

The Role of Academic Leadership in Enhancing Self-Efficacy and Mental Health in Higher Education Institutions of Haryana

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Abstract

The purpose of the article was to look at the most common types of academic leadership in Haryana's colleges and universities and how they affected the faculty's mental health and self-efficacy, as well as the link between these two factors. A quantitative approach research study polled 524 academic leaders and faculty members about the state of Haryana based in universities, colleges, and technical institutes. This gave us the information we needed. Six types of leadership questionnaires were given out online and in person. The data analysis employed descriptive statistics, correlation, and regression analysis with SPSS. The results showed that the laissez-faire (mean = 3.2176) and transactional (mean = 3.1737) styles of leadership were mostly present. The results of the regression analyses demonstrated that academic leadership styles significantly predicted faculty self-efficacy ($R^2 = 0.315, 0.562, p = 0.001$) and mental health ($R^2 = 0.282, 0.531, p = 0.001$). Transformational leadership has the highest beneficial correlations with self-efficacy ($r = 0.643$) and mental health ($r = 0.591$) in that order. Other types of leadership styles have the same effect. These results elucidate the importance of leadership style on psychological well-being in higher education, demonstrating that a positive shift in effective leadership behavior can impact faculty self-efficacy and mental well-being, thereby fostering a conducive and productive environment in higher education in Haryana.

Keywords: Academic Leadership, Leadership Styles, Self-Efficacy, Mental Health, Higher Education, Faculty Wellbeing, Transformational Leadership.

1. Introduction

The Haryana higher education sector is now facing a major growth and change that comes with its own challenges and opportunities to the involved institutions and people in it. Since schools are working towards the efforts of improving academic standards and standards to accommodate the growing needs of the diverse students, academic leadership has become an extremely crucial aspect [1], [2]. The leadership style adopted by the academic leaders (principals, deans and heads of departments) does not only influence the institutional policies and effectiveness but it is more decisive in providing a psychological environment to both the students and the faculty. Among the many psychological factors which are impacted by the leaders, a special mention in the list of the most significant determinants of motivation, academic success, and perseverance in the face of adversities should be made to the self-efficacy which is a personal feeling that one could accomplish something in specific tasks. Because of the increased number of students and faculty members in tertiary schools who are dealing with stress, anxiety, and other mental health

difficulties, mental health has gotten a lot of media attention [3]. Therefore, the power of different academic leadership styles on self-efficacy and mental well-being should be known in order to establish an optimal and effective learning experience. The state of Haryana is a characteristic state, and its socio-cultural and educational situation can be taken advantage of to research the dynamics [4], [5]. The sheer growth of higher education in state, as well as various backgrounds and cultures of students and varying cultures within the institutions, creates the necessity of good leadership that can foster the growth of mental health and inculcate confidence amongst stakeholders in the academic institutions. Even though there has been a lot of research on transformational, transactional, or laissez-faire leadership theories in business and organizational management, we still don't know much about how these ideas are used in Indian higher education. Transformational leadership, characterized by inspiration, encouragement, and individualized assistance, is often linked to enhanced self-efficacy and better mental health, since it fosters an empowering environment that motivates individuals to overcome problems [6], [7]. On the other hand, transactional leadership that focuses more on structure, rewards and punishments may result in compliance and order although it may not effectively meet the emotional and psychological needs of students and faculty. A laissez-faire leadership that is frequently characterized by not being involved or giving directions may also help to introduce a feeling of uncertainty and stress, which may decrease self-efficacy and negatively influence mental wellness [8], [9], [10]. Investigating these leadership styles in the higher education institutions of Haryana will offer some insights on how the behavior of leaders may be customized to achieve wellbeing and improved academic outcomes. The current study comes at an opportune time and is an important one, considering the growing realization of the issue of mental health in academic institutions and the current endeavors to ensure the quality and inclusivity of education. The project will illuminate the correlation between leadership styles, self-efficacy, and mental health, thereby informing policymakers, administrators, and educators on optimal leadership practices to foster a healthy and supportive academic environment. This kind of knowledge may help lower stress and burnout levels, improve academic achievement, and create an environment where students and staff feel safe, mentally driven, and mentally healthy [11], [12], [13]. In the end, the study aims at making a contribution to the success or failure of academic leaders in advancement of not only institutional success but also the entire wellbeing of the education sector in Haryana with the view of contributing to the success of the education sector as a whole and sustainable enough to suit the challenges of the future.

2. Literature Review

Armstrong 2025 et al. summarizes the issue of mental health in India, focusing on factors such as depression, anxiety, and suicidal tendencies. A survey was conducted on 8,542 individuals enrolled in 30 universities across nine states using the PHQ-9 and GAD-7 scales to assess psychological distress. The results revealed that 18.8% of participants had experienced suicidal thoughts (compared to 12.4% who had such thoughts in the past year), with 6.7% attempting suicide. Moderate to severe depressive symptoms were observed in one-third of the participants, while moderate to severe anxiety was reported by 23.2%. These findings indicate a significant psychological health burden in the population, highlighting the urgent need for mental health interventions and strengthened institutional support systems[14].

Sin 2024 et al. investigated the associations between intimate partner violence (IPV) and mental health outcomes where the varying outcomes between the low-, middle-, and high-income countries were observed. Findings of 201 qualitative studies of the women (n=250,000) demonstrated that the lifetime prevalence of IPV increased relative to the prevalence in the past year, with the most common type being psychological violence. Community samples had higher IPV in recent past whereas lifetime physical IPV was prevalent in perinatal women. Those differences were significant dependent on the amount of income of nations. The meta-analyses showed that there were various odds ratios of depression, PTSD, and suicidality of vulnerable women who were exposed to IPV. The findings emphasize the high vulnerability of mental health which is accredited by IPV and requires context-related, victimized support services [15].

Mishra 2023 et al. studies the impact of Covid-19 pandemic on mental state and behaviour of students of Mizoram University during the lockdown period. The design used in the study was snowball sampling and cross-sectional study where emotional wellbeing and daily activity of students were measured. The results showed that 65.2 per cent of the purpose were being more concerned of their mental health and 67.2 per cent of the purpose were not facing any additional academic pressure. The vast majority of them had good coping behaviours such as physical exercise (69.7) and attending online lessons. The students also successfully used learning management systems. Overall, positive psychology changes enabled students to deal with stress during the pandemic and their wellbeing changed as a result of changes in the long term [16].

Velagapaly 2023 et al. The prevalence of mental health issues is increasing, varying across different demographics and diagnostic criteria. A cross-sectional study examined the relationship between mental health, academic performance, and psychosocial recovery through surveys, employing descriptive statistics, correlation, regression, and ANOVA analyses. The study found that individuals with above-average mental health and academic success also exhibited elevated levels of characteristics that can adversely affect mental health. The results demonstrated strong positive correlations between factors contributing to poor mental health and psychosocial recovery, as well as between mental health, academic performance, and recovery. However, no significant correlation was observed between the prevalence and severity of mental health difficulties and psychosocial recovery. These findings highlight the importance of addressing the underlying factors affecting mental health to facilitate effective recovery[17].

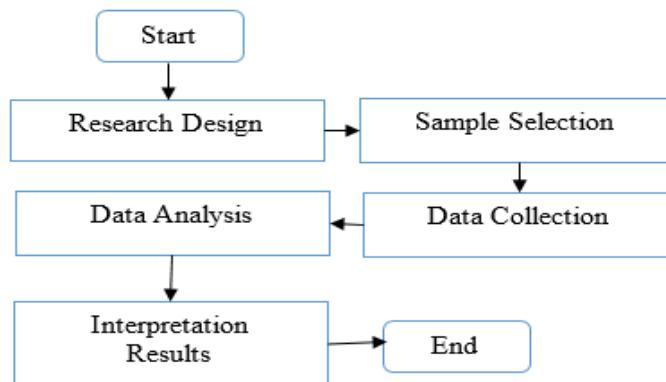
Dragioti 2022 et al. review and meta-analysis of 173 observational studies involving over 500,000 participants indicated that the COVID-19 pandemic has profoundly affected mental health across the general population. Posttraumatic symptoms, anxiety, depression, stress, sleep disturbances, and fear were prevalent among COVID-19 patients, healthcare workers, caregivers, and individuals with a prior mental or physical disorder. Women and infected patients experienced a higher mental health burden. Additionally, young adults were at greater risk of anxiety, depression, sleep disturbances, and suicidal thoughts. Anxiety and depression were more common in low- and middle-income countries, while sleep disorders were more prevalent in high-income countries. These findings underscore the vulnerability of specific populations and the urgent need for targeted mental health interventions [18].

Table 1: Literature Summary

Authors/Year	Methodology	Research gap	Findings
Lipson/2022[19]	National longitudinal survey; descriptive racial/ethnic trend analysis	Limited race-specific mental health and help-seeking trend evidence	Mental health worsened; students of color used fewer services
Sun/2021[20]	Online cross-sectional survey with logistic regression analysis	Occupational stress effects on CMHWs underexplored during pandemics	Job stress affected depression; training improved self-efficacy
Rogers/2021[21]	Mixed-methods longitudinal survey pre- and during pandemic	Limited adolescent subjective pandemic experience data	Social changes increased depression, anxiety, loneliness
Prakash/2020[22]	Cross-sectional survey using standardized psychological scales	Gender differences and predictors of wellbeing insufficiently studied	Self-esteem predicted wellbeing; no gender differences found
Shah/2020[23]	Narrative review of global pandemic mental health risks	Limited systematic focus on children's psychological vulnerability	Lockdowns disrupted learning, increased mental health risks

3. Research methodology

The research design is a quantitative approach basing the study on descriptive and correlational research designs in order to investigate the nature of impact of academic leadership style in faculty self-efficacy and mental wellbeing of Haryana institutions of higher learning. Stratified random sampling was chosen to decide on 524 academic leaders and university faculty members of universities, colleges, and technical institutes.


Figure. 1 Proposed Flow Chart

Structured questionnaires were used to collect data containing validated scales on leadership styles, self-efficacy and mental health. The SPSS statistical test was performed which encompassed descriptive statistics test, correlation test, and regression test to test the hypotheses, to establish relationships, predictive effects among the variables business study.

3.1 Research Design

The research design is a quantitative study based on the descriptive-correlational methods. Frequency and mean scores are aspects of descriptive analysis that indicate the most used leadership styles. The research data involves correlational and regression analyses to determine the relationships and predictive impact of leadership styles on faculty self-efficacy and mental health. This research design will objectively explore the influence of leadership on psychological outcomes that will enable hypothesis testing on the influence of leadership in the academic environment. The method advocates the evidence-based interpretation of leadership practices and how they affect the wellbeing among the faculty in the higher education sector in Haryana.

• Objective

- a) To determine the type of leadership style predominantly exhibited in higher education academic leaders.
- b) To study the impact of Academic leadership style on self-efficacy and mental health of faculty members.
- c) To study the relationship between the academic leadership style, self-efficacy and mental health of faculty members.

• Research gap

- a) Limited research on leadership styles specific to higher education academic leaders.
- b) Insufficient focus on how academic leadership influences faculty self-efficacy.
- c) Lack of studies addressing the impact of leadership style on faculty mental health.
- d) Few investigations into the combined relationship between leadership, self-efficacy, and mental health in academia.
- e) Need for context-specific insights to improve leadership practices in higher education settings.

• Research Question

- a) What is the predominant leadership style exhibited by academic leaders in higher education institutions?
- b) How does the academic leadership style impact the self-efficacy of faculty members?
- c) What is the effect of academic leadership style on the mental health of faculty members?
- d) What is the nature of the relationship between academic leadership style, faculty members' self-efficacy, and their mental health?

• Hypothesis

Objective 1: To determine the type of leadership style predominantly exhibited in higher education academic leaders.

Variable: Leadership style

$H1_0$: There is no significant dominant presence of leadership style among higher education academic leaders in Haryana.

H1: There is a significant dominant presence of leadership style among higher education academic leaders in Haryana.

H1(a)₀: There is no significant dominant presence of transformational leadership style among higher education academic leaders in Haryana.

H1(a)₁: There is a significant dominant presence of transformational leadership style among higher education academic leaders in Haryana.

H1(b)₀: There is no significant dominant presence of transactional leadership style among higher education academic leaders in Haryana.

H1(b)₁: There is a significant dominant presence of transactional leadership style among higher education academic leaders in Haryana.

H1(c)₀: There is no significant dominant presence of servant leadership style among higher education academic leaders in Haryana.

H1(c)₁: There is a significant dominant presence of servant leadership style among higher education academic leaders in Haryana.

H1(d)₀: There is no significant dominant presence of democratic leadership style among higher education academic leaders in Haryana.

H1(d)₁: There is a significant dominant presence of democratic leadership style among higher education academic leaders in Haryana.

H1(e)₀: There is no significant dominant presence of authoritarian leadership style among higher education academic leaders in Haryana.

H1(e)₁: There is a significant dominant presence of authoritarian leadership style among higher education academic leaders in Haryana.

H1(f)₀: There is no significant dominant presence of laissez-faire leadership style among higher education academic leaders in Haryana.

H1(f)₁: There is a significant dominant presence of laissez-faire leadership style among higher education academic leaders in Haryana.

Objective 2: To study the impact of Academic leadership style on self-efficacy and mental health of faculty members.

Dependent Variable: Self-efficacy and mental health of faculty members

Independent Variable: Academic leadership style

H2₀: There is a no significant impact of academic leadership style on self-efficacy and mental health of faculty members in Haryana.

H2₁: Academic leadership style has a significant impact on self-efficacy and mental health of faculty members in Haryana.

H2(a)₀: There is a no significant impact of academic leadership style on self-efficacy of faculty members in Haryana.

H2(a)₁: Academic leadership style has a significant impact on self-efficacy of faculty members in Haryana.

H2(b)₀: There is a no significant impact of academic leadership style on mental health of faculty members in Haryana.

H2(b)₁: Academic leadership style has a significant impact on mental health of faculty members in Haryana.

Objective 3 To study the relationship between the academic leadership style, self-efficacy and mental health of faculty members.

Variables: Self-efficacy and mental health of faculty members and Academic leadership style

$H3_0$: There is a no significant relationship between academic leadership style, self-efficacy and mental health of faculty members in Haryana.

H3₁: There is a significant relationship between academic leadership style, self-efficacy and mental health of faculty members in Haryana.

$H3(a)_0$: There is a no significant relationship between academic leadership style and self-efficacy of faculty members in Haryana.

H3(a)₁: There is a significant relationship between academic leadership style and self-efficacy of faculty members in Haryana.

$H3(b)_0$: There is a no significant relationship between academic leadership style and mental health of faculty members in Haryana.

H3(b)₁: There is a significant relationship between academic leadership style and mental health of faculty members in Haryana.

3.2 Population and Sample

It will include academic leaders and faculty members in the universities, colleges, and technical institutes of Haryana. The sample size was 524 persons chosen in order to be representative of different academic ranks, disciplines, gender, and experience. This is a large enough size to give adequate statistical power and generalizability. This is because the sample is heterogeneous and it is possible to study the differences in perceptions of leadership and psychological outcome in the view of the participants that are either demographic or professional in nature. A well-calculated sample would add to the reliability of the study and that the conclusions made would represent the wider academic population in the higher education sector in Haryana.

3.3 Sampling Techniques

Stratified random sampling has been used in order to get a representative and non-biased sample. The people were sorted into strata, according to the type of institutions and the academic departments. The selection of participants was done randomly within each stratum, which reduces over/under-representation. This is a pre-determined method to minimize the sampling bias compared to the convenience sampling and enhances the ability to generalize results. The stratification sample will ensure that various groups in the higher education system are well represented in Haryana that gives a balanced perspective on the leadership types and their impacts in the various academic environments.

3.4 Data Collection Methods

Structured questionnaires were used to collect data, online and face-to-face; this would ensure maximum response rates and inclusiveness. The questionnaires also included validated measures of six different leadership styles, faculty self-efficacy as well as the mental health indicators. The two-way allocation mode offered different preferences of respondents thus minimizing selection biasness. Consistent psychometrically tested instruments were used to provide reliable and consistent data regarding leadership behaviors and psychological outcomes. In this process, healthy gathering of information was achieved among the institutions of higher learning in Haryana through a broad-based collection of information by them.

3.4 Questionnaire Structure

The questionnaire was divided into two parts including (demographics) (age, gender, education, experience, type of institution, employment status, marital status, use of specific leadership styles, self-efficacy and mental health) variables. The leadership styles were measured on 5-points Likert scale that incorporated transformational, transactional, servant, democratic, authoritarian, and laissez-faire. Self-efficacy assessed the confidence in managing academic stress and in the teamwork, whereas the mental health assessed the stress coping, work-life balance, and the support of the institutions. This structure was used to capture the variables of interest so as to study the effects of leadership on faculty psychological wellbeing in a detailed way.

3.5 Research Instrumentation

The key measure was a multi-dimensional leadership style inventory that was computer-aided to fit the academic environment gauging six types of leadership through specific behavioral items. Also, the self efficacy and mental health standardized scales that had been proven to be effective in an academic background were administered with minor context related alterations. A pilot test conducted on a small representative sample group to provide clarity, cultural relevancy and reliability. They were so much intensive to ensure that the leadership behaviors and psychological implications would be measured appropriately hence providing the study with high validity and the power to area and fine tune the psychological contribution made by leadership to faculty in the institutes of higher learning in Haryana.

3.6 Data Analysis Techniques

The SPSS software was used in data analysis in order to undertake descriptive statistics, inferential tests, correlation, and regression analysis. Prevalence of leadership styles and characteristics of participants were found with the help of descriptive statistics. Hypotheses concerning the role of leadership styles in self-efficacy and mental health were put to test in inferential analyses. Predictor relationship analysis was carried out through regression and correlation was employed to estimate the relationship between variables. It was easy to carry out the processing of the data and present the results in tables and graphs, owing to the use of the SPSS. This is an aggressive form of analysis which implied a sound hypothesis testing and justifiable findings on the psychological effect of academic leadership on the faculty members.

4. Data Analysis & interpretation

Objective 1: To determine the type of leadership style predominantly exhibited in higher education academic leaders.

H1: There is a significant dominant presence of leadership style among higher education academic leaders in Haryana.

H1(a): There is a significant dominant presence of transformational leadership style among higher education academic leaders in Haryana.

T-Test

Table. 1 One-sample statistics summarizing transformational leadership mean and variability

Variable	Sample Size (N)	Mean Score	Standard Deviation	Standard Error

Transformational Leadership (Average Score)	524	3.1533	0.77651	0.03392
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This table gives the one-sample statistics of Transformational Leadership. It gives the sample size ($N = 524$), the mean score (3.1533), standard deviation (0.77651) and standard error of the mean (0.03392) that say something about the central tendency and variation of the transformational leadership scores in the sample.

Table. 2 One-sample t-test indicates transformational leadership significantly exceeds test value.

Variable	t Statistic	Degrees of Freedom	Two-Tailed Significance	Mean Difference	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)
Transformational Leadership (Average Score)	4.519	523	.000	.15331	.0867	.2199

Table below gives the outcome of one-sample t-test on the mean score of transformational leadership with a t-value of 3: t -value (523 degrees of freedom) is tested at the level of (4.519) and the outcome of the t-test is considered to be statistically significant, ($p < 0.001$). It is a mean difference of 0.15331 and the confidence level lies between 0.0867 and 0.2199.

H1(b): There is a significant dominant presence of transactional leadership style among higher education academic leaders in Haryana.

T-Test

Table. 3 One-Sample Statistics Describing Transactional Leadership Mean And Dispersion.

Variable	Sample Size	Average Score	Standard Deviation	Standard Error
Transactional Leadership (Mean Score)	524	3.1737	0.75157	0.03283

A one sample statistics of the transactional leadership is given in the following table which shows a sample-size of 524, mean-value of the transactional leadership scores equal to 3.1737, standard deviation of 3.1737 of 0.75157 and a standard error of the mean of 0.032835 explaining the central tendency and dispersion of the transactional scores of the transactional leadership.

Table. 4 One-Sample T-Test Shows Transactional Leadership Mean Significantly Above Test Value.

Variable	t Statistic	Degrees of Freedom	Two-Tailed Significance	Mean Difference	Confidence Interval Lower Bound	Confidence Interval Upper Bound
Transactional Leadership (Mean Score)	5.289	523	.000	.17366	.1092	.2382

The result of single sample test-t on mean score of the transactional leadership against a test score of 3 would be indicated by the table below. The degree of freedom of 523 ($t = 5.289$) falls below the level of significance ($p < 0.001$) which implies that there is a significant difference between the mean transactional leadership (3.1737) with the level of significance. The average difference is 0.17366 with 95 percent interval 0.1092 -0.2382.

H1(c): There is a significant dominant presence of servant leadership style among higher education academic leaders in Haryana.

T-Test

Table. 5 One-Sample Statistics Showing Servant Leadership Mean And Variability.

Variable	Sample Size	Mean Score	Standard Deviation	Standard Error
Servant Leadership (Average Score)	524	3.0763	0.74700	0.03263

In this table, the number of samples, ($n=524$), the mean, (mean=3.0763), the standard deviation, ($S=0.74700$) and the standard error of the mean of the servant leadership are indicated providing the central tendency and standard range of the scores of the servant leadership.

Table. 6 One-Sample T-Test Shows Servant Leadership Mean Significantly Exceeds Test Value.

Variable	t Statistic	Degrees of Freedom	Two-Tailed Significance	Mean Difference	Confidence Interval (Lower)	Confidence Interval (Upper)

Servant Leadership (Mean Score)	2.339	523	.020	.07634	.0122	.1404
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The table indicates the outcome of one sample t -test of the mean servant leadership and test 3. The significance of the t-value of 2.339 and 523 degrees of freedom of ($p = 0.020$) show that means of servant leadership (3.0763) is extremely high in comparison to the test value. The initial mean deviation is 0.07634 with the interval of 95 percent of 0.0122 to 0.1404.

H1(d): There is a significant dominant presence of democratic leadership style among higher education academic leaders in Haryana.

T-Test

Table. 7 One-Sample Statistics Showing Democratic Leadership Mean And Variability.

Variable	Sample Size	Average Score	Standard Deviation	Standard Error
Democratic Leadership (Mean Score)	524	3.1126	0.77034	0.03365

The table below shows a one-sample statistic of Democratic Leadership. It shows that the sample size is 524, the mean score is 3.1126, the standard deviation is 0.77034, and the standard error of the mean is 0.03365. These numbers show how the scores of democratic leadership are distributed and how much they vary.

Table. 8 One-Sample T-Test Showing Democratic Leadership Mean Significance.

Variable	t Statistic	Degrees of Freedom	Two-Tailed Significance	Mean Difference	Confidence Interval (Lower)	Confidence Interval (Upper)
Democratic Leadership (Mean Score)	3.346	523	.001	.11260	.0465	.1787

The result of a one sample t-test which focuses on comparing the mean of democratic leadership and a test value of 3 is illustrated in this table. The t-value of 3.346 and the degrees of freedom 523 is not negligible ($p = 0.001$), and this fact indicates that the mean of the democratic leadership (3.1126) is obviously larger than the test value. The mean difference is 0.11260 and the range of the 95% level of the confidence is 0.0465 to 0.1787.

H1(e): There is a significant dominant presence of authoritarian leadership style among higher education academic leaders in Haryana.

T-Test

Table. 9 One-Sample T-Test Showing Democratic Leadership Mean Significance.

Variable	Sample Size	Mean Score	Standard Deviation	Standard Error
Authoritarian Leadership (Average Score)	524	3.0941	0.73808	0.03224

The Authoritarian Leadership obtained in the form of One-sample statistics are shown in the table below with the following results Authoritarian Leadership (Sample size=524, Mean=3.0941, Standard deviation=.73808, Standard error of the mean=.03224) give the current trend and variability of the scores on the authoritarian leadership.

Table. 10 One-sample t-test showing Democratic Leadership mean significance.

Variable	t Statistic	Degrees of Freedom	Two-Tailed Significance	Mean Difference	Confidence Interval (Lower)	Confidence Interval (Upper)
Authoritarian Leadership (Mean Score)	2.920	523	.004	.09415	.0308	.1575

The following table points out what would be achieved on a one-sample t test of the comparison between the mean of authoritarian leadership being tested against the test value of 3. The finding is statistically significant (2.920 and 523 degrees of freedom $p = 0.004$) which implies that authoritarian leadership mean score (3.0941) is not similar to the test value. The average difference is 0.09415 with 95 percent interval value lying between 0.0308 and 0.1575.

H1(f)₁: There is a significant dominant presence of laissez-faire leadership style among higher education academic leaders in Haryana.

T-Test

Table. 11 One-Sample T-Test Showing Democratic Leadership Mean Significance.

Variable	Sample Size	Average Score	Standard Deviation	Standard Error
Laissez-Faire Leadership (Mean Score)	524	3.2176	0.76945	0.03361

The mean score, standard deviation, and standard error of the mean for the laissez-faire leadership in this table show the central tendency and variability of scores. The mean score is 3.2176, the standard deviation is 0.76945, and the standard error of the mean is 0.03361. The sample size is 524.

Table. 12 One-Sample T-Test Results Indicating Laissez-Faire Leadership Mean Significance.

Variable	t Statistic	Degrees of Freedom	Two-Tailed Significance	Mean Difference	Confidence Interval (Lower)	Confidence Interval (Upper)
Laissez-Faire Leadership (Mean Score)	6.472	523	.000	.21756	.1515	.2836

It is a one sample t -test and the mean of Laissez-faire Leadership differs significantly under test value of 3 ($t = 6.472$, $df = 523$, $p < 0.001$) and means difference is 0.21756 as well as the confidence interval of 0.1515 to 0.2836.

- *Hypothesis Results objective 1*

The hypothesis testing for Objective 1 examined the predominant leadership styles exhibited by higher education academic leaders in Haryana using one-sample t-tests against a test value of 3. The results provide strong evidence supporting H1₁, indicating a significant dominant presence of leadership styles overall. Specifically, transformational leadership showed a mean score of 3.1533, which was significantly higher than the test value ($t = 4.519$, $p < 0.001$), supporting H1(a)₁. Transactional leadership also demonstrated a significant dominance with a mean of 3.1737 ($t = 5.289$, $p < 0.001$), confirming H1(b)₁. Servant leadership, though comparatively lower, was still significantly present (mean = 3.0763; $t = 2.339$, $p = 0.020$), supporting H1(c)₁. Democratic leadership exhibited a significant mean of 3.1126 ($t = 3.346$, $p = 0.001$), validating H1(d)₁. Authoritarian leadership also showed a statistically significant presence (mean = 3.0941; $t = 2.920$, $p = 0.004$), supporting H1(e)₁. Notably, laissez-faire leadership recorded the highest mean score of 3.2176 and was highly significant ($t = 6.472$, $p < 0.001$), confirming H1(f)₁. Overall, the findings reveal that multiple leadership styles are significantly exhibited among academic leaders, with laissez-faire and transactional leadership emerging as relatively more dominant.

Objective 2: To study the impact of Academic leadership style on self-efficacy and mental health of faculty members.

H2₁: Academic leadership style has a significant impact on self-efficacy and mental health of faculty members in Haryana.

H2(a)₁: Academic leadership style has a significant impact on self-efficacy of faculty members in Haryana.

Regression

Table. 13 Variables Entered In Regression Model Predicting Sefm Using Als.

Model	Variables Included	Variables Excluded	Entry Method
1	ALSb	—	Enter

Notes:

- a. Dependent Variable: SEFM
- b. All requested variables were entered

The variables that will be used in the regression model to predict SEFM will be expounded here, whereby ALS will be the predictor. It makes sure that all the variables are not deleted and only ALS is keyed in and nothing more is inserted as an extra variable matter, the Enter method. The dependent variable of this model is SEFM.

Table. 14 Model Summary Showing R, R², Adjusted R², and Standard Error of Estimate.

Model	Correlation Coefficient (R)	Coefficient of Determination (R ²)	Adjusted R ²	Standard Error of Estimate
1	0.562a	0.315	0.314	0.74482

Note:

- a. Predictors: (Constant), ALS

Table 4.14 gives the summary of the model such as R, R², adjusted R², and standard error of the estimate. It states that ALS models 31.5 percent variance in SEFM and moderate model fit and an error of 0.74482.

Table. 15 ANOVA Results Indicating Regression Model Significance Predicting SEFM.

Model	Source	Sum of Squares	Degrees of Freedom	Mean Square	F Value	Significance (p)
1	Regression	133.358	1	133.358	240.393	.000b
	Residual	289.580	522	0.555	—	—
	Total	422.938	523	—	—	—

This ANOVA table identifies the general significance of the regression equation of SEFM predicting ALS. F-test is not significant at all (p =.000) which confirms that the non-trivial percentage of SEFM variation can and is explained by the model and not a coincidence.

Table. 16 Regression coefficients for ALS predicting SEFM with significance levels.

Model	Predictor	Unstandardized Coefficient (B)	Standard Error	Standardized Coefficient (Beta)	t Value	Significance (p)
1	(Constant)	0.749	0.154	—	4.868	.000

	ALS	0.743	0.048	0.562	15.505	.000
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Table 4.16 gives the regression coefficients of ALS which predict SEFM. The constants and ALS are both significant ($p < .001$), and the standardized beta of ALS is positive (.562), which shows that it has a strong and significant positive correlation with SEFM.

H2(b): Academic leadership style has a significant impact on mental health of faculty members in Haryana.

Regression

Table. 17 Variables Entered In Regression Model Predicting MHFM Using ALS.

Model	Variables Included	Variables Excluded	Entry Method
1	ALSb	—	Enter

Notes:

- a. Dependent Variable: MHFM
- b. All requested variables were entered

This table shows the variables that are entered in the regression model that predicts MHFM where ALS is the predictor. Only one variable was keyed in using the Enter method i.e. ALS. MHFM is the dependent variable of this model and no variable was eliminated in the analysis.

Table. 18 Model Summary Showing R, R², Adjusted R², and Error Estimate.

Model	Correlation Coefficient (R)	Coefficient of Determination (R ²)	Adjusted R ²	Standard Error of the Estimate
1	0.531a	0.282	0.281	0.73819

Note:

- a. Predictors: (Constant), ALS

Gives the description of how the regression model can be used to adequately predict MHFM with the assistance of ALS. The 28.2 percent variance ($R^2 = .282$) estimated by the model with adjusted $R^2 = .281$ and the standard error of estimate of 0.73819 is an average performance in terms of prediction.

Table. 19 ANOVA Results Showing Significance of Regression Model Predicting MHFM.

Model	Source	Sum of Squares	Degrees of Freedom	Mean Square	F Value	Significance (p)
1	Regression	111.835	1	111.835	205.229	.000b

	Residual	284.452	522	0.545	—	—
	Total	396.287	523	—	—	—

Notes:

- a. Dependent Variable: MHFM
- b. Predictors: (Constant), ALS

The ANOVA table works under the significance of the regression model in the general meaning of MHFM by the ALS. The F-value is 205.229 and p-value is .000 that shows the statistical significance of the model and ALS is a significant predictor of MHFM.

Table. 20 Regression Coefficients for ALS Predicting MHFM With Statistical Significance.

Model	Predictor	Unstandardized Coefficient (B)	Standard Error	Standardized Coefficient (Beta)	t Value	Significance (p)
1	(Constant)	1.007	0.153	—	6.602	.000
	ALS	0.681	0.048	0.531	14.326	.000

Note:

- a. Dependent Variable: MHFM

Table 4.19 gives regression coefficients of ALS to predict MHFM. The constant and the ALS are both significant ($p < .001$). ALS exhibits a standardized beta value of .531, which is a positive and significant correlation with MHFM.

- *Hypothesis Results objective 2*

The outcome of the testing of the hypothesis of having Objective 2 is a clear indication that academic leadership style has a huge influence on self-efficacy and mental health of faculty members in Haryana that consequently leads to the support of H2 temporarily. Self-efficacy (H2(a) 1) The regression analysis showed that academic leadership style (ALS) is a predictive of self-efficacy of faculty members (SEFM). Although there was a moderate fit ($R = 0.562$), the ALS model indicated that 31.5 of the variation in SEFM was explained by the model ($R^2 = 0.315$). The ANOVA estimates supported the importance of the model ($F = 240.393$, $p < 0.001$), and the regression coefficient was found to have a great positive impact of ALS on SEFM ($= 0.562$, $p < 0.001$). On the same note, regarding mental health (H2(b) 1), the ALS to a big extent predicted mental health of faculty members (MHFM), with the model having an explanation of variance of 28.2 ($R^2 = 0.282$). The regression model was significant ($F = 205.229$, $p = 0.001$), and the standardized beta of ALS was 0.531 ($p = 0.001$), which indicates that it has a significant impact on the mental health of faculty.

Objective 3: To study the relationship between the academic leadership style, self-efficacy and mental health of faculty members.

H3₁: There is a significant relationship between academic leadership style, self-efficacy and mental health of faculty members in Haryana.

H3(a): There is a significant relationship between academic leadership style and self-efficacy of faculty members in Haryana.

Correlations

Table. 21 Correlation Coefficients Showing Significant Relationships between Leadership Styles.

		Correlations							
		SE FM	Transformati onal_Leade rship_	Transa ctional _Lead ership_	Serva nt_Le adersh ip_Me an	Demo cratic_Leade rship_	Autho ritaria n_Lea dershi p_Me an	Laisse z_Fair e_Lea dershi p_Mea n	
SEFM	Pearson Correlatio n	1	.643**	.456**	.502**	.478**	.472**	.462**	
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	
	N	524	524	524	524	524	524	524	
Transformati onal_Leader ship_Mean	Pearson Correlatio n	.64 3**	1	.758**	.763**	.765**	.772**	.763**	
	Sig. (2-tailed)	.00 0		.000	.000	.000	.000	.000	
	N	524	524	524	524	524	524	524	
Transacti onal_Leader ship_	Pearson Correlatio n	.45 6**	.758**	1	.759**	.749**	.744**	.756**	
	Sig. (2-tailed)	.00 0	.000		.000	.000	.000	.000	
	N	524	524	524	524	524	524	524	
Servant_Le adership_Mea n	Pearson Correlatio n	.50 2**	.763**	.759**	1	.795**	.775**	.743**	
	Sig. (2-tailed)	.00 0	.000	.000		.000	.000	.000	
	N	524	524	524	524	524	524	524	
Democratic_Le adership_	Pearson Correlatio n	.47 8**	.765**	.749**	.795**	1	.779**	.747**	
	Sig. (2-tailed)	.00 0	.000	.000	.000		.000	.000	

	N	524	524	524	524	524	524	524	524
Authoritarian_Leadership_Mean	Pearson Correlation	.472**	.772**	.744**	.775**	.779**	1	.757**	
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	
	N	524	524	524	524	524	524	524	524
Laissez_Faire_Leadership_Mean	Pearson Correlation	.462**	.763**	.756**	.743**	.747**	.757**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		
	N	524	524	524	524	524	524	524	524

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

This is an expression of Pearson correlation coefficients between SEFM and selected leadership styles as indicated in the following table. The correlations are all positive and significant ($p < .01$), which implies that transformational, transactional, servant, democratic, authoritarian and laissez-faire leadership styles are strongly correlated with SEFM with 524 observations.

H3(b): There is a significant relationship between academic leadership style and mental health of faculty members in Haryana.

Correlations

Table. 22 Correlations Showing Significant Relationships between MHFM and Leadership Styles.

		Correlations							
		MHFM	Transformational_Leadership_Mean	Transactional_Leadership_Mean	Servant_Leadership_Mean	Democratic_Leadership_Mean	Authoritarian_Leadership_Mean	Laissez_Faire_Leadership_Mean	
MHFM	Pearson Correlation	1	.591**	.431**	.464**	.469**	.464**	.432**	
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	
	N	524	524	524	524	524	524	524	
Transformational_Leadership_Mean	Pearson Correlation	.591**	1	.758**	.763**	.765**	.772**	.763**	

n	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	524	524	524	524	524	524	524
Transactional_Leadership_Mean	Pearson Correlation	.431**	.758**	1	.759**	.749**	.744**	.756**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	524	524	524	524	524	524	524
Servant_Leadership_Mean	Pearson Correlation	.464**	.763**	.759**	1	.795**	.775**	.743**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	524	524	524	524	524	524	524
Democratic_Leadership_Mean	Pearson Correlation	.469**	.765**	.749**	.795**	1	.779**	.747**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	524	524	524	524	524	524	524
Authoritarian_Leadership_Mean	Pearson Correlation	.464**	.772**	.744**	.775**	.779**	1	.757**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	524	524	524	524	524	524	524
Laissez_Faire_Leadership_Mean	Pearson Correlation	.432**	.763**	.756**	.743**	.747**	.757**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	524	524	524	524	524	524	524
**. Correlation is significant at the 0.01 level (2-tailed).								

Table will consist of Pearson correlation coefficients of MHFM and other styles of leadership. All the correlations are found to be positive and significant at the level of 0.01 (p =.01). Most of the cases (.591) relating to MHFM are associated with transformational leadership and the rest (426 cases) are related to transactional, servant and democratic, authoritarian as well as laissez-faire.

- *Hypothesis Results objective 3*

The results of objective 3 hypothesis testing prove that there is a significant relationship between academic leadership style, self-efficacy, and mental health of faculty members in Haryana hence the support of H3 1. The analysis of H3(a) 1 using Pearson correlation showed that self-efficacy of faculty members (SEFM) has positive and significant relationships to all the leadership styles. Transformational leadership indicated the highest relationship with SEFM ($r = 0.643$, $p < 0.01$), then servant ($r = 0.502$), democratic ($r = 0.478$), authoritarian ($r = 0.472$), laissez-faire ($r = 0.462$), and transactional leadership ($r = 0.456$), and therefore, relationship between leadership styles and models were moderate to strong. On the same note, the findings of H3(b) 1 showed that mental health of faculty members (MHFM) had significant positive correlations with all the leadership styles. Transformational leadership once more was the most correlated one ($r = 0.591$, $p < 0.01$), whereas the servant, democratic, authoritarian, transactional, and laissez-faire leadership styles were moderate and significantly related. All in all, these results indicate that the positive academic leadership styles are directly connected to the increased self-efficacy and improvement of mental health in faculty members.

5. Conclusion

To sum up, our study has shown that different types of academic leadership have a big effect on the mental health and self-efficacy of faculty members in Haryana's public higher education system. The two most prevalent leadership styles that were looked at were laissez-faire (mean = 3.2176, $t = 6.472$, $p < 0.001$) and transactional leadership (mean = 3.1737, $t = 5.289$, $p < 0.001$). This comparison showed that academic leadership style is a strong predictor of faculty self-efficacy, explaining 31.5% of the variation ($R^2 = 0.315$, $\beta = 0.562$, $p = 0.001$), and mental health, which explains 28.2% of the variation ($R^2 = 0.282$, $\beta = 0.531$, $p = 0.001$). The positive relationship between transformational leadership and self-efficacy ($r = 0.643$, $p = 0.01$) and mental health ($r = 0.591$, $p = 0.01$) highlights the effectiveness of positive and empowering leadership styles. Other styles, including servant, democratic, authoritarian, and transactional, also demonstrated moderate but significant positive effects on psychological outcomes. These results underscore the importance of leadership in fostering faculty well-being and indicate that the ability to support effective leadership styles may improve self-efficacy and mental health among faculty members. As a result, better leadership practices can increase academic achievement and the overall success of institutions in the Haryana higher education system.

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