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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 intended to help people participate in decisions that involve weighing the benefits and harms of treatment options often with scientific uncertainty.

Objectives

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

Search methods

For this update, we searched from 2009 to June 2012 in MEDLINE; CENTRAL; EMBASE; PsycINFO; and grey literature. Cumulatively, we have searched each database since its start date including CINAHL (to September 2008).

Selection criteria

We included published randomized controlled trials of decision aids, which are interventions designed to support patients' decision making by making explicit the decision, providing information about treatment or screening options and their associated outcomes, compared to usual care and/or alternative interventions. We excluded studies of participants making hypothetical decisions.

Data collection and analysis

Two review authors independently screened citations for inclusion, extracted data, and assessed risk of bias. The primary outcomes, based on the International Patient Decision Aid Standards (IPDAS), were:

A) 'choice made' attributes;

B) 'decision-making process' attributes.

Secondary outcomes were behavioral, health, and health-system effects. We pooled results using mean differences (MD) and relative risks (RR), applying a random-effects model.

Main results

This update includes 33 new studies for a total of 115 studies involving 34,444 participants. For risk of bias, selective outcome reporting and blinding of participants and personnel were mostly rated as unclear due to inadequate reporting. Based on 7 items, 8 of 115 studies had high risk of bias for 1 or 2 items each.

Of 115 included studies, 88 (76.5%) used at least one of the IPDAS effectiveness criteria: A) 'choice made' attributes criteria: knowledge scores (76 studies); accurate risk perceptions (25 studies); and informed value-based choice (20 studies); and B) 'decision-making process' attributes criteria: feeling informed (34 studies) and feeling clear about values (29 studies).

A) Criteria involving 'choice made' attributes:

Compared to usual care, decision aids increased knowledge (MD 13.34 out of 100; 95% confidence interval (CI) 11.17 to 15.51; n = 42). When more detailed decision aids were compared to simple decision aids, the relative improvement in knowledge was significant (MD 5.52 out of 100; 95% CI 3.90 to 7.15; n = 19). Exposure to a decision aid with expressed probabilities resulted in a higher proportion of people with accurate risk perceptions (RR 1.82; 95% CI 1.52 to 2.16; n = 19). Exposure to a decision aid with explicit values clarification resulted in a higher proportion of patients choosing an option congruent with their values (RR 1.51; 95% CI 1.17 to 1.96; n = 13).

B) Criteria involving 'decision-making process' attributes:

Decision aids compared to usual care interventions resulted in:

a) lower decisional conflict related to feeling uninformed (MD -7.26 of 100; 95% CI -9.73 to -4.78; n = 22) and feeling unclear about personal values (MD -6.09; 95% CI -8.50 to -3.67; n = 18);

b) reduced proportions of people who were passive in decision making (RR 0.66; 95% CI 0.53 to 0.81; n = 14); and

c) reduced proportions of people who remained undecided post-intervention (RR 0.59; 95% CI 0.47 to 0.72; n = 18).

Decision aids appeared to have a positive effect on patient-practitioner communication in all nine studies that measured this outcome. For satisfaction with the decision (n = 20), decision-making process (n = 17), and/or preparation for decision making (n = 3), those exposed to a decision aid were either more satisfied, or there was no difference between the decision aid versus comparison interventions. No studies evaluated decision-making process attributes for helping patients to recognize that a decision needs to be made, or understanding that values affect the choice.

C) Secondary outcomes

Exposure to decision aids compared to usual care reduced the number of people of choosing major elective invasive surgery in favour of more conservative options (RR 0.79; 95% CI 0.68 to 0.93; n = 15). Exposure to decision aids compared to usual care reduced the number of people choosing to have prostate-specific antigen screening (RR 0.87; 95% CI 0.77 to 0.98; n = 9). When detailed compared to simple decision aids were used, fewer people chose menopausal hormone therapy (RR 0.73; 95% CI 0.55 to 0.98; n = 3). For other decisions, the effect on choices was variable.

The effect of decision aids on length of consultation varied from 8 minutes shorter to 23 minutes longer (median 2.55 minutes longer) with 2 studies indicating statistically-significantly longer, 1 study shorter, and 6 studies reporting no difference in consultation length. Groups of patients receiving decision aids do not appear to differ from comparison groups in terms of anxiety (n = 30), general health outcomes (n = 11), and condition-specific health outcomes (n = 11). The effects of decision aids on other outcomes (adherence to the decision, costs/resource use) were inconclusive.

Authors' conclusions

There is high-quality evidence that decision aids compared to usual care improve people's knowledge regarding options, and reduce their decisional conflict related to feeling uninformed and unclear about their personal values. There is moderate-quality evidence that decision aids compared to usual care stimulate people to take a more active role in decision making, and improve accurate risk perceptions when probabilities are included in decision aids, compared to not being included. There is low-quality evidence that decision aids improve congruence between the chosen option and the patient's values.

New for this updated review is further evidence indicating more informed, values-based choices, and improved patient-practitioner communication. There is a variable effect of decision aids on length of consultation. Consistent with findings from the previous review, decision aids have a variable effect on choices. They reduce the number of people choosing discretionary surgery and have no apparent adverse effects on health outcomes or satisfaction. The effects on adherence with the chosen option, cost-effectiveness, use with lower literacy populations, and level of detail needed in decision aids need further evaluation. Little is known about the degree of detail that decision aids need in order to have a positive effect on attributes of the choice made, or the decision-making process.

PLAIN LANGUAGE SUMMARY

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

Identifying and making a decision about the best health treatment or screening option can be difficult for patients. Decision aids can be used when there is more than one reasonable option, when no option has a clear advantage in terms of health outcomes, and when each option has benefits and harms that patients may value differently. Decision aids may be pamphlets, videos, or web-based tools. They make the decision explicit, describe the options available, and help people to understand these options as well as their possible benefits and harms. This helps patients to consider the options from a personal view (e.g., how important the possible benefits and harms are to them) and helps them to participate with their health practitioner in making a decision.

The updated review, with searches updated in June 2012, includes 115 studies involving 34,444 participants. Findings show that when patients use decision aids they: a) improve their knowledge of the options (high-quality evidence); b) feel more informed and more clear about what matters most to them (high-quality evidence); c) have more accurate expectations of possible benefits and harms of their options (moderate-quality evidence); and d) participate more in decision making (moderate-quality evidence). Patients who used decision aids that included an exercise to help them clarify what matters most to them, were more likely to reach decisions that were consistent with their values. However, the quality of the evidence was moderate for this outcome, meaning that further research may change these findings. Decision aids reduce the number of patients choosing prostate specific antigen testing and elective surgery when patients consider other options. They have a variable effect on most other actual choices. Decision aids improve communication between patients and their health practitioner. More detailed decision aids are better than simple decision aids for improving people's knowledge and lowering decisional conflict related to feeling uninformed and unclear about their personal values. Decision aids do not worsen health outcomes and people using them are not less satisfied. More research is needed to evaluate adherence with the chosen option, the associated costs, use with patients who have more limited reading skills, and the level of detail needed in a decision aid.