Critique of the meta-analysis subsequently written by the senior author of initial flawed oat bran study

A subsequent meta-analysis\(^1\) concerning the effects of oat bran on cholesterol levels was written by the senior author of the widely publicized flawed study\(^2\) that incorrectly suggested oat bran was without significant effect on cholesterol levels.

There is a tendency for any person to desire to confirm prior opinions voiced in the literature rather than refuting their own prior results. *The conclusions of a meta-analysis, like any other study, can be presented with a particular slant. The conclusions of this meta-analysis were presented in such a way as to minimize any contradictions with the initial flawed oat bran study published in 1990.*

Differing conclusions for the data from the same meta-analysis:

The results of the meta-analysis\(^1\) by the author of the flawed oat bran study\(^2\) can be viewed as a cup half full or half empty, depending on the bias of the authors. (The conclusions of a meta-analysis like any other study can be presented with a particular bias.)

**Negative conclusions of the original authors:**

The authors of this meta-analysis\(^1\) conclude that "increasing soluble fiber can make only a small contribution to dietary therapy to lower cholesterol." (Ingestion of 3g of soluble oat fiber resulted in a decrease of .13mmol/L in total cholesterol LDL cholesterol.) They note that soluble fiber from a total of three bowls (28g/bowl) of oatmeal is required to achieve a total of 3 g of soluble fiber.

**Alternative positive conclusions for same data:**

An alternative positive statement of the conclusions for this same data would be the following: This meta-analysis indicates that an intake of 3g of oat soluble fiber can result in a 2% reduction in cholesterol, which has been estimated to correlate to a 4% reduction in cardiovascular disease.\(^3\) Similarly, an intake of 6g of fiber can result in a 4% reduction in cholesterol which has been estimated to result in an 8% reduction in cardiovascular disease.\(^3\) This would be a significant benefit to public health.

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2. Swain JF, Rouse,IL, Curley CB, Sacks FM. Comparison of the effects of


Specifically, this meta-analysis indicated that 3g of soluble oat fiber can result in a decrease cholesterol of .13mmol/L (5mg/dL), while 6 g of soluble fiber can result in a decrease of .26mmol/L (10mg/dL) decrease in cholesterol.

Additionally, it would be noted that a single standard 40g serving of oatmeal of Quaker Oats Old Fashioned Oatmeal contains 2g of soluble fiber and a single 40g standard serving of Quaker Oat Bran hot cereal contains 3g of soluble fiber per serving.

Both versions of these conclusions are slanted, but in opposite directions.