

by Alex Mutebe - Tuesday, 18 June 2024, 9:39 AM

Number of replies: 3

Misrepresenting data, as discussed in the case of Abi, can undermine public health and trust, affecting policy, healthcare, and research integrity (Bharati & Batra, 2021; Santini et al., 2018). Ethical standards dictate that data manipulation or selective reporting is misconduct due to its potential to cause harm (Asadi Someh et al., 2016).

Abi is obligated to present an unbiased analysis that includes both positive and negative findings. Hurwitz & Gardenier` (2012) emphasize the importance of integrity, stating that statisticians should report all findings, not just those that support their client's interests.

Abi's responsibility extends to how others use his statistical results. While he cannot control their actions, he must ensure his work does not intentionally mislead (Magnus & Caplan, 2012). If Abi suspects the manufacturer will only advertise positive results, he should consider including a disclaimer or discussing the full range of findings in his report.

Legally, misrepresenting data can lead to consequences under consumer protection laws if false claims result in consumer harm (Gelman & Hennig, 2017). Socially, such actions can erode public trust in research and professional credibility.

Abi could also seek guidance from institutional review boards or professional bodies and consider whistleblowing if he believes public health is at risk.

References:

Bharati, S. and Batra, R., 2021. How misuse of statistics can spread misinformation: a study of misrepresentation of COVID-19 data. arXiv preprint arXiv:2102.07198.

Santini, A., Cammarata, S.M., Capone, G., Ianaro, A., Tenore, G.C., Pani, L. and Novellino, E., 2018. Nutraceuticals: Opening the debate for a regulatory framework. *British journal of clinical pharmacology*, 84(4), pp.659-672.

Asadi Someh, I., Breidbach, C.F., Davern, M. and Shanks, G., 2016. Ethical implications of big data analytics. *Research-in-Progress Papers*, 24.

Hurwitz, S. and Gardenier, J.S., 2012. Ethical guidelines for statistical practice: The first 60 years and beyond. *The American Statistician*, 66(2), pp.99-103.

Lesser, L.M. and Nordenhaug, E., 2004. Ethical statistics and statistical ethics: Making an interdisciplinary module. *Journal of Statistics Education*, 12(3).

Gelman, A. and Hennig, C., 2017. Beyond subjective and objective in statistics. *Journal of the Royal Statistical Society Series A: Statistics in Society*, 180(4), pp.967-1033.

Peer Response

by Michael Botha - Wednesday, 19 June 2024, 8:43 AM

Hi Alex, thanks for your post. How important do you think reporting standards are in preventing both known and unknown misrepresentations in findings (Prasanna & Ravindran, 2019)?

References:

Prasanna, D., Ravindran, V. (2019) Reporting standards in scientific publishing: need, relevance and future perspectives. *Journal of the Royal College of Physicians of Edinburgh* 49(9): 269-271. DOI: 10.4997/JRCPE.2019.402.

Re: Peer Response

by Alex Mutebe - Tuesday, 25 June 2024, 7:29 AM

Hi Michael, thank you for asking. Reporting standards are essential in scientific publishing as they promote transparency by ensuring detailed disclosure of research methods and results, facilitating reproducibility (Publications, Journal & Standards 2008). They preserve the integrity of science by preventing data omission that could skew research interpretations. According to Appelbaum et al. (2018), the standards enforce accountability, requiring authors to be precise and thorough in their reports. They also aid in comparability, allowing for consistent result reporting across studies. Lastly, they maintain ethical responsibility by mandating full information disclosure to avoid misrepresentations.

Overall, these standards are key to protecting against misinformation and maintaining the trustworthiness of scientific findings.

References:

Appelbaum, M., Cooper, H., Kline, R.B., Mayo-Wilson, E., Nezu, A.M. and Rao, S.M., 2018. Journal article reporting standards for quantitative research in psychology: The APA Publications and Communications Board task force report. *American Psychologist*, 73(1), p.3.

Publications, A.P.A., on Journal, C.B.W.G. and Standards, A.R., 2008. Reporting standards for research in psychology: Why do we need them? What might they be?. *The American Psychologist*, 63(9), p.839.

Peer Response

by Sahr Solar Sumana - Monday, 1 July 2024, 9:32 PM

Hi Alex, thank you for your initial post on this case study. You have systematically highlighted the responsibilities and consequences that Abi would be liable for if they were to breach ethical standards with their research. It may be a good idea to look into the conflicts of interest that Abi may be experiencing when conducting the research such as the research being done on behalf of the cereal company. Drolet et al. (2022) stated that while it is not possible to eliminate all conflicts of interest, it is important to manage them properly and to avoid temptations to behave unethically. Although we don't have an intricate level of context within this case study how do you think that conflicts of interest can be reduced for Abi while conducting the research?

Legal, reputational and even fiscal consequences have been touched upon in the initial post. Ultimately you understand that as a researcher, Abi has the ethical obligation to make sure that the use of their results and the analysis of the results are presented by the cereal company in an accurate and unbiased manner that upholds the integrity of the research and protects the well-being of the public.

Reference List:

Drolet, M.-J., Rose-Derouin, E., Leblanc, J.-C., Ruest, M. and Williams-Jones, B. (2022).

Ethical Issues in Research: Perceptions of Researchers, Research Ethics Board Members and Research Ethics Experts. *Journal of Academic Ethics*, 21(2), pp.269–292.