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# MINDFULNESS AMONG PROSPECTIVE TEACHERS: DIFFERENCES ACROSS GENDER, ACADEMIC STREAM, AND ACADEMIC ACHIEVEMENT

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## ABSTRACT

*The modern teacher training occurs within the conditions characterized by high academic pressure, expectations of performance, and emotional stress. In this respect, mindfulness has become a valuable psychological tool in that it aids attention, emotional regulation, and balanced involvement in the present moment. The current research paper analyzed the mindfulness level in prospective teachers and compared the mindfulness with respect to gender, academic stream, and academic achievement. A descriptive survey design was utilized, and a sample consisting of 400 prospective teachers from colleges of education in district of Amritsar was chosen through simple random sampling technique. Data were collected using an investigator-developed 30-item mindfulness scale based on the Five Facet Mindfulness Model and validated through expert review and pilot testing. Descriptive statistics, independent samples t-tests, one-way ANOVA, and effect size metrics (Cohen's d and eta squared) were used to analyze the data. The results showed that there were substantial gender variations in overall mindfulness, female prospective teachers demonstrated significantly higher mindfulness than male prospective teachers, (Cohen's d = 2.88). Significant differences were also observed across academic streams ( $\eta^2 = .055$ ) humanities stream reporting higher levels of mindfulness in contrast to students in medical and non-medical streams and academic achievement groups ( $\eta^2 = .021$ ) where high-achieving students scored significantly higher than average- and low-achieving students. Results indicate that mindfulness varied across selected demographic and academic variables and highlight the importance of including mindfulness-based practices in teacher education programs for the development of emotional regulation, reflective capacity and professional readiness. The findings provide empirical evidence that can assist teacher educators and policymakers in designing mindfulness-based interventions to improve the professional competence of future teachers.*

**KEYWORDS:** Mindfulness, Five Facet Mindfulness Model, Prospective teachers, Teacher Education, Academic stream, Academic achievement, Professional competence, Emotional regulation.

## 1. INTRODUCTION

Education is expected not only impart to subject knowledge but also to cultivate responsible, reflective and socially responsive citizens. Teachers are fundamental to the quality of learning and the overall development of students, so teacher education must prepare future teachers with pedagogical competence and psychological resources to face the complex challenges of contemporary classrooms (National Council for Teacher Education [NCTE], 2009; UNESCO, 2021).

Mindfulness has emerged as one of the most influential psychological constructs in educational research for its capacity to enhance attention, emotional regulation, self-awareness and professional competence (Roeser et al., 2012; Emerson et al., 2017; Zhang et al., 2021). It is rooted in Buddhist contemplative traditions, but in contemporary psychology it is defined as the intentional, non-judgmental awareness of experiences in the present moment (Kabat-Zinn, 2003). Mindfulness is now recognized as more than a stress-reduction technique, but rather as a multidimensional psychological resource that promotes adaptive cognitive, emotional, and behavioural functioning (Shapiro et al., 2006; Shapiro and Carlson, 2009). Shapiro and Carlson (2009) state that mindfulness enhances self-regulation via attention regulation, emotion balancing, and cognitive flexibility, which are crucial to effective teaching and lifelong professional development. Mindfulness has therefore attracted much interest in teacher education, as prospective teachers are required to develop not only pedagogical competence, but also emotional resilience, reflective capacity and professional well-being (Roeser et al., 2012).

National Curriculum Framework for Teacher Education (NCFTE, 2009) suggests training professional and humane teachers through reflective practice, self-awareness and ethical responsibility, whereas the National Education Policy (NEP) 2020 promotes holistic, learner-centred and competency-based teacher education that encourages cognitive, social, emotional and ethical development (Ministry of Education, Government of India, 2020). International policy frameworks also recognise the importance of teachers' well-being and socio-emotional competencies as fundamental for quality education. UNESCO (2021, 2023) highlights teacher well-being, resilience, and professional learning. So, mindfulness has become an important psychological resource that contributes to the improvement of attention, emotional regulation, self-awareness and

reflective practice, fostering the comprehensive professional growth of future teachers, and aligning closely with national and international priorities in teacher training.

The applicability of mindfulness is especially evident in institutions of learning. It is common to subject student teachers to a variety of pressures such as coursework, teaching experience, assessment pressure, and the process of becoming a professional teacher (Kostanski, 2007; Soloway et al., 2011). These academic and professional demands often compromise concentration, emotional exhaustion and confidence. Under these circumstances, mindfulness can be considered a protective psychological resource, as it supports individuals to be more alert, manage stressful situations, and approach challenges in a more reflective way (Emerson et al., 2017; Roeser et al., 2012).

Mindfulness has been widely recognized in a multidimensional way based on the Five Facet Mindfulness Model proposed by Baer et al. (2006), which conceptualizes mindfulness into five interrelated facets, namely Observing, Describing, Acting with Awareness, Non-Judging of Inner Experience, and Non-Reactivity to Inner Experience. Together, these dimensions represent a person's ability to attend to internal and external experiences, accurately describe those experiences, remain attentive to present activities, avoid self-critical judgements, and respond to thoughts and emotions with acceptance rather than impulsivity (Baer et al., 2006; Baer et al., 2008). These competencies are highly valuable in teacher education, as effective teaching requires constant self-monitoring, emotional regulation, reflective thinking and responsive decision-making in complex classroom situations. Hence, mindfulness is increasingly considered as a fundamental psychological trait that supports teachers' professional readiness and teaching effectiveness (Roeser et al., 2012; Emerson et al., 2017).

A number of empirical studies have recognized positive effects of mindfulness on educational and psychological outcomes. International studies have repeatedly demonstrated that mindfulness helps teachers and teacher trainees to regulate their emotions, reduces their work-related stress and burnout, enhances their ability to focus their attention, and contributes to their psychological well-being (Roeser et al., 2012; Emerson et al., 2017; Zhang et al., 2021). Roeser et al. (2012) claimed that mindfulness training facilitates teachers' professional development through enhancing emotional competence and classroom

responsiveness. Likewise, in their systematic review, Emerson et al. (2017) found that mindfulness-based interventions significantly improve teachers' stress management, emotional resilience, and well-being. Similarly, Flook et al. (2013) reported that mindfulness training improved teaching efficacy and reduced psychological distress in teachers. More recently, (Zhang et al., 2021) synthesized findings from a large number of intervention studies and concluded that mindfulness makes a positive contribution to emotional health, cognitive functioning and adaptive coping across educational environments. Collectively, these findings indicate that mindfulness is more than just an individual coping mechanism, but rather an important professional competency that enables sustainable teaching practice.

Meanwhile, the evenness of mindfulness distribution among all groups of potential teachers might be nonexistent. The process of mindful awareness can be developed or expressed based on differences in gender socialization, academic background, learning needs, and achievement orientation. It is thus possible to learn more about how mindfulness functions in teacher education by investigating variance in gender, stream, and academic achievement, and use this data to inform more focused responses. (Bluth et al., 2015; Hermana et al., 2021; Alomari, 2023).

The psychological and educational importance of mindfulness has been well established from prior research, yet a number of important gaps still exist. First of all, there is lack of studies that focuses on prospective teachers enrolled in teacher education programs in India. Second, empirical evidence on the differences in mindfulness across gender, academic stream and academic achievement are fragmented and inconsistent (Bluth et al., 2015; Hermana et al., 2021; Alomari, 2023). Third, most studies have used standardized instruments developed in different cultural contexts with limited attempts to develop contextually appropriate measures for prospective teachers (Baer et al., 2006). The present study seeks to address these limitations by examining mindfulness level among prospective teachers and differences across selected demographic and academic variables, using an investigator-developed mindfulness scale based on the Five Facet Mindfulness model. In doing so, the study adds to the growing body of literature on teacher education and provides evidence that could potentially inform the integration of mindfulness into pre-service teacher preparation programs.

### 1.1 HYPOTHESES OF THE STUDY

H1: There is no significant difference in mindfulness (both in total and dimension-wise) based on gender.

H2: There is no significant difference in mindfulness based on the academic stream (Medical, Non-Medical, and Humanities).

H3: There is no significant difference in level of mindfulness with respect to academic achievement (high, average, and low).

## 2. METHODOLOGY

### 2.1 Research Design

A descriptive survey design was adopted to assess mindfulness level among student teachers and to examine differences across gender, academic stream and academic achievements. Simple random sampling was used in selecting the participants ensuring every eligible student teacher had an equal opportunity to participate.

### 2.2 Population & Sample

The chosen population was of all the B.Ed. student teachers studying in teacher education institutions affiliated to Guru Nanak Dev University, Amritsar. Multi stage random sampling was used. In the first stage, Colleges of Education affiliated with Guru Nanak Dev University, were selected randomly. In the second stage, 400 student teachers were selected through random sampling technique from the selected colleges.

### 2.3 Instruments

#### *Mindfulness Scale*

The scale was developed based on the conceptual framework of Five Facet Mindfulness Model, ensuring the relevance of the scale to the educational context. The scale was developed following the standard procedures of educational and psychological scale development. First, a comprehensive literature review on mindfulness, teacher education, and existing measures of mindfulness was conducted to identify conceptual dimensions of mindfulness. This review identified five dimensions, Observing, Describing, Acting with Awareness, Non-Judging of Inner Experience and Non-Reactivity to Inner Experience. In an effort to adequately represent these dimensions an initial pool of 45 statements was developed. The items were worded in a simple, clear and contextually appropriate manner for prospective teachers.

The content validity of scale was established by presenting the initial draft to experts in the fields of Education and Educational Psychology for

evaluation. They assessed each item in terms of its relevance, clarity of language, and adequacy in representing the construct. Based on their feedback and suggestions, the instrument was revised, with unclear and repetitive items being modified or removed.

Then the modified scale was pilot tested on 100 prospective teachers of teacher education institutions other than the final sample included in the study. The pilot study was conducted to evaluate item clarity, administration procedures and psychometric quality of the instrument. Item analysis was performed using the extreme group method (Kelly, 1939) through comparison of responses from the top 27 percent and bottom 27 percent of participants. Items with low discrimination or low item-total correlations were excluded or modified. Therefore, the final scale consisted of 30 items, based on the five dimensions of mindfulness.

The finalized Mindfulness Scale utilized five-point Likert-type response format, with options from Strongly Disagree (1) to Strongly Agree (5). Items that were negatively phrased were reverse-coded prior to computing the overall score. The total scores could vary from 30 to 150, with elevated scores indicating a higher degree of mindfulness.

To further establish the reliability of the instrument, the test-retest method was employed, which consisted of re-administering the scale to the same group of participants after a two-week gap. The obtained reliability coefficient was 0.80, indicating that the instrument possessed good stability over time. In addition, internal consistency of 30-item Mindfulness Scale developed by the investigator was assessed using Cronbach's alpha. The obtained alpha coefficient ( $\alpha = .787$ ) demonstrated acceptable internal consistency, suggesting that the items

consistently measured the construct of mindfulness with satisfactory reliability.

The content validity of the instrument was confirmed by experts, and satisfactory results of item analysis and reliability estimation supported it. The scale was found to have sufficient psychometric properties and was deemed suitable for measuring mindfulness among prospective teachers. Therefore, it was administered to the final sample of 400 prospective teachers for the present investigation.

Academic achievement was assessed through the marks obtained in the previous class.

## 2.4 Statistical Methods Applied

The analysis of data was done utilizing IBM SPSS Statistics version 26.0. Descriptive statistics were calculated to assess levels of mindfulness. Independent-samples t-tests were performed to investigate gender disparities, and one-way analysis of variance was employed to compare mindfulness across academic streams and achievement groups. Before conducting the inferential statistical analyses, the assumptions that form the basis of the independent-samples t-test and one-way ANOVA were assessed. Data normality was evaluated by both skewness and kurtosis statistics. As the assumptions were adequately satisfied, the use of parametric statistical procedures was considered appropriate. Furthermore, to complement the tests of statistical significance, effect size measures were computed to determine practical magnitude of the observed differences. Cohen's d was calculated for the independent-samples t-tests, while eta squared ( $\eta^2$ ) was used for the one-way ANOVA analyses.

## 3. RESULTS AND DISCUSSION

**Table 1.1 T-Ratio of Mindfulness (Total and Dimensions wise) of Student-Teachers w.r.t. gender.**

| Variables                         | Gender | N   | Mean   | Standard Deviation | Standard Error Mean | t-Value | Sig. |
|-----------------------------------|--------|-----|--------|--------------------|---------------------|---------|------|
| Observing                         | Female | 357 | 35.35  | 5.696              | .301                | 21.62   | .000 |
|                                   | Male   | 43  | 15.30  | 6.132              | .935                |         |      |
| Describing                        | Female | 357 | 18.73  | 4.872              | .258                | 1.718   | .087 |
|                                   | Male   | 43  | 17.16  | 10.088             | 1.538               |         |      |
| Acting with awareness             | Female | 357 | 24.63  | 4.911              | .260                | 14.15   | .000 |
|                                   | Male   | 43  | 13.74  | 3.303              | .504                |         |      |
| Nonjudging of inner experience    | Female | 357 | 23.24  | 5.496              | .291                | 11.23   | .000 |
|                                   | Male   | 43  | 13.65  | 2.991              | .456                |         |      |
| Nonreactivity to inner experience | Female | 357 | 20.25  | 5.215              | .276                | 8.551   | .000 |
|                                   | Male   | 43  | 13.37  | 2.215              | .338                |         |      |
| Mindfulness Total                 | Female | 357 | 122.21 | 16.885             | .894                | 17.76   | .000 |
|                                   | Male   | 43  | 73.23  | 18.625             | 2.840               |         |      |

Table 1.1 indicates a statistically significant gender difference in overall mindfulness,  $t(398) = 17.76$ ,  $p \leq .01$ . Female prospective teachers obtained a

markedly higher total mean score (122.21) than male prospective teachers (73.23). Dimension-wise analysis shows significant differences in observing,

acting with awareness, non-judging of inner experience, and non-reactivity to inner experience, all in favour of female student teachers. The describing dimension did not differ significantly across gender ( $t = 1.718$ ,  $p \geq .05$ ), suggesting that this aspect of mindfulness remained comparatively

similar for male and female participants. Female prospective teachers demonstrated significantly higher mindfulness than male prospective teachers,  $t(398) = 17.76$ ,  $p < .001$ , Cohen's  $d = 2.88$ ,  $\eta^2 = .442$ , indicating a very large effect.

**Table 1.2. Means and Standard Deviations of Mindfulness in Relation to Academic Stream.**

| Variable                          | Stream      | N   | Mean   | Std. Deviation |
|-----------------------------------|-------------|-----|--------|----------------|
| Observing                         | Non-Medical | 124 | 32.05  | 10.010         |
|                                   | Medical     | 56  | 33.38  | 8.234          |
|                                   | Humanities  | 220 | 33.80  | 7.481          |
|                                   | Total       | 400 | 33.20  | 8.459          |
| Describing                        | Non-Medical | 124 | 16.12  | 5.797          |
|                                   | Medical     | 56  | 18.20  | 4.227          |
|                                   | Humanities  | 220 | 20.03  | 5.440          |
|                                   | Total       | 400 | 18.56  | 5.668          |
| Acting with awareness             | Non-Medical | 124 | 21.63  | 5.297          |
|                                   | Medical     | 56  | 23.07  | 3.944          |
|                                   | Humanities  | 220 | 24.60  | 6.260          |
|                                   | Total       | 400 | 23.46  | 5.837          |
| Nonjudging of inner experience    | Non-Medical | 124 | 21.42  | 4.883          |
|                                   | Medical     | 56  | 21.52  | 4.951          |
|                                   | Humanities  | 220 | 22.84  | 6.821          |
|                                   | Total       | 400 | 22.21  | 6.062          |
| Nonreactivity to inner experience | Non-Medical | 124 | 18.52  | 3.120          |
|                                   | Medical     | 56  | 18.61  | 2.871          |
|                                   | Humanities  | 220 | 20.30  | 6.671          |
|                                   | Total       | 400 | 19.51  | 5.416          |
| Mindfulness Total                 | Non-Medical | 124 | 109.73 | 19.769         |
|                                   | Medical     | 56  | 114.77 | 20.196         |
|                                   | Humanities  | 220 | 121.56 | 24.007         |
|                                   | Total       | 400 | 116.95 | 22.839         |

**Table 1.3. Summary of ANOVA on Mindfulness Scores in Relation to Academic Stream.**

| Variable                          | Source         | Sum of Squares | df  | Mean Square | F      | p-Value |
|-----------------------------------|----------------|----------------|-----|-------------|--------|---------|
| Observing                         | Between Groups | 244.160        | 2   | 122.080     | 1.712  | .182    |
|                                   | Within Groups  | 28308.630      | 397 | 71.306      |        |         |
|                                   | Total          | 28552.790      | 399 |             |        |         |
| Describing                        | Between Groups | 1221.635       | 2   | 610.818     | 20.910 | .000    |
|                                   | Within Groups  | 11596.802      | 397 | 29.211      |        |         |
|                                   | Total          | 12818.438      | 399 |             |        |         |
| Acting with awareness             | Between Groups | 707.792        | 2   | 353.896     | 10.902 | .000    |
|                                   | Within Groups  | 12887.645      | 397 | 32.463      |        |         |
|                                   | Total          | 13595.437      | 399 |             |        |         |
| Nonjudging of inner experience    | Between Groups | 190.653        | 2   | 95.326      | 2.615  | .074    |
|                                   | Within Groups  | 14470.285      | 397 | 36.449      |        |         |
|                                   | Total          | 14660.938      | 399 |             |        |         |
| Nonreactivity to inner experience | Between Groups | 307.017        | 2   | 153.509     | 5.347  | .005    |
|                                   | Within Groups  | 11396.920      | 397 | 28.708      |        |         |
|                                   | Total          | 11703.937      | 399 |             |        |         |
| Mindfulness Total                 | Between Groups | 11406.481      | 2   | 5703.241    | 11.510 | .000    |
|                                   | Within Groups  | 196718.309     | 397 | 495.512     |        |         |
|                                   | Total          | 208124.790     | 399 |             |        |         |

Table 1.3 indicates that total mindfulness differed significantly across academic streams, with ANOVA showing a statistically significant overall effect,  $F =$

11.510,  $p \leq .01$ . No meaningful stream-wise differences were observed regarding observing or non-judging of inner experiences. However, notable

differences were recorded in the areas of describing ( $F = 20.910$ ,  $p \leq .01$ ), acting with awareness ( $F = 10.902$ ,  $p \leq .01$ ), and non-reactivity to inner experience ( $F = 5.347$ ,  $p \leq .01$ ). The mean values further suggest that prospective teachers from the humanities stream obtained the highest scores on the dimensions with significant variation, followed by

those from the medical stream, while the non-medical stream showed comparatively lower mean scores. One-way ANOVA revealed significant difference in mindfulness in various academic streams,  $F(2, 397) = 11.51$ ,  $p < .001$ ,  $\eta^2 = .055$ , indicating a small-to-moderate effect.

**Table 1.4. Mean and Standard Deviation of Mindfulness w.r.t. Academic Achievement.**

| Variable                           | Academic Achievement         | N   | Mean   | SD     | SE    |
|------------------------------------|------------------------------|-----|--------|--------|-------|
| Observing                          | High Academic Achievement    | 108 | 34.02  | 8.659  | .833  |
|                                    | Average Academic Achievement | 184 | 33.00  | 8.353  | .616  |
|                                    | Low Academic Achievement     | 108 | 32.70  | 8.459  | .814  |
|                                    | Total                        | 400 | 33.20  | 8.459  | .423  |
| Describing                         | High Academic Achievement    | 108 | 18.08  | 6.311  | .607  |
|                                    | Average Academic Achievement | 184 | 18.39  | 5.005  | .369  |
|                                    | Low Academic Achievement     | 108 | 19.34  | 6.019  | .579  |
|                                    | Total                        | 400 | 18.56  | 5.668  | .283  |
| Acting with awareness              | High Academic Achievement    | 108 | 24.99  | 7.500  | .722  |
|                                    | Average Academic Achievement | 184 | 22.99  | 4.957  | .365  |
|                                    | Low Academic Achievement     | 108 | 22.73  | 5.050  | .486  |
|                                    | Total                        | 400 | 23.46  | 5.837  | .292  |
| Non-judging of inner experience    | High Academic Achievement    | 108 | 23.56  | 7.471  | .719  |
|                                    | Average Academic Achievement | 184 | 21.93  | 5.179  | .382  |
|                                    | Low Academic Achievement     | 108 | 21.34  | 5.708  | .549  |
|                                    | Total                        | 400 | 22.21  | 6.062  | .303  |
| Non-reactivity to inner experience | High Academic Achievement    | 108 | 21.67  | 8.040  | .774  |
|                                    | Average Academic Achievement | 184 | 18.76  | 3.645  | .269  |
|                                    | Low Academic Achievement     | 108 | 18.64  | 3.949  | .380  |
|                                    | Total                        | 400 | 19.51  | 5.416  | .271  |
| Mindfulness Total                  | High Academic Achievement    | 108 | 122.32 | 28.058 | 2.700 |
|                                    | Average Academic Achievement | 184 | 115.07 | 19.214 | 1.416 |
|                                    | Low Academic Achievement     | 108 | 114.76 | 22.054 | 2.122 |
|                                    | Total                        | 400 | 116.95 | 22.839 | 1.142 |

**Table 1.5. Summary of ANOVA on Mindfulness Scores in Relation to Academic Achievement.**

| Variable                          | Source         | Sum of Squares | df  | Mean Square | F      | p-Value |
|-----------------------------------|----------------|----------------|-----|-------------|--------|---------|
| Observing                         | Between Groups | 106.309        | 2   | 53.154      | .742   | .477    |
|                                   | Within Groups  | 28446.481      | 397 | 71.654      |        |         |
|                                   | Total          | 28552.790      | 399 |             |        |         |
| Describing                        | Between Groups | 96.260         | 2   | 48.130      | 1.502  | .224    |
|                                   | Within Groups  | 12722.177      | 397 | 32.046      |        |         |
|                                   | Total          | 12818.438      | 399 |             |        |         |
| Acting with awareness             | Between Groups | 350.239        | 2   | 175.120     | 5.249  | .006    |
|                                   | Within Groups  | 13245.198      | 397 | 33.363      |        |         |
|                                   | Total          | 13595.438      | 399 |             |        |         |
| Nonjudging of inner experience    | Between Groups | 293.986        | 2   | 146.993     | 4.062  | .018    |
|                                   | Within Groups  | 14366.952      | 397 | 36.189      |        |         |
|                                   | Total          | 14660.938      | 399 |             |        |         |
| Nonreactivity to inner experience | Between Groups | 687.543        | 2   | 343.771     | 12.389 | .000    |
|                                   | Within Groups  | 11016.395      | 397 | 27.749      |        |         |
|                                   | Total          | 11703.937      | 399 |             |        |         |
| Mindfulness Total                 | Between Groups | 4287.310       | 2   | 2143.655    | 4.175  | .016    |
|                                   | Within Groups  | 203837.480     | 397 | 513.445     |        |         |
|                                   | Total          | 208124.790     | 399 |             |        |         |

Table 1.5 shows that the academic achievement groups differed significantly in their overall mindfulness scores,  $F = 4.175$ ,  $p \leq .05$ . No statistically significant differences were observed for Observing and Describing dimensions. However, significant

group differences were found for Acting with Awareness ( $F = 5.249$ ,  $p = .05$ ), Non-Judging of Inner Experience ( $F = 4.062$ ,  $p = .05$ ), and Non-Reactivity to Inner Experience ( $F = 12.389$ ,  $p = .01$ ). The average trend indicates that the most successful potential

educators received the highest score on these important dimensions and the overall mindfulness. One-way ANOVA revealed significant difference in overall mindfulness among academic achievement groups,  $F(2, 397) = 4.18$ ,  $p < .05$ ,  $\eta^2 = .021$ , indicating a small effect.

#### 4. DISCUSSION

The findings indicate that there is significant difference in mindfulness of prospective teachers depending on their gender, academic stream and academic achievement signifying that mindfulness is influenced by personal and educational factors (Baer et al., 2006; Roeser et al., 2012). Female prospective teachers demonstrated significantly higher overall mindfulness scores than male prospective teachers. They also scored significantly higher on the dimensions of Observing, Acting with Awareness, Non-Judging, and Non-Reactivity. This is in line with Bluth et al. (2015) who found that the gender difference in mindfulness was more salient in female students, which may be related to greater emotional awareness and self-reflection tendency. However, it is essential to exercise caution in interpreting this finding because male subgroup was much smaller than the female subgroup in this study.

There were also significant differences in stream-wise analysis. Students of the humanities had relatively higher mindfulness scores than students of the medical and non-medical streams which could be an indication of greater opportunities for reflective learning, discussion-based pedagogy and interpersonal engagement (Hermana et al., 2021; Ramya & Sherlin, 2023). Humanities education often encourages introspection and collaborative learning experiences that align closely with the core components of mindfulness. Differences in curricular orientation and learning experiences may explain how prospective teachers attend to and regulate their experiences. The findings are not to be interpreted as indicating the superiority of one academic stream over another, but rather suggest that mindfulness may be expressed differently across academic contexts as the result of differences in curricular experiences and pedagogical practices.

Prospective teachers with higher academic achievement showed significantly higher mindfulness scores. These associations may be explained by mindfulness ability to improve attentional control, self-regulated learning, and emotional regulation which contribute to better academic performance (Alomari, 2023; Hermana et al., 2021; Farooq & Kaur, 2024). These findings

suggest that academic achievement is more closely associated with specific mindfulness dimensions than with mindfulness as a uniform construct, reinforcing its multidimensional conceptualization (Baer et al., 2006).

The results when combined together confirm the opinion that mindfulness is practically relevant to teacher preparation. Given that future teachers have academic and emotional stressors, mindfulness-based interventions can enhance their readiness to the professional life through enhancing present-focused attention, emotional regulation, and adaptive self-management (Roeser et al., 2012; Emerson et al., 2017; Soloway et al., 2011). These results thus inform in teacher education institutions, the inclusion of mindfulness should be a component of professional preparation and not an optional enrichment activity.

#### 5. CONCLUSION

The present study confirms the value of mindfulness as very significant psychological resource in the teacher education. The difference in the overall mindfulness differed significantly across gender, and academic stream and academic achievement, which shows that mindful awareness is affected by both demographic and academic. Female prospective teachers, humanities stream students and students with high achievement had higher mindfulness scores on average than their comparative groups. Although the observed effects ranged from small to very large, the findings collectively highlight the educational relevance of mindfulness in teacher preparation.

The implications of these findings in education are apparent. First, to equip teacher education institutions with future-sensitive teachers who should be reflective, emotionally stable, and professionally resilient, it is important to think of the structured mindfulness training in the curriculum and the student support system. Second, teacher educators may include activities such as reflective journaling, guided meditation, breathing exercises, and contemplative classroom practices to support professional well-being. Thirdly, educational policy-makers may consider mindfulness as an important aspect of teacher competency development in accordance with the holistic objectives of the National Education Policy (2020). Enhancing mindfulness in the future teacher group can potentially transform personal health, as well as, potentially enhance healthier classroom practice and sustainable education involvement.

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