

Personalized Risk Communication for Informed Decision Making About Screening Tests

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Review Question

What is the effect of personalized risk communication on informed decision making related to undergoing screening tests?

Type of Review

This was the second update of a Cochrane systematic review of randomized, controlled trials (RCTs) focusing on the impact of personalized risk communication on informed decision making related to undergoing screening tests.

Relevance for Nursing

Personalized risk estimates have been shown to be a useful tool when attempting to communicate and accurately convey risk information. They provide patients with tailored information to assist them in making a fully informed decision. For this reason, personalized risk estimates may be of particular use in aiding patient decision making regarding screening tests.

Medical screening tests and programs often are associated with some degree of risk that needs to be weighed against the benefits by the patient when deciding whether to proceed with screening. Healthcare professionals may communicate to the patient their personalized risk estimates associated with the screening test about which they must make a decision to ensure that they are fully informed and capable of making the choice that is congruent with their values and beliefs.

Characteristics of the Evidence

The review included 41 RCTs with 28,700 participants; 19 of those had not been included in the previously published versions of the review. The outcomes of interest included whether the decision made was an informed decision, whether an increase in knowledge was seen, whether participants had more accurate risk perception, and participants' anxiety and acceptance of the screening test.

Summary of Key Evidence

The review revealed that patients who received personalized risk estimates made more informed decisions than those who were provided with generic risk information (odds ratio [OR] = 4.48, 95% confidence interval [CI] [3.62, 5.53]). This finding was based on three of the included RCTs, all of which were at low risk of bias. Nine of the included studies investigated whether receiving personalized risk estimates was associated with an increase in knowledge compared to the provision of more generic risk-related information, and all provided support for this. However, knowledge was assessed using different measures

by each of these; therefore, this result only could be presented narratively. In addition, three RCTs suggested a relationship between the provision of personalized risk estimates and a more accurate perception of risk by the participants; however, none of these was of adequate methodologic quality. Six of the included studies evaluated whether those patients who received personalized risk estimates experienced less anxiety than those provided with generic material; four of these reported no significant difference. Finally, uptake of the screening test was evaluated by 32 of the included RCTs, which showed that delivery of personalized risk estimates that provided a risk score or category were associated with greater uptake of screening tests compared to generic risk material (OR = 1.15, 95% CI [1.02, 1.29]). This was, however, based on low-quality evidence.

Best Practice Recommendations

Personalized risk estimates should be incorporated within the communication interventions between healthcare professionals and patients for screening tests, as these are associated with an increase in the ability of the patient to engage in truly informed decision making.

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