

Replication validity of biomedical findings reported by newspapers

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HEADS
HEALTH Determinants in Societies



Which scientific studies are covered by newspapers?

Database of more than 5000 scientific studies

Replication validity known

- Type of study: Initial/subsequent study
- Type of association: lifestyle type/non-lifestyle type
- Journal IF

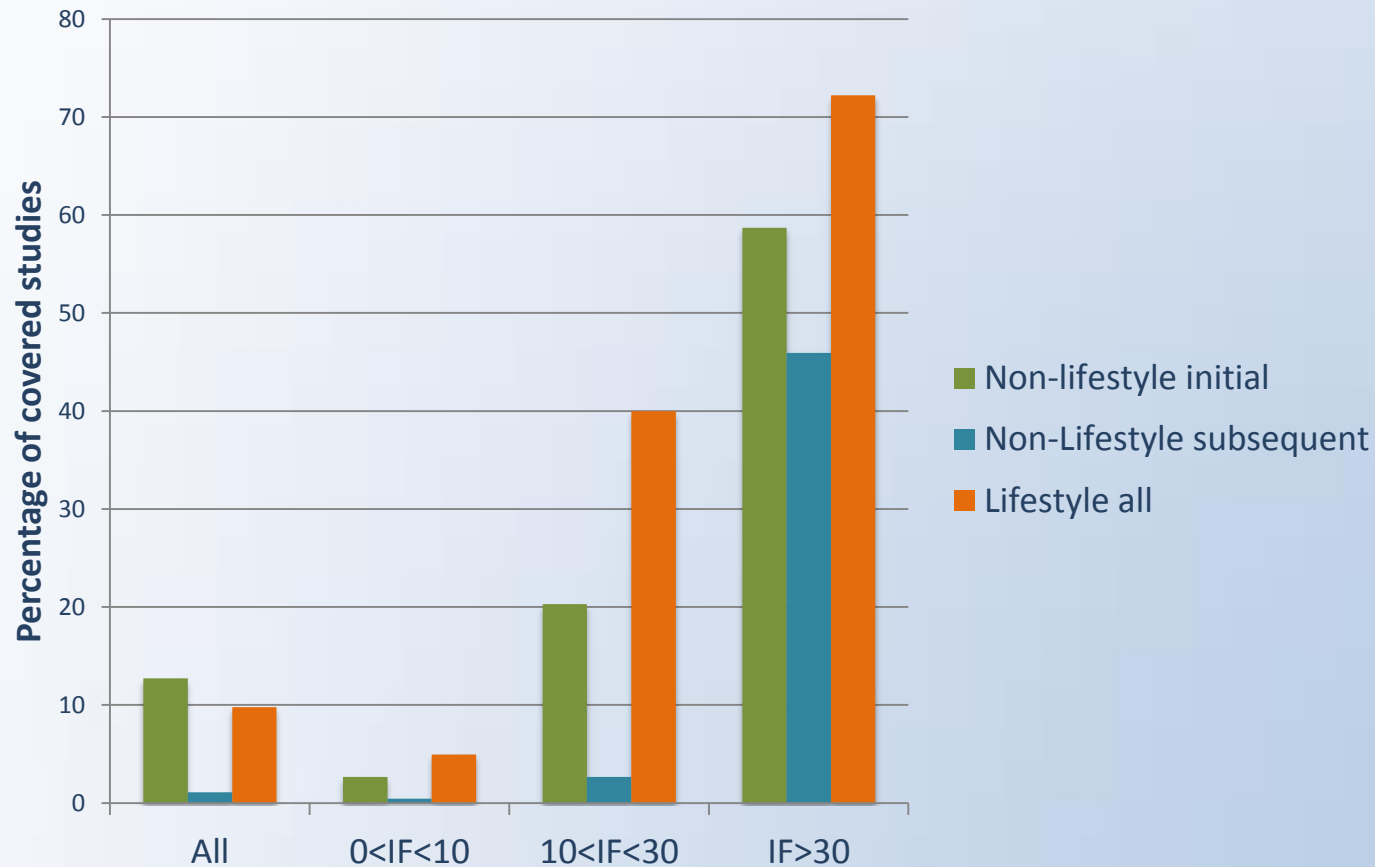
4723 scientific studies \longrightarrow 156 covered \longrightarrow 1475 newspapers articles

306 meta-analyses \longrightarrow 5 covered \longrightarrow 86 newspapers articles

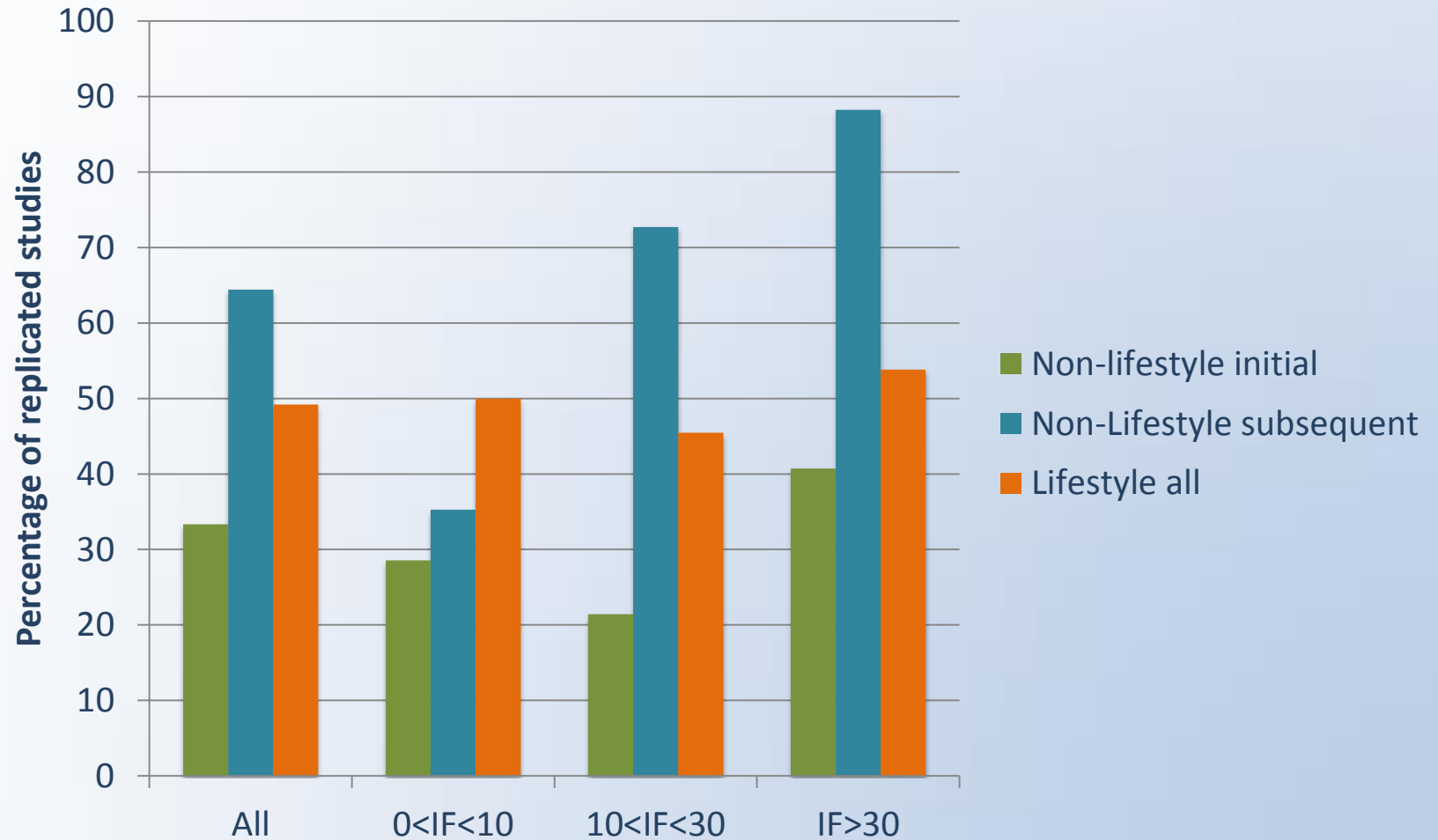
What make a study newsworthy?

13.1% initial studies / 2.4% subsequent studies

9.9% lifestyle studies / 2.3% non lifestyle



Are the studies covered by newspapers validated?



Null findings and contradictory studies

Null Findings

53 initial studies covered : no null findings

14/103 subsequent studies covered : only 5% newspaper article

Contradictory studies

Only one study (50 newspaper articles) was covered again in 4 newspaper articles to mention its invalidation

69 % no contradictory studies published in high impact factor journal: no visible study

31% Contradictory study published in high impact factor journals: visible studies: just 1 covered

Conclusion

- Journalists preferentially cover initial studies
- Journalists cover studies that are poorly validated
- Journalists rarely cover negative findings and invalidation

Journalists, by selecting initial studies, and scientists by pushing the publication of their results in prestigious journals are equally complicit of the poor information presented to the public in the press.

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