Effects of Dark Chocolate and Almonds on Cardiovascular Risk Factors in Overweight and Obese Individuals: A Randomized Controlled-Feeding Trial

You have finished reviewing the paper. Here is a summary of the answers that you gave, which you can print for future reference.

The paper was published in a peer-reviewed journal, which means that the paper was checked and accepted by other researchers. This is a good sign, but peer review does not necessarily guarantee that research is good, as the peer review process is only as good as the people who have been invited to review the paper.

The study was carried out by a university or research council. Studies done by these types of organisation tend to be unbiased as they tend not to have vested interests in the outcome of research.

The study was carried out by industry. Industry representatives can have vested interests in the outcome of research, but industry research is not necessarily biased. It is a good sign that the paper acknowledges who carried out the study, as it seems that the researchers did not feel the need to hide
their affiliations.

The research was formally reviewed by an ethics committee. This is a good sign, as ethics committees make sure that research methods do not cause any unnecessary harm.

The paper has clear research questions and aims, which helps readers to decide whether the paper is relevant and useful to them.

The research is not a review. Individual studies can be very useful, but systematic reviews are more reliable because they take into account all the research available about a topic. Perhaps you could search for systematic reviews on the topic that you are interested in.

Because the trial includes a control group, the researchers can use the trial to understand whether changes in their participants' health are actually caused by the treatment or intervention being tested.

Because the trial was not blinded, it is more likely to have been affected by bias than if it had been blinded. However, you should keep in mind that, depending on the research question, blinding may not always be possible.

A trial protocol was mentioned. This is a good sign. Good trials use protocols that set out exactly how the trials will be conducted, and ensures that researchers cannot change their methods as they go along to influence the outcome of the research.
The researchers explained how their sample was sufficiently similar to the wider population they wanted to find out about. If the sample is representative then the findings are more likely to be applicable to the wider population.

The researchers justify the size of their research sample. This is a good sign because it is important that the sample size is large enough to be able to closely represent the wider population that the researchers are interested in. If the sample is representative, the research findings can be more confidently applied to the wider population.

Some participants withdrew from the research. It is a good sign that the withdrawal rate was reported. Withdrawal did not necessarily harm the research, as long as the researchers considered how the representativeness of their sample was affected, and took steps to compensate for it.

As the researchers considered the setting of data collection, they have likely considered how those circumstances might have affected the quality of the data.

The researchers clearly describe the measurements that they used. This is a good sign as it allows the reader to judge whether those measurements were appropriate, and allows other researchers to repeat the research to test the findings. Appropriate measurements are essential for results to be valid.

The paper adequately addressed the research questions or aims. This means that the researchers stated their questions, designed a study to answer those questions, and suggested answers to those questions in their findings. Research that gives you
an answer to the research question is more likely to be valid and useful.

It is a good sign that the researchers have acknowledged confounding factors and have considered the effect they might have on their findings.

The researchers applied their findings to groups that are different to the groups represented in the research sample. This could be a bad sign, as it may not be valid to apply those findings to groups that are different to the research sample. The conclusions of the research may be unreliable.

The researchers declared conflicts of interest. You should consider these conflicts of interest and think about how they might have affected the way the research was done. It is good that the researchers have been honest about their conflicts of interest and that they did not feel the need to hide any vested interests.