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[Intervention Review]

Decision aids for people facing health treatment or screening decisions

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ABSTRACT

Background

Decision aids are interventions that support patients by making their decisions explicit, providing information about options and associated benefits/harms, and helping clarify congruence between decisions and personal values.

Objectives

To assess the effects of decision aids in people facing treatment or screening decisions.

Search methods

Updated search (2012 to April 2015) in CENTRAL; MEDLINE; Embase; PsycINFO; and grey literature; includes CINAHL to September 2008.

Selection criteria

We included published randomized controlled trials comparing decision aids to usual care and/or alternative interventions. For this update, we excluded studies comparing detailed versus simple decision aids.

Data collection and analysis

Two reviewers independently screened citations for inclusion, extracted data, and assessed risk of bias. Primary outcomes, based on the International Patient Decision Aid Standards (IPDAS), were attributes related to the choice made and the decision-making process.

Secondary outcomes were behavioural, health, and health system effects.

We pooled results using mean differences (MDs) and risk ratios (RRs), applying a random-effects model. We conducted a subgroup analysis of studies that used the patient decision aid to prepare for the consultation and of those that used it in the consultation. We used GRADE to assess the strength of the evidence.

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Main results

We included 105 studies involving 31,043 participants. This update added 18 studies and removed 28 previously included studies comparing detailed versus simple decision aids. During the 'Risk of bias' assessment, we rated two items (selective reporting and blinding of participants/personnel) as mostly unclear due to inadequate reporting. Twelve of 105 studies were at high risk of bias.

With regard to the attributes of the choice made, decision aids increased participants' knowledge (MD 13.27/100; 95% confidence interval (CI) 11.32 to 15.23; 52 studies; N = 13,316; high-quality evidence), accuracy of risk perceptions (RR 2.10; 95% CI 1.66 to 2.66; 17 studies; N = 5096; moderate-quality evidence), and congruency between informed values and care choices (RR 2.06; 95% CI 1.46 to 2.91; 10 studies; N = 4626; low-quality evidence) compared to usual care.

Regarding attributes related to the decision-making process and compared to usual care, decision aids decreased decisional conflict related to feeling uninformed (MD -9.28/100; 95% CI -12.20 to -6.36; 27 studies; N = 5707; high-quality evidence), indecision about personal values (MD -8.81/100; 95% CI -11.99 to -5.63; 23 studies; N = 5068; high-quality evidence), and the proportion of people who were passive in decision making (RR 0.68; 95% CI 0.55 to 0.83; 16 studies; N = 3180; moderate-quality evidence).

Decision aids reduced the proportion of undecided participants and appeared to have a positive effect on patient-clinician communication. Moreover, those exposed to a decision aid were either equally or more satisfied with their decision, the decision-making process, and/or the preparation for decision making compared to usual care.

Decision aids also reduced the number of people choosing major elective invasive surgery in favour of more conservative options (RR 0.86; 95% CI 0.75 to 1.00; 18 studies; N = 3844), but this reduction reached statistical significance only after removing the study on prophylactic mastectomy for breast cancer gene carriers (RR 0.84; 95% CI 0.73 to 0.97; 17 studies; N = 3108). Compared to usual care, decision aids reduced the number of people choosing prostate-specific antigen screening (RR 0.88; 95% CI 0.80 to 0.98; 10 studies; N = 3996) and increased those choosing to start new medications for diabetes (RR 1.65; 95% CI 1.06 to 2.56; 4 studies; N = 447). For other testing and screening choices, mostly there were no differences between decision aids and usual care.

The median effect of decision aids on length of consultation was 2.6 minutes longer (24 versus 21; 7.5% increase). The costs of the decision aid group were lower in two studies and similar to usual care in four studies. People receiving decision aids do not appear to differ from those receiving usual care in terms of anxiety, general health outcomes, and condition-specific health outcomes. Studies did not report adverse events associated with the use of decision aids.

In subgroup analysis, we compared results for decision aids used in preparation for the consultation versus during the consultation, finding similar improvements in pooled analysis for knowledge and accurate risk perception. For other outcomes, we could not conduct formal subgroup analyses because there were too few studies in each subgroup.

Authors' conclusions

Compared to usual care across a wide variety of decision contexts, people exposed to decision aids feel more knowledgeable, better informed, and clearer about their values, and they probably have a more active role in decision making and more accurate risk perceptions. There is growing evidence that decision aids may improve values-congruent choices. There are no adverse effects on health outcomes or satisfaction. New for this updated is evidence indicating improved knowledge and accurate risk perceptions when decision aids are used either within or in preparation for the consultation. Further research is needed on the effects on adherence with the chosen option, cost-effectiveness, and use with lower literacy populations.

PLAIN LANGUAGE SUMMARY

Decision aids to help people who are facing health treatment or screening decisions

Review question

We reviewed the effects of decision aids on people facing health treatment or screening decisions. In this update, we added 18 new studies for a total of 105.

Background

Making a decision about the best treatment or screening option can be hard. People can use decision aids when there is more than one option and neither is clearly better, or when options have benefits and harms that people value differently. Decision aids may be

pamphlets, videos, or web-based tools. They state the decision, describe the options, and help people think about the options from a personal view (e.g. how important are possible benefits and harms).

Study characteristics

For research published up to April 2015, there were 105 studies involving 31,043 people. The decision aids focused on 50 different decisions. The common decisions were about: surgery, screening (e.g. prostate cancer, colon cancer, prenatal), genetic testing, and medication treatments (e.g. diabetes, atrial fibrillation). The decision aids were compared to usual care that may have included general information or no intervention. In the 105 studies, 89 evaluated a patient decision aid used by people in preparation for the visit with the clinician, and 16 evaluated its use during the visit with the clinician.

Key results with quality of the evidence

When people use decision aids, they improve their knowledge of the options (high-quality evidence) and feel better informed and more clear about what matters most to them (high-quality evidence). They probably have more accurate expectations of benefits and harms of options (moderate-quality evidence) and probably participate more in decision making (moderate-quality evidence). People who use decision aids may achieve decisions that are consistent with their informed values (evidence is not as strong; more research could change results). People and their clinicians were more likely to talk about the decision when using a decision aid. Decision aids have a variable effect on the option chosen, depending on the choice being considered. Decision aids do not worsen health outcomes, and people using them are not less satisfied. More research is needed to assess if people continue with the option they chose and also to assess what impact decision aids have on healthcare systems.