

An Empirical Study of Challenges Faced by Undergraduate Students in Rural Areas of Palghar District

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Abstract—Higher education plays an important role in developing knowledge, skills, employability and social mobility among young people. However, undergraduate students residing in rural areas frequently encounter difficulties that affect their access to education, regular attendance, academic performance and continuation of studies. The present study examines the challenges faced by undergraduate students in the rural areas of Palghar District, with particular emphasis on travelling time, transportation, safety, and cleaning and hygiene facilities. The study also considers the rural and tribal characteristics of Palghar District, where geographical distance, limited transport connectivity and inadequate institutional facilities may create obstacles for students pursuing higher education.

Primary data were collected from 140 students and analysed using frequency, percentage, mean, standard deviation, one-sample t-test and Friedman test. The findings reveal that transportation was the most serious challenge, recording the highest mean score of 74.18 and mean rank of 2.93. Travelling time was ranked second, followed by safety, while cleaning and hygiene received the lowest rank. The hypothesis-testing results showed significant challenges concerning travelling time, transportation and safety, whereas cleaning and hygiene were not found to be statistically significant at the 5 per cent level. The study concludes that improving rural transportation, reducing travelling difficulties and strengthening student safety measures are essential for ensuring equitable access to undergraduate education in Palghar District.

Index Terms—Rural undergraduate students, transportation challenges, travelling time, Palghar District.

I. INTRODUCTION

Education is one of the most important instruments of individual development, social transformation and national progress. Higher education, in particular, enables young people to acquire advanced knowledge,

professional skills, critical-thinking abilities and employment-related competencies. Undergraduate education serves as an important transitional stage between school education and professional life. It provides students with opportunities for personal growth, social mobility and economic independence. However, access to and participation in higher education are not equal across geographical and socio-economic groups. Students living in rural areas frequently experience greater educational disadvantages than students from urban areas because of inadequate infrastructure, poverty, limited institutional availability and insufficient exposure to academic and career opportunities.

Rural undergraduate students face various academic, economic, technological, social and personal challenges during their college education. Many students enter undergraduate programmes after completing their schooling in institutions with limited educational resources, shortages of qualified teachers and insufficient exposure to English-medium or technology-supported learning. Consequently, they may experience difficulty understanding advanced subjects, preparing academic assignments, communicating in English and adjusting to college-level teaching methods. Differences between school education and undergraduate curricula can also create academic stress, poor classroom participation and low confidence among first-generation learners. Research concerning rural higher education indicates that economic status, geographical location, gender and social identity continue to influence access to and successful participation in higher education in India. Economic conditions constitute another major challenge for undergraduate students from rural families. A considerable number of students belong to households dependent upon agriculture, daily-wage labour, seasonal employment or informal occupations.

Such families may find it difficult to meet expenses related to college fees, transportation, books, examination charges, digital devices, internet services and accommodation. Some students are required to work part-time or assist their parents in agricultural and household activities, reducing the time available for regular attendance and independent study. Rural students may also have limited information about scholarships, educational loans and government assistance schemes. These financial pressures can result in irregular attendance, delayed payment of fees, poor academic performance and, in serious cases, discontinuation of higher education.

The increasing use of digital technologies in higher education has created additional difficulties for students residing in remote villages. Online admissions, digital study materials, learning-management systems, online examinations and electronic communication have become important components of undergraduate education. Nevertheless, many rural students do not have personal computers, suitable smartphones, stable internet connections or adequate digital skills. Studies have demonstrated that rural and socially disadvantaged students experience both first-level digital inequality, involving access to devices and connectivity, and second-level inequality, involving the ability to use digital resources effectively. Poor network connectivity, electricity interruptions, high data costs and lack of technical assistance can prevent students from attending online classes, submitting assignments and accessing digital libraries. The digital divide therefore reinforces existing educational inequalities between rural and urban students.

Palghar District of Maharashtra provides an important geographical and social context for studying these challenges. The district includes rural, tribal, coastal, hilly and comparatively remote settlements, and many students must travel considerable distances to reach colleges. Students belonging to tribal and economically disadvantaged communities may face geographical isolation, inadequate transport, insufficient awareness of professional courses and limited access to quality higher education. Field-based observations concerning higher education among tribal communities in Palghar indicate that difficult geographical conditions, weak economic backgrounds and lack of information about professional education restrict students' educational choices. In addition,

language barriers, family responsibilities, gender-based restrictions, lack of counselling, limited employment guidance and uncertainty regarding career opportunities may affect students' motivation and academic continuity. Therefore, the present empirical study seeks to identify and examine the major challenges faced by undergraduate students in the rural areas of Palghar District. The findings may assist colleges, teachers, policymakers and local authorities in developing suitable measures related to financial support, digital facilities, transportation, academic assistance, career guidance, counselling and inclusive educational development.

II. REVIEW OF LITERATURE

1. Agarwal (2014), In the research titled "Educational attainment in educationally backward states of India: Some implications for the right to education act" The study concludes that educational attainment remains uneven across the educationally backward states of India due to poverty, weak infrastructure, shortage of qualified teachers, social inequality and poor implementation of educational policies. It emphasizes that the Right to Education Act can improve educational participation only when supported by adequate resources, effective monitoring and targeted measures for disadvantaged and rural communities.
2. Azionya & Nhedzi (2021), In the research titled "The digital divide and higher education challenge with emergency online learning: Analysis of tweets in the wake of the COVID-19 lockdown" The study concludes that emergency online learning exposed and intensified the digital divide in higher education. Students with limited access to digital devices, reliable internet connectivity and suitable learning environments faced greater academic difficulties. The authors stress that higher education institutions must improve digital infrastructure, provide technical support and adopt inclusive online-learning strategies to ensure equal educational opportunities.
3. Basant & Sen (2010), In the research titled "Who participates in higher education in India? Rethinking the role of affirmative action" The study concludes that participation in Indian higher

education is strongly influenced by caste, religion, gender, income and family background. Although affirmative-action policies have improved access for some disadvantaged groups, major inequalities continue to exist. The authors suggest that reservation policies should be supported by better school education, financial assistance and institutional support to achieve wider and more meaningful inclusion.

4. Chanana (1993), In the research titled “Accessing higher education: The dilemma of schooling women, minorities, Scheduled Castes and Scheduled Tribes in contemporary India” The study concludes that women, minorities, Scheduled Castes and Scheduled Tribes face multiple social, cultural and economic barriers in accessing higher education. Unequal schooling opportunities, poverty, discrimination and traditional gender expectations limit their educational progression. The author emphasizes the need for inclusive policies, scholarships and supportive institutional practices to increase the participation of marginalized groups in higher education
5. Delgado Martín & Larrú Ramos (2022), In the research titled “DEIFDC framework: Evaluation of digital education deployment in India in the midst of the COVID-19 pandemic” The study concludes that the rapid introduction of digital education in India during the COVID-19 pandemic revealed major inequalities in technological access, digital skills and institutional readiness. Rural and economically weaker students were particularly disadvantaged. The authors recommend strengthening digital infrastructure, teacher training, affordable connectivity and inclusive digital-learning policies to ensure the effective and equitable delivery of education.
6. Desai & Kulkarni (2008), In the research titled “Changing educational inequalities in India in the context of affirmative action” The study concludes that educational inequality in India continues to be shaped by caste and socio-economic background despite the implementation of affirmative-action policies. Scheduled Castes and Scheduled Tribes have experienced some improvement in educational participation, but significant gaps remain at higher levels of

education. The authors highlight the importance of improving school quality, financial support and access to higher education for disadvantaged communities.

7. Jeffrey et.al (2004), In the research titled “A useless thing!” or “nectar of the gods?” The cultural production of education and young men’s struggles for respect in liberalizing North India” The study concludes that education carries both hope and disappointment for young men in rural North India. While students view education as a pathway to employment, social respect and upward mobility, limited job opportunities often reduce its practical value. The study shows that educated rural youth may experience frustration and uncertainty when their qualifications do not lead to secure employment or improved social status.

III. RESEARCH GAP

The reviewed studies have examined educational inequality, affirmative action, digital exclusion, social disadvantage and access to higher education in India. They show that students from rural areas, Scheduled Castes, Scheduled Tribes, minority groups and economically weaker families face difficulties such as poverty, inadequate educational infrastructure, shortage of qualified teachers, limited digital access, discrimination and lack of institutional support. However, most of these studies discuss educational challenges at the national or state level and focus mainly on access, participation, digital learning or social inequality. Comparatively limited attention has been given to the combined academic, financial, technological, social, psychological and transportation-related challenges experienced by undergraduate students in specific rural districts.

Further, there is a lack of empirical research focusing particularly on undergraduate students living in the rural areas of Palghar District. Palghar has a large rural and tribal population, and students may face distinctive difficulties related to geographical isolation, poor transport connectivity, language barriers, limited internet facilities, family responsibilities, inadequate career guidance and restricted access to higher educational institutions. Previous studies have not adequately examined how these multiple challenges jointly affect students’

attendance, academic performance, satisfaction, confidence, continuation of education and career aspirations. Therefore, the present study attempts to fill this gap by empirically identifying and analysing the major challenges faced by undergraduate students in the rural areas of Palghar District.

IV. RESEARCH METHODOLOGY

The present study adopted a descriptive and empirical research design to examine the challenges experienced by undergraduate students in the rural areas of Palghar District. The study was based on primary data collected from 140 respondents through a structured questionnaire. The questionnaire included demographic variables and statements relating to travelling time, transportation, safety, and cleaning and hygiene facilities. The collected data were classified, tabulated and analysed using frequency and Demographic Factor

Sr No.	Statement	Category	Frequency	Percent
1.	Age	Under 18 Years	5	3.6
		18 to 20 Years	60	42.9
		21 to 23 Years	75	53.6
2.	Year of Study	1st Year	21	15.0
		2nd Year	28	20.0
		3rd Year	81	57.9
		Final Year	5	3.6
		Postgraduate	5	3.6
3.	Gender	Male	69	49.3
		Female	71	50.7
4.	Primary Mode of Study	Full-time	130	92.9
		Part-time	10	7.1

The demographic profile of the 140 respondents shows that the majority, 75 respondents (53.6%), were between 21 and 23 years of age, followed by 60 respondents (42.9%) between 18 and 20 years, while only 5 respondents (3.6%) were below 18 years. Regarding the year of study, most respondents, 81 (57.9%), were studying in the third year, followed by 28 respondents (20.0%) in the second year and 21 respondents (15.0%) in the first year. Only 5 respondents (3.6%) each were studying in the final year and at the postgraduate level. In terms of gender, the sample was nearly balanced, with 71 female respondents (50.7%) and 69 male respondents (49.3%). Concerning the primary mode of study, a

percentage to describe the respondents' demographic characteristics. Mean, standard deviation and standard error were used to assess the level of challenges, while the one-sample t-test was applied with a test value of 60 to examine whether individual challenges were statistically significant. The Friedman test was used to identify significant differences among the challenges and determine their relative ranking.

V. DATA ANALYSIS

Data analysis was undertaken to systematically examine the demographic characteristics of respondents and determine the nature and level of challenges faced by undergraduate students. The collected responses were analysed using descriptive and inferential statistical techniques, and the findings were presented through tables, interpretations, hypothesis testing, mean scores and mean ranks.

large majority of 130 respondents (92.9%) were full-time students, whereas only 10 respondents (7.1%) were pursuing their studies on a part-time basis.

VI. OBJECTIVE AND HYPOTHESIS

Objective 1 To Study the challenges faced by undergraduate students in rural area of Palghar district.
Null Hypothesis H_{01A} : There exists no challenges faced by undergraduate students.

Alternate Hypothesis H_{11A} : There exists challenges faced by undergraduate students.

To study the above null hypothesis, Friedman Test is applied and results are as follows:

One-Sample Test				
	Test Value = 60			
	t	df	P-value	Mean Difference
Travelling Time	10.700	139	.000	12.902
Cleaning and Hygiene	1.668	139	.098	2.229
Transportation	11.823	139	.000	14.183
Safety	7.552	139	.000	8.650

Interpretation: The above results indicate that calculated p-value is 0.000 for Travelling Time, Transportation, Safety. It is less than 0.05. Therefore, Friedman test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

The above results indicate that calculated p-value is 0.098 is Cleaning and Hygiene. It is more than 0.05. Therefore, Friedman test is accepted. Hence Null hypothesis is accepted and Alternate hypothesis is rejected.

Conclusion: For Travelling Time, Transportation, Safety, there exists challenges faced by undergraduate students

For Cleaning and Hygiene there exists no challenges faced by undergraduate students

Findings: To understand the findings, mean score of challenges faced by undergraduate students are obtained and presented as follows:

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Travelling Time	140	72.90	14.267	1.206
Cleaning and Hygiene	140	62.23	15.808	1.336
Transportation	140	74.18	14.195	1.200
Safety	140	68.65	13.553	1.145

The one-sample statistics for 140 undergraduate students show that transportation was the most significant challenge, with the highest mean score of 74.18 and a standard deviation of 14.195, followed by travelling time with a mean score of 72.90 and a standard deviation of 14.267. Safety also emerged as an important concern, recording a mean score of 68.65 and a standard deviation of 13.553. Cleaning and hygiene had the lowest mean score of 62.23, with a standard deviation of 15.808, although it still represented a considerable challenge. Overall, the findings indicate that undergraduate students in rural areas face substantial difficulties related mainly to transportation, long travelling time, safety, and inadequate cleanliness and hygiene facilities.

Null Hypothesis H_{01B} : There is no level of challenges faced by undergraduate students.

Alternate Hypothesis H_{11B} : There is a level of challenges faced by undergraduate students.

To study the above null hypothesis, Friedman Test is applied and results are as follows:

Test Statistics ^a	
N	140
Chi-Square	49.009
df	3
P-value	.000
a. Friedman Test	

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, Friedman test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

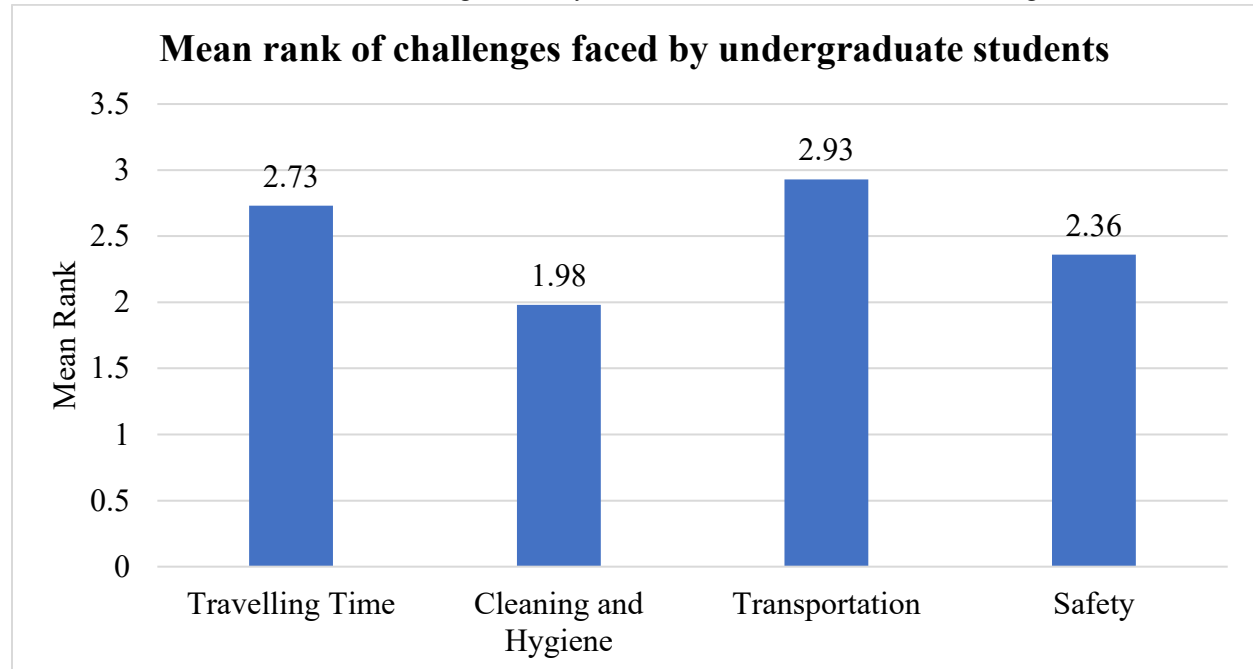
Conclusion: There is a level of challenges faced by undergraduate students.

Findings: To understand the findings, mean rank of challenges faced by undergraduate students are obtained and presented as follows:

Ranks	
	Mean Rank
Travelling Time	2.73
Cleaning and Hygiene	1.98
Transportation	2.93
Safety	2.36

The mean rank analysis shows that transportation was ranked as the most serious challenge faced by undergraduate students, with the highest mean rank of 2.93. Travelling time ranked second with a mean rank of 2.73, indicating that students experience considerable difficulty due to the time required to travel between their homes and colleges. Safety

occupied the third rank with a mean rank of 2.36, showing that concerns regarding personal security also affect rural students. Cleaning and hygiene received the lowest mean rank of 1.98 and was placed fourth. Overall, transportation and travelling time emerged as the most important challenges faced by undergraduate students in the rural areas of Palghar District.



VII. CONCLUSION

The study concludes that undergraduate students in the rural areas of Palghar District experience substantial difficulties while pursuing higher education. Transportation emerged as the most serious challenge, with the highest mean score of 74.18 and mean rank of 2.93, followed by travelling time with a mean score of 72.90 and mean rank of 2.73. Safety was also identified as an important concern, whereas cleaning and hygiene received the lowest mean score and rank. The Friedman test confirmed that the level of challenges differed significantly among the selected factors.

The findings indicate that geographical distance, inadequate availability of transport and safety-related concerns can negatively influence students' attendance, academic participation and overall educational experience. Therefore, colleges, local authorities and policymakers should improve public transport services, provide affordable student travel

facilities, strengthen safety arrangements and develop educational support systems for rural students. Such measures can reduce educational inequalities and promote greater participation, retention and academic success among undergraduate students in the rural areas of Palghar District.

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