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Research Paper

Correlation between Ego States in Transactional Analysis and Academic Procrastination among University Students

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ABSTRACT

Procrastination is an area troubling people in all walks of life and hence has been a subject of discussion for psychologists all over the world. Procrastination is a tendency which is incorporated with thinking, feeling and behavioural patterns to postpone tasks to a later period by pathological decision making (Steel, 2007). Academic procrastination refers to the voluntary delay of academic tasks having some involuntary roots like anxiety, fear, perfectionism, worthlessness and hopelessness and is widely prevalent among students. There are reports establishing associations between academic procrastination and Big Five personality traits (openness, conscentiousness, extraversion, agreeableness and neuroticism) especially with conscientiousness (a negative association) and neuroticism (a positive association). The present study examined the relationship between academic procrastination and personality theory developed by Dr. Eric Berne in his famous theory of Transactional Analysis, known as PAC model consisting of three ego states (P, A and C) mentioned as the states of mind (Berne,1961). Development of these ego states lead to the formation of personality in human beings according to Berne. It is the first report of the correlation study of procrastination with Berne's ego state model.

Keywords: *Procrastination, Personality, Ego states, Transactional Analysis (TA)*

Procrastination is the practice of putting off some tasks by carrying out less urgent tasks in preference to more urgent ones, or doing more pleasurable things in place of less pleasurable ones, and thus putting off impending tasks to a later time, sometimes to the last minute before a deadline. According to Solomon and Rothblum it is the "Act of needlessly putting off tasks to the point of experiencing subjective discomfort" (Solomon & Rothblum, 1984). It is the avoidance of doing a task that needs to be accomplished despite knowing that the avoidance might have negative consequences. Baumeister & Scher (1988) depicted procrastination as a lazy, self-indulgent habit of putting things off for no reason.

Milgram (1991) proposed that procrastination is initially defined as a series of delay or postponing of one task because of the involvement of another task perceived as more important or satisfying which results in the imperfect behavioural product; which further leads to emotional upset.

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The concept of procrastination is the delaying of a task that was originally planned despite expecting to be worse off for the delay (Van Eerde, 2003). Procrastination in the academic realm holds many negative consequences, including lost time, increased stress, lower grades, poorer health, decreased long-term learning and lower self-esteem (Hoover, 2005).

Personality, Ego States, Transactional Analysis

The personality theories are generally focused on psychodynamic, trait, humanistic, behaviorist, social-cognitive, and biological aspects. Of these theories the most important one is the Big Five trait theory consisting of openness, conscentiousness, extraversion, agreeableness and neuroticism (OCEAN) known as the Big Five personality (Goldberg, 1990).

The personality theory employed in this study is based on the ego state model developed by Dr. Eric Berne (1961) in his Transactional Analysis theory which comes under humanistic psychology.

Personality is generally viewed as a complex, dynamic integration or totality shaped by many forces, including hereditary and constitutional tendencies; physical maturation; early training; identification with significant individuals and groups; culturally conditioned values and roles; and critical experiences and relationships (Adapted from the APA Dictionary of Psychology) which totally agrees with Berne's ego state model.

Transactional Analysis deals with the theory of ego state model of personality (PAC model) and ego state is defined by Berne (1972) as "coherent systems of thought and feeling, manifested by corresponding patterns of behaviour" (p. 11). In PAC model, P is represented as the Parent ego state (exteropsyche), A as Adult ego state (neopsyche) and C as Child ego state (neopsyche) (Berne,1961) (p. 3). Parent ego state (P) consists of copied behaviours from parental figures, Child ego state (C) comprising of the feelings and emotions one has experienced from own child hood and Adult ego state (A) with thinking, feeling and behaving according to the here and now situations which is rational and logical (Stewart & Joines, 1987). These ego states represents the structure of a person means 'what is inside' them. When a person is behaving then the ego states can be studied from its functional model. In this model Parent ego state (P) is divided into two types as CP (Controlling/Critical Parent) and NP (Nurturing Parent) and Child ego state (C) into FC (Free Child) and AC/ RC (Adapted Child/Rebellious Child) and Adult ego state (A) has no such division (Berne, 1961). All these functional ego states except Adult ego state have both positive and negative characteristics (Kahler, 1977). In the case of people having distortions in thinking, feeling or behaving the Parent and Child ego state may intrude into the Adult ego state resulting in pathology or contamination of ego states (Berne, 1961). Procrastination behaviour can be assumed to be due to this pathology of ego states. The neural function of a pathological behaviour namely 'discounting' in Transactional Analysis leading to procrastination is reported (Hine, 2005). There are reports connecting procrastination behaviour and brain functions (Bajaj & Richard, 2023).

LITERATURE REVIEW

Academic Procrastination

Procrastination has been a topic of scholarly interest for more than a century. James (1886) highlighted the psychological burden of unfinished tasks, describing procrastination as mentally exhausting "Procrastination is attitude's natural assassin. There's nothing so

fatiguing as an uncompleted task". Steel (2007) traced the conceptual roots of procrastination to ancient philosophy, noting references as early as 500 BCE. Empirical studies estimate that approximately 70% of college students engage in academic procrastination at least occasionally, while nearly 50% procrastinate frequently (Ellis & Knaus, 1977; Solomon & Rothblum, 1984). Solomon & Rothblum (1984) defined academic procrastination as the unnecessary delay of academic tasks that results in subjective discomfort.

Procrastination in students affects their academic performance and so this has been an area of interest to teachers and educationalists (Burns, Dittmann, Nguyen & Mitchelson, 2000; Solomon & Rothblum, 1984). Wolters (2003) examined the relationship between students' reported level of procrastination and aspects of both their motivational and cognitive functioning.

Schraw, Wadkins & Olafson (2007) defined it as intentionally deferring or delaying work that must be completed. In a study conducted by Mandap (2016) and Mohammed, Sherit, Eissa & Mostafa (2013) reported that no significant difference in procrastination score was found according to the type of academic course. Shokeen (2018) has shown that a significant positive correlation exists between procrastination, stress and academic achievement.

Ahmad, Malik & Jumani (2014) reported the major causes of academic procrastination as dependency, poor self-confidence, idleness, denial, fear of success, poor time management and lack of risk-taking.

Karataş (2015) suggested procrastination as the delaying of an action with the awareness of its consequences consisting of cognitive, affective and behavioural components. Ferrari, Johnson and Mc Cown (2015) also stated that there are some major cognitive distortions that lead to academic procrastination. Academic procrastination was connected with stress (Shokeen, 2018) and perfectionism (Jadidi, Mohammadkhani & Tajrishi, 2011) also. Rosen (2023) supported the views of Steel (2007) that procrastination as "putting off to later what you know you should be doing now". Procrastination has association with technology-related lifestyle factors (Perez-Jorge et al. 2024) and emotional dysregulation (Rad, Bordbar, Bahmaei, Vejdani & Yusefi, 2025) also.

Procrastination and Big Five Traits

Correlation studies were conducted with procrastination and Big Five personality traits such as openness, conscentiousness, extraversion, agreeableness and neuroticism by many researchers. Johnson & Bloom (1995), Schouwenburg & Lay (1995), Watson (2001) and McCown & Johnson (1991) reported that neuroticism is positively related to procrastination while a negative correlation was observed for conscentiousness (Johnson & Bloom,1995; Scher & Osterman, 2002; Schouwenburg & Lay, 1995, Schouwenburg & Lay,1995; Watson, 2001 & Karatas, 2015).

Both positive and negative correlations or no influence with procrastination and extraversion was reported by Johnson & Bloom (1995).

A very weak correlation between openness and academic procrastination was also reported (Steel, 2007; Karatas, 2015; Watson, 2001).

Steel (2007) found weak influence of neuroticism and strong influence of conscentiousness on procrastination. Watson (2001) found a non - significant association between the agreeableness and academic procrastination. Khosla (2021) reported that only conscentiousness was negatively related to academic procrastination and all other traits have no influence on it. Ocansey et al., (2020) reported that academic procrastination was negatively associated with O, C, E and A and positively to N. Study of Achumbeni (2025) showed that neuroticism was positively correlated with academic procrastination and the study underscores the role of personality traits in predicting academic procrastination.

Transactional Analysis (TA)

There is no previous literature connecting procrastination and ego state personality model in Transactional Analysis. Transactional Analysis is a theory of personality and a systematic psychotherapy for personal growth and personal change. As a theory of personality, TA gives a picture of how people are structured psychologically. For this a three part model known as the ego state model is used (Berne, 1961). This model helps to understand how people function and express their behaviour in day today life. TA offers practical applications in the area of psychotherapy, educational settings and in organizations (Stewart & joines, 1987).

An ego state is a set of related behaviours, thoughts and feelings and analysing this manifest the personality at a particular time.The model consists of 3 distinct types of ego states named as Parent ego state, Adult ego state and Child ego state.

- Parent ego state (P) – When a person is in this ego state may behave, think and feel in ways which are copied from the parent or parent figures.
- Adult ego state (A) – Here the person is behaving, thinking and feeling in response to what is going on at the here and now.
- Child ego state (C) – When a person behaves, thinks and feels as in his childhood he is said to be in Child ego state. These ego states represent the structure of ego states means what is present in them.

Functional model of Ego States

Parent (P) ego state is divided into CP and NP while Child (C) ego state into FC and AC/RC based on how each ego state functions at different times (Berne, 1961). Adult ego state (A) is not further divided since it is a rational and logical part of personality. If a person is in CP (Critical/ Controlling) ego state, may expresses behaviours which the person has copied from his parents and uses the commanding words such as ‘should’, ‘must’, ‘don’t’ etc. NP (Nurturing Parent) ego state shows very loving behaviour and uses the words such as, beautiful, good, smart etc. When an adult person is said to be in AC (Adapted Child), he replays the ways of behaving that decided on as a child so as to fit with what the parents expected such as, speaking politely, not laughing loudly obeying others etc. If a person behaves in uncensored childhood ways like crying loudly, showing angry etc then it is the Free Child (FC). The main characteristics of functional ego states are,

- Controlling Parent (CP): Critical, demanding, evaluative.
- Nurturing Parent (NP): Caring, supportive, protective.
- Adult (A): Objective, reality-based, logical.
- Free Child (FC): Spontaneous, emotional, pleasure-seeking.
- Adapted Child (AC/RC): Compliant, rebellious, or obedient.

Kahler (1977) stated that the functional ego states possess both positive and negative characteristics. In this study the negative aspects of the ego states are not taken into account.

Correlation between Big Five traits and Berne's ego states

Studies have reported for the correlation of Big Five traits and ego states.
Loffredo (1998) studied the relationship between ego states and personality constructs such as locus of control and dogmatism. Significant negative correlation was reported between the Adult ego state and external locus of control while a significant positive correlation between the Adapted Child (AC) ego state scores and the external locus of control scores. Ciucur (2013) reported a positive significant correlation between: Adapted Child and Conscentiousness, and Natural Child with Extraversion. Also, significant negative correlations between: Critical Parent and Agreeability, Adapted Child and Emotional Stability, Natural Child and Agreeability.

Srinivasan & Suryaprakash (2019) reported that a small but positive correlation between Neuroticism and the ego states of Critical Parent and Adapted Child while a small negative correlation between Neuroticism and Nurturing Parent, Adult and Free Child.

METHOD

Research Design

The present study employed a cross-sectional correlational research design to examine the relationships among academic procrastination and functional ego states of Berne in Transactional Analysis.

Research Objectives and Hypothesis

To study the correlation of ego state personality (PAC) with procrastination among undergraduate students in India.

Hypotheses used are the null hypotheses stating that there is no correlation between ego state personalities (CP, NP, A, FC, AC) and procrastination among the participants.

Participants

The sample consisted of 100 undergraduate students (aged 18–20 years) enrolled in a psychology programme at a college in Thiruvananthapuram, Kerala, India. Participants were approached through classroom announcements and direct communication by the researcher in coordination with faculty members of the psychology programme. The study was introduced during regular class hours, and students were invited to participate voluntarily. Participation was not a mandatory part of the academic curriculum, and students were clearly informed that their decision to participate or not would not affect their academic evaluation. No academic credits or material incentives were provided for participation. Written informed consent was obtained from all participants prior to data collection. All participants were informed about the purpose of the study and participated voluntarily. The demographics of the participants are listed in ***Table No. 1***.

Table No.1 Demographic details of participants

Variable	Category	Total (N)	Percentage (%)
Age (years)	18	32	32.0
	19	41	41.0
	20	27	27.0
Gender	Female	72	72.0
	Male	28	28.0
Year of study	First year	34	34.0
	Second year	36	36.0
	Third year	30	30.0
Programme	B. A. Psychology	58	58.0
	B.Sc. Psychology	42	42.0
Location	Kerala (Urban)	61	61.0
	Kerala (Rural)	39	39.0
Family Income	Average for both male and female (not too rich or too poor)	100	100

Instruments

- **Procrastination Scale:** Academic procrastination was assessed using the Procrastination Scale (Lay, 1986) consisting of 20 questions used by Likert scale (1-5 points). The scale measures the tendency to delay academic and task-related activities and has demonstrated adequate reliability (Lay, 1986) and validity (Hasanagic & Özsağır, 2018) in student populations.
- **ESQ-R**: Ego states were analysed using ESQ-R (Loffredo et al. 2004; Loffredo & Harrington, 2012) and this instrument measures the strength of the five functional ego states and consisting of the 40 items with 8 questions for each ego state. Psychometric properties like split-half reliability coefficients utilizing Cronbach's alpha for each of the five scales (functional ego states) of the 40-items retained on the ESQ-R ranged from .69 to .83. Split-half reliability for the entire ESQ-R was .80. A second factor analysis on the 40 items retained on the ESQ-R accounted for 43.66% of the item variance.

Procedure

After obtaining informed consent, participants completed the questionnaires in a classroom setting within 30 minutes. Confidentiality and anonymity were assured. The questionnaires were administered in a fixed order to minimize response bias. Pearson's product–moment correlation coefficient (r) was used to examine the relationship between academic procrastination and functional ego states.

RESULTS AND DISCUSSION

Relationship of procrastination and ego states

Statistical Analysis

Descriptive analyses were conducted to examine the relation of procrastination and ego states within the sample. Procrastination scores indicated that the majority of students fell within the low to moderate range, while a smaller proportion exhibited high levels of procrastination. Ego state scores showed relatively higher mean scores for Adult and

Nurturing Parent states compared to Critical Parent and Free Child states. Procrastination scores above 65.67 may indicate elevated or potentially maladaptive levels of procrastination, while most participants fall within the moderate range. Although some variables showed statistically significant deviations, the W values (normality) were close to 1, indicating only minor departures from normality. Therefore, parametric tests were considered appropriate. The mean score (M), standard deviation (SD) normality (W) (*Shapiro–Wilk test.)* and probability values (p) of all variables are shown in ***Table No. 2.***

Table No. 2 Descriptive Statistics and Normality of Procrastination and Ego States

Variable	Mean(M)	SD	W	P value	Interpretation
Procrastination	55.57	10.21	0.983	0.225	Normally distributed
CP	11.85	4.12	0.968	0.016	Slight deviation from normality
NP	15.05	3.97	0.970	0.046	Slight deviation from normality
A	13.67	3.06	0.980	0.081	Normally distributed
AC	12.40	3.26	0.975	0.057	Normally distributed
FC	13.46	3.52	0.974	0.046	Slight deviation from normality

The mean score for procrastination was 55.57 (SD = 10.21), indicating a moderate level of procrastination with noticeable variability among students. Among the ego states, the Nurturing Parent (NP) showed the highest mean score (M = 15.05, SD = 3.97), suggesting a relatively strong presence of nurturing and supportive tendencies among students. The Adult (A) ego state (M = 13.67, SD = 3.06) reflected a moderate level of rational and problem-solving functioning. The Free Child (FC) (M = 13.40, SD = 3.52) and Adapted Child (AC) (M = 12.40, SD = 3.26) ego states indicated moderate levels of emotional expressiveness and adaptive behaviour. The Critical Parent (CP) recorded the lowest mean score (M = 11.85, SD = 4.12) suggesting comparatively lower expression of critical and evaluative tendencies.

Hypothesis Testing

The correlation of functional ego states (CP, NP, A, AC, FC) with procrastination were measured using Pearson product moment correlation (r) studies at a level of 0.05 significance (p). All the correlations were observed as negative in nature.

The highest negative correlations were found with Adult ego state ($r = -0.64$, $p < .001$) and Controlling Parent ($r = -0.40$, $p < .001$) with procrastination. Correlation of procrastination with Nurturing Parent ($r = -0.26$, $p < 0.01$) and Free Child ($r = -0.26$, $p < 0.01$) are found like this. The lowest correlation was associated with Adapted Child ego state ($r = -0.24$, $p < 0.05$).

Higher levels of functional ego state activations were associated with lower levels of academic procrastination with level of significance designated as *= $p < .05$, ** = $p < .01$ *** = $p < .001$ where *** represents high significance level ***Table No. 3.***

The findings provide preliminary empirical support for the relevance of Transactional Analysis constructs in understanding academic procrastination.

Table No. 3 Relationship Between Functional Ego States and Academic Procrastination

Ego State	r (Pearson's correlation coefficient
Critical Parent (CP)	− 0.40***
Nurturing Parent (NP)	− 0.26**
Adult (A)	− 0.64***
Adapted Child (AC)	− 0.24*
Free Child (FC)	− 0.26*

The observed negative relationship between academic procrastination and all functional ego states indicate that higher ego state scores are associated with lower levels of academic procrastination which indicate that strong functional ego states may serve as a protective factor against procrastination. The Adult ego state (A) demonstrated a strong inverse relationship with procrastination, consistent with its role in rational decision-making, present-focused awareness, and problem-solving. Individuals operating predominantly from the Adult ego state are more likely to evaluate consequences realistically and regulate their behaviour effectively by avoiding procrastination.

The Critical Parent ego state (CP) promoting discipline, structure, and responsibility, which may reduce tendencies to delay academic tasks. Similarly, the Nurturing Parent ego state (NP) fosters emotional security and self-support, enabling individuals to engage in tasks without excessive fear or self-criticism leading to avoid procrastination. Likewise, the Free Child ego state (FC) characterized by enthusiasm, creativity, and intrinsic motivation may facilitate timely task engagement and reduce avoidance behaviors like procrastination. The Adapted Child ego state (AC) reflects responsibility, compliance with academic norms, and commitment to duties thereby reducing procrastination. Pearson correlation analysis revealed a significant negative relationship between academic procrastination and all five functional ego states- Critical Parent (CP), Nurturing Parent (NP), Adult (A), Adapted Child (AC), and Free Child (FC) rejecting all null hypotheses.

Relevance of the study

Practical and Applied Relevance

a) Counselling & Psychotherapy: Supports ego-state-based interventions for reducing procrastination
b) Educational Psychology: Useful for understanding self-regulation, motivation, and procrastination
c) TA Practice: Empirical guidance for strengthening A, CP, NP, AC and FC ego state structures to reduce procrastination.

Limitations

This study has several limitations. The correlational design does not permit causal conclusions regarding the relationships among academic procrastination and ego states. All variables were assessed through self-report measures, which may be influenced by response bias and common method variance. The sample consisted of 100 undergraduate students, limiting generalizability to other populations and reducing statistical power. Additionally, ego states conceptualized in Transactional Analysis theory by Eric Berne as dynamic and context-dependent were measured as relatively stable self-perceptions, which may not fully capture their situational variability.

CONCLUSIONS

The present study examined the relationships among academic procrastination with functional ego states in undergraduate students. Findings indicate that academic procrastination is inversely related to Functional Ego states and these results highlight the importance of Transactional Analysis concepts in understanding academic procrastination and interventions can be aimed at strengthening Adult, Controlling Parent, Nurturing Parent, Adapted Child and Free Child ego states functioning in their positive aspects to reduce academic procrastination.

Although early evidence indicates links between certain functional ego states and Big Five traits, these relationships remain under explored. The present study, limited to academic procrastination, provides only a partial understanding and does not account for broader or context-independent associations.

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Conflict of Interest

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