medicine and physical education journals, and written 2 responses to letters from those entrenched in poor methodologies. Despite our polite, transparent, scientifically-based pleas for 'constructive, collaborative debate' we have encountered editorial bias, e.g. turned down without review; turned down despite positive reviews; appealed editorial decisions and been prevented from responding to letters commenting

Conclusions Others have attempted to diminish our contributions by employing in letters a tone of thinly disguised hostility or accusing us of evangelistic fervour whilst failing to justify their own methods. Yes, we are challenging; shifting an entire research culture, which has its roots in university teaching, is not easy – scientific rigour in aspects of our discipline plays second fiddle to practical, convenient, traditional and feasible. Although this is happening on the periphery of mainstream medical research, children's health matters and as the population becomes increasingly sedentary and overweight we urgently need to develop scientifically rigorous methods to measure and interpret CRF in health and disease. Already a generation of researchers and policy makers has been misinformed and misled by flawed data. Those of us facing these challenges need to work together to develop strategies for shifting research culture back towards defensible science.

47 COLORECTAL CANCER SCREENING – DOING NO HARM? – A SYSTEMATIC REVIEW OF THE EVIDENCE (ONGOING)

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10.1136/bmjebm-2019-EBMLive.55

Objectives Screening for cancer intends to provide benefit and it unintentionally entails risk of causing harm. The type of harm most commonly studied is the risk of complications, i.e. physical harms. The risk of physical harm due to colorectal cancer screening has been quantified in systematic reviews. However, the harms of screening tend to be underreported and inadequately studied compared to the benefits of screening. In addition, the recently published PRISMA-harms extension raise concern that systematic reviews compound simplistic definitions, inadequate measurements and poor reporting in clinical studies of the harms of medical interventions. Due to these concerns, this systematic review aims to quantify the risk of physical harms due to colorectal cancer screening, to assess the quality of the evidence and to investigate the usability of guidance in the area, including the recommendations in the PRISMA-harms extension, the GRADE approach and the ROBINS-I bias assessment tool by the Cochrane Collaboration.

Method A detailed account of the methods is available in the PROSPERO protocol (CRD42017058844). The review was conducted in line with the PRISMA harms extension and the Cochrane Handbook. Databases searched include Pubmed, Medline, Embase, Cinahl, PsycInfo and the Cochrane library. There were no restrictions concerning study design, language or date of publication. All types of studies were included if they provided data on physical harms due to screening of asymptomatic individuals in average risk of colorectal cancer by any combination of fecal occult blood testing, sigmoidoscopy and/or colonoscopy. The risk of bias was assessed per outcome via ROBINS-I, a bias assessment tool for non-randomized studies. Prior to bias assessment, the tool was extended and adjusted to increase its applicability for studies reporting harms of screening. The overall quality of the evidence was evaluated using the GRADE criteria and the reporting quality of randomized controlled trials (RCTs) was judged via the CONSORT-harms extension.

Results Analyses are ongoing. Results will be presented at the conference. Preliminary trends: In total, 89 studies were included for review, 20 RCTs and 69 non-randomized studies (NRS) of various design. The majority of studies were conducted in Europe, the United States and in Asia. Both conduct and reporting of physical harms was very heterogeneous across RCTs and NRS. Overall, the risk of physical harms seems to be underreported, narrowly defined and inadequately measured in both RCTs and NRS. There is a trend towards higher estimates of harm in well-conducted studies (low risk of bias) and in studies of ongoing colorectal cancer screening programmes compared to RCTs.

Conclusions Pending analyses, the conclusions will be presented at the conference.

48 OCTOPUS: A REVOLUTION IN SCIENTIFIC PUBLISHING

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10.1136/bmjebm-2019-EBMLive.56

Objectives Octopus is a new publishing platform designed to replace journals and papers as the means of sharing scientific knowledge and ideas. It is designed to serve the needs of science and scientists above all else: to use every digital tool possible to ensure that good scientific practice is recognised and rewarded, and that there is no longer any advantage to questionable research practices.

Method Essential features of Octopus include:

- Complete language–agnosticism: every user reads and writes in their language of choice, maximising access.
- Free open access to read and publish
- The unit of publication is not a 'paper' but instead one of 8 shorter forms:

1. Scientific problem
2. Hypothesis
3. Method/protocol
4. Results/data
5. Analysis
6. Interpretation
7. Implementation
8. Review

Each publication must be linked to at least one 'above it' in the chain, apart from a Review, which can be linked to any other publication.

- **Rating of each publication** by readers (1-5 stars) on each of three predefined criteria, chosen to represent best practice in each kind of work => work is judged on the most appropriate criteria.
- **Red flagging of publications** by readers if they suspect misconduct (scientific, ethical, legal - eg. plagiarism) or serious error (eg. statistical).
- **Every author has a page listing their contact details, affiliations, potential conflicts of interest, and publications, with their ratings** (and who rated them).