

# REAPPRAISED checklist can detect research integrity issues

## REAPPRAISED adds value to research as a standard checklist at every stage of the project

### Pre-Submission Checklists: help or hindrance?

#### Application of the REAPPRAISED checklist in a higher education setting

#### 1. Introduction

- REAPPRAISED checklist (Grey et al 2020<sup>1</sup>) aimed at editorial staff
- Can also be used at pre-submission of the manuscript stage, and/or post-publication evaluation
- LSHTM has no current central oversight of manuscript submission

#### 2. Research Question

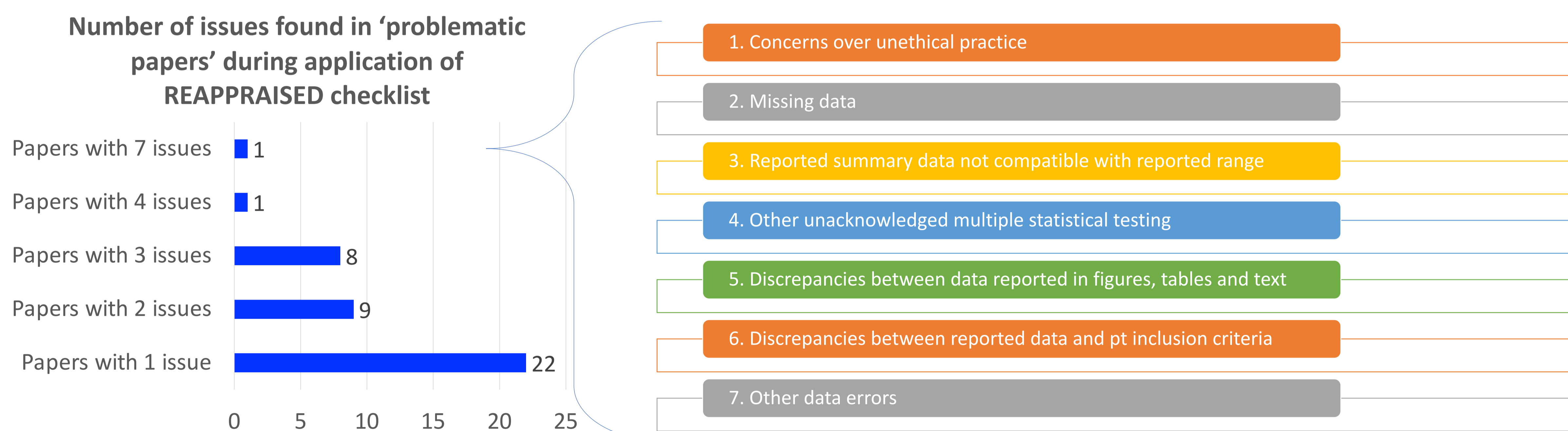
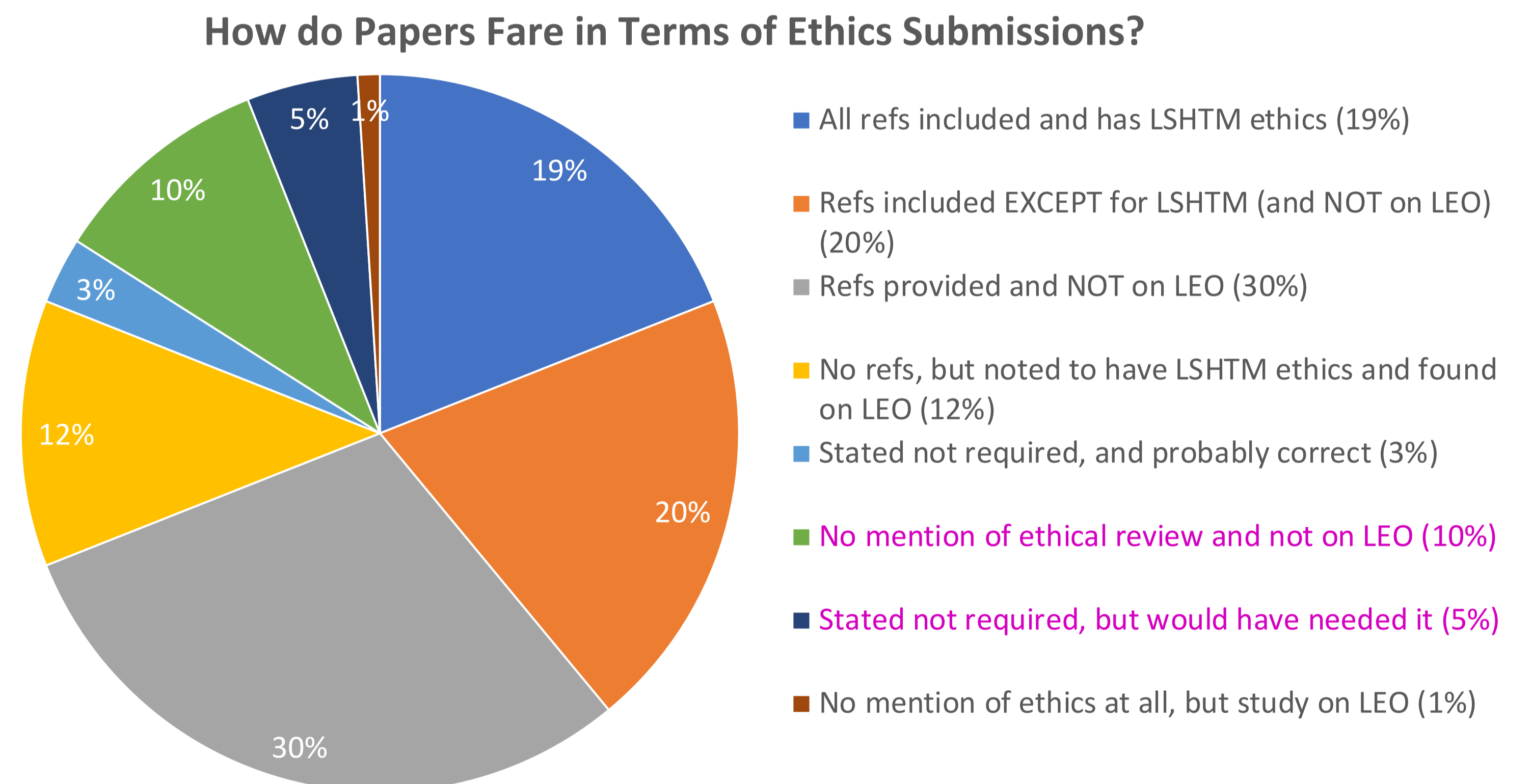
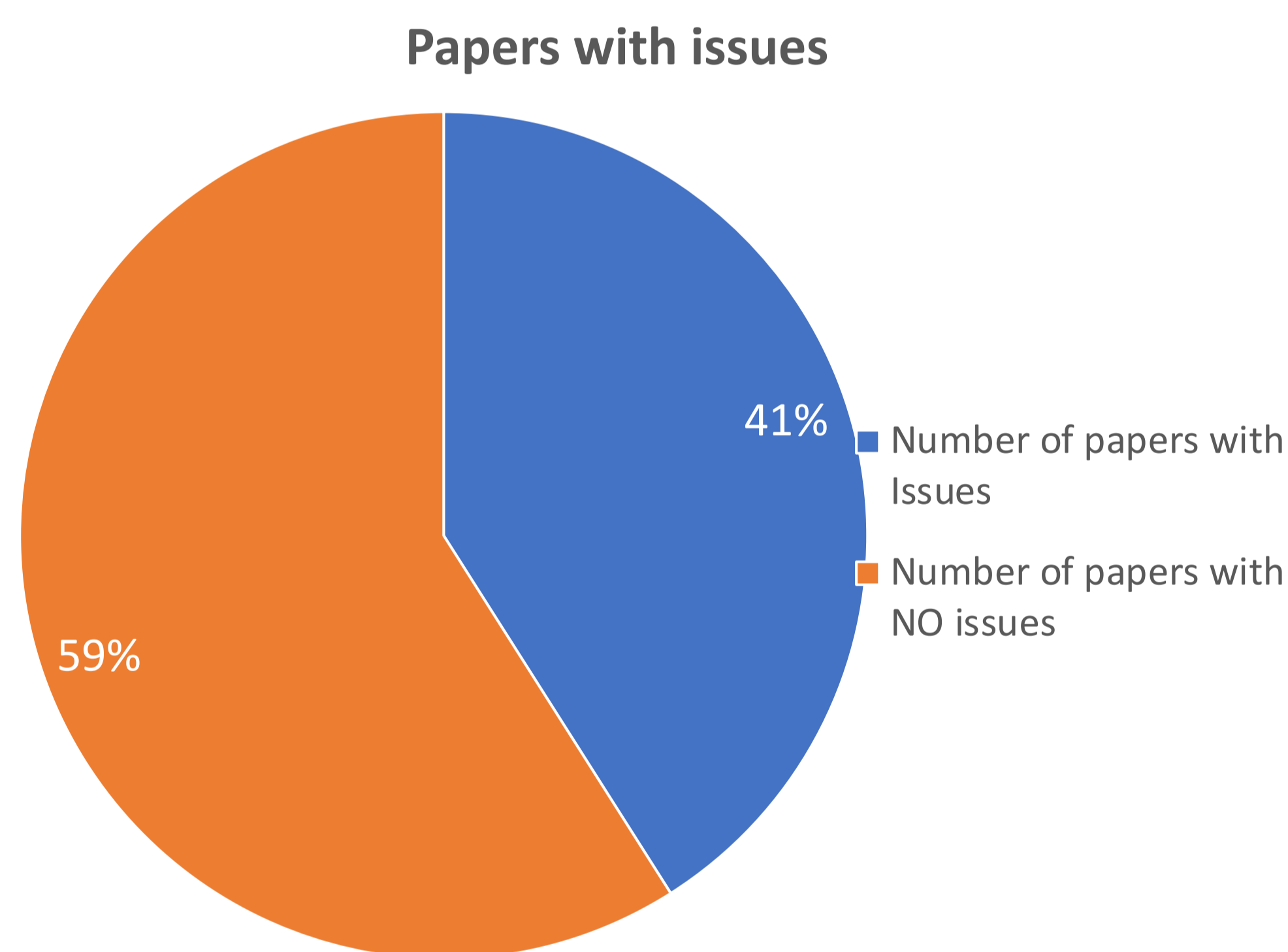
Could the REAPPRAISED checklist reduce the potential for breaches of research integrity in a higher education setting, and improve the institution's confidence in the research it produces?

#### 3. Methods

- REAPPRAISED checklist applied retrospectively to 100 health-related research publications
- Included: primary and secondary data projects
- Excluded: Non-human projects, systematic reviews and modelling publications
- Qualitative and quantitative analyses

#### 4. Results

| Topic                          | Results Highlights   |
|--------------------------------|--|
| Research Governance            | 19% RCT/CRCT were not pre-registered   |
| Ethics                         | 7% concerns about ethical practice   |
| Authorship                     | 9% no contributorship statement  |
| Productivity                   | 65% gave insufficient detail in paper to make a judgement on staffing levels |
| Plagiarism                     | 3% evidence of text recycling  |
| Research conduct               | 39% insufficient information regarding plausibility of pt recruitment        |
| Analyses and methods           | 9% likely or definitely missing data   |
| Image manipulation             | 1% evidence image manipulation   |
| Statistics and data            | 9% discrepancies between data reported in figures, tables and text           |
| Errors                         | 7% incorrect calculations of proportions and percentages                     |
| Data duplication and reporting | 3% duplication of figures  |

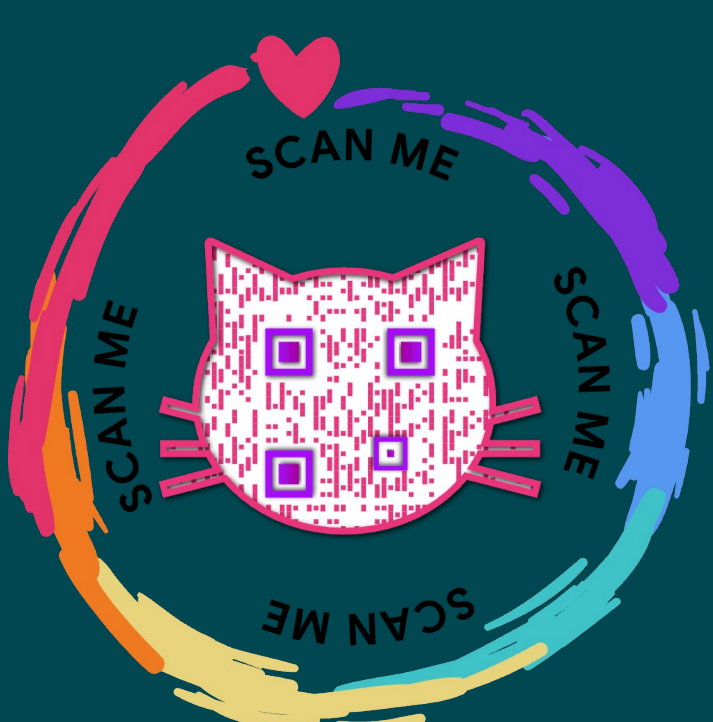


#### 5. Conclusions

The REAPPRAISED checklist contains valuable questions that researchers and their institutions should consider prior to undertaking any research project. The retrospective review highlighted issues across several publications, issues ranging from minor errors in calculations to questions raised on ethical conduct of the research. In an ideal world, the checklist would

be deployed prior to commencing any research project to ensure ethical conduct. Alternatively, institutions could implement the checklist as a safeguard prior to submitting manuscripts.

1: Grey A, Bolland MJ, Avenell A, Klein AA, Gunesal CK (2020) Check for publication integrity before misconduct. Nature 577:167-169



Patricia Henley, DrPH Candidate

Patricia.Henley@lshtm.ac.uk

[www.linkedin.com/in/patriciahenley/](https://www.linkedin.com/in/patriciahenley/)

LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE

