

THE EFFECT OF PSYCHOLOGICAL DISTRESS AND PSYCHOLOGICAL WELL-BEING ON THE DURATION OF ACADEMIC DELAY AMONG STUDENTS AT UNIVERSITY X

PENGARUH ANTARA PSYCHOLOGICAL DISTRESS DAN PSYCHOLOGICAL WELL-BEING PADA MAHASISWA YANG MENGALAMI KETERLAMBATAN LULUS DI UNIVERSITAS X

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ABSTRACT

Academic delay is a multifaceted challenge frequently encountered by final-year university students. This study aimed to examine the predictive role of psychological distress and psychological well-being on the duration of academic delay among semester 10–14 students at University X. A quantitative regression design was employed with 31 purposively sampled participants. Data were collected using the Indonesian version of the Mental Health Inventory (MHI-38; Parombean et al., 2023). Multiple regression analysis revealed that psychological distress and psychological well-being did not significantly predict the duration of academic delay, neither simultaneously ($F = 0.756$; $p = 0.479$) nor partially (distress: $\beta = -0.190$, $p = 0.398$; well-being: $\beta = 0.268$, $p = 0.237$). These findings suggest that psychological condition alone is insufficient to fully explain the phenomenon of academic delay, underscoring the need for a multidimensional approach that integrates academic, structural, and psychological factors to understand students' delayed graduation. Practically, university counseling centers are recommended to implement semester-based psychological screening and differentiated interventions—prioritizing students from semester 9 onward—as part of an integrated academic support system.

Keywords: academic delay, final-year students, mental health, psychological distress, psychological well-being

ABSTRAK

Keterlambatan lulus (*academic delay*) merupakan tantangan kompleks yang sering dialami mahasiswa tingkat akhir. Penelitian ini bertujuan untuk menguji pengaruh *psychological distress* dan *psychological well-being* terhadap lama keterlambatan lulus pada mahasiswa semester 10–14 Universitas X. Pendekatan kuantitatif dengan desain regresi digunakan pada 31 partisipan yang dipilih melalui *purposive sampling*. Data dikumpulkan menggunakan *Mental Health Inventory (MHI-38)* versi Bahasa Indonesia (Parombean et al., 2023). Analisis regresi berganda menunjukkan bahwa *psychological distress* dan *psychological well-being* tidak signifikan memprediksi lama keterlambatan lulus, baik secara simultan ($F = 0,756$; $p = 0,479$) maupun parsial (distress: $\beta = -0,190$, $p = 0,398$; well-being: $\beta = 0,268$, $p = 0,237$). Temuan ini mengindikasikan bahwa kondisi psikologis saja belum cukup untuk menjelaskan sepenuhnya fenomena *academic delay*, sehingga diperlukan pendekatan multidimensional yang mengintegrasikan faktor akademik, struktural, dan psikologis untuk memahami keterlambatan lulus mahasiswa. Secara praktis, pusat layanan konseling perguruan tinggi direkomendasikan untuk mengimplementasikan skrining psikologis berbasis semester dan intervensi terdiferensiasi

dengan prioritas mahasiswa mulai semester 9 sebagai bagian dari sistem dukungan akademik terpadu.

Kata Kunci: *penundaan akademik, mahasiswa tingkat akhir, psychological distress, kesejahteraan psikologis, kesehatan mental*

INTRODUCTION

University students' mental health is a central issue that cannot be adequately understood through a purely symptomatic approach alone. Over the past two decades, a fundamental paradigm shift has occurred in psychology: mental health is no longer conceived merely as the absence of disorder, but as an active, multidimensional positive condition (Keyes, 2005; World Health Organization, 2022). This shift positions two constructs in parallel—psychological distress and psychological well-being—as correlated yet distinct dimensions (Westerhof & Keyes, 2010). This understanding becomes especially relevant when applied to the context of students experiencing academic delay, a population whose psychological condition has never been comprehensively examined using a dual-continua framework in Indonesia.

Academic delay refers to a condition in which students are unable to complete their studies within the normatively defined period (ideally four years). It is a multidimensional phenomenon rooted in a complex configuration of interacting academic, structural, economic, and psychological factors (Vettori et al., 2021; Witteveen & Attewell, 2019). Theoretically, academic delay can be understood through two complementary frameworks. First, Tinto's theory of student persistence (as cited in Gabi & Sharpe, 2021) positions successful degree completion as a function of the interaction between students' pre-entry attributes, goal commitment, and academic-social integration with the institutional environment. Within this framework, delayed graduation is not merely a reflection of individual deficit but a product of the mismatch between student capacity and the contextual demands of higher education institutions. Second, Terenzini and Reason's comprehensive conceptual framework (as cited in Reason, 2009) asserts that academic outcomes—including time to degree completion—can only be adequately understood by simultaneously accounting for students' precollege characteristics, the organizational climate, classroom experiences, and out-of-classroom experiences. This approach explicitly rejects the reductionism that maps academic delay as a singular manifestation of students' psychological condition.

The constructs of psychological distress and psychological well-being, which serve as the principal variables of this study, each rest on a strong and mutually complementary theoretical foundation. Psychological distress is defined as a cluster of negative emotional symptoms encompassing anxiety, depression, and loss of behavioral-emotional control that reflect clinically meaningful psychological strain (Espro et al., 2025; Veit & Ware, 1983). Psychological well-being, by contrast, refers to an individual's capacity to function optimally, which within Ryff's (2023) eudaimonic theory is operationalized through six dimensions: self-acceptance, purpose in life, autonomy, environmental mastery, personal growth, and positive relations with others. Collectively, these dimensions reflect the extent to which an individual is able to realize their potential and lead a meaningful life—a matter of particular relevance for students confronting the pressures of completing their final academic project. Both constructs are integrated within the Mental Health Inventory (MHI-38) developed by Veit and Ware (1983), in which psychological distress and psychological well-being are structured as two correlated yet psychometrically independent factors.

The relationship between these two constructs is fundamentally grounded in Keyes's (2005) dual continua model of mental health. This model challenges the traditional unidimensional assumption that positions mental health and mental illness as opposite poles of a single continuum. Instead, Keyes (2005), through confirmatory factor analysis of the MIDUS dataset ($N = 3,032$), demonstrated that mental illness and positive mental health constitute two separate, moderately correlated factors—such that an individual can simultaneously experience high distress while still exhibiting meaningful well-being, or vice versa. Westerhof and Keyes (2010) subsequently confirmed this model in a representative Dutch sample spanning the adult lifespan, while Scutt et al. (2023) and Kanougiya et al. (2024) replicated similar findings in clinical and community populations across different contexts. Within this framework, measuring only a single dimension—either distress or well-being alone—would yield an incomplete and potentially misleading picture of the true mental health condition of students experiencing academic delay. This constitutes the primary methodological justification for employing the MHI-38 in this study: the instrument simultaneously operationalizes both continua, thereby producing a comprehensive psychological profile.

Although the relationship between psychological condition and academic performance has been extensively studied, the literature reveals significant theoretical and empirical gaps. First, the majority of existing studies examine only a single dimension—either distress alone (Wagner et al., 2022) or well-being alone (Cobo-Rendón et al., 2020)—without integrating both within a single predictive model. Consequently, the cross-dimensional compensatory mechanism predicted by the dual continua model cannot be detected. Second, studies using academic delay—rather than merely academic grades or dropout risk—as the dependent variable remain scarce, even though academic delay represents a longitudinal academic outcome far more complex than single-semester performance alone (Müller et al., 2023; Witteveen & Attewell, 2019). Third, in Indonesia, existing studies generally examine stress, anxiety, or burnout in isolation (Dinata et al., 2023; Fitriarsi et al., 2020) without reference to the dual continua framework, such that the psychological profile of students experiencing academic delay—particularly those in semesters 10–14—has never been comprehensively depicted in the national literature. To address this gap, the present study employs the MHI-38 (Parombean et al., 2023; Veit & Ware, 1983) to simultaneously examine the predictive role of psychological distress and psychological well-being on the duration of academic delay among semester 10–14 students at University X. Beyond addressing this empirical gap, the present study contributes to theoretical development by testing whether Keyes’s (2005) dual continua model—a framework originally developed and validated primarily in Western adult populations—retains its explanatory power when applied to a normatively distinct population, namely Indonesian students undergoing prolonged academic delay. In doing so, this study offers a novel theoretical perspective on academic delay by moving beyond the dominant single-dimension approach to evaluate explicitly whether a dual-continua conceptualization of mental health can adequately account for a complex, multidimensional academic outcome, thereby extending the model’s applicability beyond its original scope of describing general mental health status. The conceptual model of this study posits that: (a) psychological distress—reflecting chronic affective strain that impairs cognitive functioning and motivation—exerts a significant positive effect on academic delay; (b) psychological well-being—reflecting optimal functioning capacity, a clear sense of purpose in life, and environmental mastery—exerts a significant negative effect on

academic delay; and (c) simultaneously, both constructs make unique, non-interchangeable contributions to predicting academic delay, consistent with the assumption of relative independence between the two continua in the dual continua model. Based on this theoretical framework, the following hypotheses are proposed:

- a. H1: Psychological distress and psychological well-being simultaneously predict the duration of students' academic delay, consistent with the dual continua conceptual model that positions both as complementary independent variables.
- b. H2: Psychological distress partially and positively contributes to the duration of academic delay; students with higher distress—who experience anxiety, depression, and loss of emotional control (Veit & Ware, 1983)—tend to require more time to complete their studies due to impaired cognitive functioning and self-regulation (Kristensen et al., 2023).
- c. H3: Psychological well-being partially and negatively contributes to the duration of academic delay; students with higher well-being—who possess a clear sense of purpose in life, autonomy, and environmental mastery—tend to be better able to sustain academic persistence and complete their studies more quickly (Gabi & Sharpe, 2021; Reason, 2009).

RESEARCH METHOD

This study employed a quantitative approach with a regression design to examine the relationship between psychological distress and psychological well-being among students experiencing academic delay. The population of this study consisted of students at University X from various study programs who had exceeded the normative study period, comprising 74 students across semesters 10 to 14.

A total 74 semester 10–14 students identified as the population, only 31 attended and were willing to complete the instrument in full. Sampling in this study employed a purposive sampling technique, in which participants were selected based on specific considerations and criteria predetermined by the researchers (Azwar, 2023). The inclusion criteria were active students enrolled in semesters 10–14 at University X who were experiencing academic delay, identified through recommendations from each student's academic advisor to the university's Mental Health Center (MHC) staff. The MHC staff subsequently contacted the recommended students to participate in a session for

completing the Mental Health Inventory (MHI). Accordingly, the final sample obtained in this study consisted of 31 participants.

Although $N = 31$ falls below the minimum threshold recommended by Green (2010) for multiple regression with two independent variables ($N \geq 50 + 8k = 66$), this sample size reflects the total available and willing-to-participate population out of the 74 students identified. Based on a post-hoc power analysis using Cohen's (1988) formula with a medium effect size ($f^2 = 0.15$), the resulting statistical power was 0.47—a limitation that is explicitly acknowledged and discussed in the limitations section. Accordingly, this study is exploratory in nature and does not aim to produce broad inferential generalizations (Field, 2013). A sample of this size also carries direct implications for the stability of the regression estimates: with only 31 observations and two predictors, the standard errors of the coefficients are comparatively large, making the estimates more sensitive to sampling fluctuation, such that small changes in sample composition could shift the magnitude—and potentially the direction—of the observed effects. Consequently, the regression coefficients reported in this study should be interpreted as indicative rather than precise point estimates, and conclusions regarding the (non-)significance of predictors should be read as provisional pending replication with a larger sample.

This study used the Indonesian-language version of the Mental Health Inventory-38 (MHI-38), adapted and validated by Parombean, Abidin, Qodariah, and Novita, (2023). The MHI-38 is a mental health instrument developed on the premise that mental health is a multidimensional construct encompassing both positive and negative aspects simultaneously, thereby enabling the concurrent measurement of psychological well-being and psychological distress. The MHI-38 comprises 38 items measuring two principal dimensions of mental health: psychological well-being and psychological distress. The psychological well-being dimension encompasses general positive affect, emotional ties, and life satisfaction, while the psychological distress dimension encompasses anxiety, depression, and emotional control. Respondents were asked to respond based on experiences over the preceding month (Veit & Ware, 1983). The Indonesian version employs a 5-point Likert scale with response options of 1 (never), 2 (rarely), 3 (sometimes), 4 (often), and 5 (always). This five-category response modification was made to enhance cultural appropriateness (Parombean et al., 2023).

The instrument adaptation process followed International Test Commission guidelines, comprising translation, back-translation, expert judgment, cognitive interviews, and psychometric testing. Content validity assessment yielded a Content Validity Index (CVI) of 1.00, indicating that all items demonstrated excellent relevance for measuring mental health (Parombean et al., 2023).

Construct validity was tested using Confirmatory Factor Analysis (CFA). The results indicated that the two-factor model comprising psychological well-being and psychological distress demonstrated good model fit, with RMSEA = 0.048, CFI = 0.945, NFI = 0.908, and TLI = 0.929. These findings indicate that the factor structure of the MHI-38 corresponds to its underlying theoretical construct (Parombean et al., 2023).

Table 1. *Reliability of Mental Health Inventory (MHI)-38*

Dimension	Coronbach's α	Catagory
Psychological distress	0,952	High
Pcychological Well-being	0,894	High
MHI-38	0,892	High

Note: Cronbach's α = internal consistency reliability coefficient.

Reliability testing indicated that the MHI-38 possesses excellent internal consistency. Cronbach's alpha for the overall instrument was 0.892, while the psychological well-being and psychological distress dimensions yielded values of 0.894 and 0.952, respectively (Parombean et al., 2023). These findings indicate that the MHI-38 demonstrates a high level of reliability and is suitable for measuring mental health within the Indonesian population.

This study did not report a separate Cronbach's alpha for the research sample (N = 31). This decision was based on the consideration that the Indonesian-language MHI-38 had already undergone a comprehensive psychometric adaptation and validation process by Parombean et al. (2023), including Confirmatory Factor Analysis (RMSEA = 0.048; CFI = 0.945) and excellent reliability estimates (α = 0.892–0.952). Recalculating alpha on a small sample (N = 31) with a large number of items (38 items) would produce unstable estimates with excessively wide confidence intervals, rendering such an estimate psychometrically uninformative (Dunn et al., 2014; Sijtsma, 2009). In research practice involving standardized instruments, citing validity and reliability from the original validation study is a defensible and accepted procedure (AERA et al., 2014).

Data analysis was conducted in three sequential stages: (1) descriptive statistics and categorization, (2) classical assumption testing, and (3) hypothesis testing. Descriptive statistics were used to obtain a general overview of participants' psychological distress and psychological well-being, including minimum and maximum values, empirical means, and standard deviations.

Prior to hypothesis testing, three prerequisites for multiple regression analysis were fulfilled as a basis for satisfying the fundamental assumptions of parametric statistics (Azwar, 2023): normality, multicollinearity, and heteroscedasticity tests. Hypothesis testing was conducted using multiple regression analysis, with duration of academic delay—operationalized through participants' current active semester—as the dependent variable, and psychological distress and psychological well-being as the independent variables. Multiple regression was selected because it can simultaneously test the contribution of two or more predictors to a single dependent variable, both jointly and partially (Azwar, 2023). All data analyses were conducted using IBM SPSS Statistics version 25, with a significance level of $\alpha = 0.05$.

- a. H_1 : There is a significant simultaneous effect of psychological distress and psychological well-being on the duration of students' academic delay. This was tested via the F-test, examining the significance value of F and the coefficient of determination (R^2) as an indicator of the proportion of variance in the dependent variable explained jointly by the two independent variables.
- b. H_2 : There is a significant effect of psychological distress on the duration of academic delay. This was tested via a partial t-test, examining the standardized regression coefficient (β) and its significance value.
- c. H_3 : There is a significant effect of psychological well-being on the duration of academic delay. This was tested via a partial t-test, examining the standardized regression coefficient (β) and its significance value.

RESULTS

This study involved 31 students currently enrolled at University X who were experiencing academic delay. All participants were identified based on year of entry, with their active semester ranging from semester 10 to semester 14. The complete demographic characteristics of the participants are presented in Table 2.

Table 2. *Demographic Characteristics of Participants (N = 31)*

Characteristic	Category	n (%)
Gender	Male	8 (25,8%)
	Female	23 (74,2%)
Year of Entry / Active Semester	2019 / Semester 14	10 (32,3%)
	2020 / Semester 12	10 (32,3%)
	2021 / Semester 10	11 (35,5%)

Note: n = frequency; % = percentage of total participants.

As shown in Table 2, the majority of participants were female (n = 23; 74.2%), while male participants numbered 8 (25.8%). In terms of year of entry as a proxy for delay duration, the 2019 and 2020 cohorts (semesters 14 and 12) comprised 10 participants each (32.3%), while the 2021 cohort, currently in semester 10, comprised 11 participants (35.5%). Prior to inferential analysis, a descriptive overview of psychological distress and psychological well-being is presented based on active-semester groups, along with a comparison between the empirical and hypothetical data of the Mental Health Inventory (MHI) used in this study.

Scores for both dimensions were categorized using empirical norms based on the $M \pm 1SD$ formula (Azwar, 2023), yielding three categories: low, moderate, and high. The categorization results are presented in Table 4.

Table 3. *Categorization of Psychological Distress and Well-being Based on Empirical Norms*

Variable	Category	Score Range	n	%
Psychological Distress	Low	< 73.03	6	19.4
	Moderate	73,03 – 104,46	20	64.5
	High	> 104.46	5	16.1
Psychological Well-being	Low	< 39.16	6	19.4
	Moderate	39.16 – 56.58	21	67.7
	High	> 56.58	4	12.9

Note: Categorization based on empirical norms. $M \pm 1SD$; low < $M - 1SD$; moderate = $M \pm 1SD$; high > $M + 1SD$.

As shown in Table 3, the majority of participants fell into the moderate category on both the psychological distress dimension (n = 20; 64.5%) and the psychological well-being dimension (n = 21; 67.7%). On the distress dimension, 5 participants (16.1%) fell into the high category, while 4 participants (12.9%) exhibited high psychological well-

being. Six participants (19.4%) fell into the low category on both dimensions. This distribution indicates that the mental health condition of students experiencing academic delay is heterogeneous—while the majority are in a moderate condition, a minority subgroup requires further attention, particularly those exhibiting high distress.

The normality test was conducted on the unstandardized residuals of the regression model using the One-Sample Kolmogorov-Smirnov (K-S) test with Lilliefors correction. Given the study's small sample size ($N = 31$), a Monte Carlo simulation based on 10,000 resamples was additionally performed to obtain a more accurate p-value estimate independent of asymptotic distribution assumptions. The normality test results are presented in Table 4.

Table 4. *Results of Residual Normality Test Kolmogorov-Smirnov*

Normality Test	p (Asymp.)	Conclusion
Kolmogorov-Smirnov	0,064	Normal

As shown in Table 4, the Kolmogorov-Smirnov test yielded a statistic of $D = 0.152$ with an asymptotic significance value of $p = 0.064$ and a Monte Carlo significance value of $p = 0.058$. Both p-values exceeded the threshold of $\alpha = 0.05$, indicating that the unstandardized residuals of the regression model were normally distributed. A residual mean of exactly 0.000 with a standard deviation of 1.116 further strengthens this conclusion, as a zero-mean residual distribution is one of the primary indicators of normality assumption fulfillment in regression analysis (McGregor & Little, 1998).

The multicollinearity test was conducted to detect whether an excessively strong linear relationship existed between the independent variables (psychological distress and psychological well-being), which, if present, could destabilize the regression coefficient estimates. Multicollinearity was assessed using the Variance Inflation Factor (VIF) and Tolerance values for each independent variable in the regression coefficients table. The test results are presented in Table 5.

Table 5. *Results of Multicollinearity Test (Coefficients^a)*

Independent Variable	B	Std. Error	β	t	p	VIF
Psychological Distress	-0,014	0,016	-0,190	-0,859	0,398	1,452
Psychological Well-being	0,035	0,029	0,268	1,209	0,237	1,452

As shown in Table 6, the VIF values for both predictor variables were identical at 1.452, with a Tolerance value of 0.689 ($= 1/1.452$). A VIF well below the threshold of 10 and a Tolerance well above 0.10 indicate the absence of concerning multicollinearity in this regression model (Hair et al., 2019). Although psychological distress and psychological well-being were significantly correlated ($r = 0.558$; $p = 0.001$), as found in the preliminary analysis, the degree of correlation remained within a tolerable range and did not destabilize the coefficient estimates. The assumption of freedom from multicollinearity was therefore met. Furthermore, the heteroscedasticity test aimed to determine whether the residual variance of the regression model was constant.

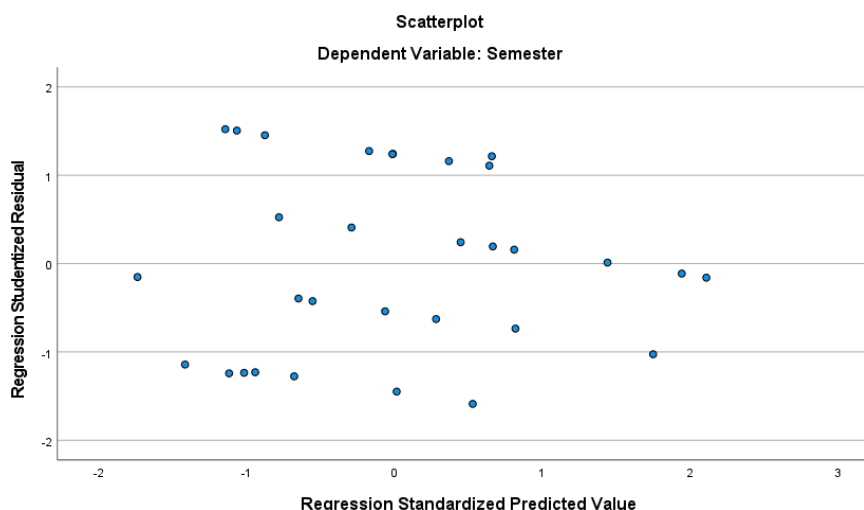


Figure 1. Scatterplot

As shown in the scatterplot above, the data points are scattered irregularly above and below the zero point on the Y-axis, with no discernible pattern. It can therefore be concluded that no heteroscedasticity is present. Overall, the classical assumption test results indicate that all prerequisites for regression analysis were satisfied, including residual normality, freedom from multicollinearity, and freedom from heteroscedasticity. With all assumptions met, the regression analysis for hypothesis testing could proceed with statistically defensible results.

Hypothesis testing was conducted using multiple regression analysis, with duration of academic delay—operationalized through participants' active semester—as the dependent variable, and psychological distress and psychological well-being as the independent variables. Three hypotheses were tested sequentially: (H_1) a simultaneous

effect of both independent variables on the duration of academic delay; (H_2) a significant effect of psychological distress on the duration of academic delay; and (H_3) a significant effect of psychological well-being on the duration of academic delay.

Table 6. *Results of Multiple Regression Analysis of Psychological Distress and Psychological Well-being on the Duration of Academic Delay*

Model	R	R ²	Adj. R ²	Std. Error	R ² Change	F Change	df1	df2	Sig. F
1	.226	0,051	-0,017	1,155	0,051	0,756	2	28	0,479

Note: R = multiple correlation coefficient; R² = coefficient of determination; Adj. R² = adjusted coefficient of determination; Std. Error = standard error of estimate; predictors: (Constant), psychological distress, psychological well-being; dependent variable: Semester; significant if Sig. F < 0.05.

As shown in Table 6, the multiple regression analysis yielded a multiple correlation coefficient of R = 0.226 with R² = 0.051. This value indicates that, jointly, the two independent variables explained only 5.1% of the variance in duration of academic delay. The negative Adjusted R² value of -0.017 indicates that the independent variables were unable to meaningfully predict the dependent variable (Field, 2013). Using Cohen's (1988) benchmark for effect size in multiple regression, this proportion of explained variance corresponds to $f^2 = 0.054$, which falls within the small-effect range ($f^2 \geq 0.02$). In practical terms, even though the model as a whole did not reach statistical significance, this small positive effect size suggests that psychological distress and psychological well-being are not entirely unrelated to academic delay; rather, their combined contribution appears too modest, and the available sample too limited, for the relationship to be detected with statistical confidence.

The F-test yielded F Change = 0.756; df(2, 28); p = 0.479 (p > 0.05), indicating that the overall model was not significant. H_1 was rejected: there was no significant simultaneous effect of psychological distress and psychological well-being on the duration of students' academic delay.

Table 7. *Partial Regression Coefficient*

Variable	B	SE	β	t	p	Tolerance	VIF
(Constant)	2020,157	1,348	—	1499,07	0,000	—	—
Psych. Distress	-0,014	0,016	-0,190	-0,859	0,398	0,689	1,452
Psych. Well-being	0,035	0,029	0,268	1,209	0,237	0,689	1,452

Note: B = unstandardized coefficient; SE = standard error; β = standardized coefficient; VIF = Variance Inflation Factor; dependent variable: Semester; significance criterion p < 0.05.

Table 7 presents the partial test results for each independent variable. For H_2 —the hypothesized significant effect of psychological distress on duration of academic delay—the analysis yielded $\beta = -0.190$, $t = -0.859$, and $p = 0.398$ ($p > 0.05$). This coefficient was not significant, contrary to the hypothesis. H_2 was therefore rejected. The corresponding effect size, expressed as partial $\eta^2 = 0.026$, indicates that psychological distress uniquely accounted for approximately 2.6% of the variance in academic delay after controlling for psychological well-being—a small effect by Cohen’s (1988) criteria. Substantively, this suggests that although higher distress was weakly associated with a shorter, rather than longer, duration of delay, the relationship was neither strong nor consistent enough to be considered a meaningful predictor within this sample.

For H_3 —the hypothesized significant effect of psychological well-being on duration of academic delay—the analysis yielded $\beta = +0.268$, $t = 1.209$, and $p = 0.237$ ($p > 0.05$). As with H_2 , this coefficient was not significant, contrary to the hypothesis. H_3 was therefore rejected. The partial η^2 for psychological well-being was 0.050, slightly larger than that of psychological distress but still within the small-to-moderate range. This indicates that, although students with higher well-being tended to show marginally longer delay durations, well-being alone explained only a small proportion of unique variance and cannot be considered a robust predictor of academic delay in this sample. Taken together, the pattern of small effect sizes across both predictors reinforces the interpretation that psychological condition—whether framed as distress or well-being—plays, at most, a minor role relative to the non-psychological factors more likely to drive academic delay.

DISCUSSION

This study yielded findings that diverge substantially from the theoretical predictions built upon the Mental Health Inventory (MHI-38) framework of Veit and Ware (1983). Overall, neither psychological distress nor psychological well-being demonstrated a significant relationship with academic delay among semester 10–14 students at University X. Moreover, the observed direction of the relationships ran contrary to what was hypothesized: psychological distress exhibited a negative direction with academic delay, whereas psychological well-being exhibited a positive direction. Although these results did not reach statistical significance and must be interpreted with

considerable caution, the emerging pattern suggests that the relationship between students' mental condition and delayed graduation is far more complex than assumed under a simple linear theoretical model.

At the same time, these findings do not imply that the psychological condition of delayed students is irrelevant. As shown in the earlier descriptive analysis, 5 participants (16.1%) exhibited high psychological distress, and mean psychological well-being in the semester 14 group ($M = 43.86$) was lower than in other semester groups. This suggests that although mental health was not shown to be a significant predictor of delay duration, students experiencing longer delays still exhibit a more vulnerable psychological profile and require targeted counseling interventions (Wagner et al., 2022). This finding does not negate the relevance of mental health in academic contexts, but rather challenges the conventional practice of interpreting academic delay solely as a manifestation of disturbed psychological condition.

The rejection of all hypotheses in this study cannot be attributed solely to methodological shortcomings. Instead, these results open up a richer space for interpreting the actual determinants of academic delay. Delayed graduation is a multidimensional phenomenon rooted in a complex, interacting configuration of academic, structural, economic, and interpersonal factors (Trusty et al., 2025; Zhang et al., 2024). This finding aligns with the emphasis of Tinto's theory of student persistence (as cited in Gabi & Sharpe, 2021) that degree completion is not solely a function of an individual's internal condition, but rather the outcome of an interaction between student attributes, goal commitment, and academic-social integration with the institutional environment. The absence of a significant relationship between either psychological distress or psychological well-being and academic delay in this study can be interpreted as empirical evidence that individual psychological dimensions are merely one component among many in this integration process, and are insufficiently robust to stand alone as predictors when institutional and social components are not simultaneously accounted for. This interpretation is further reinforced by Terenzini and Reason's comprehensive conceptual framework (as cited in Reason, 2009), which asserts that academic outcomes—including time to degree completion—can only be adequately understood when students' precollege characteristics, organizational climate, classroom experiences, and out-of-classroom experiences are considered simultaneously. In other

words, the non-significant results for both psychological variables in this study are not an anomaly, but are consistent with the predictions of both theoretical frameworks, which from the outset reject the reductionism of positioning academic delay as a singular manifestation of students' psychological condition.

One of the most plausible explanations is that specific academic factors—such as difficulties completing the final thesis, limited access to supervisors, or low self-regulated learning—hold far greater predictive power for delayed graduation than general psychological condition (Cobo-Rendón et al., 2020). Students experiencing academic delay are not always in a poor psychological state; many have developed parallel life routines such as part-time work, building social relationships outside campus, or even engaging in entrepreneurship, which can provide their own psychological satisfaction even though these students are normatively considered “delayed.” Psychological condition, therefore, does not correspond directly with academic performance.

Administrative and campus bureaucratic factors also merit consideration. Delays in thesis title approval, inflexible examination scheduling, lengthy administrative processes, and inconsistent feedback from thesis supervisors represent extrinsic structural barriers unrelated directly to students' mental health (Trusty et al., 2025). In many cases, even psychologically healthy students may experience delayed graduation due to systemic obstacles beyond their control. This indicates that measuring mental condition alone is insufficient to predict academic delay without incorporating such contextual variables.

Economic and employment factors also constitute a significant contributor. Many final-year students work to meet living expenses or even support their families, leaving very limited time and energy for completing their thesis. This condition does not always reflect psychological distress, but rather the socioeconomic reality that compels them to prioritize subsistence over degree completion (Zhang et al., 2024). Academic procrastination, which much of the literature associates with weak self-regulation rather than merely negative affective states, likewise warrants consideration as an unmeasured mediator in this study (Kristensen et al., 2023).

The finding that psychological distress exhibited a negative—albeit non-significant—coefficient direction with academic delay represents the most provocative aspect of this study. Under conventional theoretical assumptions, individuals with higher distress levels would be expected to struggle more with academic demands, implying an

anticipated positive relationship. However, a phenomenon often termed distress-driven urgency, or anxiety-as-motivator (Kristensen et al., 2023), describes a condition in which individuals experiencing psychological pressure are instead driven to resolve the source of that pressure more quickly. The awareness that delayed graduation is itself a source of distress may motivate students to accelerate degree completion, such that distress does not correlate positively with delay but rather the opposite. This contrasting directional pattern was also empirically observed by Cvetkovski, Jorm, and Mackinnon, (2018) in a large-scale survival analysis study ($N = 1,265$) in Australia, which surprisingly found that students with psychological distress had a lower likelihood of dropout and a higher likelihood of degree completion by the fourth year of study compared with students without distress—a finding directly consistent with the negative coefficient direction obtained in this study.

A similar explanation can be drawn from the perspective of resilience and adaptive coping. Students who have progressed beyond semester 10 through semester 14—exceeding the normative period for degree completion—have likely undergone a process of adaptive acceptance, namely, an acceptance of their delayed status accompanied by adjusted coping strategies (Cobo-Rendón et al., 2020). The distress these students experience at this stage may have undergone a functional transformation: no longer serving as an obstacle, but rather as a signal that mobilizes psychological resources. The positive psychology literature supports the view that adversity, within certain limits, can strengthen individual resilience and sharpen goal focus (Parombean et al., 2023).

As for the positive direction of psychological well-being on academic delay, this paradox can be understood through the lens of hedonic adaptation. Students with high well-being may have achieved a psychological equilibrium that, paradoxically, reduces the urgency to graduate promptly. Overall life satisfaction, high-quality social relationships, and a sense of meaning in daily life do not always run parallel with the drive to complete studies on time. This finding is consistent with the concept proposed by Cobo-Rendón et al. (2020) that increased positive affect does not automatically drive improved academic performance; in certain cases, high life satisfaction may instead reduce extrinsic motivation to change.

Much of the existing literature does support this study's original theoretical assumptions. (Trusty et al., 2025), in a six-year cohort study, found that academic distress

symptoms and substance use significantly predicted academic dropout, with the effect strengthening across semesters. March-Amengual et al. (2022) found a psychological distress prevalence of 27.1% among first-year students, associated with an increased risk of burnout. Zhang et al. (2024) likewise confirmed a negative correlation between stress, depression, and anxiety levels and students' academic performance in Beijing. Shengyao et al. (2024) demonstrated that emotional intelligence—closely related to well-being—correlates positively with academic achievement. Grotan, Sund, and Bjerkeset (2019), in a large Norwegian study (N = 749), found that students with severe psychological distress symptoms had twice the likelihood of experiencing academic delay compared with students exhibiting mild-to-moderate symptoms, with academic self-efficacy playing an important role in this relationship. More specifically, in the context of already-delayed students, Gisela et al. (2025) found a very strong negative correlation between academic stress and psychological well-being ($r = -0.814$) among final-year students in Indonesia, indicating that the academic pressure experienced by delayed students is closely linked to declines in their psychological well-being. Collectively, these findings form a logical foundation for this study's hypotheses.

However, a number of studies have reported more nuanced findings that align with the results of this study. (Cobo-Rendón et al., 2020), in a longitudinal study, found that although negative affect increased in the second year of study, psychological well-being did not consistently predict perceived academic performance; only the accomplishment dimension significantly predicted such performance. This suggests that well-being as a global construct has limited predictive power for specific academic outcomes. March-Amengual et al. (2022) similarly found that academic performance was not significantly affected by either psychological distress or burnout in a sample of first-year students—a finding that directly validates a pattern similar to that found in the present study, albeit in a different context.

Consistent with this pattern, (Dendle et al., 2018), in a prospective cohort study of medical students in Australia, found that psychological distress scores (K10) were not correlated with academic performance, while their association with an alternative distress measure (GHQ-28) was only weak. Cvetkovski et al. (2018) similarly found results that ran counter to common assumptions, with psychological distress associated with a higher, rather than lower, likelihood of graduation. These findings reinforce the

argument that the relationship between distress and academic delay is not universal and depends heavily on context and on how delay itself is operationalized.

A third body of research demonstrates that the relationship between mental health and academic outcomes is indirect and mediated by other variables. Kristensen et al. (2023) found that academic self-efficacy served as a partial mediator between academic stress and psychological distress, rather than a direct relationship between the two. Shengyao et al. (2024) demonstrated that the influence of emotional intelligence on well-being and academic achievement is mediated by self-efficacy, motivation, and resilience. Parombean et al. (2023) showed that psychological well-being among Indonesian adolescents correlates with life satisfaction and positive affect, yet its correlation with distress is not strong enough to assume both as opposite ends of a single continuum. A similar nuance was found by Barry et al. (2018) among doctoral candidates in Australia: students who felt behind schedule in their studies reported higher depression, anxiety, and stress than those who felt on schedule, yet candidature stage (length of study) itself was not associated with these scores. This pattern aligns with the present study's use of semester as a proxy for delay duration, and suggests that students' subjective perception of their academic progress may be a more proximal variable to distress than objective delay duration itself. This mediation pattern implies that without measuring intervening variables such as procrastination, self-regulated learning, and self-efficacy, a direct relationship between psychological distress and well-being with academic delay is unlikely to emerge consistently.

The null findings of this study invite a more fundamental question: why did the dual continua model—robustly validated across Western and, increasingly, non-Western adult populations (Kanougiya et al., 2024; Scutt et al., 2023; Westerhof & Keyes, 2010)—fail to explain academic delay among Indonesian students in this context? One plausible explanation is that the dual continua model was developed to describe general mental health status, not to predict a specific, structurally embedded academic outcome. Academic delay, unlike psychological symptoms, is not solely internal to the individual; it is co-produced by institutional processes such as thesis supervision, curriculum design, and administrative procedure. The model assumes that distress and well-being are informative indicators of an individual's functioning, but it does not specify a mechanism by which that functioning translates into a bureaucratically mediated outcome such as

time-to-degree. In this sense, the model's explanatory reach may simply not extend to outcomes that are, at their core, structurally rather than psychologically determined.

This raises a second, related question: is academic delay, in the context examined here, more accurately understood as an academic phenomenon than a psychological one? The pattern of findings—small, non-significant effects; a counterintuitive negative association between distress and delay; and converging evidence from the broader literature pointing to supervision access, thesis-writing self-efficacy, and administrative bottlenecks as more proximal determinants (Kristensen et al., 2023; Trusty et al., 2025)—collectively suggests that this may indeed be the case, at least for the specific population studied here. This does not mean psychological condition is irrelevant: the elevated distress observed in a subset of participants demonstrates a real clinical need. Rather, it suggests that psychological condition functions more plausibly as a concomitant of academic delay, or as a distal moderator interacting with structural barriers, than as its direct antecedent.

From this reappraisal, the present study extends theory in two directions. First, it contributes to the literature on academic persistence by empirically demonstrating a boundary condition of the dual continua model: the model may hold well for describing an individual's mental health status but appears to have limited standalone predictive utility for institutionally embedded academic outcomes unless integrated with structural variables drawn from persistence frameworks such as Tinto's (as cited in Gabi & Sharpe, 2021) or Terenzini and Reason's (as cited in Reason, 2009). Second, it contributes to the psychological well-being literature by illustrating that well-being's relationship with academic timeliness may be non-linear or context-dependent—consistent with the hedonic-adaptation explanation offered above—rather than uniformly protective. Taken together, these findings point toward a synthesis in which academic delay is best modeled as a multidimensional outcome situated at the intersection of psychological, structural, and institutional systems, with the dual continua model contributing one necessary but insufficient piece of that larger explanatory architecture.

These findings explicitly challenge the reductionist assumption that delayed graduation represents a poor psychological condition. Academic delay cannot be positioned merely as a clinical manifestation of distress; rather, it is the product of an interaction among psychological, structural, economic, and relational factors that cannot

be captured by a single mental health measure alone (Trusty et al., 2025; Zhang et al., 2024). Students who experience delayed graduation are not necessarily in a state of high distress, and those with high well-being do not necessarily complete their studies on time.

For higher education institutions, these findings suggest that mental-health-based interventions alone are insufficient to address the problem of academic delay. An integrative approach is needed that simultaneously addresses structural barriers such as the efficiency of thesis supervision processes, availability of supervisor access, and flexibility of academic policies. Academic advisors need to be trained to identify not only signs of psychological distress but also the extrinsic barriers students face. Campus counseling services should function not merely as crisis-response units, but as strategic partners in designing preventive programs targeting academic procrastination and strengthening self-regulated learning. Campus mental health centers also need to develop more comprehensive assessments—beyond distress and well-being scales—to holistically capture students' motivational, coping, and situational barrier dimensions.

This study is subject to several methodological limitations that must be openly acknowledged. First, the sample size of 31 participants is very small and statistically inadequate for detecting small-to-medium effects in multiple regression analysis; this is one of the primary factors limiting the emergence of statistical significance even if a substantial relationship truly exists. Second, this study employed a cross-sectional regression design that captured students' psychological condition and academic status at only one point in time, precluding causal inference or an understanding of how distress and well-being change over the course of academic delay. Third, purposive sampling was conducted at only one university, meaning that the institutional characteristics, academic policies, and campus culture specific to University X may limit the generalizability of these findings to delayed students at other institutions. Fourth, all data in this study were collected via a self-report instrument (MHI-38), meaning the results may be subject to self-report biases such as social desirability or participants' tendency to present a better or worse psychological condition than their actual state. Fifth, this study did not control for a number of variables theoretically relevant to academic delay, such as social support, cumulative grade point average (GPA), family economic condition, academic motivation, self-efficacy, and academic resilience. The absence of controls for these variables creates a serious risk of omitted variable bias and raises the possibility that the relationship

between distress, well-being, and academic delay is, in fact, indirect, mediated, or moderated by these variables.

CONCLUSION AND RECOMMENDATION

This study concludes that the duration of academic delay among semester 10–14 students at University X cannot be adequately explained by psychological condition alone, whether in the form of psychological distress or psychological well-being. The central contribution of this study to the educational psychology literature lies precisely in this null finding: it provides empirical evidence, drawn from an under-researched population of long-delayed Indonesian students, that academic delay is a multidimensional phenomenon that cannot be adequately explained through psychological distress or psychological well-being indicators alone, thereby reinforcing the necessity of integrating psychological, academic, and structural perspectives in both theory and practice. These findings indicate that academic delay is a phenomenon more appropriately understood through a multidimensional framework—as asserted by Tinto's theory of student persistence and Terenzini and Reason's comprehensive conceptual framework—which positions academic, structural, economic, and social factors as determinants at least as important as, and potentially more dominant than, students' individual mental health condition. Delayed graduation should not, therefore, be interpreted as a direct indicator of poor student mental health; conversely, a relatively healthy psychological condition does not guarantee timely degree completion.

Given that this study involved only 31 participants from a single university using a regression design, the resulting conclusions and implications should be interpreted with due caution and cannot be generalized to the broader population of delayed students or to other institutions. Future research is therefore recommended to employ larger sample sizes through probability sampling techniques, involve more than one higher education institution, and apply a longitudinal design to more accurately track changes in students' psychological condition throughout the delay period. Future studies should also incorporate variables that may function as mediators or moderators—such as social support, GPA, economic condition, academic motivation, self-efficacy, and academic resilience—to more fully understand the mechanisms linking psychological condition to academic delay. Notwithstanding these limitations, higher education institutions are nonetheless encouraged to develop an integrated academic support system that focuses

not only on mental health services, but also on strengthening the academic, social, and structural aspects that empirically play a greater role in determining the smoothness of students' degree completion.

Future research is strongly encouraged to employ larger samples using probability sampling techniques to ensure adequate statistical power and generalizability. Future models should incorporate relevant mediating and moderating variables, such as academic procrastination, thesis-completion self-efficacy, quality of supervision received, and students' employment status. A longitudinal design would allow researchers to understand the trajectory of change in students' psychological condition throughout the delay period and to identify the most effective critical points for intervention. Expanding the scope to multiple institutions with differing academic characteristics would also enrich understanding of the role of structural factors in academic delay. Finally, a mixed-methods approach—combining quantitative surveys with in-depth interviews—would be highly valuable for uncovering the psychological and situational mechanisms that standardized instruments alone cannot capture.

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