

# Current Status of Research Misconduct: Causes, Consequences and Prevention Procedures

Ranjan Majhi<sup>1</sup>, Emdadul Islam<sup>2</sup>, Pranshi Dixit<sup>3</sup>

<sup>1,2,3</sup>Ph.D. Research Scholar, Department of Education, Babasaheb Bhimrao Ambedkar University (A Central University), Vidya Vihar, Lucknow, Uttar Pradesh, India- 226025

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**Abstract:** Research misconduct is a serious incident in research. It is an unethical action in research. Here, researchers intentionally fabricate, falsify, and plagiarise data to support their research findings. Research misconduct reduces research integrity, standards, objectivity, transparency and credibility. The objectives of this review study are to discuss the concept of research misconduct, followed by discussing the reasons, consequences and prevention of research misconduct. This study also aims to study the current status of scientific or research misconduct. This study used various articles, journals, papers, and different guidelines such as COPE, WAME, ICMJE, etc. This investigation also examined different previous research works to discover the current status of research misconduct. The findings of this study explored the kinds of causes of research misconduct, such as lack of training, lack of awareness, pressure of publications, personal intention, etc. This investigation also found different outcomes, like it decreases academic reputation, it can damage carriers, it contributes to the loss of credibility of research work. Furthermore, it discovers that research misconduct is a common problem throughout the globe, including in India. This study shows the increasing rate of research misconduct from nineties (90s) to existing era. Most of the Indian or international studies mentioned plagiarism, fabrication, falsification, and personal intention as the reasons for misconduct in research work. This study will be helpful for the new academicians to gain a clear insight into research misconduct, its various causes, consequences, and prevention. This study also helps to do further research work after understanding the status of misconduct in research.

**Keywords:** Current status of research misconduct, Fabrication, Falsification, Plagiarism, Research misconduct.

## I. INTRODUCTION

Research provides the basis for creating knowledge and is essential for education, science, and progress in society. Research integrity depends on rigorous adherence to ethical guidelines such as transparency, honesty, openness, objectivity, and accountability. However, in the past few years, research misconduct has become more challenging, compromising the integrity and honesty of research, with issues such as data fabrication, falsification, plagiarism, and unethical research methods becoming much more prevalent. Before discussing research misconduct, we need to know about research and research ethics, so as we know, research is nothing but finding a solution to any problem in a systematic way. Research means searching again and again to discover new knowledge. When we apply different systematic strategies in a study, it is called research (Koul, 2019). It is the practice of data collection and data analysis to produce our comprehension towards any problems (Creswell, 2012). On the other hand, research ethics are maintaining transparency, objectivity, honesty, integrity, and following the guidelines in a scholarly work. A research study without honesty or deliberate manipulation is called unethical research (Islam & Rakshe, 2025). Research misconduct or scientific misconduct is a common term in the field of research. Research misconduct occurs when an investigator intentionally fabricates, falsifies, or plagiarizes information or data during the reporting of research. According to the Office of Science and Technology Policy of the USA,

research misconduct is “fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results” (Office of the President, 2000). Scientific misconduct includes a massive collection of unethical actions, such as data addition to the less thoughtful appearances like authorship arguments (Rezaeian, 2014). Research misconduct or scientific misbehaviour is now recognized to be an influential universal contemporary problem for both scholars and the wider society (Farthing, 2013). Research misconduct is nothing but a significant infringement of the basic values that researchers should be honest and open in research and the distribution of investigation consequences (Weed, 1998). Fabrication, falsification, and plagiarism are the common causes of scientific misconduct. According to Agusta et al. (2025), misconduct in research can harm the integrity of scholars and also damage the communal belief in institutions as a whole.

## II. OBJECTIVES OF THE STUDY:

1. To discuss the concept and types of research misconduct.
2. To find out the causes, consequences, and prevention of research misconduct.
3. To find out the current status of research misconduct.

## III. METHODOLOGY OF THIS STUDY:

This study was conducted through a document analysis method, investigation was determined after studying different articles, papers, and publications from different journals.

### ANALYSIS:

#### Objective 1: To discuss the concept and types of research misconduct:

##### Research misconduct:

Research misconduct is unethical or biased actions of a researcher during the reporting of research. Scientific research misbehaviour and dishonesty are the main challenges in scientific research. It also creates barriers in the case of research reliability, truthfulness, and fairness. It is also a threat to trust, among scholars and the common people. So, it is necessary to stop misbehaviour and misconduct in the field of research (Yadav, 2020). Research misconduct is risky to the investigation society because it could damage the reliability of the examiner as well as the organisation (Olesen et al., 2018). Nowadays, research misbehaviour mostly found in social or natural science. It became the reason for damaging the values of research, misleading the knowledge, and misusing the funding (Xie et al., 2021). Research misconduct is nothing, but it is intentionally manipulation of research practices. Such as purposely generating names and information of contestants for the objective of producing information, which is an immoral method in investigation.

##### Types of research misconduct:

Research misconduct or Scientific misconduct are mainly three types. Which is mentioned bellow -

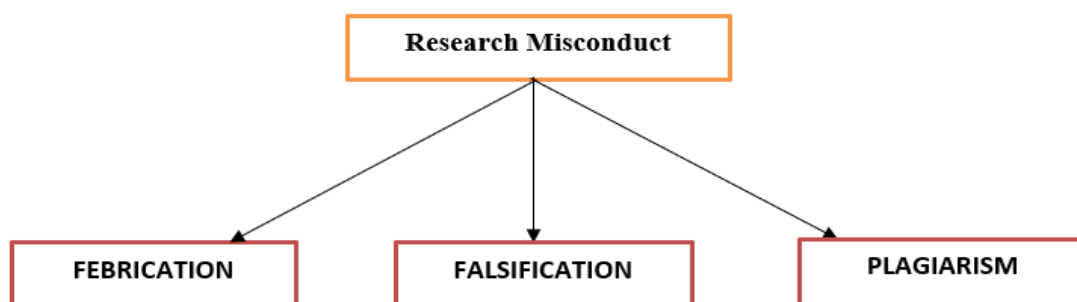


Figure 1: Types of Research Misconduct

#### IV. FABRICATION:

In research, data fabrication means creating false data (Rezaeian, 2014). Fabrication is an intentional process of making data, outcomes and reporting them according to the research objectives, which never existed. Nowadays, it is easy to fabricate data through modern technological tools (Keskin & Ciftci, 2021). Parrish and Noonan (2009) revealed that picture alteration is also called research misconduct or scientific misconduct. Fabrication of data is a common destruction of research reliability, which is very harmful for the public and the society of the science. Ojha (2026) estimated that around 2% of Indian investigators have used data to produce.

#### V. FALSIFICATION:

Falsification means altering the presented data to acquire some particular outcomes (Rezaeian,2014). Falsification occurs when a researcher manipulates investigation resources, kit, or procedures, or changes the results, so that the result supports objectives, hypotheses of the study (Dal-Re et al., 2020; Yadav, 2020). Falsification is nothing but the modification of the perceived data of research (Gilbert & Denison, 2003).

#### PLAGIARISM:

When one uses another researcher's ideas, contents, photo, video and tries to claim it as own without crediting the real author, then plagiarism happens (George,2016). Plagiarism has a massive influence on the education procedure and the educational occupation. This plagiarism process has spoiled the trustworthiness of researchers due to deception in accomplishing success. Plagiarism is the utilisation of another person's work without crediting them (Lewis et al., 2011). There are different types of plagiarism, some of them mentioned below:

**Complete plagiarism:** It occurs when someone completely copies another's work.

**Direct or Verbatim plagiarism:** This kind of plagiarism occurs when someone forgets to use quotation marks after copying another's content.

**Self-plagiarism:** Self-plagiarism occurs when a researcher copies his or her previous work during conducting a new work without citing.

**Paraphrasing plagiarism:** It is a common type of plagiarism. Here, only words or sentences are changed, but the meaning is the same as it is. Here, researchers fail to cite the real source of the data.

**Accidental plagiarism:** When one person unintentionally avoids citation or quotation in any work, then this kind of plagiarism will be detected.

**Sourced-based plagiarism:** It is also a common mistake by new researchers. Here, the writer uses or fabricates an incorrect source of data.

#### Objective 2: To find out the causes, consequences, and prevention of research misconduct

##### Reason for research misconduct:

- **Pressure of publication** leads to unethical publication (A report of the Royal College of Physicians,1991; George, 2016; Luther, 2010). Holtfreter et al. (2020) conducted a study based on a descriptive method, the results of the study showed that academic or professional pressure and stressors are the main reasons for research misconduct
- **Lack of awareness** is another reason for research misconduct. If there is no awareness among students about facilities or the disadvantages of scientific misconduct, then misconduct will occur.
- **Individual traits** are another reason for scientific misconduct; sometimes, individuals can't tolerate the publishing pressure, which leads them to adopt unethical behaviours in research (Chubin,1985).

- **Lack of training and monitoring** is also the reason for research misconduct (Vries, 2006; Gaddis,2003).

#### **Consequences of research misconduct:**

- **Career damage:** Research misconduct can damage a researcher's academic prestige.
- **Loss of credibility:** Unethical research practices play an important role in losing the reliability of research work.
- **Funding bans:** Research funding from government or private organisations could be banned after practising research misconduct.
- **Reputation loss:** Researchers also lose their academic reputations after confronting wrong research practices.
- **Waste of resources** is another consequence of research misconduct.
- **Loss of professional memberships** from different committees.
- **Legal action** could be taken against researchers by the institute or organisations after proving that the researchers practised unethical research practices.

#### **Prevention of research misconduct:**

- **Follow the guidance of the supervisor:** Following the valuable guidance is the accurate path to avoid misconduct in research. Because they are always updated about the new issues regarding research.
- **Ethical Training:** Ethical training regarding conducting research will be helpful for avoiding research misconduct.
- **Discloser of conflict of interest (COI):** Researcher should disclose their COI regarding research publications. It assists in reducing misbehaviour in my research work.
- **Enhance supervising and review:** Continuous monitoring and review of the research work also reduces misconduct of research (Farthing, 2013).
- **Assure clarity:** Researcher should be transparent to their investigation; clarity and research integrity are other ways to avoid research misconduct.
- Follow the effective organisational policies or guidelines at the beginning of the research profession.
- **Auditing** is another method to prevent research misconduct (Weed,1998).

#### **Objective 3: To find out the current status of research misconduct.**

Research misconduct or scientific misconduct is a serious problem in the research landscape of India in the current scenario. It is a common finding in social science research. India should improve its place in the field of research globally. Grienssen et al. (2012) explored the growing rate of retraction or misconduct between 1980 and 2011, which was 5 per lakh to 35 per lakh. In a study, Prof. Abinandanan discovered that the growing rate of misconduct in India has developed from 10 to 44 per 1 lakh papers published from 1991–2000 to 2001–2010 (Sabir et al., 2015). India should identify the main reasons for research misconduct and initiates to prevent research misconduct (National Academies of Sciences, Engineering, and Medicine, 2017). Elango et al. (2019) found the first and second cases of misconduct or retraction in 1996 and 2005. After that, they screened 239 published papers from 2005 to 2018. They discovered that the main causes of that misconduct were plagiarism, authorship, funding, cooperating nations, etc. The authors also discovered some unauthentic journals, which contribute to research misconduct. It shows that India has such reasons for research misconduct, and it is a central reason for unscientific, qualityless research works. Majumder et al. (2021) examined 84 articles of ophthalmology publications between 1994 and 2019, to rectify misconduct in research publication. Their study found that 48 articles were unbiased or original, 22 papers were found to be denied because of fake information, and 14 research works were rejected because of

copying another work. Fogat et al. (2023) explored that there are worrying concerns of scientific misconduct in contemporary reported studies of others, compared to self-reported lessons. Sharma (2024) screened 684 studies, of which 481 studies were defined as plagiarised. Shamra also shows that there was a 6.3% to 16.5% growing rate of misconduct from the decade 1991–2000 to 2021–2023. Gundur and Kumar (2025) screened 2850 papers of Indian researchers, and they explored the increasing rate of retractions by 57.55% within the last 10 years (2014–2024). Its main reason was plagiarism, falsification, or false peer review. Khan (2026) found frequent weaknesses in the execution of different ethics committees within 2025–2026. Sivakumar et al. (2026) found 78 retracted publications after screening 906 articles. Most of it (53, 66.7%) was published in the Dental journal. Image copying (n=42, 53.8%), inconsistencies and erroneous data (n=18, 23.1%), plagiarism (n=7, 9.0%), lack of reporting (n=6, 7.7%), carbon copy periodical (n=5, 6.4%), and retraction notices (n=5, 6.4%) are the causes of retracted publications or research misconduct.

Engler et al. (1987) examined 138 articles about practice in cardiology and radiology from 1978 to 1985. This study discovered that 12 articles were found to be deceptive, 48 studies were doubtful, and 78 were considered valid. The COPE report (2001) also discovered that 106 studies out of 137 were revised because of misconduct in research since 1997. Gilbert and Denison (2003) explored a study that highlighted that COPE has found retraction publications. Since 1997, it has also taken actions against offenders. Fang et al. (2012) screened 291 research articles conducted in the USA that were revised for research misconduct between 1992 and 2012. Nigerian research discovered that 68.9% of researchers confessed to a minimum of 1/8 recorded practices of misconduct in research (Okonta & Rossouw, 2013). Stern et al. (2014) found that different denied research studies have been growing. Most cases of revised work are associated with scientific misconduct, involving fiscal costs to resource sources. Felaefer et al. (2017) conducted a study on 78 contestants who discovered a large frequency of research misconduct. 59.4% of participants confessed that misbehaviour is the main reason for misconduct, and 74.5% have information about any misconduct among their collaborators. They found that avoiding ethical rules and regulations (50.5%) is one of the common types of making scientific misconduct, followed by falsification and fabrication (28.6%).

## VI. DISCUSSION:

Research Misconduct is a violation of research ethics. It is unethical or biased actions of a researcher during the conduct of research. Generally, it has three types: fabrication, falsification, and plagiarism. Fabrication is an intentional process of making data, outcomes and reporting them according to the research objectives, which never existed. Falsification means altering the presented data to acquire some particular outcomes (Rezaeian, 2014). When one uses another researcher's ideas, contents, photo, video and tries to claim it as one's own without crediting the real author, then plagiarism happens (George, 2016). It occurs when someone completely copies another's work. Plagiarism has different types: Complete plagiarism, Direct or Verbatim plagiarism, Self-plagiarism, Paraphrasing plagiarism, Accidental plagiarism, and Sourced-based plagiarism. There are different reasons for research misconduct: pressure of publication, Lack of awareness, Individual traits, Lack of training and monitoring. It has several consequences for research misconduct, Career damage, Loss of credibility, Funding bans, Reputation loss, Waste of resources, Loss of memberships, and legal action. There are several way Prevention of research misconduct: Follow the guidance of the supervisor, Ethical Training, Discloser of conflict of interest (COI), Enhance supervising and review, assure clarity, Follow policies' guidelines. It is seen that research misconduct is continuously increasing day by day. This research paper analyses the previously conducted research on this topic. This is a matter of concern; institutional pressure, professional development, career advancement, and the desire for funding and popularity emerge as the underlying causes. There is a need "to enhance and ensure a quality and responsible research culture, transparency in research needs to be maintained, and a holistic assessment procedure" (Islam & Rakshe, 2026). This study contributed to preventing research misconduct; it also seeks attention from authorities, organisations, institutions, journal those are related to the field of research to

maintain research integrity, formulate guidelines, and take proper action against those who violate research ethics.

## VII. CONCLUSION:

Research misconduct is an illegal activity in research that contributes to decreasing research credibility and the transparency of the research study. In this study, scientific misconduct showed different causes, such as copying others' work, adding duplicate information, misusing research strategies, etc., in research. This study also highlighted the kinds of consequences (damage to reputations, funding bans, loss of credibility in research, etc.) and the preventions (follow the supervision, ethical training, continuous review, etc.). Current studies also showed the current status of misconduct in research. This study also showed the increasing rate of misconduct in research throughout the globe. There is a lots of research misconduct found in this study. By analysing a wide array of journals, articles, research papers, and reports, the researcher has highlighted the prevalence of various forms of research misconduct—a matter of serious concern. In a field where research serves as a tool for problem-solving, improving standards of living, verifying existing knowledge, and exploring new frontiers, acts such as falsification, fabrication, and plagiarism stand in complete contradiction to the fundamental principles of research and are entirely devoid of legitimacy. Such activities mislead future researchers, readers, and policymakers; consequently, policies frequently fail during implementation and fall short of achieving their objectives within the stipulated timeframes. Therefore, various necessary measures must be adopted to curb these practices.

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