Words alone

From: Key Concepts for assessing claims about treatment effects and making well-informed treatment choices (Version 2022)

2.3a Be cautious of verbal descriptions alone of the size of effects.

Explanation

A treatment effect (a difference in outcomes in a comparison) is a numerical concept, but it may be difficult to understand quantitative information about the effects of treatments. Qualitative (descriptive) labels may be easier to understand and can be helpful. However, qualitative descriptions of effects may mean different things to different people, for example, saying that a treatment will 'slightly reduce', 'reduce', or 'greatly reduce' the likelihood of an undesirable outcome; or that a side effect is 'frequent' or 'rare'. In addition, verbal descriptions of treatments can be manipulative, for example, promising 'amazing results' or describing treatments as 'natural', implying that they are safe because of that.

Patients' perceptions of verbal descriptions of effects can affect their decisions. For example, a randomized comparison of verbal descriptors suggested by the European Union, such as "common" and "rare" compared to numerical descriptions found that those verbal descriptions were associated with overestimation of the likelihood of side effects *[Knapp 2004 (RS)]*. Patients shown verbal descriptions had more negative perceptions of the medicine than those shown numerical descriptions, and they were more likely to say that the information would affect their decision to take the medicine.

Basis for this concept

Verbal expressions of uncertainty or probability often mean different things to different people and some verbal expressions may be easier to understand than others *[Knapp 2004 (RS), Mazur 1991 (RS), Morgan 2014 , Trevena 2006 (SR), Visschers 2009 (SR), Wills 2003 (SR), Zipkin 2014 (SR)]*. Use of consistent language that has been tested can improve the understanding, usability, and usefulness of information about intervention effects *[Glenton 2010 (RS), Santesso 2015 (RS)]*.

Words may be easier to understand than numbers, and words used to express probabilities may be ordered consistently, but because their interpretation is highly variable, they may result in inappropriate perceptions and decisions *[Burkell 2004 (OR), Knapp 2004 (RS), Kong 1986 (RS), Lipkus 2007 (OR), Wills 2003 (SR)]*. Numbers are more accurate, but many people have poor numeracy skills and may have problems understanding effect estimates *[Lipkus 2007 (OR), Trevena 2006 (SR)]*. People differ in their preferences for words, numbers, or both *[Wills 2003 (SR)]*. Combinations of words and quantitative presentations are likely to have advantages over quantitative presentations alone as this can help to interpret and ensure understanding of numbers *[Lipkus 2007 (OR), Oxman 2020 (OR)]*. Carefully designed tables that summarise estimates of treatment effects from a systematic review are perceived as understandable and useful, and they can improve how quickly people find key information, understanding, accurate perceptions of effects, and choices *[Brandt 2017 (RS), Rosenbaum 2010a (RS), Rosenbaum 2010b (RS), Santesso 2015 (RS), Schwartz 2009 (RS)]*.

Implications

A verbal description of a treatment effect can be helpful, but it should be considered together with quantitative information about the size of the effect. Be wary of manipulative use of language in descriptions of treatment effects.

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