confidence, and self-esteem (Määttä & Uusiautti, 2018). Thus, the educational experience and success of future healthcare professionals can be enhanced.

There are several limitations in this study. First, this study was a cross-sectional study. As mentioned earlier, academic burnout fluctuates over time and depends on the emotional demands experienced daily (Jagodics & Szabó, 2022; Rice et al., 2015; Schaufeli et al., 2002). In addition, cross-sectional research does not allow for temporal relations and causality between variables. Thus, future research can use a longitudinal research design to examine the temporal changes and causality in the relationship between perfectionism subtypes and academic burnout. Second, the data were obtained by self-report measures, which are prone to bias. The use of measurements from various sources and methods can reduce self-report bias in future studies. Third, there was an imbalance in the number of samples for each category combination group between PS and PC (subtypes of perfectionism) in this study. Future research needs to pay more attention to achieving a more balanced distribution of category combination groups to ensure the accuracy of the estimates and the validity of the factorial ANOVA test. Fourth, although the factorial ANOVA test and simple effect analysis were used in the data analysis of this study,

other advanced statistical analysis methods can provide more in-depth research analysis, such as moderated hierarchical regression (Cohen et al., 2003). However, due to limited understanding and expertise, these statistical analyses were not used in this study. The use of these statistical analyses in future research may deepen the findings of this study. Finally, it is important to note that the findings of this study were obtained from medical students at Universitas Andakas. Further consideration or testing is needed regarding the generalization of the results of this study to a wider population of medical students.

CONCLUSION

It can be concluded that pure PS medical students experience significantly lower academic burnout compared to non-perfectionist medical students, pure PC medical students have significantly higher academic burnout compared to non-perfectionist medical students, and mixed perfectionist medical students have significantly lower academic burnout than pure PC medical students and significantly higher than pure PS medical students, in line with the concept of 2 x 2 model of perfectionism. These results strengthen the support for the superiority of pure PS and the shortcomings of pure PC in the context of academic burnout in medical students. These results also indicate the implications of understanding the differences in academic burnout in each subtype of perfectionism in the 2 x 2 model of perfectionism for medical students, for universities, and for the development of a medical education system that leads to an increase in pure PS and a reduction in pure PC to reduce academic burnout.

Peran Perfeksionisme terhadap *Academic Burnout* pada Mahasiswa Kedokteran: Pengujian Perfeksionisme Model 2 x 2

Berbagai tantangan perkuliahan dan permasalahan dalam menyeimbangkan antara kuliah dan kehidupan lainnya dihadapi oleh mahasiswa pada umumnya. Akan tetapi, mahasiswa kedokteran dinilai mengalami permasalahan yang lebih berat dari mahasiswa jurusan lainnya (Morocos & Awan, 2022). Mahasiswa kedokteran dituntut untuk membaca dan menyerap banyak sumber bacaan dan informasi, mencapai standar praktik yang tinggi, mengikuti jadwal dan bahan materi yang padat, serta memiliki waktu istirahat yang minim akibat bentuk perkuliahan yang berupa blok (Iorga dkk., 2018; Wolf & Rosenstock, 2016; Xiu, 2022). Dalam menghadapi berbagai tantangan tersebut, mahasiswa kedokteran cenderung menetapkan standar sangat tinggi yang dapat berujung kepada permasalahan kesehatan dan kesulitan mempertahankan hubungan interpersonal (Morocos & Awan, 2022). Alhasil, mahasiswa kedokteran lebih rentan terhadap *academic burnout* dibandingkan mahasiswa jurusan lain.

Frajerman dkk. (2019) menemukan bahwa secara umum, estimasi prevalensi *academic burnout* pada mahasiswa kedokteran sebesar 44,2% sehingga jurusan kedokteran merupakan salah satu jurusan dengan prevalensi *academic burnout* tertinggi dibandingkan mahasiswa jurusan lain (Rosales-Ricardo dkk., 2021). Selain itu, penelitian yang dilakukan oleh Khatami (2018) di Indonesia terhadap 369 mahasiswa kedokteran tingkat awal dan akhir UIN Syarif Hidayatullah Jakarta dan Putri dkk. (2022) terhadap 231 mahasiswa kedokteran tahun pertama hingga ketiga Universitas Mataram, mendukung temuan tentang tingginya tingkat *academic burnout* pada mahasiswa kedokteran. Beberapa hasil penelitian ini menunjukkan bahwa *academic burnout* merupakan permasalahan yang sering ditemui pada mahasiswa kedokteran.

Academic burnout merupakan sebuah sindrom psikologis kompleks yang didefinisikan oleh ketiga gejala sekaligus dimensinya—kelelahan, sinisme, dan berkurangnya efikasi (Lee & Lee, 2018; Schaufeli dkk., 2002). Kelelahan merupakan perasaan tegang akibat tuntutan akademik yang terlalu berat. Sinisme merupakan sikap kurang/tidak peduli, menjauh dari, dan/atau kehilangan minat terhadap kegiatan akademik. Berkurangnya efikasi merupakan berkurangnya perasaan kompeten serta pencapaian dalam kegiatan akademik tertentu ataupun secara keseluruhan.

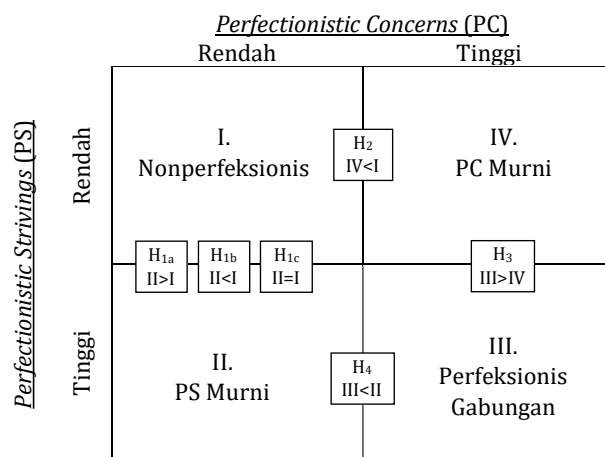
Academic burnout ditemukan menimbulkan dampak negatif yang besar pada mahasiswa kedokteran. Pada kegiatan akademik, *academic burnout* berdampak kepada permasalahan adaptasi pada kehidupan sekolah akibat ketidaksesuaian psikologis (Lee & Lee, 2018), permasalahan kinerja kognitif dan akademik, seperti pemecahan masalah dan atensi (May dkk., 2015), penurunan keterlibatan dalam sekolah (Tuominen-Soini & Salmela-Aro, 2014), penurunan pencapaian akademik (Madigan & Curran, 2020), dan intensi berhenti kuliah (Abreu Alves dkk., 2022). Pada kesehatan mental, *academic burnout* berdampak kepada penurunan *well-being* dan *self-esteem* (Tuominen-Soini & Salmela-Aro, 2014), peningkatan risiko permasalahan internalisasi, seperti gejala depresi (Tang dkk., 2021), dan peningkatan ide bunuh diri, khususnya pada mahasiswa kedokteran hingga 3,5 kali (Dyrbye dkk., 2008; Seo dkk., 2021). Selain itu, berbagai penelitian (Dyrbye dkk., 2010; Ebrahimi & Atazadeh, 2018) menunjukkan bahwa *academic burnout* berkaitan dengan perilaku dan etika profesional yang buruk. Hal ini dapat mempengaruhi komitmen mahasiswa kedokteran terhadap profesionalisme sebagai dokter di masa depan. Terakhir, pada kelas sebagai komunitas, *academic burnout* ditemukan seiring waktu dapat menyebar dari satu pelajar ke pelajar lainnya sehingga terjadi *burned-out classroom climate* (*burnout* sebagai pengalaman bersama di kelas) yang mengarah kepada penurunan motivasi intrinsik kelas dan keterlibatan akademik kelas secara keseluruhan (Cho dkk., 2023).

Pemahaman mengenai penyebab dari *academic burnout* diperlukan untuk secara efektif menanggulangi permasalahan *academic burnout*. Sindrom psikologis ini berkaitan erat dengan proses stres—*academic*

burnout terjadi akibat stres dari ketidakseimbangan antara tuntutan emosional dan situasional yang dialami pelajar, serta sumber daya yang tersedia (dukungan keluarga, kondisi sosial dan ekonomi, dan resiliensi [Amelia, 2022; Lin & Yang, 2021]) untuk menangani tuntutan tersebut seiring waktu (Jagodics & Szabó, 2022; Rice dkk., 2015; Schaufeli dkk., 2002). Dalam kata lain, tidak hanya seberapa berat tantangan yang sedang dialami, bagaimana kapabilitas pelajar, termasuk karakteristik kepribadian, dalam menghadapi tuntutan-tuntutan tersebut berperan terhadap proses terjadinya *academic burnout*. Berbagai penelitian (Chang dkk., 2020; Garratt-Reed dkk., 2018) telah menunjukkan bahwa karakteristik kepribadian seperti perfeksionisme berkaitan erat dengan *academic burnout*.

Perfeksionisme merupakan sifat kepribadian yang merepresentasikan dua karakteristik dimensi global perfeksionisme sekaligus, yakni *perfectionistic strivings* (PS)—karakteristik penetapan dan upaya untuk mencapai standar tinggi, dan *perfectionistic concerns* (PC)—kecenderungan untuk mengevaluasi diri berdasarkan kekhawatiran akan evaluasi negatif eksternal (Stoeber, 2018). Konsep ini merujuk kepada perfeksionisme bidimensional (Frost dkk., 1990; Stoeber, 2018) yang didasarkan pada kaitan perfeksionisme terhadap berbagai dampak dan proses psikologis. Dalam perkembangan konsep perfeksionisme, Gaudreau dan Thompson (2010) mengemukakan perfeksionisme model 2 x 2 (Gambar 1), dimana kedua dimensi global perfeksionisme secara bersama-sama, daripada secara terpisah, lebih bermakna dalam mengkaji berbagai proses dan dampak psikologis pada individu. PS dan PC ada dan berinteraksi dalam tiap individu, membentuk empat subtype perfeksionisme: PS murni (PS tinggi-PC rendah), PC murni (PS rendah-PC tinggi), perfeksionis gabungan (PS tinggi-PC tinggi), dan nonperfeksionis (PS rendah-PC rendah).

Perfeksionisme model 2 x 2 mengajukan empat hipotesis dari ekspektasi hubungan keempat perfeksionisme dengan berbagai proses dan dampak psikologis pada individu (Gaudreau & Thompson, 2010) (Gambar 1). Hipotesis pertama adalah PS murni berhubungan dengan dampak yang lebih baik, buruk, atau sama (secara berturut-turut hipotesis 1_a, 1_b, dan 1_c) dibandingkan dengan nonperfeksionis. Beragam arah pada hipotesis pertama menunjukkan keterkaitan PS dengan berbagai bentuk dampak. Hipotesis kedua adalah PC murni berhubungan dengan dampak yang lebih buruk dibandingkan dengan nonperfeksionis. Hipotesis ketiga dan keempat adalah perfeksionis gabungan berhubungan dengan dampak yang lebih baik dibandingkan dengan PC murni (hipotesis 3), tetapi lebih buruk dibandingkan dengan PS murni (hipotesis 4).



Gambar 1. Perfeksionisme Model 2 x 2 (Gaudreau & Thompson, 2010)

Catatan. H_{1a}=hipotesis 1_a, H_{1b}= hipotesis 1_b, H_{1c}= hipotesis 1_c, H₂= hipotesis 2, H₃= hipotesis 3, and H₄= hipotesis 4; “>” menandakan dampak yang lebih baik, “<” menandakan dampak yang lebih buruk, and “=” menandakan dampak yang sama.

Peranan keempat subtype perfeksionisme terhadap *academic burnout* dapat ditinjau dari kedua dimensi global perfeksionisme. Tingkat PS dan PC menunjukkan sumber daya individu dalam menghadapi berbagai tuntutan emosional dan situasional yang mengarah kepada peningkatan/penurunan *academic burnout*. PS murni yang hanya tinggi pada tingkat PS cenderung memiliki sumber daya yang lebih baik dalam menghadapi berbagai tuntutan, berupa penggunaan koping aktif dan penilaian potensi stresor sebagai tantangan dibandingkan ancaman dan kehilangan (Bender dkk., 2022; Park & Jeong, 2015; Stoeber & Rennert, 2008). Kepercayaan diri, motivasi pencapaian, dan penajagaan *goal-directed behavior* yang lebih baik yang berhubungan dengan PS mendukung PS murni dalam menghadapi berbagai tuntutan (Stoeber dkk., 2007; Stoeber dkk., 2018). Seseorang dengan PS yang tinggi cenderung memiliki strategi regulasi diri yang tepat yang kemudian memperkuat evaluasi positif diri (*self-esteem*) sehingga dapat menekan *academic burnout* (Luo dkk., 2016).

Di sisi lain, PC murni yang hanya tinggi pada tingkat PC cenderung memiliki sumber daya yang buruk dalam menghadapi tuntutan emosional dan situasional. Hal ini ditandai oleh kecenderungan penggunaan koping penghindaran, penilaian potensi stresor sebagai ancaman dan kehilangan, demoralisasi, perhatian berlebih terhadap ekspektasi dan kritik eksternal, keraguan diri, dan evaluasi diri yang kaku (seperti pemikiran *all-or-nothing*, generalisasi berlebihan terhadap pengalaman buruk, ruminasi kegagalan, dan kebutuhan validasi diri yang tinggi) (Bender dkk., 2022; Flett dkk., 2015; Stoeber & Rennert, 2008). Kemudian, tingkat PC yang tinggi berkaitan dengan *locus of control* eksternal, dimana usaha mencapai standar tinggi didasari oleh kebutuhan dicintai atau diterima oleh orang lain dan evaluasi performa diri dilandasi oleh perbandingan antara diri dan orang lain. Hal ini membuat seakan orang lain memegang kendali atas diri sendiri yang mengarah kepada kerentanan terhadap *academic burnout* (Chang dkk., 2016; Kiral, 2015). Tidak hanya itu, seseorang dengan *self-esteem* rendah cenderung memiliki ketakutan akan kegagalan (bentuk dari PC) dan ide diri yang negatif sehingga lebih rentan mengalami *academic burnout* (Luo dkk., 2016).

Pada perfeksionis gabungan, PS dan PC sama-sama berada pada tingkat tinggi, menghadirkan secara bersama-sama sumber daya yang baik dan buruk dalam mengatasi stres yang dalam jangka panjang dapat berujung kepada *academic burnout*. Hal ini membuat perfeksionis gabungan cenderung mengalami *academic burnout* yang lebih tinggi dari PS murni, tetapi lebih rendah dari PC murni. Di sisi lain, individu nonperfeksionis memiliki tingkat PS dan PC yang sama-sama rendah. Individu nonperfeksionis cenderung mengalami *academic burnout* yang lebih tinggi daripada PS murni karena ketidakhadiran sumber daya yang baik dalam mengatasi stres, tetapi lebih rendah daripada PC murni karena ketidakhadiran sumber daya yang buruk dalam menghadapi stres.

Berdasarkan tinjauan literatur yang ada, belum ada penelitian terdahulu yang mengkaji keempat subtype perfeksionisme berdasarkan perfeksionisme model 2 x 2 terhadap *academic burnout* pada mahasiswa kedokteran. Hanya ada dua penelitian yang mengkaji hal ini, namun berfokus pada pelajar secara umum. Kljajic dkk. (2017) sepenuhnya mendukung hipotesis 1_a, 2, 3, dan 4 perfeksionisme model 2 x 2 terhadap *academic burnout* pada mahasiswa secara umum, sedangkan Seong dan Chang (2021) menyimpulkan bahwa di antara keempat subtype perfeksionisme, PS murni merupakan yang paling adaptif dan PC murni merupakan yang paling maladaptif terhadap *academic burnout* pada pelajar remaja, meski hanya secara sebagian mendukung hipotesis-hipotesis perfeksionisme model 2 x 2. Kemudian, Gaudreau dkk. (2018) dan Hill dan Curran (2016) mengemukakan bahwa replikasi penelitian dan perluasan hasil temuan kaitan antara subtype perfeksionisme dan *academic burnout* masih diperlukan. Selain itu, kebanyakan faktor risiko *academic burnout* yang dibahas dalam berbagai penelitian merupakan variabel-variabel interpersonal terkait sekolah (Walburg, 2014), sedangkan faktor risiko internal pelajar kurang ditelaah secara komprehensif (Farina dkk., 2020). Dengan demikian, penelitian lanjutan terhadap perfeksionisme model 2 x 2 terhadap *academic burnout* diperlukan untuk memperkaya temuan yang ada.

Mempertimbangkan deskripsi fenomena di atas, penelitian ini tertarik untuk melihat perbedaan *academic burnout* berdasarkan sub tipe perfeksionisme dari perfeksionisme model 2 x 2 pada mahasiswa kedokteran. Peneliti memperkirakan bahwa pada mahasiswa kedokteran, PS murni memiliki *academic burnout* yang secara signifikan lebih rendah dibandingkan nonperfeksionis (hipotesis 1), sedangkan PC murni memiliki *academic burnout* yang secara signifikan lebih tinggi (hipotesis 2), dan perfeksionis gabungan memiliki *academic burnout* yang secara signifikan lebih tinggi dibandingkan PS murni (hipotesis 3), tetapi lebih rendah dibandingkan PC murni (hipotesis 4).

METODE

Desain Penelitian

Penelitian ini dirancang dengan menggunakan pendekatan kuantitatif (Gravetter & Forzano, 2018) dan desain penelitian *cross-sectional* (Setia, 2023). Data mengenai paparan, hasil, atau variabel dalam partisipan penelitian dikumpulkan dalam satu waktu tanpa adanya intervensi oleh peneliti untuk mengetahui perbedaan *academic burnout* berdasarkan sub tipe perfeksionisme pada perfeksionisme model 2 x 2.

Partisipan

Populasi penelitian ini adalah mahasiswa aktif S1 Kedokteran Fakultas Kedokteran Universitas Andalas tahun pertama hingga keempat ($N=839$). Teknik pengambilan sampel yang digunakan adalah teknik pengambilan sampel *random* berstrata proporsional dimana partisipan diambil secara acak dan proporsional dari setiap strata populasi (Azwar, 2017). Penelitian ini menggunakan rumus Krejcie dan Morgan (1970) dengan *confidence level* sebesar 95% dan *margin of error* sebesar 0,05, diperoleh total partisipan sebanyak 264 orang. Tabel 1 menunjukkan rincian total populasi dan sampel pada tiap strata dalam penelitian ini. Usia partisipan berkisar dari 17 hingga 23 tahun ($M=19,96$, $SD=1,20$) dengan jumlah partisipan perempuan (64,39%; 170 orang) lebih banyak daripada partisipan laki-laki (35,60%; 94 orang). Pengambilan data dilaksanakan dari bulan Mei hingga bulan Juni tahun 2023.

Tabel 1. Populasi dan Sampel Tiap Strata Penelitian

Strata	Jumlah Populasi ($N=839$)	Jumlah Sampel ($N=264$)
Tahun pertama	249	78
Tahun kedua	251	79
Tahun ketiga	233	73
Tahun keempat	106	34

Penelitian ini telah lulus kaji etik penelitian oleh Komisi Etik Penelitian Fakultas Kedokteran Universitas Andalas (Nomor Surat: 217/UN.16.2/KEP-FK/2023). Penelitian ini dilaksanakan secara daring dengan menghubungi partisipan terpilih untuk berpartisipasi dalam pengisian kuesioner daring yang terdiri atas 4 bagian: *informed consent*, pernyataan persetujuan untuk berpartisipasi, data demografi, dan tiga alat ukur.

Pengukuran

Penelitian ini menggunakan tiga alat ukur, yakni *Maslach Burnout Inventory-Student Survey* (MBI-SS) oleh Schaufeli dkk. (2002) untuk mengukur *academic burnout*, dan versi singkat dari *Frost Multidimensional Perfectionistic Scale* (FMPS) (Frost dkk., 1990) dan *Hewitt and Flett Multidimensional Perfectionistic Scale* (HFMPs) (Hewitt & Flett, 1991) yang dikembangkan dan divalidasi oleh Cox dkk. (2002) untuk mengukur sub tipe perfeksionisme. Mengikuti pedoman adaptasi alat ukur Borsa dkk. (2012), ketiga alat ukur ini diadaptasi ke dalam Bahasa Indonesia dengan tahapan: 1) terjemahan alat ukur ke dalam Bahasa Indonesia oleh seorang penerjemah tersumpah Bahasa Inggris-Bahasa Indonesia

dan dua orang sarjana psikologi, 2) sintesis terjemahan alat ukur, 3) evaluasi sintesis terjemahan alat ukur oleh satu orang ilmuwan psikologi dan satu orang psikolog pendidikan, 4) evaluasi alat ukur oleh populasi sasaran kepada 19 orang mahasiswa umum di luar populasi penelitian, 5) *back-translation* oleh seorang penerjemah tersumpah bahasa Inggris–bahasa Indonesia dan seorang sarjana psikologi, dan 6) *pilot study* kepada 155 orang siswa umum di luar populasi penelitian.

MBI–SS mengukur ketiga dimensi *academic burnout* dalam tiga subskala, yakni kelelahan (5 item), sinisme (4 item), dan berkurangnya efikasi (6 item) dengan skala likert 6 poin (0=“tidak pernah”, 6=“selalu”). Brenninkmeijer dan VanYperen (2003) menunjukkan bahwa pendekatan unidimensional terhadap *burnout* memungkinkan untuk memperoleh konsep utuh dari *burnout* sebagai sebuah sindrom psikologis. Oleh karena itu, dalam penelitian ini, pengukuran *academic burnout* dilakukan secara utuh dengan menghasilkan skor total *academic burnout*. MBI–SS memiliki koefisien reliabilitas *alpha* (α) sebesar 0,94 dengan nilai *corrected item-total correlation* (r_{ix}) sebesar 0,54–0,84.

FMPS versi singkat mengukur perfeksionisme dengan lima subskala: kekhawatiran akan kesalahan, standar pribadi, persepsi orang tua, keraguan dalam bertindak, dan organisasi, dengan skala likert 5 poin (1=“sangat tidak setuju”, 5=“sangat setuju”), sedangkan HFMPMS versi singkat mengukur perfeksionisme dengan tiga subskala: perfeksionisme berorientasi diri, perfeksionisme berorientasi orang lain, dan perfeksionisme yang ditentukan secara sosial, dengan skala likert 7 poin (1=“sangat tidak setuju”, 7=“sangat setuju”). Gaudreau dan Thompson (2010) telah menggunakan FMPS versi singkat dan HFMPMS versi singkat dalam mengukur subtype perfeksionisme. Sebagaimana diuraikan oleh Stoeber (2018), dalam penelitian ini PS diukur oleh subskala standar pribadi FMPS dan subskala perfeksionisme berorientasi diri HFMPMS, sedangkan PC diukur oleh subskala kekhawatiran akan kesalahan dan keraguan untuk bertindak FMPS dan subskala perfeksionisme yang ditentukan secara sosial HFMPMS. Oleh karena itu, FMPS versi singkat digunakan dalam mengukur kekhawatiran akan kesalahan (5 item; $\alpha=0,90$; $r_{ix}=0,54-0,83$), standar pribadi (5 item; $\alpha=0,84$; $r_{ix}=0,56-0,76$), dan keraguan untuk bertindak (3 item; $\alpha=0,63$; $r_{ix}=0,33-0,56$), sedangkan versi singkat HFMPMS digunakan dalam mengukur perfeksionisme berorientasi diri (5 item; $\alpha=0,80$; $r_{ix}=0,46-0,66$) dan perfeksionisme yang ditentukan secara sosial (5 item; $\alpha=0,87$; $r_{ix}=0,61-0,78$). *Exploratory factor analysis* dengan menggunakan *principal axis extration* dan *oblique rotation (direct oblimin)* mengindikasikan bahwa model dua faktor menjelaskan 51% varians. Sesuai dengan penjelasan Stoeber, standar pribadi ($\lambda=0,63$) dan perfeksionisme berorientasi diri ($\lambda=0,64$) dimuat pada faktor PS, sedangkan kekhawatiran akan kesalahan ($\lambda=0,75$), keraguan untuk bertindak ($\lambda=0,63$), dan perfeksionisme yang ditentukan secara sosial ($\lambda=0,66$) dimuat pada faktor PC. Korelasi antara PS dan PC diperoleh sebesar 0,30. Dengan demikian, subskala-subskala tersebut digabung ke dalam dimensi PS ($\alpha=0,89$) dan PC ($\alpha=0,93$). Oleh karena FMPS versi singkat dan HMPS versi singkat diukur dengan skala likert dengan banyak poin yang berbeda, penyetaraan banyak poin skala likert FMPS versi singkat dan HFMPMS versi singkat dilakukan dengan konversi hasil pengukuran FMPS versi singkat yang memiliki skala likert 5 poin ke skala likert 7 poin (*Transforming Different Likert Scales to a Common Scale*, 2020; Lewis & Sauro, 2020).

Analisis Data

Teknik analisis ANOVA faktorial (atau bisa disebut dengan analisis desain faktorial) (Field, 2024; Gravetter & Wallnau, 2017) digunakan untuk mengetahui signifikansi pengaruh PS dan PC yang masing-masing memiliki dua kategori (rendah dan tinggi) terhadap *burnout*, beserta interaksinya. Jika interaksi antara PS dan PC signifikan, maka *simple effect analysis* (Field, 2024) dilakukan untuk melihat signifikansi perbedaan *academic burnout* pada masing-masing tingkat PS dengan masing-masing tingkat PC atau antar kelompok kombinasi kategori antara PS dan PC (yakni antar subtype perfeksionisme: antara nonperfeksionis [PS rendah-PC rendah] dan PS murni [PS tinggi-PC rendah], nonperfeksionis dan PC murni [PS rendah-PC tinggi], perfeksionis gabungan [PS tinggi-PC tinggi] dan PS murni, dan perfeksionis gabungan dan PC murni). Uji normalitas dan uji homogenitas dilakukan untuk memeriksa

asumsi teknik analisis ini dan ditemukan bahwa data berdistribusi normal berdasarkan uji Kolmogorov-Smirnov dengan koreksi Liliefors ($D(264)=0,05$, $p=0,200$) dan homogen berdasarkan uji Levene ($F(3, 260)=0,07$, $p=0,63$). Akan tetapi, jumlah sampel antara subtype perfeksionisme sebagai hasil dari uji ANOVA faktorial ditemukan tidak setara (Tabel 3). Oleh karena itu, untuk memperoleh hasil yang lebih kuat, uji ANOVA faktorial *robust* dengan *trimmed means* sebesar 20% (Field, 2024; Mair & Wilcox, 2020) digunakan dan metode *bootstrap* dengan *bias-corrected and accelerated* (BC_a) dengan *confidence intervals* 95% menggunakan 5.000 sampel *bootstrap* dilaksanakan pada *simple effect analysis* (Efron & Tibshirani, 1998; Field, 2024). Data dianalisis menggunakan IBM SPSS Statistics 29 dan RStudio 2023.12.1 build 402 dengan WRS2 package.

HASIL PENELITIAN

Tabel 2 menunjukkan hasil deskriptif minimum, maksimum, *mean*, dan deviasi standar dari kedua variabel penelitian. *Academic burnout* yang diukur menggunakan MBI-SS menghasilkan sebuah skor total dengan rentang 0–90. Dalam penelitian ini, diperoleh skor rata-rata *academic burnout* sebesar 31,28 ($SD=11,94$) dengan skor minimum adalah 0 dan skor maksimum adalah 72. Perfeksionisme untuk dimensi PS dan PC yang diukur menggunakan FMPS dan HFMPs menghasilkan skor total dengan rentang 10–70 untuk PS dan 13–91 untuk PC. Diperoleh skor rata-rata PS sebesar 50,32 ($SD=8,78$) dan PC 47,52 ($SD=11,60$) dimana PS dengan skor minimum 18 dan maksimum 70, serta PC dengan skor minimum 23 dan maksimum 84,50.

Tabel 2. Data Deskriptif Variabel-Variabel Penelitian

Variabel	Min.	Max.	Mean	SD
<i>Academic Burnout</i>	0	72	31,28	11,94
Perfeksionisme				
<i>Perfectionistic Strivings</i> (PS)	18	70	50,32	8,78
<i>Perfectionistic Concerns</i> (PC)	23	84,50	47,52	11,60

Tabel 3 mengilustrasikan persentase *academic burnout* dan subtype perfeksionisme pada partisipan. Data *academic burnout* dibagi menjadi tiga kategori, yaitu: rendah, sedang, dan tinggi. Hampir setengah partisipan (49,62%) mengalami *academic burnout* sedang. Lalu, data perfeksionisme dibagi menjadi dua kategori untuk masing-masing dimensi, yaitu: rendah dan tinggi. Kategorisasi kedua variabel diperoleh berdasarkan statistika hipotetik (Azwar, 2021). Mengikuti deskripsi subtype perfeksionisme model 2 x 2 (Gaudreau & Thompson, 2010), kombinasi tingkat PS dan PC menjadi dasar penentuan subtype perfeksionisme. Tabel 3 menunjukkan bahwa sebagian besar partisipan (60,98%) memiliki subtype perfeksionisme PS murni.

Tabel 3. Data Deskriptif Kategorisasi Variabel-Variabel Penelitian

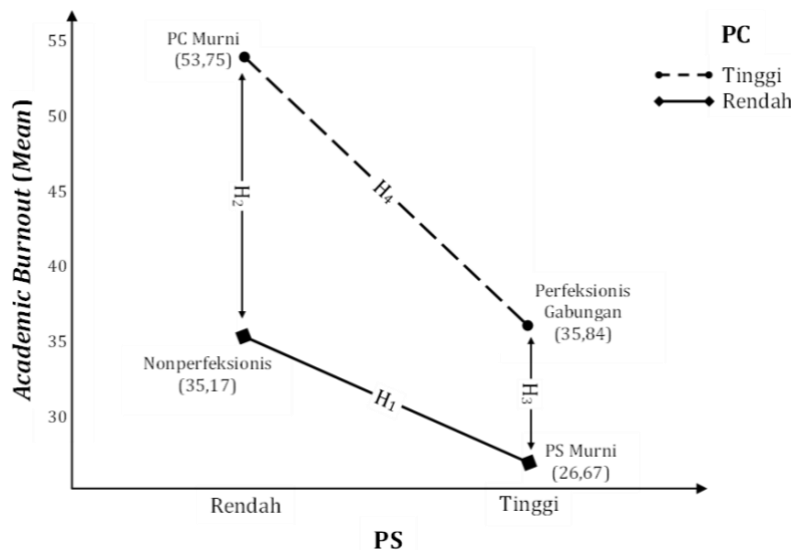
Kategorisasi Variabel	Frekuensi (n=264)	Persentase
<i>Academic Burnout</i>		
Rendah	127	48,11%
Sedang	131	49,62%
Tinggi	6	2,27%
Perfeksionisme		
PS murni (PS tinggi-PC rendah)	161	60,98%
PC murni (PS rendah-PC tinggi)	16	6,06%
Perfeksionis gabungan (PS tinggi-PC tinggi)	64	24,24%
Nonperfeksionis (PS rendah-PC rendah)	23	8,71%

Uji ANOVA faktorial *robust* dengan *trimmed means* sebesar 20% dilakukan untuk mengevaluasi signifikansi PS dan PC yang masing-masing memiliki dua kategori (rendah dan tinggi) terhadap *academic burnout*. *Mean* dan deviasi standar *academic burnout* berdasarkan keempat subtype

perfeksionisme tertera pada tabel 4. Hasil mengindikasikan terdapatnya signifikansi PS ($F_t=46,74, p=0,001$) dan PC ($F_t=48,16, p=0,001$), serta interaksi antara PS dan PC ($F_t=4,51, p=0,042$) terhadap *academic burnout*. Dikarenakan interaksi PS dan PC signifikan, *simple effect analysis* dapat dilakukan untuk melihat signifikansi perbedaan *academic burnout* pada kedua tingkat PS dengan kedua tingkat PC (antar kelompok kombinasi kategori PS dan PC; antara nonperfeksionis dan PS murni, nonperfeksionis dan PC murni, perfeksionis gabungan dan PS murni, dan perfeksionis gabungan dan PC murni). Hasil *simple effect analysis* dengan metode *bootstrap* dengan BC_a dengan *confidence intervals* 95% menggunakan 5.000 sampel *bootstrap* pada tabel 5 menunjukkan bahwa 1) PS murni (PS tinggi-PC rendah) secara signifikan lebih tinggi dibandingkan dengan nonperfeksionis (PS rendah-PC rendah) ($\bar{X}_{Difference(1-2)}=8,50 [4,60, 12,34], p<0,001$), 2) PC murni (PS rendah-PC tinggi) secara signifikan lebih rendah dibandingkan dengan nonperfeksionis (PS rendah-PC rendah) ($\bar{X}_{Difference(1-2)}=-18,50 [-24,55, -12,83], p<0,001$), dan 3,4) perfeksionis gabungan (PS tinggi-PC tinggi) secara signifikan lebih tinggi dibandingkan dengan PS murni ($\bar{X}_{Difference(1-2)}=9,17 [6,26, 12,20], p<0,001$) dan secara signifikan lebih rendah poin dibandingkan dengan PC murni (PS rendah-PC tinggi) ($\bar{X}_{Difference(1-2)}=-17,91 [-23,47, -12,61], p<0,001$). Maka, dapat disimpulkan bahwa hasil penelitian mendukung hipotesis 1, 2, 3, dan 4.

Tabel 4. Data Deskriptif Uji ANOVA Faktorial PS dan PC terhadap *Academic Burnout*

Subtipe Perfeksionisme	M	SD
PS murni (PS tinggi-PC rendah)	26,67	9,36
PC murni (PS rendah-PC tinggi)	53,75	9,63
Perfeksionis gabungan (PS tinggi-PC tinggi)	35,84	10,70
Nonperfeksionis (PS rendah-PC rendah)	35,17	8,71



Gambar 2. Interaksi PS dan PC (Subtipe-Subtipe Perfeksionisme) terhadap *Academic Burnout* Catatan. H₁ = hipotesis 1; H₂ = hipotesis 2; H₃ = hipotesis 3; H₄ = hipotesis 4

Tabel 5. Hasil *Simple Effect Analysis* Subtipe Perfeksionisme terhadap *Academic Burnout*

Perbandingan		Mean Difference (1-2)	p	Bootstrap* BC _a 95% Confidence Interval	
Subtipe Perfeksionisme (1)	Subtipe Perfeksionisme (2)			Bawah	Atas
Nonperfeksionis (PS rendah-PC rendah)	PS murni (PS tinggi-PC rendah)	8,50	<0,001	4,60	12,34
Nonperfeksionis (PS rendah-PC rendah)	PC murni (PS rendah-PC tinggi)	-18,58	<0,001	-24,55	-12,83
Perfeksionis Gabungan (PS tinggi-PC tinggi)	PS murni (PS tinggi-PC rendah)	9,17	<0,001	6,26	12,20
Perfeksionis Gabungan (PS tinggi-PC tinggi)	PC murni (PS rendah-PC tinggi)	-17,91	<0,001	-23,47	-12,61

Catatan. Hasil diperoleh dari 5.000 sampel *bootstrap*

DISKUSI

Penelitian ini bertujuan untuk menguji apakah keempat subtipe perfeksionisme pada perfeksionisme model 2 x 2 menghasilkan perbedaan *academic burnout* yang signifikan pada mahasiswa kedokteran. Hasil penelitian ini menunjukkan bahwa mahasiswa kedokteran PS murni mengalami *academic burnout* yang secara signifikan lebih rendah dibandingkan dengan mahasiswa kedokteran nonperfeksionis (hipotesis 1) dan perfeksionis gabungan (hipotesis 3). Kemudian, ditemukan bahwa mahasiswa kedokteran PC murni mengalami *academic burnout* yang secara signifikan lebih tinggi dibandingkan dengan mahasiswa kedokteran nonperfeksionis (hipotesis 2) dan perfeksionis gabungan (hipotesis 4). Hasil ini mendukung keunggulan PS murni dan kekurangan PC murni dalam konteks *academic burnout* pada mahasiswa kedokteran. Temuan ini penting untuk memahami hubungan kompleks antara perfeksionisme dan *academic burnout* pada mahasiswa kedokteran.

Hipotesis 1 penelitian terbukti dimana ditemukan bahwa mahasiswa kedokteran PS murni (PS tinggi-PC rendah) mengalami *academic burnout* yang lebih rendah secara signifikan dibandingkan dengan mahasiswa kedokteran nonperfeksionis (PS rendah-PC rendah). Tingkat PS yang tinggi pada mahasiswa kedokteran PS murni mengindikasikan bahwa mereka cenderung memiliki karakteristik yang berperan sebagai sumber daya positif dalam menghadapi tuntutan-tuntutan emosional dan situasional dari kegiatan perkuliahan sehingga *academic burnout* dapat tertekan. Sumber daya positif ini antara lain kecenderungan penggunaan coping aktif saat menghadapi stresor (seperti secara langsung menghadapi stresor, merencanakan upaya penyelesaian, menekan distraksi, dan mencari dukungan sosial) dan stresor cenderung dinilai sebagai potensi tantangan daripada ancaman dan kerugian (Bender dkk., 2022; Park & Jeong, 2015; Stoeber & Rennert, 2008), kepercayaan diri yang lebih tinggi, motivasi pencapaian yang lebih tinggi, *goal-directed behavior* yang lebih terjaga (Stoeber dkk., 2007; Stoeber dkk., 2018), serta evaluasi diri terhadap berbagai peran dan ranah yang positif (Luo dkk., 2016). Di sisi lain, mahasiswa kedokteran nonperfeksionis memiliki tingkat PS yang rendah, menandakan bahwa mereka cenderung kurang memiliki karakteristik yang berperan sebagai sumber daya yang baik dalam menekan *academic burnout*.

Sejalan dengan hipotesis 2, dapat disimpulkan bahwa mahasiswa kedokteran PC murni (PS rendah-PC tinggi) mengalami *academic burnout* yang lebih tinggi secara signifikan dibandingkan dengan mahasiswa kedokteran nonperfeksionis. Tingkat PC yang tinggi pada mahasiswa kedokteran PC murni mengindikasikan bahwa mereka cenderung memiliki karakteristik yang berperan sebagai sumber daya yang buruk dalam menekan *academic burnout*, seperti kecenderungan penggunaan coping penghindaran ketika menghadapi stresor, stresor dinilai sebagai ancaman dan kerugian daripada tantangan, demoralisasi, kecenderungan menilai tinggi ekspektasi dan kritik eksternal, meragukan diri,

dan mengevaluasi diri dengan kaku (Bender dkk., 2022; Flett dkk., 2015; Stoeber & Rennert, 2008), kecenderungan untuk menilai kejadian-kejadian dalam kehidupan mereka berada di luar kendali (*locus of control* eksternal; Chang dkk., 2016; Kiral, 2015), dan *self-esteem* rendah yang mengarah pada ketakutan akan kegagalan (Luo dkk., 2016). Mahasiswa kedokteran nonperfeksionis memiliki tingkat PC yang rendah, menunjukkan bahwa mereka cenderung kurang memiliki karakteristik yang bertindak sebagai sumber daya yang buruk dalam menekan *academic burnout*.

Hipotesis 3 pada penelitian ini terbukti, dimana mahasiswa kedokteran perfeksionis gabungan (PS tinggi-PC tinggi) mengalami *academic burnout* yang lebih tinggi secara signifikan dibandingkan dengan mahasiswa kedokteran PS murni. Walaupun sama-sama memiliki karakteristik yang cenderung berperan sebagai sumber daya yang baik dalam menekan *academic burnout* (dimensi PS), individu perfeksionis gabungan juga memiliki tingkat PC yang tinggi yang berperan sebagai sumber daya yang buruk dalam menghadapi stresor yang mengarah kepada timbulnya *academic burnout*, berbeda dengan PS murni yang rendah dalam tingkat PC. Di sisi lain, mahasiswa kedokteran perfeksionis gabungan memiliki *academic burnout* yang lebih rendah dibandingkan dengan PC murni. Hasil ini sejalan dengan hipotesis 4. Walaupun sama-sama memiliki karakteristik yang cenderung berperan sebagai sumber daya yang buruk dalam menghadapi berbagai stresor (dimensi PC), perfeksionis gabungan juga memiliki tingkat PS yang tinggi yang berperan sebagai sumber daya yang baik dalam menekan *academic burnout*, berbeda dengan PC murni yang rendah dalam tingkat PS.

Hasil penelitian ini sejalan dengan dua penelitian sebelumnya yang meninjau keempat sub tipe perfeksionisme pada perfeksionisme 2 x 2 terhadap *academic burnout*. Penelitian ini menemukan pola hubungan perbandingan antar sub tipe perfeksionisme pada perfeksionisme model 2 x 2, sejalan dengan Kljajic dkk. (2017) pada mahasiswa secara umum. Penelitian ini juga memperoleh kesimpulan yang sama seperti penelitian Seong dan Chang (2021) pada pelajar remaja dimana di antara keempat sub tipe perfeksionisme model 2 x 2, yakni keunggulan PS murni dan kekurangan PC murni terhadap *academic burnout*. Berbeda dengan kedua penelitian ini yang menggunakan pendekatan multidimensional terhadap *academic burnout*, penelitian ini menggunakan pendekatan unidimensional untuk meninjau *academic burnout* secara utuh pada tiap sub tipe perfeksionisme pada perfeksionisme model 2 x 2.

Penelitian ini memiliki implikasi penting dalam konteks pendidikan kedokteran. Hasil penelitian ini menekankan akan pentingnya internalisasi penetapan dan upaya mencapai standar tinggi, serta penghindaran dan penghindaran menghindari penuntutan standar tinggi ini secara eksternal pada pendidikan kedokteran, untuk mendorong perkembangan dan pemeliharaan sub tipe PS murni, bukan PC murni, dalam menekan *academic burnout*. Hal ini diperkuat oleh beberapa penelitian (Bynum dkk., 2018; Cope dkk., 2017; LaDonna dkk., 2018; Yanes, 2017) yang menunjukkan bahwa meskipun perfeksionisme adalah disposisi kepribadian, pendidikan kedokteran dapat memengaruhi perkembangan dan peningkatan perfeksionisme. Tuntutan dan apresiasi terhadap nilai presisi dan kesempurnaan yang sering terjadi dalam pendidikan jurusan kedokteran ditemukan dapat meningkatkan standar pribadi dalam segala upaya mencapai kompetensi tinggi (dimensi PS). Akan tetapi, hal ini juga dapat mengarah kepada penjagaan "citra sempurna" dalam berbagai *setting* (ruang kelas, perpustakaan, media sosial) sebagai manifestasi dari kecenderungan kritik diri dan kekhawatiran akan penilaian eksternal negatif (dimensi PC). Hal ini dapat didorong oleh penilaian bahwa usaha dan dirinya kurang, perandaian dan ketidakpuasan akan kinerja dan pencapaian pada masa lalu, serta perasaan malu dan sensitif akibat pengalaman kegagalan dari upaya memenuhi standar tinggi (dimensi PC).

Implikasi bagi mahasiswa kedokteran terletak pada manfaat dari pemahaman sub tipe perfeksionisme secara umum dan sub tipe perfeksionisme diri. Hal ini berguna untuk mengoptimalkan refleksi potensi dan koping diri, serta penyesuaian diri terhadap berbagai tuntutan perkuliahan. Bagi pihak universitas, baik dosen, konselor universitas, atau pihak terkait lainnya, pemahaman ini berperan dalam

pengaplikasian/pelaksanaan peran sebagai pemberi umpan balik dan evaluasi akademik bagi mahasiswa kedokteran, terutama dalam upaya refleksi dan penyesuaian mahasiswa kedokteran untuk mengatasi sumber daya internal yang buruk dalam mengatasi tuntutan-tuntutan eksternal, terutama mahasiswa kedokteran yang memiliki tingkat PC yang tinggi (PC murni dan perfeksionis gabungan). Selain itu, pemahaman perbedaan *academic burnout* pada tiap sub tipe perfeksionisme juga dapat dijadikan basis program pendidikan jurusan kedokteran ke arah pengembangan PS murni, yakni pribadi yang dapat menetapkan standar tinggi secara internal tanpa khawatir akan tuntutan eksternal melalui intervensi peningkatan PS murni dan pengurangan PC murni. Idealnya, pendidikan mampu menciptakan lingkungan positif yang mendorong perkembangan sumber daya para pelajar dalam menghadapi tantangan pada masa yang akan datang, seperti kontrol perilaku, regulasi emosi, penilaian dan tanggung jawab, kepercayaan diri, dan *self-esteem* (Määttä & Uusiautti, 2018). Dengan demikian, pengalaman pendidikan dan kesuksesan bagi pemberi pelayanan kesehatan profesional di masa depan dapat meningkat.

Terdapat beberapa keterbatasan dalam penelitian ini. Pertama, penelitian ini merupakan penelitian *cross-sectional*. Sebagaimana telah disebutkan sebelumnya, *academic burnout* berfluktuasi seiring waktu dan dengan tuntutan-tuntutan emosional yang dialami setiap harinya (Jagodics & Szabó, 2022; Rice dkk., 2015; Schaufeli dkk., 2002). Selain itu, penelitian *cross-sectional* tidak memungkinkan perolehan *temporal relation* dan kausalitas antara variabel. Dengan demikian, penelitian selanjutnya dapat menggunakan desain penelitian longitudinal untuk mengkaji perubahan waktu dan kausalitas pada hubungan antara sub tipe perfeksionisme dan *academic burnout*. Kedua, data diperoleh dengan pengukuran *self-report* yang rentan terhadap bias. Penggunaan pengukuran dari berbagai sumber dan metode dapat mengurangi bias *self-report* pada penelitian selanjutnya. Ketiga, terdapat ketidakseimbangan dalam jumlah sampel tiap kelompok kombinasi kategori antara PS dan PC (sub tipe-sub tipe perfeksionisme) dalam penelitian ini. Penelitian selanjutnya perlu memberikan perhatian lebih untuk mencapai distribusi kelompok kombinasi kategori yang lebih seimbang sehingga keakuratan estimasi dan kekuatan uji ANOVA faktorial dapat terjaga. Keempat, meskipun uji ANOVA faktorial dan *simple effect analysis* digunakan dalam analisis data penelitian ini, terdapat metode analisis statistik lanjutan lainnya yang dapat memberikan analisis penelitian lebih mendalam, seperti *moderated hierarchical regression* (Cohen dkk., 2003). Namun, karena keterbatasan pemahaman dan keahlian, analisis statistik tersebut tidak digunakan dalam penelitian ini. Penggunaan analisis statistik ini pada penelitian selanjutnya dapat memperdalam temuan penelitian ini. Terakhir, penting untuk diperhatikan bahwa temuan penelitian ini diperoleh dari mahasiswa kedokteran di Universitas Andalas. Perlu pertimbangan atau pengujian lebih lanjut mengenai generalisasi hasil penelitian ini pada populasi mahasiswa kedokteran yang lebih luas.

SIMPULAN

Dari temuan penelitian ini, dapat disimpulkan bahwa mahasiswa kedokteran PS murni mengalami *academic burnout* yang secara signifikan lebih rendah dibandingkan dengan mahasiswa kedokteran nonperfeksionis, mahasiswa kedokteran PC murni memiliki *academic burnout* yang secara signifikan tinggi dibandingkan dengan mahasiswa kedokteran nonperfeksionis, dan mahasiswa kedokteran perfeksionis gabungan memiliki *academic burnout* yang secara signifikan lebih rendah dibandingkan mahasiswa kedokteran PC murni dan secara signifikan lebih tinggi dibandingkan mahasiswa kedokteran PS murni, sejalan dengan konsep perfeksionisme model 2 x 2. Hasil ini memperkuat dukungan terhadap keunggulan PS murni dan kekurangan PC murni dalam konteks *academic burnout* pada mahasiswa kedokteran. Hasil ini juga mengindikasikan implikasi pemahaman perbedaan *academic burnout* pada tiap sub tipe perfeksionisme pada perfeksionisme 2 x 2 bagi mahasiswa kedokteran, bagi pihak universitas, dan bagi pengembangan sistem pendidikan kedokteran yang mengarah kepada peningkatan PS murni dan pengurangan PC murni untuk menekan *academic burnout*.

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DECLARATION OF POTENTIAL CONFLICTS OF INTEREST / DEKLARASI POTENSI TERJADINYA KONFLIK KEPENTINGAN

The authors do not work for, consult, own shares in, or receive funding from any company or organization that might profit from the publication of this manuscript. / *Penulis tidak bekerja, menjadi konsultan, memiliki saham, atau menerima dana dari perusahaan atau organisasi mana pun yang mungkin akan mengambil untung dari diterbitkannya naskah ini.*

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