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Decision aids for people facing health treatment or screening decisions (Review)

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WILEY

[Intervention Review]

Decision aids for people facing health treatment or screening decisions

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ABSTRACT

Background

Patient decision aids are interventions designed to support people making health decisions. At a minimum, patient decision aids make the decision explicit, provide evidence-based information about the options and associated benefits/harms, and help clarify personal values for features of options. This is an update of a Cochrane review that was first published in 2003 and last updated in 2017.

Objectives

To assess the effects of patient decision aids in adults considering treatment or screening decisions using an integrated knowledge translation approach.

Search methods

We conducted the updated search for the period of 2015 (last search date) to March 2022 in CENTRAL, MEDLINE, Embase, PsycINFO, EBSCO, and grey literature. The cumulative search covers database origins to March 2022.

Selection criteria

We included published randomized controlled trials comparing patient decision aids to usual care. Usual care was defined as general information, risk assessment, clinical practice guideline summaries for health consumers, placebo intervention (e.g. information on another topic), or no intervention.

Data collection and analysis

Two authors independently screened citations for inclusion, extracted intervention and outcome data, and assessed risk of bias using the Cochrane risk of bias tool. Primary outcomes, based on the International Patient Decision Aid Standards (IPDAS), were attributes related to the choice made (informed values-based choice congruence) and the decision-making process, such as knowledge, accurate risk perceptions, feeling informed, clear values, participation in decision-making, and adverse events. Secondary outcomes were choice, confidence in decision-making, adherence to the chosen option, preference-linked health outcomes, and impact on the healthcare system (e.g. consultation length).

We pooled results using mean differences (MDs) and risk ratios (RRs) with 95% confidence intervals (CIs), applying a random-effects model. We conducted a subgroup analysis of 105 studies that were included in the previous review version compared to those published since that update (n = 104 studies). We used Grading of Recommendations Assessment, Development, and Evaluation (GRADE) to assess the certainty of the evidence.

Main results

This update added 104 new studies for a total of 209 studies involving 107,698 participants. The patient decision aids focused on 71 different decisions. The most common decisions were about cardiovascular treatments (n = 22 studies), cancer screening (n = 17 studies colorectal, 15 prostate, 12 breast), cancer treatments (e.g. 15 breast, 11 prostate), mental health treatments (n = 10 studies), and joint replacement surgery (n = 9 studies). When assessing risk of bias in the included studies, we rated two items as mostly unclear (selective reporting: 100 studies; blinding of participants/personnel: 161 studies), due to inadequate reporting. Of the 209 included studies, 34 had at least one item rated as high risk of bias.

There was moderate-certainty evidence that patient decision aids probably increase the congruence between informed values and care choices compared to usual care (RR 1.75, 95% CI 1.44 to 2.13; 21 studies, 9377 participants).

Regarding attributes related to the decision-making process and compared to usual care, there was high-certainty evidence that patient decision aids result in improved participants' knowledge (MD 11.90/100, 95% CI 10.60 to 13.19; 107 studies, 25,492 participants), accuracy of risk perceptions (RR 1.94, 95% CI 1.61 to 2.34; 25 studies, 7796 participants), and decreased decisional conflict related to feeling uninformed (MD -10.02, 95% CI -12.31 to -7.74; 58 studies, 12,104 participants), indecision about personal values (MD -7.86, 95% CI -9.69 to -6.02; 55 studies, 11,880 participants), and proportion of people who were passive in decision-making (clinician-controlled) (RR 0.72, 95% CI 0.59 to 0.88; 21 studies, 4348 participants).

For adverse outcomes, there was high-certainty evidence that there was no difference in decision regret between the patient decision aid and usual care groups (MD -1.23, 95% CI -3.05 to 0.59; 22 studies, 3707 participants).

Of note, there was no difference in the length of consultation when patient decision aids were used in preparation for the consultation (MD -2.97 minutes, 95% CI -7.84 to 1.90; 5 studies, 420 participants). When patient decision aids were used during the consultation with the clinician, the length of consultation was 1.5 minutes longer (MD 1.50 minutes, 95% CI 0.79 to 2.20; 8 studies, 2702 participants).

We found the same direction of effect when we compared results for patient decision aid studies reported in the previous update compared to studies conducted since 2015.

Authors' conclusions

Compared to usual care, across a wide variety of decisions, patient decision aids probably helped more adults reach informed values-congruent choices. They led to large increases in knowledge, accurate risk perceptions, and an active role in decision-making. Our updated review also found that patient decision aids increased patients' feeling informed and clear about their personal values. There was no difference in decision regret between people using decision aids versus those receiving usual care. Further studies are needed to assess the impact of patient decision aids on adherence and downstream effects on cost and resource use.

PLAIN LANGUAGE SUMMARY

Patient decision aids to help people who are facing decisions about health treatment or screening

Review question

How effective/beneficial are patient decision aids for adults making decisions regarding health treatment or screening?

Key messages

Decision aids for people facing health treatment or screening decisions (Review)

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- Patient decision aids are pamphlets or videos used in person or online. They clearly identify the healthcare decision to be made, provide information on options (benefits and harms), and help people clarify what is most important to them. Decision aids are designed to enhance and supplement consultation with the clinician, not replace it.

- Over 200 studies showed that patient decision aids helped adults be more involved in making health decisions by improving their knowledge and expectations of benefits and harms, and choosing an option that reflected what was most important to them.

- There were no unwanted effects for adults who used a patient decision aid.

What are patient decision aids?

Patient decision aids can help guide people making decisions when there is more than one option, including status quo (no change). They are pamphlets, videos, or web-based resources that state the decision, describe the options, and help people think about which features of the options are most important to them (which features matter most). Usual care was defined as general information, risk assessment, clinical practice guideline summaries for health consumers, placebo intervention (e.g. information on another topic), or no intervention.

What did we want to find out?

We wanted to find out if patient decision aids used by patients who are facing health treatment or screening decisions are better than the usual care for choosing an option that reflects what is most important to them. We also wanted to find out if patient decision aids were associated with any unwanted effects.

What did we do?

We updated a previous Cochrane review that was first published in 2003 and then updated in 2017. Our search included studies that compared a patient decision aid with usual care in adults who were facing health decisions for themselves or a family member. Usual care may have been general patient information or nothing. We compared and summarized the results of the studies and rated our confidence in the certainty of the evidence.

What did we find?

We found 209 studies that involved 107,698 adults. The patient decision aids focused on 71 different decisions. The common decisions were about: surgery, screening (e.g. prostate cancer, colon cancer, prenatal), genetic testing, and long-term medication treatments (e.g. insulin injections for diabetes, or statins for high cholesterol).

We are moderately confident that adults given patient decision aids were more likely to choose an option that reflected what features of the options were most important to them. Our confidence in the evidence is only moderate because the studies that provided results for our review represent only a small set of the studies evaluating patient decision aids. We are confident that when adults used patient decision aids, they had large increases in their knowledge, expectations of benefits and harms, and participation in making the decision. We are also confident that they felt better informed and were more clear about what mattered most to them. We are confident that patient decision aids did not cause any unwanted effects such as regret about the decision.

What are the limitations of the evidence?

Further research could strengthen the confidence in the evidence for choosing options that reflect which features of the options are most important to people.

How up-to-date is this evidence?

This review updates our previous review published in 2017. The evidence is up-to-date to March 2022.