

## Correcting Questionable Retractions Practices? Too little, too late

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June 24, 2023

I have read the article "Retract or be damned: a dangerous moment for science and the public" by Kamran Abbasi [1]. The article discusses the growing problem of retractions in scientific literature, and argues that this is a threat to the integrity of science and the public's trust in science.

Abbasi begins by noting that the number of retractions has increased dramatically in recent years. In 2022, there were over 12,000 retractions, up from just over 1,000 in 1990. This increase is due in part to the fact that it is now easier to identify and report research misconduct. However, Abbasi argues that the increase is also due to a more fundamental problem: the way that science is conducted and rewarded.

Abbasi argues that the current system of scientific publishing encourages researchers to publish as much as possible, as quickly as possible. This can lead to researchers cutting corners, and to the publication of papers that are not sound. In addition, the current system of peer review is often ineffective at detecting problems with research.

The result of this is that a growing number of papers are being retracted. This is a problem for the integrity of science, because it means that the public cannot trust the results of scientific research [2]. It is also a problem for the public, because it means that they may be making decisions based on faulty information.

Abbasi concludes by calling for a number of reforms to the way that science is conducted and published. These reforms include:

- A change in the way that science is rewarded, so that researchers are not rewarded for publishing as much as possible, but for publishing high quality research.
- A strengthening of the peer review process, so that it is more effective at detecting problems with research.
- A greater emphasis on transparency in scientific research, so that the public can better understand how research is conducted and how the results are interpreted.

Abbasi argues that these reforms are essential to protect the integrity of science and the public's trust in science.

I agree with Abbasi's arguments. The current system of scientific publishing is flawed, and it is leading to a growing number of retractions. This is a problem for the integrity of science and the public's trust in science. I believe that the reforms that Abbasi proposes are essential to address this problem.

I would also add that the public needs to be more aware of the problem of retractions. They need to be aware that not all research is sound, and that they should be critical of the information that they encounter. They should also be aware of the reforms that are being proposed, and they should support these reforms [2].

The article argues that retractions of flawed research have been inefficient and too late, too few. This is because the current system of scientific publishing is not designed to deal with the problem of retracted research.

The peer review process is designed to identify problems with research before it is published. However, the peer review process is not perfect, and it can sometimes miss problems with research. In addition, the peer review process is often slow, which means that it can take years for problems with research to be identified.

Once a problem with research is identified, it can be difficult to get the research retracted. Journals are often reluctant to retract papers, and they may require a lot of evidence before they will do so. In addition, researchers who have been accused of misconduct may fight the retraction, which can further delay the process.

The result of this is that a lot of flawed research remains in the scientific literature. This can have a number of negative consequences, including [3]:

- **Misinformation:** Flawed research can lead to the spread of misinformation. This can have a negative impact on public health and safety, as well as on the advancement of knowledge.
- **Damage to reputations:** Researchers who have been associated with flawed research can have their reputations damaged. This can make it difficult for them to find employment or funding.
- **Loss of trust:** The public's trust in science can be eroded if they believe that flawed research is being published. This can make it more difficult for scientists to communicate their findings to the public and to get their research funded.

The article argues that the current system of scientific publishing is not fit for purpose. It calls for reforms to the system, such as:

- **A change in the way that science is rewarded:** Researchers should be rewarded for publishing high quality research, not for publishing as much as possible.
- **A strengthening of the peer review process:** The peer review process should be made more transparent and efficient.
- **A greater emphasis on transparency:** Researchers should be required to share their data and methods, so that other researchers can verify their findings.

By taking these steps, we can help to reduce the number of flawed research in the scientific literature and protect the integrity of science.

The retraction practices in science are not transparent and standardized. This means that there is no clear consensus on how to retract research, and there is no single body that oversees the retraction process.

As a result, there is a lot of variation in how retractions are handled. Some journals have clear policies on retraction, while others do not. Some journals require a high level of evidence before they will retract a paper, while others are more lenient. And some journals do not even allow retractions.

This lack of transparency and standardization makes it difficult to track the number of retractions and to identify the reasons for retractions. It also makes it difficult to hold researchers accountable for misconduct.

There are a number of reasons why retraction practices are not transparent and standardized. One reason is that there is no single body that oversees the retraction process. This means that there is no one to set standards or to enforce compliance.

Another reason is that there is a lack of consensus on the definition of retraction. Some people believe that retraction should only be used when there is clear evidence of misconduct, while others believe that it can also be used when there are serious errors in the research.

Finally, there is a reluctance on the part of journals to retract papers. Journals are often reluctant to retract papers because they fear that it will damage their reputation. They may also be reluctant to retract papers because they do not want to have to deal with the legal implications of retraction.

The lack of transparency and standardization in the retraction process is a serious problem. It makes it difficult to track the number of retractions, to identify the reasons for retractions, and to hold researchers accountable for misconduct.

There are a number of things that can be done to improve the transparency and standardization of retraction practices. These include:

- Establishing a single body to oversee the retraction process: This body would set standards for retraction and would enforce compliance.
- Defining retraction more clearly: This would help to ensure that retraction is used consistently and appropriately.
- Encouraging journals to retract papers: Journals should be encouraged to retract papers when there is clear evidence of misconduct or when there are serious errors in the research.

By taking these steps, we can help to improve the transparency and standardization of retraction practices and protect the integrity of science.

The costs of retractions in science can be significant, both to society and to the scientific community. These costs include:

- Financial costs: Retractions can lead to financial costs for individuals, institutions, and governments. For example, if a retracted paper was used to justify the funding of a research project, then the project may have to be terminated, which could result in financial losses for the institution or government that funded it.

- **Human costs:** Retractions can also have human costs. For example, if a retracted paper was used to make decisions about patient care, then the retraction could lead to harm to patients. In addition, retractions can damage the reputations of researchers, which can make it difficult for them to find employment or funding.
- **Loss of trust:** Retractions can also erode public trust in science [4]. If the public believes that scientific research is unreliable, then they may be less likely to accept the findings of scientific studies. This can have a negative impact on the ability of scientists to communicate their findings to the public and to get their research funded.

In addition to these direct costs, retractions can also have indirect costs. For example, retractions can lead to delays in the advancement of knowledge, as researchers have to spend time and resources to replicate studies that have been retracted. Retractions can also make it more difficult to conduct meta-analyses, which are studies that combine the results of multiple studies. This can make it more difficult to draw accurate conclusions about the effects of interventions or treatments.

The costs of retractions are a serious problem that needs to be addressed. There are a number of things that can be done to reduce the number of retractions, such as:

- **Strengthening the peer review process:** The peer review process is designed to identify problems with research before it is published. However, the peer review process is not perfect, and it can sometimes miss problems with research. There are a number of things that can be done to strengthen the peer review process, such as increasing the number of reviewers and requiring reviewers to have more expertise in the field.
- **Encouraging open science:** Open science is a movement that advocates for the sharing of research data and methods. This can help to increase transparency in scientific research and make it easier to identify problems with research [5].
- **Educating the public:** The public needs to be more aware of the problem of retractions. They need to be aware that not all research is sound, and that they should be critical of the information that they encounter [6].

By taking these steps, we can help to reduce the number of retractions in science and protect the integrity of scientific research.

## References

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