WORRY QUESTIONS FOR EVALUATING MEDIA REPORTS ABOUT OBSERVATIONAL STUDIES

1. Source
* Who funded it?
* Who were the researchers? Do they work for a reputable organisation?
* Was there a hidden agenda?
* Have you found original research paper or press release?
1. Methodology
* Were individuals studied over a period of time?
* How was data collected?
1. Potential Problems
* Confounding variables – as randomisation not used, it is impossible to separate effects of treatment from those of confounding variables. A causal link cannot be claimed.
* Extending results inappropriately – results of an observational study cannot be extended to a larger population unless the participants were randomly selected and can be considered representative of that larger population.
* Using the past as a source of data – often participants cannot recall details from the past particularly accurately. If past records are used, such as medical records, then accuracy is not such a problem.
1. Critical Components
* Is non-response a problem? Have non-response figures been provided? Are the non-respondents different from the participants in any way?
* Are there any missing values? Could these values show different results?
* Do the results make sense? Can you think of any scientific or biological reason that might support the results found?
* Can you think of any alternative explanation for the results?
* Would the results persuade you or anyone you know to modify their behaviour?
1. Conclusion
* Given that a perfect observational study is difficult to achieve, how do you rate this one?
* Can you suggest any improvements to the study?
* Do you have any suggestions for what researchers could look at next?