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:

Application of the REAPPRAISED checklist in a higher education setting

1. Introduction

- REAPPRAISED checklist (Grey et al 2020¹) aimed at editorial staff
 - Can also be used at pre-submission of the manuscript and/or post-publication stage, evaluation
- LSHTM has no current central oversight of manuscript submission

2. Research Question

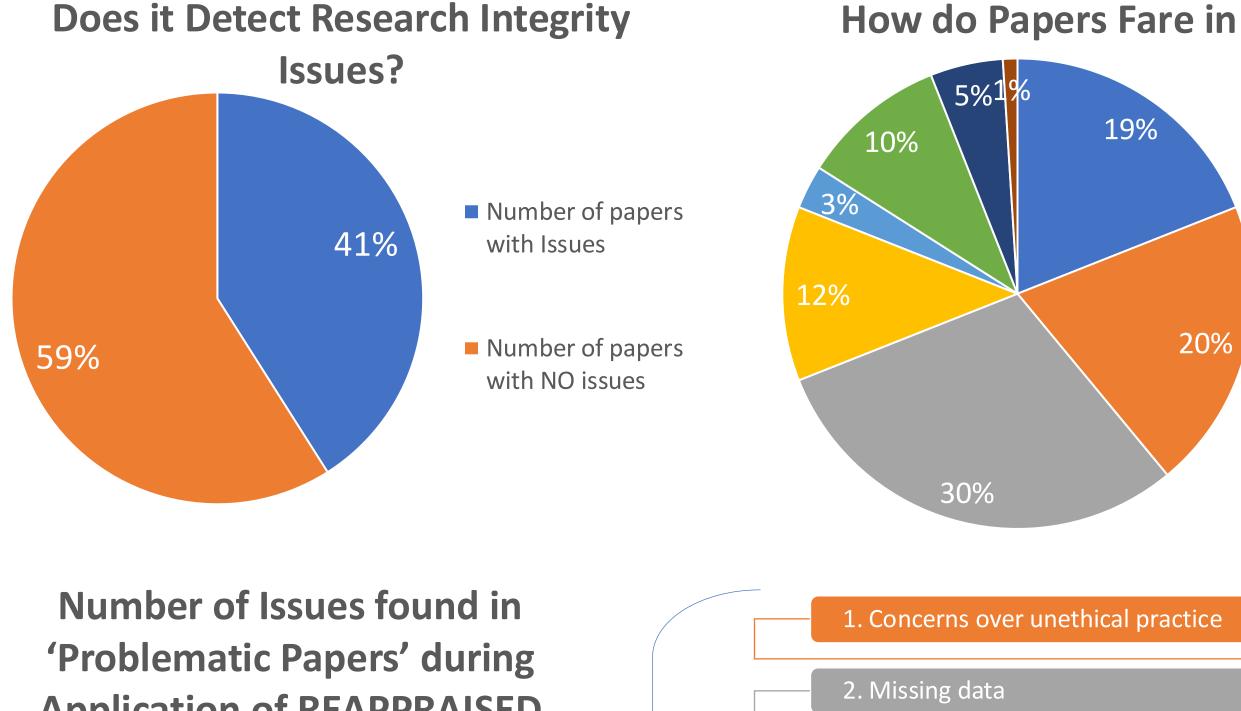
Could the REAPPRAISED checklist reduce the potential for breaches of research integrity in a higher education setting, and improve the institution's confidence in the research it produces?

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

Торіс	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	



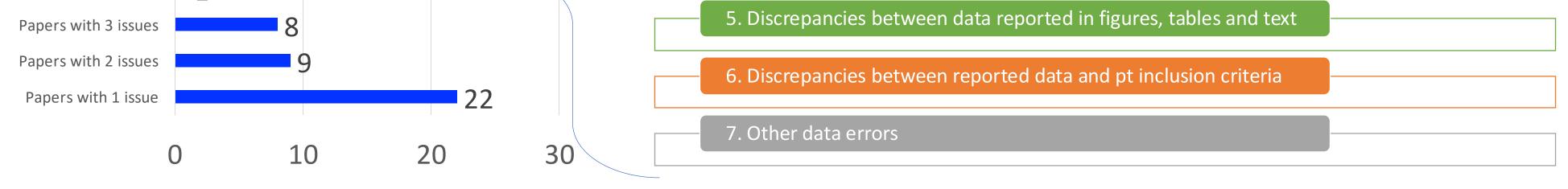
How do Papers Fare in Terms of Ethics Submissions?

- All refs included and has LSHTM ethics (19%)
- Refs included EXCEPT for LSHTM (and NOT on LEO) (20%)
- Refs provided and NOT on LEO (30%)
- No refs, but noted to have LSHTM ethics and found on LEO (12%)
- Stated not required, and probably correct (3%)
- No mention of ethical review and not on LEO (10%)
- Stated not required, but would have needed it (5%)
- No mention of ethics at all, but study on LEO (1%)

Application of REAPPRAISED Checklist

Papers with 7 issues Papers with 4 issues

 1. Concerns over unethical practice	
2. Missing data	
 3. Reported summary data not compatible with reported range	
4. Other unacknowledged multiple statistical testing	



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, Gunsalus CK (2020) Check for publication integrity before misconduct. Nature 577:167-169



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