Collaborative Discussion 2: Summary Post

First, Abi should review his research design to identify and account for bias in his results, and to ensure that his study sample size is adequate for his calculations (Cook & Hatala, 2015; Maggetti et al., 2013). Once Abi confirmed his results were defensible, he should objectively present his findings to preserve the integrity of his research and the scientific community as a whole (Saunders et al., 2019; Storeng et al., 2019).

Causation and correlation are distinct, as correlation only observes the coincidence of data (Irving et al., 2022). If Abi's research demonstrates that the cereal fails to cause nutrition, or may cause harm, Abi's findings should abide by globally accepted ethics standards (DuVal, 2004; Resnick, 2020; Saunders et al., 2019; Vanclay et al., 2013). Highlighting specific correlations to support a favourable narrative at the expense of public good is unethical, particularly in the medical field (Altman, 1980; AMA, n.d.).

Conversely, showing several correlations that appear to conflict is ethical, as it may indicate the need for follow-on research (Maggetti et al., 2013). Presenting more than one potential conclusion may allow the audience to independently assess research findings. Abi is not directly responsible for uses of his research beyond his study, nor can he control how the manufacturer may manipulate his data; however, he may be morally compelled to act by informing regulatory bodies, ethical committees, or the public if welfare is at risk (DuVal, 2004; Resnick, 2020; Storeng et al., 2019; Zinberg, 1996).

Many of these issues can be prevented by effective research contracts or clinical study agreements that govern how findings should be gathered, analysed, reported, and disseminated (DuVal, 2004). A poorly written research contract can subject research institutions and individuals to egregious lawsuits, leading to financial and reputational ruin regardless of the merits of the lawsuit (Zinberg, 1996).

Furthermore, researchers should identify support networks designed to preserve research integrity and understand how institutions and organizations can protect researchers and their findings (Storeng et al., 2019). Seeking assistance when assessing ethical, moral, and legal consequences can relieve pressure on researchers to make unethical decisions (Storeng et al., 2019; Zinberg, 1996).

References

Altman, D. G. (1980) Statistics and ethics in medical research. Misuse of statistics is unethical. *British Medical Journal*. [Online] 281 (6249), 1182–1184.

American Medical Association (AMA) (n.d.) Opinion 7.1.3 Study Design & Sampling. [online] AMA Code of Ethics. Available from: https://code-medical-ethics.ama-assn.org/ethics-opinions/study-design-sampling. [Accessed 29 Jan. 2023].

Cook, D. A. & Hatala, R. (2015) Got power? A systematic review of sample size adequacy in health professions education research. Advances in health sciences education: theory and practice. [Online] 20 (1), 73–83.

DuVal, G. (2004) Institutional ethics review of clinical study agreements. Journal of medical ethics. [Online] 30 (1), 30–34.

Irving, D. et al. (2022) Correcting statistical misinformation about scientific findings in the media: Causation versus correlation. Journal of experimental psychology. Applied. [Online] 28 (1), 1–9.

Maggetti, M. et al. (2013) 'Statistical Research Designs for Causal Inference', in Designing Research in the Social Sciences. [Online]. London: SAGE Publications Ltd. p. 69–.

Resnik, D. (2020). What is ethics in research & why is it important? [online] National Institute of Environmental Health Sciences. Available at:

https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm. [Accessed 29 January 2023].

Saunders, M. et al. (2019) Research Methods for Business Students. [Online] Pearson Education, Limited, Harlow. Available from: ProQuest Ebook Central. [Accessed 29 January 2023].

Storeng, K. T. et al. (2019) Action to protect the independence and integrity of global health research. BMJ Global Health. [Online] 4 (3), e001746–e001746.

Vanclay, F. et al. (2013) Principles for ethical research involving humans: ethical professional practice in impact assessment Part I, Impact Assessment and Project Appraisal, 31:4, 243-253, DOI: 10.1080/14615517.2013.850307

Zinberg, D. S. (1996) A cautionary tale. Science (American Association for the Advancement of Science). [Online] 273 (5274), 411–411.