

Thank you Ying for your interesting post about the case study. Good recommendations for important agencies and contact points for scientific and ethical research guidelines were given. The requirement to avoid inappropriate research methods as well as processing and presentation of results led me to investigate which recommendations should be followed in this specific case study, but also in general. A list of central guiding principles can be found in Rowe et al. (2009). The principles can be summarised under the following points:

- 1. Sponsored research should be factual, transparent and designed objectively.
- 2. The principles of scientific research should be followed, which include an appropriate formulation of hypotheses and are guided by this in the context of the evaluation, rather than being guided by a predetermined outcome.
- 3. Researchers should have control over study design as well as the research itself.
- 4. Research project-based compensation should not be offered or accepted.
- 5. Written agreements permitting publication of results should exist.
- A full record of all financial interests should be maintained and disclosed.
- 7. Participation in undisclosed agreements for paid authorship of ghosted publications should be avoided.
- 8. Appropriate auditors and investigators should be guaranteed access to all data.
- Scientists in contract research institutions should provide clear information about their affiliation and only publish under the aegis of the institution.

From these guiding principles, it can be seen that transparency is the foundation of all ethical scientific research. This transparency relates to the practice of scientific work, but also to dealing with the interest groups involved.

## References:

Rowe, S., Alexander, N., Clydesdale, F., Applebaum, R., Atkinson, S., Black, R., Dwyer, J., Hentges, E., Higley, N., Lefevre, M., Lupton, J., Miller, S., Tancredi, D., Weaver, C., Woteki, C. & Wedral, E. (2009) Funding food science and nutrition research: financial conflicts and scientific integrity. *Nutrition Reviews* 67(5): 264-272. Available from:

https://academic.oup.com/nutritionreviews/article/67/5/264/1825 580?login=false [Accessed 16 January 2023].



Thank you for an interesting post, Ying! Indeed, there are early signs based on initial analyses that hint Whizzz cereal product may not be nutrient-rich, including its harmfulness - which makes the situation quite complicated, especially considering concerns Abi is facing, like the interpretation of data to reach positive or negative outcomes. Therefore, I also agree with the main message of the post, which mentions the importance of truthful and evidence-based analyses, including following a standardised and structured approach to minimise potential bias and conflict of interest risks in the report publication process.

For instance, (Thompson, 2017) describes the conflict of interest as a set of conditions that could influence the researcher's views. Since data analyses and evidence-based report publication are the primary interest in Abi's research, potential financial gains based on the report outcome could be perceived as one of these conditions that are seen as a secondary interest and influencing Abi's view. However, (Thompson, 2017; Lucas, 2015) also suggests a conflict of interest declarations as part of the research, including a list of financial ties to an industry of the research in question, could significantly improve the transparency and credibility of the report.

Additionally, the role of ethical review boards should not be underestimated - Abi must raise concerns, issues or potential risks to such boards or agencies. However, Hyder et al. (2004) argue that the capabilities of such boards depend on financial independence, including the workforce quality of relevant staff. Thus, desired outcomes based on raised concerns or issues may vary from country to country or region across the globe.

## References:

Lucas, M., 2015. Conflicts of interest in nutritional sciences: The forgotten bias in meta-analysis. *World Journal of Methodology*, *5*(4), p.175.

Hyder, A.A., Wali, S.A., Khan, A.N., Teoh, N.B., Kass, N.E. and Dawson, L., 2004. Ethical review of health research: a perspective from developing country researchers. *Journal of Medical Ethics*, *30*(1), pp.68-72.

Thompson, D.F., 2017. Understanding financial conflicts of interest. In *Research Ethics* (pp. 505-508). Routledge.



Peer Response

In connection with the second peer response, non-appropriate research methods, potential weaknesses in reporting and misinterpretation of data led me to discuss further the importance of research integrity, code of conduct and regulatory framework developments across Europe.

(Desmond & Dierickx, 2021) state that a lack of common understanding and various incompatible approaches across European countries was the rationale for establishing the European Code of Conduct for Research Integrity. The Code's aim was to provide essential principles and evolve into reference material to self-regulate the research integrity domain. It was first published in 2011 and revised to minimise fundamentally different interpretations at a national level in 2017. Additionally, studies that were conducted right after the initial publication of the code further confirmed why there was a need to have a common understanding across Europe concerning research integrity. For example, Godecharle et al. (2013) provided noticeable insights in their study regarding post-era developments concerning the code - which is also briefly summarised below:

- No guidelines were identified in 12 countries (e.g., Portugal, Italy, Romania, Bulgaria)
- No national framework concerning research integrity or misconduct in 10 countries
- Identified national frameworks (not established by law) in six countries targeting research integrity or misconduct
- Identified national frameworks (established based on law) in two countries targeting research integrity or misconduct
- Noted fabrication, falsification, data omitting and plagiarism as the most unwanted misbehaviours

To conclude, all of the studies and efforts mentioned earlier attempted to explain in detail the importance of research integrity, which also directly affected the goal of achieving greater transparency. It was no different for Abi's case, especially for the transparency.

## References:

Desmond, H. and Dierickx, K., 2021. Research integrity codes of conduct in Europe: understanding the divergences. *Bioethics*, *35*(5), pp.414-428.

Godecharle, S., Nemery, B. and Dierickx, K., 2013. Guidance on research integrity: no union in Europe. *The Lancet*, *381*(9872), pp.1097-1098.