

EXPLORING AWARENESS ABOUT AND ATTITUDE TOWARDS RESEARCH ETHICS AMONG RESEARCH SCHOLARS**MRS. SANGITA ANURAG SHRIVASTAVA**
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ABSTRACT

The present study explores the awareness about and attitude toward research ethics among research scholars in Maharashtra. A structured questionnaire was designed and disseminated among research scholars from various academic disciplines at public universities in Maharashtra (India). The survey examines the level of awareness and attitudes of respondents on the basis of prior training in research ethics using a four-point Likert Scale. A total of 379 valid questionnaires were analysed with the help of Excel. The results of the study reveal that research scholars with prior training in research ethics demonstrated greater awareness and a more positive attitude toward research ethics. Awareness of accurate referencing, plagiarism issues, UGC guidelines, informed consent, rights, and dignity of research participants, and confidentiality of data can facilitate research scholars in reducing unethical practices in research writing and publication. The survey findings will provide valuable insights for university authorities to develop a robust action plan to combat prevalent academic plagiarism and related unethical issues.

KEYWORDS:

Research Ethics, Awareness, Attitude, Research Scholars. Maharashtra.

INTRODUCTION

Academic dishonesty has become a primary concern for nearly all higher educational institutions and regulatory bodies. The quality of research is essential for any university or research institution seeking to achieve a respectable ranking among global peers. Research quality directly impacts the reputation of academic and research institutions. Academic research output and its quality have become a critical concern, attracting attention from institutions, funding bodies, ranking agencies, and governments. Plagiarism poses a significant threat to original research work, growing into a massive problem within academia. In universities, research scholars are regarded as generators of innovative ideas, and their productive research is a valuable asset to higher educational institutions, ultimately contributing to national development. Consequently, they must possess awareness and understanding of plagiarism and ethical issues. It is undeniable that academic dishonesty is a moral and ethical issue, but a lack of knowledge and lower awareness also contribute to unethical practices. This study seeks to investigate awareness and attitudes toward various aspects of research ethics among doctoral students at public universities in Maharashtra.

THE OBJECTIVES OF THE STUDY

- To study the awareness about research ethics of research scholars.
- To study the attitude towards research ethics of research scholars.
- To compare awareness about research ethics of research scholars on the basis of: -
Prior training in research ethics.
- To compare attitudes towards research ethics of research scholars on the basis of: -
Prior training in research ethics.

MATERIALS AND METHODS

This research is a basic descriptive study conducted on 379 research scholars of different stages of their PhD. This study was performed using the survey method. Data was collected using a questionnaire, tool four-point rating scale that included demographic information, and questions measuring students' awareness and attitude.

THE HYPOTHESES OF THE STUDY

For the present study, the following hypotheses are formulated.

- There is no significant difference in the Awareness about Research Ethics of Research Scholars on the basis of prior training in research ethics.
- There is no significant difference in the Attitude toward Research Ethics of Research Scholars on the basis of prior training in research ethics.

METHODOLOGY OF THE STUDY

In the present study researcher intends to describe the awareness about and attitude toward research ethics of research scholars' therefore descriptive survey method was applied.

Sample of the study: -

For the present study, data was collected from research scholars from public universities in Maharashtra. The sample of research scholars from different departments of all four Faculties of universities was selected as a representative of the entire population.

The multistage sampling technique was used in this study.

5-PREPARATION OF TOOLS (RATING SCALE)

For the present study, to measure the awareness of research scholars toward research ethics, a tool, a rating scale, was prepared by research scholars. The rating scale is a type of tool that attempts to measure quality, judgment, or opinion and indicate their degree or amount.

Awareness scale: The study is concerned with the awareness and attitude of research scholars toward research ethics, a Rating scale consisting of 57 and 52 statements was prepared-

Pilot study: The pilot study was conducted to carry out an item analysis and establish the validity and reliability of the tool. For the pilot study, the scale awareness about research ethics was administered to 30 research scholars from different universities in Maharashtra.

After administration of tools responses were quantified.

Reliability of tools:

For the present study, the researcher established the reliability of tools through the test-retest method and Cronbach alpha test. The reliability result is the Cronbach alpha value for the awareness scale .92. The reliability of the awareness scale is very high. Hence scale is internally consistent. *The awareness scale* has a total of 57 items out of them 32 items are positively worded and 25 items are negatively worded. After the data collection, the responses of research scholars were quantified by giving scale values to each item as discussed earlier.

DATA ANALYSIS

The data was analyzed by using the following techniques.

Descriptive analysis: Measures of central tendency (Mean, Median, Mode) Measures of Variability (Standard deviation) Measures of dispersion (Skewness and Kurtosis)

Inferential analysis:

For the present study, a t-test was carried out to compare the awareness of research ethics among research scholars

Table-1**Sample distribution on the basis of prior training in research ethics**

Sample distribution on the basis of prior training in research ethics	No of samples
Received training	246
Did not receive training	133
Total	379

Descriptive statistics of awareness of research scholars towards research ethics on the basis of prior training

in research ethics.

The following table gives the measures of central tendency and variability of the research scholars' awareness towards research ethics on the basis of prior training in research ethics

Table -2

Descriptive statistics of awareness of research scholars towards research ethics.

PRIOR TRAINING IN RESEARCH ETHICS	TOTAL SAMPLE	MEAN	MEDIAN	MODE	SK	SD	KU
Received Training (YES)	246	147	144	114	0.431	23.2	0.746
Received Training (NO)	133	141	137	118	0.601	18.9	0.334

INTERPRETATION:

For **prior training in research**, the median is slightly lower than the mean, which suggests positive skewness. Mode: 114 The most frequently occurring value in the dataset is 114. Skewness (SK): 0.431, Standard Deviation (SD): 23.2. Kurtosis is 0.746, which is greater than 0.263. Hence, the distribution is platykurtic.

For **no prior training in research ethics**, the median is slightly lower than the mean, which suggests positive skewness. Mode: 118, The most frequently occurring value in the dataset is 118. Skewness (SK): 0.601 Standard Deviation (SD): 18.9. Kurtosis is 0.334, which is greater than 0.263. Hence, the distribution is platykurtic.

Descriptive statistics of the attitude of research scholars toward research ethics on the basis of prior training in research ethics.

The following table gives the measures of central tendency and variability of the research scholars' attitudes toward research ethics on the basis of prior training in research ethics.

Table -3

Descriptive statistics of the attitude of research scholars toward research ethics.

PRIOR TRAINING IN RESEARCH ETHICS	TOTAL SAMPLE	MEAN	MEDIAN	MODE	SK	SD	KU
Received training (YES)	246	159.12	154	147	0.101	12.94	3.85
Received training (NO)	133	152.98	157	154	1.21	13.78	1.51

INTERPRETATION

For **prior training in research ethics** central tendency (Mean 159.12, Median 154, Mode 147 The data is nearly symmetrical. SK- 0.101. SD -12.94. KU 3.85-Leptokurtic distribution.

For **no prior training in research ethics** Mean (152.98) lower than the Median (157), indicating positive skewness (SK 1.21).SD -13.78. KU 1.51 Platykurtic distribution.

HYPOTHESIS TESTING 1

1 There is no significant difference in the Awareness about Research Ethics of Research Scholars on the basis of Prior training in research ethics-

Testing hypothesis 1

Table -4**The significant mean difference about awareness of research ethics of research scholars on the basis of prior training in research ethics-**

Group	N	Mean	SD	Obtained t-ratio	Tabulated t-ratio	l.o. s
Received Training (YES)	246	146.54	23.19	2.94	2.63	0.01
Received Training (NO)	133	140.61	18.86			

INTERPRETATION: Table 4 shows the 't' score of prior training in research ethics. The obtained 't' is greater than the tabulated 't'. Hence, the null hypothesis is rejected. There is a significant difference in the Awareness about Research Ethics of Research Scholars on the basis of prior training in research ethics.

CONCLUSION

Since the obtained 't' is greater than the calculated 't' researcher rejects the null hypothesis. In conclusion, the two-sample t-test suggests that the mean of the first group is significantly different from the mean of the second group at a significance level of 0.01.

This implies that research scholars with prior training in research ethics are more aware of Research ethics than scholars without prior training.

DISCUSSION

The finding mentioned above is strongly supported by various initiatives in the form of awareness programs related to research ethics, designed to increase awareness among research scholars. These programs are organized periodically by several institutions in both online and offline formats. Postgraduate and Ph.D. students, as well as faculty members, can attend these programs. Furthermore, the Swayam platform provides 4-credit courses on research ethics. Receiving training in research ethics, either before or during Ph.D. studies, is a significant factor in conducting research that is of high quality and ethically sound.

HYPOTHESIS TESTING 2

There is no significant difference in the Attitude toward Research Ethics of Research Scholars on the basis of prior training in research ethics-

Testing hypothesis 2**Table -5****The significant mean difference in the Attitude toward research ethics of research scholars on the basis of prior training -**

Group	N	Mean	SD	Obtained t-ratio	Tabulated t-ratio	l.o. s
Received training (YES)	246	159.12	12.49	4.69	2.63	0.01
Received training (NO)	133	152.98	13.78			

INTERPRETATION: Table 5. shows the 't' score on the basis of prior training in research ethics. The obtained 't' is greater than the tabulated 't'. Hence, the null hypothesis is rejected. There is a significant difference in the Attitude towards Research Ethics of Research Scholars on the basis of prior training in research ethics.

RESULTS

Research scholars who had prior training in research ethics showcased higher levels of awareness and positive attitudes toward research ethics than research scholars who did not have any prior training.

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DISCUSSION

The finding is supported by widespread initiatives, encompassing research ethics awareness programs, which institutions offer periodically in both online and offline formats. These programs are open to postgraduate students, Ph.D. scholars, and faculty, while the Swayam platform delivers specialized 4-credit courses on research ethics. As awareness increases, so does the positive attitude, highlighting the significance of research ethics training, whether before or during Ph.D. studies, in cultivating rigorous and ethically sound research practices.

RESULTS

Out of the total sample, 379,246 research scholars had prior training in research ethics, and 133 did not. Research findings indicate that scholars with prior training in research ethics possess a higher level of awareness regarding research ethics compared to those lacking prior training. Additionally, research scholars with prior training in research ethics exhibit a more favorable attitude toward research ethics than scholars without such training.

FINDINGS

On the basis of the analysis of data following are the findings of the study.

- The mean of the first group of research scholars who have prior training in research ethics is significantly different from the mean of the second group who has no prior training in research ethics. This implies that research scholars with prior training in research ethics are more aware of Research ethics than scholars without prior training. It can be concluded training is one of the significant factors to increase awareness.
- The mean of the first group of research scholars with prior training in research ethics is significantly different from that of the second group of research scholars who have not received prior training in research ethics

CONCLUSION AND RECOMMENDATIONS

Findings indicate that training is one of the most important factors in increasing awareness and inculcating a positive attitude toward research ethics. Training programs like workshop conferences conducted by departments from time to time are very important for faculties and research scholars to be aware of UGC guidelines, and the practice of research writing.

SUGGESTION TO RESEARCH SCHOLARS.

It is recommended that research scholars should attend research ethics training programs, both online and offline, to enhance their knowledge. Additionally, research scholars should consult with experts periodically to address ethical concerns. Research scholars are also encouraged to participate in research ethics communities, where they can engage with peers and faculty to discuss ethical issues. Moreover, research scholars must take responsibility for developing their skills in research writing, citation styles, reference management tools, and other essential areas.

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