



## **Academic Misconduct Practices among Preservice Teachers as Future Model Educators: A Quantitative Study from a Pakistani Perspective**

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This research investigates the frequency and key factors contributing to academic misconduct among preservice teachers, with a particular focus on its implications for future teaching practice focused on the Pakistani educational setup. Grounded in the Theory of Planned Behavior (TPB), the study examines how attitudes, subjective norms, and perceived behavioral control influence preservice teachers' intentions and behaviors related to plagiarism and academic cheating. A structured questionnaire, validated for reliability (Cronbach's  $\alpha = 0.976$ ), was administered to 120 participants from various disciplines and academic levels at a private university in Lahore. Quantitative analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM) revealed that attitudes toward dishonesty and perceived behavioral control are strong predictors of intentions to engage in unethical academic behaviors. The theoretical contribution of this study lies in extending TPB's application to the domain of academic misconduct in teacher education by empirically validating its explanatory power in a developing-country context. While most TPB-based studies on academic integrity have been conducted in Western or developed educational systems, this research provides contextual evidence from Pakistan, where cultural norms, systemic constraints, and institutional practices may shape ethical decision-making in distinct ways. The novelty of the study emerges from its focus on preservice teachers as future role models, highlighting how early academic behaviors may translate into professional ethics in educational practice. The findings offer important insights for strengthening academic integrity policies and curriculum reforms in teacher education programs, particularly in developing countries where empirical evidence on academic misconduct remains limited.

**Keywords:** future educators, educational integrity, AI, academic honesty, academic misconduct, professional ethics

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## INTRODUCTION

Academic cheating is an important educational concern that has troubled teachers in different disciplines (Yuni et al., 2023). According to the International Center for Academic Integrity, many research studies have found that academic dishonesty is a prevalent and pervasive problem for educational and learning institutes worldwide (Anzilago et al., 2023). Academic integrity is a critical aspect of education, shaping the ethical behavior of future professionals (Bin-Nashwan et al., 2023). It is imperative in the context of preservice teachers, who could be accountable for instilling the values of instructional integrity and honesty in their college students (Choudhury & Shamszare, 2023).

The International Center for Academic Integrity defines the fundamental values as honesty, trust, fairness, respect, and responsibility (DiPaulo, 2022a). This code of honor aims to promote and preserve an individual's reputation and character, emphasizing qualities such as duty, pride, power, and self-esteem (Davis, 2023). As a result, some believed that academic dishonesty was necessary to maintain their reputation.

Academic community members must be honest and ethical, and follow the requirements and standards (Maoz et al., 2022; Rueda Barrios et al., 2022). In addition to encouraging respect for the work of others and moral modelling, Academic integrity is based on honesty, dependability, and fairness in all academic pursuits, which underpin all educational activities. Maintaining the integrity and worth of research and education depends on upholding intellectual honesty. Nevertheless, academic integrity in teacher training faces challenges, necessitating comprehensive initiatives. Preservice teacher training programs are foundational in conveying the importance of academic integrity and fostering ethical values (Jose K & Sia, 2022). These programs prepare teachers to educate and guide their students ethically. The way preservice teachers engage with academic integrity during training sets the tone for the values they will impart to their future students (Rafati et al., 2020).

Preservice teacher training is essential for instilling academic integrity in future teachers. In addition to focusing on ethical norms, honesty, fairness, and proper citation, training programs are crucial for teachers to identify and address academic misconduct. Moreover, this research study is situated within the context of Pakistani perspectives. Pakistan is a developing country with an Eastern culture and Islamic values that differ from those of developed countries (Bearman et al., 2020; Bosnjak et al., 2020). Like several other nations, Pakistan faces challenges related to academic integrity, including plagiarism, cheating, limited opportunities, cultural disparities, and unethical conduct. It is an important theoretical, practical, and societal endeavor to examine educational integrity practices in preservice teacher training programs in Pakistani institutions (Soroya et al., 2014). Ayoub/Al-Salim and Aladwan (2021) explored what is important to academics because it saves the standing and integrity of Pakistani educational and research institutions, like universities, and the country's educational system.

Preservice teacher training programs in Pakistan use various assessment methods to ensure academic integrity. Assignments, lesson plans, and teaching portfolios are

assessed for originality. Ongoing professional development is encouraged to keep preservice teachers up to date on best practices and ethical standards. Future directions may involve more comprehensive academic integrity workshops and fostering a culture of honesty within the education system (Ives et al., 2016; Soroya et al., 2014).

Preservice Teacher Training programs in universities are a critical area that demands further investigation, particularly in the Pakistani context (Khursheed et al., 2022). Existing research primarily focuses on academic integrity within higher education institutions. Still, more studies need to address the challenges, prevalence, and strategies related to academic integrity in PTT programs (Ayoub/Al-Salim & Aladwan, 2021). Institutions should develop policies that support Academic Integrity in pre-service teacher training. Academic integrity procedures must take into account Pakistan's diverse cultural landscape, norms, and values. Considering this, preservice teacher preparation programs are essential in helping aspiring teachers develop a sense of accountability and moral behavior. The research study findings and solutions developed in the Pakistani context may offer more insights for addressing similar challenges in other regions (Taşgın, 2018).

#### **Research questions and research objectives**

The context is academic integrity for preservice teachers, emphasizing helping them integrate it into their higher education coursework and teaching them various aspects of academic writing, such as appropriate reference styles, so that they can compose their academic papers. Based on planned behavior theory, the study aims to examine preservice teachers' academic integrity practices in the Pakistani context. The theory of planned behavior posits that three main elements, attitude, perceived behavioral control, and subjective norm, impact human behavior (Hendy & Montargot, 2019; Khursheed et al., 2021). The study examines how these factors affect the preservice teachers' intentions and behaviors regarding academic dishonesty, such as cheating, plagiarism, and falsification (Ives et al., 2016; Maloshonok & Shmeleva, 2019; Yuni et al., 2023). Some of the research questions are:

1. Do demographic factors (e.g., age, gender, educational background) influence academic integrity practices in pre-service teacher training programs?
2. Do preservice teachers' attitude and perceived behavioral control influence their intention to practice academic misconduct (integrity)?

The following are the study objectives:

1. To explore demographic factors, e.g., age, gender, and educational background, influencing academic integrity practices in pre-service teacher training programs.
2. To explore how a preservice teacher's attitude, perceived behavioral control influence their intention to practice academic misconduct (integrity)?

**Significance of the study**

The study of academic misconduct among pre-service teachers in Pakistan is of significant importance to the research community for several reasons. Firstly, it offers valuable insights into the ethical challenges future educators face and provides a deeper understanding of the scope and nature of academic dishonesty within this demographic (Rind & Ning, 2023). Such insights are crucial for informing strategies that promote academic integrity and professionalism in the educational sector. Additionally, by contributing to the existing literature on academic dishonesty and teacher education, particularly within diverse cultural contexts, the study enriches our understanding of this complex phenomenon (DiPaulo, 2022b). Furthermore, the research sheds light on the broader societal implications of academic misconduct, highlighting its impact on educational processes and societal attitudes towards education. By contextualizing academic misconduct within larger socioeconomic trends, the study provides a nuanced understanding of its underlying factors and consequences (Elbanna & Armstrong, 2023). Moreover, the significance of this research lies in informing ongoing efforts to reform pre-service teacher education in Pakistan by assessing the effectiveness of current initiatives and identifying areas for improvement. Overall, the study is relevant to researchers, policymakers, and educators alike, offering valuable insights into the dynamics of academic integrity and professionalism in the teaching profession.

**LITERATURE REVIEW**

Although academic misconduct has been widely investigated across different educational contexts, existing literature reveals several conceptual, methodological, and contextual limitations that warrant further empirical exploration. Most prior studies conceptualize academic dishonesty primarily as a behavioral outcome, focusing on prevalence rates of cheating, plagiarism, and falsification across disciplines (O'Connell, 2016; Nwoye et al., 2019; Maoz et al., 2022). While such descriptive studies provide valuable baseline information, they often fail to explain the psychological and social mechanisms underlying unethical academic behavior. As a result, much of the existing literature remains fragmented and limited in its ability to offer theoretically grounded explanations of why students engage in academic misconduct. From a theoretical perspective, the Theory of Planned Behavior (TPB) has been increasingly applied to predict academic dishonesty, particularly in relation to attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991; Bosnjak et al., 2020; Keener et al., 2019). Several studies confirm that students' favorable attitudes toward cheating and perceptions of peer approval significantly increase their intention to engage in dishonest behaviors (Wu et al., 2020; Maloshonok & Shmeleva, 2019). Similarly, perceived behavioral control has been found to influence students' beliefs about the ease or difficulty of cheating undetected, which, in turn, shapes behavioral intentions (Hagger et al., 2022; Zhang, 2023). However, despite the growing use of TPB, prior research has yielded mixed results on the relative strength of each construct, and many studies rely on simplified models that do not adequately account for contextual and cultural influences on ethical decision-making. Moreover, the majority of TPB-based studies on academic misconduct have been conducted in Western or developed educational systems, where institutional infrastructures, honor codes, and academic integrity

policies are more formally established (Ives et al., 2016; Lee-Post & Hapke, 2017). These settings differ substantially from those in developing countries, where structural constraints, large class sizes, limited academic resources, and inconsistent enforcement of integrity policies may create distinct normative environments. Consequently, the generalizability of existing findings to developing countries remains questionable. Scholars have increasingly emphasized the need to examine academic misconduct within specific socio-cultural contexts, as ethical behavior is deeply embedded in cultural norms, social expectations, and institutional practices (Bearman et al., 2020; Bosnjak et al., 2020).

In the context of teacher education, the literature reveals an even more pronounced gap. While numerous studies have examined academic integrity among general university populations, relatively few have focused specifically on preservice teachers (Davis, 2023; Bjelobaba, 2022). This omission is theoretically and practically significant, as preservice teachers occupy a unique dual role: learners within academic institutions and future professionals who model ethical behavior for their students. Research suggests that academic misconduct during teacher training may have long-term implications for professional conduct in educational settings, as unethical academic practices can normalize dishonest behavior and weaken professional ethics (Nonis & Swift, 2001; Sims, 1993; Stone et al., 2008). However, most existing studies treat preservice teachers as part of the general student population, failing to consider their distinctive professional identity and ethical responsibilities. Furthermore, existing research in developing countries, including Pakistan, remains limited and largely descriptive. Prior studies in the Pakistani context tend to emphasize institutional challenges such as plagiarism, lack of awareness, and weak regulatory mechanisms (Soroya et al., 2014; Ayoub/Al-Salim & Aladwan, 2021), but they rarely employ robust theoretical frameworks to explain academic misconduct as a behavioral phenomenon. Most studies focus on surface-level factors such as access to resources, assessment systems, or technological misuse, without systematically integrating psychological constructs such as attitudes, perceived behavioral control, and subjective norms. As a result, there is insufficient empirical evidence explaining how cognitive and social factors jointly influence academic misconduct among preservice teachers in Pakistan. Methodologically, many previous studies rely heavily on self-reported measures and cross-sectional designs, which, although common in academic integrity research, often lack deeper explanatory power. While self-report instruments capture perceptions and intentions, they do not fully account for moral reasoning processes, cognitive dissonance, or justification strategies that students may use to rationalize unethical behavior (Rouf, 2012; Maheshwari, 2023). This limitation suggests the need for more theoretically informed quantitative models that can move beyond descriptive correlations and provide structured explanations of behavioral intentions. Taken together, the existing literature reveals three major gaps. First, there is a theoretical gap, as TPB has not been sufficiently extended or validated within teacher education contexts, particularly in developing countries. Second, there is a contextual gap, as most empirical evidence originates from Western educational systems, limiting the applicability of findings to countries like Pakistan with distinct cultural and institutional realities. Third, there is a population gap, as preservice teachers remain an under-

researched group despite their critical role in shaping future educational ethics. Therefore, the present study addresses these gaps by applying the Theory of Planned Behavior to examine academic misconduct among preservice teachers in Pakistan. By focusing on attitudes, subjective norms, and perceived behavioral control in a developing-country context, this study provides a theoretically grounded, contextually relevant explanation of academic misconduct. In doing so, it contributes to the literature by shifting the discussion from merely describing academic dishonesty to explaining its underlying behavioral mechanisms among future educators. This conceptual contribution is particularly significant, as it informs not only academic integrity research but also policy development and curriculum design in teacher education programs aimed at fostering long-term ethical professionalism.

### **Development of Hypotheses**

**Attitude towards academic dishonesty:** Researchers have found a negative correlation between self-reported academic cheating and attitudes towards academic dishonesty (Eriksson & McGee, 2015; Guerrero-Dib et al., 2020; Zhang et al., 2018). In some instances, the best predictor of Academic Dishonesty was attitude toward behavior (Hendy & Montargot, 2018; Zhang et al., 2018). Even though academic integrity is important, a survey revealed that over 80% of preservice teachers admitted to dishonesty in the classroom at least once in the preceding 2 years (Davis, 2023). The survey also revealed that preservice teachers' self-reported rates of academic dishonesty were comparable to those of undergraduates pursuing other majors (Bjelobaba, 2022). This implies that, even though preservice teachers may be aware of the value of academic integrity, they may still choose to act dishonestly in their academic work for additional reasons (DiPaulo, 2022). Hence, the following hypothesis is formulated.

**H 1:** *There is a significant relationship between a student's attitude towards academic dishonesty and their intention to engage in academic dishonesty.*

**Perceived behavioral control:** Tani (2021) found that explanations, universal motives, and intentions for engagement significantly influence engagement. Students' perceived behavioral control may affect their academic engagement, including their tendency toward dishonesty. According to Lisa's (2017) theory-based study, "Students' satisfaction and continued intention toward e-learning," perceived behavioral control (TPB) was found to have a substantial, favorable impact on students' intention to utilize e-learning. It is possible to infer from this that there is a connection between the intention to commit academic dishonesty and one's perception of behavioral control. Zhang (2023) examines the relationship between perceived behavioral control and academic cheating in a study paper titled "Academic cheating as planned behavior: the effects of perceived behavioral control." Their perception of academic control significantly predicts academic achievement for undergraduate university students. These studies provide evidence of a strong correlation between students' intention to commit academic dishonesty and their perception of behavioral control. It is worth noting that numerous additional factors, including individual traits, institutional settings, and cultural backgrounds, may influence the relationship. Hence, the following hypothesis is proposed.

**H2.** *A significant relationship exists between students' perceived behavioral control and their intention to engage in academic dishonesty.*

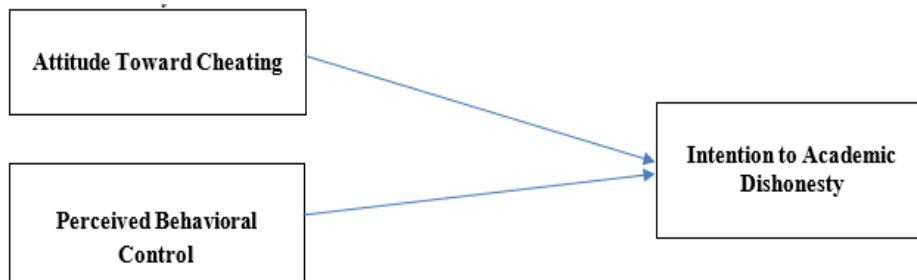


Figure 1  
Research Model

## METHOD

The participants of this study were future faculty members (students and researchers) enrolled in undergraduate and postgraduate programs at a private university in Lahore, Pakistan. The target population comprised individuals from diverse academic disciplines, including management sciences, medical sciences, engineering, computer science, social sciences, humanities, and fine arts. These participants were selected because they are actively engaged in academic training and research and represent future faculty members, making them an appropriate population for examining academic misconduct within higher education and teacher preparation contexts. A convenience sampling technique was employed to recruit participants due to practical constraints related to accessibility, time, and institutional permissions. The questionnaire was distributed through online links using Google Forms and shared via institutional communication channels, including library networks and private WhatsApp groups facilitated by program coordinators and academic administrators. This approach enabled the researcher to reach a broad and diverse group of future faculty members (students and researchers) within the institution. Although convenience sampling limits the generalizability of findings, it is widely accepted in educational and behavioral research, particularly when the objective is to examine relationships between psychological constructs rather than to produce population-level estimates (Hair et al., 2017; Bosnjak et al., 2020). Moreover, convenience sampling is especially suitable for exploratory and theory-driven studies conducted within specific institutional contexts. A total of 120 valid responses were collected voluntarily. Participation was anonymous, and respondents were informed of the study's purpose and assured that their responses would be used solely for academic research. The sample included 82 males (69.5%) and 36 females (30.5%), with the majority aged under 25 years. Most respondents were enrolled in bachelor's programs (90.7%), followed by master's (6.8%) and doctoral programs (2.5%). The questionnaire used in this study was adapted from previously validated instruments used in academic integrity research, particularly the scale developed by Kisamore et al. (2007), which was further supported by Hendy and Montargot (2019).

The instrument consisted of four sections measuring demographic characteristics, attitudes toward academic dishonesty, perceived behavioral control, subjective norms, and intention to engage in academic misconduct. Before the main data collection, the instrument was reviewed by subject experts to ensure content validity and contextual relevance for the Pakistani higher education environment. Minor wording modifications were made to enhance clarity and cultural appropriateness. The instrument's internal consistency was assessed using Cronbach's alpha, which yielded a value of 0.976, indicating excellent reliability and confirming the questionnaire's suitability for quantitative analysis. These procedures demonstrate that the instrument was both previously tested and contextually validated prior to its full-scale administration. This study employed both Pearson correlation analysis and Partial Least Squares Structural Equation Modeling (PLS-SEM) for complementary analytical purposes. Pearson correlation was initially used to examine the bivariate relationships among the key variables and to assess the direction and strength of associations between constructs. This preliminary analysis provided an initial understanding of the data structure and relational patterns. Subsequently, PLS-SEM was applied to test the hypothesized relationships within a multivariate framework based on the Theory of Planned Behavior. PLS-SEM is particularly appropriate for predictive and exploratory research models, especially when the primary objective is to explain variance in dependent constructs and when sample sizes are relatively moderate (Hair et al., 2016; Ringle et al., 2005).

Furthermore, PLS-SEM enables the simultaneous assessment of both the measurement model (construct reliability and validity) and the structural model (testing theoretical paths), making it well-suited for theory-driven behavioral research. The simultaneous use of Pearson correlation and PLS-SEM strengthened the robustness of the analysis by providing both preliminary relational insights and confirmatory structural modeling. This dual analytical approach enhanced the credibility of the findings and ensured a comprehensive examination of academic misconduct among future faculty members (students and researchers).

## **FINDINGS**

This study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships among the Theory of Planned Behavior (TPB) constructs and academic misconduct among preservice teachers. SmartPLS-4 software was used to assess both the measurement and structural models. PLS-SEM is widely recognized as a robust analytical technique for predictive research and theory testing, particularly when dealing with complex models and relatively small sample sizes (Hair et al., 2016).

Table 1 presents the demographic characteristics of the respondents, including gender, age, and educational level. Understanding the demographic composition is essential to contextualize preservice teachers' perceptions of academic misconduct and their behavioral intentions within the TPB framework.

Table 1  
Demographic

Constructs	Classification	Frequency	Percentages
Gender	Male	82	69.50%
	Female	36	30.50%
Age	Up to 25	111	94.10%
	26-45	7	5.90%
	46+	0	0%
Education	Bachelor	107	90.70%
	Master	8	6.80%
	PhD	3	2.50%

The results indicate that male participants constituted 69.5% of the sample, while female participants accounted for 30.5%. Most respondents (94.1%) were under 25, indicating that the majority were young preservice teachers in the early stages of their professional development. Regarding educational level, bachelor's students formed the largest group (90.7%), followed by master's (6.8%) and PhD students (2.5%). These demographic patterns suggest that attitudes toward academic misconduct and TPB-related perceptions are shaped mainly during undergraduate teacher education. This finding aligns with previous studies that emphasize the formative role of early professional training in shaping ethical orientations among future educators (Maloshonok & Shmeleva, 2019; Yuni et al., 2023). However, unlike studies conducted in Western contexts, where postgraduate students often demonstrate greater awareness of academic integrity, the present findings indicate that ethical perceptions in the Pakistani context primarily develop at the undergraduate level. This highlights the need for early policy interventions within teacher education curricula.

Table 2 summarizes the descriptive statistics for the main study variables: preservice teachers' attitude toward cheating (PTATC), perceived behavioral control (PBC), and intention toward academic dishonesty (PTIAD).

Table 2  
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PTATC	118	1	3.5	1.6921	0.81055
PBC	118	1	5	1.9831	1.09462
PTIAD	118	1	3.86	1.7094	0.71902

The mean values of PTATC ( $M = 1.69$ ), PBC ( $M = 1.98$ ), and PTIAD ( $M = 1.70$ ) indicate that respondents generally reported low to moderate tendencies toward academic misconduct-related attitudes and intentions. These findings suggest that most preservice teachers do not strongly endorse cheating behavior. However, the variability reflected in the standard deviations indicates that a considerable proportion of respondents perceive cheating as feasible or justifiable under certain circumstances. This pattern is consistent with earlier research showing that students often oppose cheating while simultaneously acknowledging situational justifications for dishonest behavior (Maoz et al., 2022; Nwoye et al., 2019). Nevertheless, the relatively lower mean scores observed in this study suggest stronger normative resistance to academic

misconduct among preservice teachers in Pakistan than in some international studies. This divergence underscores the influence of cultural and institutional contexts on TPB constructs and extends TPB's applicability beyond Western educational settings. Within the TPB framework, these findings imply that although negative attitudes toward cheating prevail, variations in perceived behavioral control and situational factors may still foster intentions to engage in misconduct.

To examine the relationships among the TPB constructs, Pearson correlation analysis was conducted (Table 3).

Table 3  
Pearson Correlation Analysis

Variables	PTATC	PBC	PTIAD
PTATC	1		
PBC	.525**	1	
PTIAD	.762**	.442**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The results reveal significant positive correlations among all key variables. Preservice teachers' attitudes toward cheating were strongly associated with their intentions to engage in academic dishonesty ( $r = .762, p < .01$ ). This finding strongly supports the central assumption of the TPB that attitude is a significant determinant of behavioral intention (Ajzen, 1991). This result aligns with previous studies demonstrating that favorable attitudes toward cheating significantly predict academic misconduct (Eriksson & McGee, 2015; Guerrero-Dib et al., 2020; Zhang et al., 2018). However, the strength of the correlation observed in this study is comparatively higher than that reported in several prior investigations, suggesting that attitudinal factors play a particularly prominent role in shaping ethical decision-making among preservice teachers.

Similarly, perceived behavioral control exhibited a moderate positive relationship with intention ( $r = .442, p < .01$ ), indicating that preservice teachers who perceive cheating as easy or low-risk are more likely to develop intentions to engage in academic misconduct. This finding is consistent with earlier research emphasizing the role of perceived control in predicting unethical academic behavior (Hagger et al., 2022; Kisamore et al., 2007; Zhang, 2023). However, unlike some studies that reported attitude as the sole dominant predictor, the present findings highlight the combined influence of attitude and perceived behavioral control within the TPB framework. Furthermore, the significant correlation between attitude and perceived behavioral control ( $r = .525, p < .01$ ) suggests that preservice teachers' evaluative judgments about cheating are closely linked with their perceptions of control over such behavior. This interrelationship reinforces TPB's explanatory power in understanding academic misconduct and suggests that both personal beliefs and perceived institutional constraints shape ethical decision-making among preservice teachers.

The reliability and validity of the measurement model were assessed through internal consistency, convergent validity, and discriminant validity. Composite reliability (CR) values exceeded the recommended threshold of 0.70, indicating strong internal

consistency among the constructs. Cronbach's alpha values further confirmed the scales' reliability.

Table 4  
Convergent validity

Constructs	Items	Loading	Alpha	CR	AVE
Pre-service teachers' attitude toward cheating	PTATC1	0.865	0.886	0.889	0.594
	PTATC2	0.860			
	PTATC3	0.845			
	PTATC4	0.740			
	PTATC5	0.827			
	PTATC6	0.708			
Perceived behavioural control	PBC1	0.432	0.860	0.868	0.705
	PBC2	0.376			
	PBC3	0.482			
	PBC4	0.483			
Preservice teachers' intention to academic dishonesty	PTIAD1	0.709	0.893	0.894	0.656
	PTIAD2	0.582			
	PTIAD3	0.585			
	PTIAD4	0.559			
	PTIAD5	0.569			
	PTIAD6	0.556			
	PTIAD7	0.598			

The reliability and validity of the measurement model were assessed through internal consistency, convergent validity, and discriminant validity. Composite reliability (CR) values exceeded the recommended threshold of 0.70, indicating strong internal consistency among the constructs. Similarly, Cronbach's alphas confirmed the scales' reliability. As shown in Table 4, factor loadings for most items were satisfactory, and the Average Variance Extracted (AVE) values exceeded the acceptable threshold of 0.50. These results indicate that the constructs of attitude toward cheating, perceived behavioral control, and intention toward academic dishonesty exhibit adequate convergent validity. In the context of TPB, this confirms that the measurement items effectively capture the theory's underlying psychological constructs.

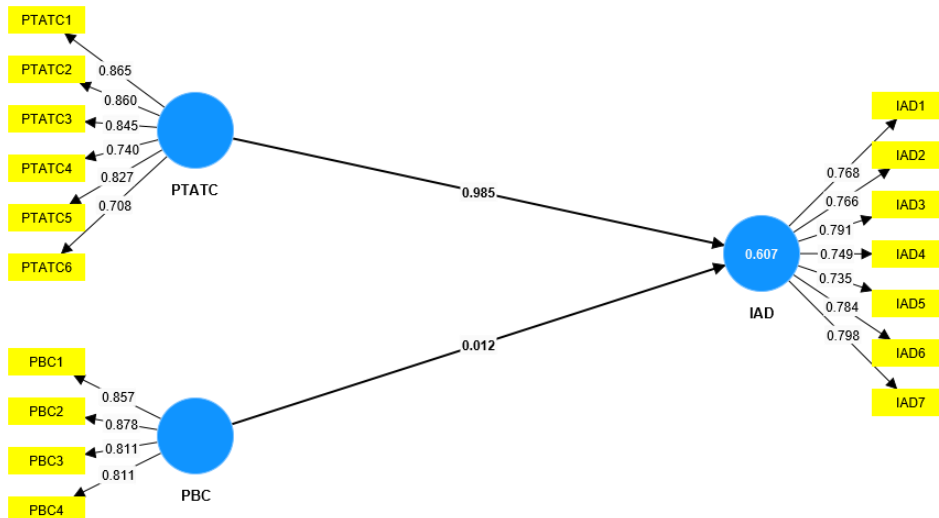


Figure 2  
Measurement model assessment

The HTMT values were below the recommended threshold of 0.85, indicating that the constructs are empirically distinct. Similarly, the Fornell-Larcker results indicate that each construct accounts for greater variance in its indicators than in the indicators of other constructs. These findings confirm that the TPB constructs attitude, perceived behavioral control, and intention are conceptually and empirically distinguishable, thereby strengthening the validity of the theoretical model applied in this study.

Table 5  
HTMT

	IAD	PBC	PTATC
IAD			
PBC	0.525		
PTATC	0.858	0.599	

Table 6  
Fornell-Larcker

	IAD	PBC	PTATC
IAD	0.77		
PBC	0.47	0.84	
PTATC	0.776	0.531	0.81

Overall, the findings provide strong empirical support for the Theory of Planned Behavior in explaining academic misconduct among preservice teachers. Attitude toward cheating emerged as the strongest predictor of intention, followed by perceived behavioral control. These results corroborate the core assumptions of TPB while extending its application to the context of teacher education in Pakistan. Unlike many previous studies that examined academic dishonesty among general university students,

this study focuses on preservice teachers, thereby highlighting the professional and societal implications of academic misconduct. Since preservice teachers are future role models, their ethical orientations have long-term consequences for educational quality and integrity. From an educational policy perspective, the findings suggest that academic misconduct should be addressed not only through punitive measures but also through systemic reforms in teacher education. Specifically, policies should prioritize (i) integrating academic integrity and professional ethics into teacher education curricula, (ii) strengthening institutional mechanisms to reduce perceived opportunities for cheating, and (iii) fostering ethical professional identities among preservice teachers from the early stages of training. Thus, this study contributes uniquely to the literature by demonstrating that academic misconduct among preservice teachers is not merely an individual behavioral issue but a structural and policy-relevant challenge that requires comprehensive intervention at the institutional and national levels

## **DISCUSSION**

This study examined academic misconduct among preservice teachers in Pakistan using the Theory of Planned Behavior (TPB), focusing on the roles of attitude toward cheating and perceived behavioral control in shaping intentions to engage in academic dishonesty. The findings provide strong empirical support for the applicability of TPB in explaining academic misconduct within teacher education, while also extending the theory to a developing-country context that has received limited scholarly attention. Consistent with the core assumptions of TPB (Ajzen, 1991), the results demonstrate that attitude toward academic dishonesty is the strongest predictor of intention to engage in misconduct. This finding aligns closely with previous studies conducted in both Western and non-Western contexts, which report that favorable attitudes toward cheating significantly increase students' intentions to behave dishonestly (Eriksson & McGee, 2015; Guerrero-Dib et al., 2020; Zhang et al., 2018; Maloshonok & Shmeleva, 2019). Similar to these studies, the present research confirms that when preservice teachers perceive cheating as acceptable or justifiable, they are more likely to develop intentions to engage in academic misconduct.

However, the strength of the relationship between attitude and intention observed in this study is notably higher than that reported in several prior investigations. This partial non-alignment with earlier findings may be attributed to contextual and cultural factors specific to Pakistan, such as examination pressure, limited academic resources, and collective peer norms, which may intensify the role of personal attitudes in ethical decision-making. Unlike many Western educational systems, where institutional honor codes and enforcement mechanisms are relatively strong (Ives et al., 2016; Lee-Post & Hapke, 2017), Pakistani higher education institutions often face challenges related to policy implementation and monitoring, potentially amplifying the influence of individual attitudes over institutional constraints.

The findings also reveal that perceived behavioral control has a significant and positive effect on intention to engage in academic dishonesty, supporting earlier research that highlights the importance of perceived ease, opportunity, and risk associated with cheating (Kisamore et al., 2007; Hagger et al., 2022; Zhang, 2023). This result aligns

with TPB-based studies suggesting that students are more likely to intend dishonest behavior when they believe such behavior can be performed easily and without serious consequences. In the Pakistani context, factors such as large class sizes, inconsistent supervision, and limited use of plagiarism-detection tools may contribute to higher perceived behavioral control, thereby increasing the likelihood of misconduct intentions.

At the same time, the study departs from some prior research that identified attitude as the sole dominant predictor of academic misconduct (Hendy & Montargot, 2018). Instead, the present findings demonstrate that attitude and perceived behavioral control jointly influence misconduct intentions, indicating a more nuanced behavioral process. This non-alignment underscores the importance of considering structural and institutional factors alongside psychological determinants, particularly in developing-country contexts.

Furthermore, the significant correlation between attitude toward cheating and perceived behavioral control suggests that preservice teachers' moral evaluations of cheating are closely intertwined with their perceptions of institutional enforcement and opportunity structures. This finding reinforces arguments by Bearman et al. (2020) and Bosnjak et al. (2020) that ethical behavior is embedded within broader socio-institutional environments rather than being solely an individual moral choice.

Importantly, by focusing on preservice teachers, this study extends existing literature that largely treats academic misconduct as a general student issue. Prior research indicates that unethical academic behavior during professional training may translate into unethical workplace behavior later in life (Nonis & Swift, 2001; Sims, 1993; Stone et al., 2008). The present findings thus carry heightened significance, as preservice teachers are future role models whose ethical orientations may directly influence students and educational institutions. Overall, the discussion demonstrates that while the study aligns with the broader TPB literature, it also reveals context-specific dynamics that differentiate preservice teachers in Pakistan from student populations examined in developed educational systems. These insights contribute to theory by validating TPB in a new context and to practice by highlighting the need for systemic interventions in teacher education.

## **CONCLUSION AND SUGGESTIONS**

This study investigated academic misconduct among preservice teachers in Pakistan through the lens of the Theory of Planned Behavior, focusing on the influence of attitude toward cheating and perceived behavioral control on intentions to engage in academic dishonesty. Using Pearson correlation and PLS-SEM analysis, the study provides clear empirical evidence that academic misconduct among future educators is shaped by a combination of psychological and institutional factors.

The findings reveal that attitude toward academic dishonesty is the most influential determinant of intention, indicating that preservice teachers who hold permissive or favorable views toward cheating are significantly more likely to intend to engage in unethical academic behavior. This result directly reflects the empirical analysis and

strongly supports the central proposition of TPB. Additionally, perceived behavioral control emerged as a significant predictor, suggesting that when preservice teachers perceive cheating as easy, low-risk, or weakly regulated, their intentions to engage in misconduct increase. Together, these findings confirm that academic misconduct is not merely a moral failing but a behavior influenced by both personal beliefs and perceived institutional conditions.

The study also demonstrates that the ethical orientations of preservice teachers are largely formed during undergraduate education, emphasizing the importance of early intervention in teacher preparation programs. This insight is particularly relevant for Pakistan and similar developing contexts, where teacher education institutions play a critical role in shaping professional values and long-term educational integrity.

### **Practical and Policy Suggestions**

Based on the findings, several actionable recommendations are proposed:

1. **Curriculum Integration**  
Teacher education programs should formally integrate academic integrity, professional ethics, and responsible research practices into undergraduate curricula. Ethics education should move beyond policy awareness and actively engage preservice teachers in ethical reasoning and decision-making.
2. **Reducing Perceived Behavioral Control**  
Universities should strengthen institutional mechanisms that reduce opportunities for misconduct, including transparent assessment designs, effective invigilation, consistent enforcement of academic integrity policies, and wider use of plagiarism-detection tools.
3. **Professional Identity Development**  
Preservice teachers should be encouraged to view academic integrity as a core component of their professional identity. Reflective practices, mentoring, and role-modeling by faculty can reinforce the link between academic honesty and professional ethics.
4. **Faculty and Institutional Training**  
Continuous professional development programs for teacher educators should emphasize ethical leadership and consistent application of academic integrity standards, ensuring that institutional norms align with policy objectives.
5. **National-Level Policy Alignment**  
Policymakers should develop standardized academic integrity guidelines for teacher education institutions across Pakistan to ensure consistency in expectations, enforcement, and ethical standards.

### **Theoretical Contribution and Future Research**

Theoretically, this study extends the Theory of Planned Behavior by validating its explanatory power within preservice teacher education in a developing-country context. It highlights the importance of contextual and institutional influences in shaping ethical

behavior, suggesting that future TPB-based models should incorporate structural factors more explicitly.

Future research should adopt longitudinal designs to examine how academic misconduct intentions evolve over time and whether unethical academic behavior during teacher training translates into unethical professional conduct. Comparative studies across public and private institutions and across different cultural contexts would further enhance the generalizability of findings.

### **Final Conclusion**

In conclusion, this study demonstrates that academic misconduct among preservice teachers is a multidimensional phenomenon influenced by attitudes, perceived behavioral control, and institutional conditions. Addressing this challenge requires comprehensive educational, institutional, and policy-level interventions. Strengthening academic integrity among preservice teachers is essential not only for improving teacher education quality but also for safeguarding the ethical foundations of the broader education system in Pakistan and similar developing contexts.

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