



CLASSIFICATION OF PROCRASTINATION SEVERITY USING THE PURE PROCRASTINATION SCALE (PPS) AMONG COLLEGE STUDENTS

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ABSTRACT

Procrastination is a common behaviour among students that can impair academic performance and well-being. The Pure Procrastination Scale (PPS) is a validated 12-item self-report measure of procrastination derived from existing scales. In this study, 40 undergraduates (age 18–25) completed the PPS and were categorized into mild (score 12–35), moderate (36–59), or severe (60–84) procrastination groups based on their total scores. The PPS demonstrated high internal consistency (Cronbach's $\alpha = 0.876$). Factor analysis suggested a multidimensional structure, consistent with prior findings of distinct procrastination facets. Most participants were classified in the moderate category ($n=24$), with fewer in mild ($n=10$) or severe ($n=6$) categories. These results support the PPS's reliability in student samples and the utility of severity classification for identifying levels of procrastination.

KEYWORDS: Procrastination; Pure Procrastination Scale; Reliability; Factor Analysis; College Students

INTRODUCTION

Procrastination is generally defined as the voluntary delay of an intended task or decision despite expecting to be worse off for this delay¹. In academic contexts, this post-decisional, irrational delay is especially prevalent and problematic: it is associated with increased stress, guilt, poorer grades, and lower well-being². Indeed, research suggests that most college students procrastinate in some way; estimates range from 80% to 95% reporting engagement in procrastination, and roughly three-quarters considering themselves habitual procrastinators³. When chronic, such self-regulatory failure can become pernicious, undermining academic success and psychological health¹.

Given its prevalence, reliable measurement of procrastination is important for both research and intervention. Several self-report instruments exist (e.g. General Procrastination Scale, Decisional Procrastination Scale), but the Pure Procrastination Scale (PPS) is notable for distilling the core elements of procrastination. Developed by Steel (2010), the

PPS is a 12-item scale constructed by selecting high-loading items from three established procrastination measures⁴. These items collectively capture key aspects of delay (decision postponement, task initiation delay, and lateness) and reflect overall trait procrastination. Prior studies have found the PPS to be psychometrically robust: for example, Steel reported an internal consistency of $\alpha \approx .87$ (indicative of excellent reliability), and subsequent adaptations have confirmed its reliability and validity in diverse samples⁵⁻⁶. Factor analyses in international samples often favour a multidimensional solution for the PPS (e.g. distinct decisional, implemental, and timeliness factors)⁷⁻⁸, suggesting the scale taps several facets of procrastination.

The current study applies the PPS to a cohort of Indian college students, with the goal of classifying their level of procrastination severity. Using established cutoffs on the PPS total score (12–35 = mild, 36–59 = moderate, 60–84 = severe), we examined how these categories distributed in our sample. We also evaluated the PPS's psychometric properties (internal consistency and factor structure) in this context. This work aims to determine whether the PPS is reliable for this population and to assess the usefulness of categorizing individuals by procrastination severity for potential screening and support.

METHODOLOGY

Participants

Participants were 40 undergraduate students (age range 18–23 years) recruited from a university setting. The sample included both genders (exact breakdown not recorded) and represented various fields of study. Recruitment was done by convenience sampling during academic sessions. All participants provided informed consent and the study was conducted under appropriate ethical guidelines for survey research.

Instrument

Procrastination was measured using the Pure Procrastination Scale (PPS)⁴. The PPS consists of 12 statements reflecting procrastination behaviours (e.g., "I often say 'I will do this tomorrow'"). In this format, respondents rate each item on a Likert scale (higher values indicate greater agreement or frequency). The sum of all item scores yields a total between 12 and 84, with higher scores denoting more severe procrastination. The PPS was originally derived by Steel (2010) from items on the Decisional Procrastination, General Procrastination, and Adult Inventory of Procrastination scales, and it has demonstrated strong validity in prior research⁴. For this study, we adopted the same items; for simplicity, items were translated into the local language and checked for clarity, though the original English formulation was used in analysis.

Procedure

Data collection occurred in a classroom setting. Participants completed a short demographic questionnaire followed by the 12 PPS items. No time limit was imposed, but most students finished within 10–15 minutes. Responses were collected anonymously. After data entry, statistical analysis was performed using SPSS software. We calculated descriptive statistics (means, standard deviations) for PPS scores, performed reliability analysis (Cronbach's alpha), and categorized participants into mild/moderate/severe groups based on their total PPS scores. In addition, we conducted an exploratory factor analysis (principal components with varimax rotation) on the 12 items to examine the underlying structure of the scale. The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were evaluated to confirm the suitability of factor analysis.

RESULTS

The overall mean PPS score in the sample was in the moderate range (exact M and SD not tabulated), reflecting generally typical levels of delay. The internal consistency of the PPS was high: Cronbach's $\alpha = 0.876$, indicating strong reliability of the 12-item scale. This value aligns well with prior research, which has reported PPS alphas in the high .80s to low .90s (e.g. .91 in a Brazilian sample)⁹.

Based on the predetermined cutoffs, participants were classified as follows: mild procrastination (score 12–35) – $n = 10$ (25%), moderate procrastination (36–59) – $n = 24$ (60%), and severe procrastination (60–84) – $n = 6$ (15%). These frequencies indicate that the majority of students fell into the moderate category. A histogram of total PPS scores (not shown) further confirmed a roughly normal spread, without floor or ceiling effects in this sample.

Exploratory factor analysis of the 12 PPS items suggested a multi-dimensional structure. The KMO measure was satisfactory and Bartlett's test was significant ($p < .001$), supporting factorability. The analysis yielded three factors with eigenvalues above 1, together accounting for a substantial proportion of variance. Items 1–3 loaded primarily on a first factor (reflecting decisional delay), items 4–8 on a second factor (implemental delay), and items 9–12 on a third factor (timeliness/lateness). This three-factor pattern is consistent with previous studies of the PPS⁷⁻⁸. (Note: factor loadings and variance explained are not tabulated here for brevity.) In sum, the EFA results mirror prior findings that the PPS can encompass distinct but related procrastination facets.

DISCUSSION

The present study evaluated the PPS in a sample of college students and used it to classify individuals by procrastination severity. The high Cronbach's alpha ($\alpha = .876$) indicates that the PPS items cohered well in this context, providing reliable measurement of the procrastination construct. This internal consistency is comparable to values reported in other studies: for example, Rocha et al. (2021) found α values between .80 and .91 for the PPS in a Brazilian sample⁹, and Besharat and Maserrat (2019) similarly confirmed satisfactory reliability⁶. Thus, the PPS appears to be psychometrically strong when used with students, even in a relatively small sample like ours.

The exploratory factor analysis aligned with literature that conceptualizes procrastination as having multiple dimensions⁷⁻⁸. We observed a three-factor solution matching decisional, implemental, and timeliness aspects, echoing the structure found by Svartdal and Steel (2017) and others⁸. Importantly, our factor pattern suggests that total PPS score (a unidimensional sum) is meaningful, while also hinting that sub-dimensions exist. In practice, the multidimensional nature of the PPS may allow further analysis if desired, but for the purpose of categorizing severity we treated the scale as unidimensional.

Classifying students into mild, moderate, and severe procrastination groups provided useful distinctions. Most participants were moderate procrastinators (60%), whereas severe procrastinators were the minority (15%). This distribution is sensible: if nearly all students procrastinate occasionally, only a subset will fall into the high end of the spectrum. Identifying severe cases is particularly important, as these individuals may experience more impairment. Indeed, recent research emphasizes screening for severe procrastination in academic settings to guide interventions¹⁰. Our data accord with that perspective: while all students might benefit from general time-management strategies, those in the severe category likely need targeted support. Using the PPS to flag such high scorers could therefore be a practical step in student services.

The psychometric findings and classification scheme support the relevance of the PPS. The scale's strong reliability and clear item grouping reinforce its validity as a measure of procrastination⁶⁻⁸. Moreover, establishing cut-off ranges can help practitioners interpret raw scores. Although these particular thresholds (12–35, 36–59, 60–84) are somewhat arbitrary, they yielded groups of reasonable size in our sample. Future work could refine such cutoffs (for example, using larger datasets or clinical benchmarks).

Overall, the study demonstrates that the PPS is effective for assessing procrastination among college students and that classifying severity levels can highlight those at greater risk. The majority moderate group suggests that occasional procrastination is normative, but the smaller severe group likely corresponds to students with significant self-regulatory difficulties. Recognizing this differentiation is useful: severe procrastinators might exhibit more stress and negative outcomes, as prior research suggests (e.g., elevated anxiety, guilt, and health impairment)¹¹⁻¹².

CONCLUSION

This investigation confirms that the Pure Procrastination Scale is a reliable tool for measuring procrastination in a student sample. With a Cronbach's alpha of .876 and evidence of a coherent factor structure, the PPS demonstrated strong psychometric performance. Categorizing total scores into mild, moderate, and severe levels revealed that most students were moderate procrastinators, while a minority fell into the severe category. These results imply that distinguishing severity can be a valuable practice: it helps to identify individuals who may need more intensive support for procrastination. In summary, the PPS can be confidently used in academic research and practice to quantify procrastination levels, and the proposed classification offers a practical way to interpret those levels. Future research should replicate this approach with larger samples and investigate how severity relates to outcomes like grades and mental health.

REFERENCES

1. Steel P. The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychol Bull.* 2007;133(1):65-94.
2. Tice DM, Baumeister RF. Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. *Psychol Sci.* 1997;8(6):454-458.
3. Svartdal F, Steel P. Irrational delay revisited: Examining five procrastination scales in a global sample. *Front Psychol.* 2017; 8:1927.
4. Steel P. Procrastination: A unique adjustment problem in the prediction of relapse to smoking. *J Behav Decis Mak.* 2010;23(3):218-225.
5. Kim K-R, Seo E-H. The relationship between procrastination and academic performance: A meta-analysis. *Pers Indiv Differ.* 2015; 82:26-33.
6. Besharat MA, Maserrat AM. Reliability, validity and factor analysis of Pure Procrastination Scale. *Psychol Sci.* 2019;22(86):1-13.
7. Svartdal F, Gamst-Klaussen T, Koppenborg M, Klingsieck KB. Procrastination among university students: Differentiating severe and less severe cases. *Front Psychol.* 2016; 7:1967.
8. Svartdal F, Steel P. Irrational delay revisited: Examining five procrastination scales in a global sample. *Front Psychol.* 2017; 8:1927.
9. Rocha RCF, Abreu AM, Scheel V, Silva AS. Pure Procrastination Scale e Irrational Procrastination Scale: Validation of a Brazilian version. *Psicol Reflex Crit.* 2021;34(1):30.
10. Svartdal F, Steel P, Massasso P. Procrastination in academic contexts: A systematic review of studies that examine the role of self-regulation, emotion regulation, and temporal factors. *Front Psychol.* 2022; 13:783570.
11. Szpitalak M, Polczyk R. Procrastination and irrational thinking among students. *Pol Psychol Bull.* 2015;46(3):414-422.
12. Denovan A, Macaskill A. Building resilience to student psychological distress: The predictive role of social support, emotional intelligence and hedonic tone. *J Ment Health Train Educ Pract.* 2017;12(1):18-32.

