

Perceived risk of medicine side effects in users of a patient information website: a study of the use of verbal descriptors, percentages and natural frequencies.

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Abstract

OBJECTIVES: Research into the provision of patient information has demonstrated that, under certain conditions, patients overestimate the risks of medicine side effects. Gigerenzer and Edwards (2004) argue that 'natural frequencies' are a less confusing way of expressing risk information. Two experiments with users of an existing high profile patient information website, investigate the effectiveness of presenting medicine side-effect risk information in different forms.

DESIGN: In both experiments participants were randomly allocated to one of the three conditions for representing risk information (a form of 'natural frequency', percentages and verbal descriptors).

METHOD: Participants were recruited from users of the Cancer Research UK patient information website (Cancer Help UK). In Experiment 1, participants (N=148) were asked to imagine that they had to take a chemotherapy drug (Taxol) and were asked to estimate the risks of two side-effects occurring. In Experiment 2 participants (N=137) estimated the risk for three different side-effects occurring with the painkiller ibuprofen.

RESULTS: In both experiments, verbal descriptions led to significantly higher estimations of risk compared to the other two formats. There was some evidence that people given information as frequencies were more accurate in their estimates than those given percentage information.

CONCLUSIONS: These findings provide partial support for the advantages of a form of 'natural frequencies' when presenting side-effects to patients. They also add weight to the growing body of research highlighting the deficiencies in using verbal descriptions of side-effect risk alone.