Medical education

Option Grids: Shared decision making made easier

Glyn Elwyn a,c,*, Amy Lloyd a, Natalie Joseph-Williams a, Emma Cording a, Richard Thomson b, Marie-Anne Durand c,d, Adrian Edwards a

a Institute of Primary Care and Public Health, School of Medicine, Cardiff University, Heath Park, UK
b Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK
c The Dartmouth Center for Health Care Delivery Science, Dartmouth College, Hanover, USA
d School of Psychology, University of Hertfordshire, Hatfield, UK

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ABSTRACT

Objective: To describe the exploratory use of short decision support tools for patients, called Option Grids. Option Grids are summary tables, using one side of paper to enable rapid comparisons of options, using questions that patients frequently ask (FAQs) and designed for face-to-face clinical encounters. To date, most evidence about ‘patient decision aids’ has been based on tools with high content levels, designed for patients to use independently, either before or after visits.

Methods: We studied the use of Option Grids in a quality improvement project, collecting field notes and conducting interviews with clinical teams.

Results: In the ‘Making Good Decisions in Collaboration’ (MAGIC) program, clinicians found that using Option Grids made it easier to explain the existence of options and reported a ‘handover’ effect, where patient involvement in decision making was enhanced.

Conclusion: Option Grids made options more visible and clinicians found it easier to undertake shared decision making when these tools were available. Used in a collaborative way, they enhance patients’ confidence and voice, increasing their involvement in collaborative dialogues.

Practice implications: Further work to confirm these preliminary findings is required, to measure processes and to assess whether these tools have similar impact in other clinical settings.

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1. Introduction

1.1. Background

Implementing shared decision making into routine care is difficult, even though the approach is receiving increasing health policy interest in the US and Europe [1,2]. Clinicians report many practical barriers, including a lack of tools and a shortage of time [3,4]. Attempts to promote shared decision making by distributing decision support tools (also known as decision aids) for use by patients have not led to sustained implementation in routine services, despite positive outcomes in many randomized trials [5]. However, almost all research so far has been based on decision tools that have been designed for patients to use independently, either before or after they visit clinicians.

Research demonstrates that innovations are more likely to be adopted when they confer advantage, when they fit into existing workflows and when there is, at minimum, no conflict with existing priorities, targets and incentives [6]. It is not a surprise therefore that interventions that have been designed to support the active involvement of patients in decision making, such as patient ‘decision aids’, have failed so far to become embedded into routine practice [3]. The work of integrating these tools into clinical pathways, asking clinicians to portray options, to support patients to weigh pros and cons, and engage their families in a decision making process is more demanding than making a positive recommendation for treatment [7]. How best to implement shared decision making remains an unresolved challenge [8,9].

This is despite a decade of evidence from over 86 randomized trials showing that patient decision support tools lead to positive effects: these tools increase patients’ knowledge, improve patients’ perception of risks, lead to choices that are ‘more congruent’ with their preferences as well as leading to reduced rates of elective surgery in some settings [5]. As Marshall and Bibby noted, many health care interventions have been supported and implemented on the basis of less evidence [10]. Yet, although these effects can be demonstrated in research contexts where there has been dedicated
funding, these interventions seldom become embedded into clinical pathways, beyond the duration of the research [11–13]. It is also clear that implementing shared decision making will require more than embedding decision support tools into clinical pathways. Health professionals will need to develop positive attitudes to involving patients in decisions. This will be a difficult challenge. Health professionals cite multiple barriers – that time is short, that many patients do not want them, that the tools are not designed for use in face to face encounters and that other priorities and targets demand their attention [3]. Shared decision making is seen as an important aspiration albeit with the caveat that “it is not feasible in busy clinics”. If we are to make progress, what is to be done?

1.2. Brief tools for use in face-to-face encounters: are they a solution?

Although most research so far has been done on the use of extensive patient decision support tools (booklets, video, websites, etc.), other types of tools also exist, though they have had less attention [14]. Whelan and colleagues designed a decision board for use in a consultation in the early 1990s [15]. Elwyn and Edwards created brief bar charts for family doctors to communi-

cate risk to patients during primary care encounters [16]. Montori

collaborators have designed possible “issues cards” [17], which allow “issue cards” [18]. These brief tools are designed to facilitate a dialog about options but do not attempt to be comprehensive. It is worth noting that these brief tools have all been developed by medical clinicians attempting to implement shared decision making during clinical encounters. The documented advantages of this approach have been the impact on the dialog, an improved realization that options exist, and on tangible changes in the communication process, i.e. in terms of turn-taking and body language [18]. These tools are, by necessity, too brief to provide comprehensive information and many, though not all, patients may want more. This could be achieved by using short tools to initiate shared decision making in clinical encounters and then referring patients to more extensive tools (e.g. booklet, DVD, and other digital methods) to read and share with other family members [14], as described by a recent model of shared decision making [19].

To make progress, we designed interventions specifically used in clinical encounters. The aim of this article is to describe our experience with tools that have been designed for this purpose: we called these tools Option Grids.

2. Methods

2.1. Background: what are option grids?

An Option Grid is a brief summary of options organized in tabular format, limited to one side of standard size paper (see Fig. 1 – Option Grid for breast cancer surgery). The questions that patients frequently ask (FAQs), derived from patients’ common concerns, form the table rows. These questions should be simple, e.g. “What are the common side effects?” and “When can I return to work?” The features of the selected options are presented across the table columns, in a way that allows horizontal comparison.

Because the information presented on an Option Grid is purposefully limited, judgments have to be made about the number of questions that can be posed and which options are summarized. It is usually possible to list 6–8 FAQs. Comparing options using a small number of attributes is helpful, because making a choice often rests on a small number of important issues, sometimes even just the ‘single most important reason’ [20]. Option Grids work best when they show a maximum of two or three options. Achieving this degree of brevity requires the following steps:

1. Decisions have to be made about the relevance of information, and this leads to a selection based on ‘what matters most’ to (most) patients when making decisions.
2. Meticulous editing is needed to ensure that the language is concise, accessible and clear.

These steps mean that the Option Grid can be read in a few minutes by an individual with a reading age of 10–12 years, or read aloud by the health professional if preferred. The one-page format facilitates local printing so that the tools are available, provided only that the user has access to the web and to a printer. This format lends itself to digital formats as well, such as video and mobile applications. The development of these short tools requires access to evidence synthesis (preferably high quality systematic reviews, e.g. NICE reviews of evidence). The FAQs need to be derived by rigorously assimilating and ranking patients’ concerns, preferably using multiple methods as well as incorporating the perspective of experienced clinicians. Further details about the development process are available from the Option Grid Collaborative [21].

2.2. The origin of Option Grids

Bresden is a decision support website for patients who have been diagnosed with breast cancer. During our evaluation of the web tool [22], we noted that the most often visited page was a table comparing treatment options, where we had organized the questions patients most frequently ask on the rows and had compared options in the columns. Patient and feedback were also positive. We therefore developed this format to be a stand-
alone tool and used the term Option Grid, creating further similar tools and hosting them on a website [21]. Tables that summarized pros and cons of treatment options were also produced at Newcastle [24].

We have used these tools in an implementation program (Making Good Decisions in Collaboration, MAGiC [23]) in seven clinical teams over 18 months. Observations, field notes and semi-structured interviews (n = 52) were conducted by the facilitator (AL), during the implementation work focused on the use of Option Grids. These data form the basis for discussions and summaries of the key findings from testing a new approach to facilitating shared decision making.

2.3. Theoretical background

The approach draws on the work of the ABC Group in Berlin [20]. Gigerenzer’s group has demonstrated that heuristics (rules of thumbs) are an efficient method to arrive at good decisions when we are faced with complex information tasks and are the naturally occurring approaches to human decision making [20]. Their research demonstrates that by using rules of thumb, which they have described as ‘fast and frugal heuristics’, we arrive at decisions that are as good as, and often significantly better, than methods which draw on more complicated methods such as in-depth reasoning or decision analysis – methods that assume ‘unbounded rationality’ [25].

In the past, many decision researchers based their analyses on assumptions of unbounded rationality. In this approach, the models rely on the premise that decision makers are processing information in a ‘rational’ way with access to perfect information and limitless computation. Decision making in the real world, especially in brief clinical encounters, is clearly more ‘bounded’ and characterized by high degrees of uncertainty. It is only
Breast cancer surgery

Use this grid to help you and your clinician decide whether to have mastectomy or lumpectomy with radiotherapy.

<table>
<thead>
<tr>
<th>Frequently asked questions</th>
<th>Lumpectomy with Radiotherapy</th>
<th>Mastectomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which surgery is best for long term survival?</td>
<td>There is no difference between surgery options.</td>
<td>There is no difference between surgery options.</td>
</tr>
<tr>
<td>What are the chances of cancer coming back in the breast?</td>
<td>Breast cancer will come back in the breast in about 10 in 100 women in the 10 years after a lumpectomy.</td>
<td>Breast cancer will come back in the area of the scar in about 5 in 100 women in the 10 years after a mastectomy.</td>
</tr>
<tr>
<td>What is removed?</td>
<td>The cancer lump is removed with a margin of tissue.</td>
<td>The whole breast is removed.</td>
</tr>
<tr>
<td>Will I need more than one operation on the breast?</td>
<td>Possibly, if cancer cells remain in the breast after the lumpectomy. This can occur in up to 5 in 100 women.</td>
<td>No, unless you choose breast reconstruction.</td>
</tr>
<tr>
<td>How long will it take to recover?</td>
<td>Most women are home 24 hours after surgery</td>
<td>Most women are home 2-3 days after surgery.</td>
</tr>
<tr>
<td>Will I need radiotherapy?</td>
<td>Yes, for up to 6 weeks after surgery</td>
<td>Unlikely, radiotherapy is not routine after mastectomy.</td>
</tr>
<tr>
<td>Will I need to have my lymph glands removed?</td>
<td>Some or all of the lymph glands in the armpit are usually removed.</td>
<td>Some or all of the lymph glands in the armpit are usually removed.</td>
</tr>
<tr>
<td>Will I need chemotherapy?</td>
<td>Yes, you may be offered chemotherapy as well, usually given after surgery and before radiotherapy.</td>
<td>Yes, you may be offered chemotherapy as well, usually given after surgery and before radiotherapy.</td>
</tr>
<tr>
<td>Will I lose my hair?</td>
<td>Hair loss is common after chemotherapy.</td>
<td>Hair loss is common after chemotherapy.</td>
</tr>
</tbody>
</table>

More information can be found at [www.bresdex.com](http://www.bresdex.com)

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Fig. 1. An example of an Option Grid.
relatively recently that the concept of bounded rationality has gained prominence, and the applicability of this idea to fields such as clinical practice recognized [26]. Option Grids are based on these assumptions – that decisions often have to be made on limited information and in relatively short time frames – and that the best way of supporting decisions is to keep information brief and focused on the attributes that support relevant comparisons. Option Grids are specifically designed to provide comparison points on the basis of key attributes (organized by FAQs).

3. Results

3.1. How to use Option Grids

Based on observations and the result of workshops with clinicians, we observed that Option Grids were used in different ways. However, we noted that clinicians emphasized the value of following these key steps:

- **Describe**: that the goal of the Grid is to initiate a conversation about options, that it is organized as a table to enable comparison, using questions that many other patients found useful.
- **Check**: ask if the patients wish to read it themselves or whether they prefer the comparisons to be vocalized.
- **Handover**: give the Option Grid to the patients and also provide a pen so that they can mark their copy and jot questions, if they wish.
- **Create space**: ask permission to perform other tasks if the patients wish to read the Grid, so that they do not feel ‘observed’ as they take time to assimilate the information.
- **Ask**: encourage questions and discussion.
- **Gift**: the patients should be told that they take the Option Grid with them, so that they have an aide-mémoire and an opportunity to discuss their options with others, as well as look for more information (referral to specific sources encouraged).

The clinician will need to establish whether patients are willing to read the Grid. If not, the clinician could use the Grid structure as the basis for their comparison of options. Either way, the grid should still be given to the patient so that both patients and clinicians collaborate as they view the content.

Typically, patients take about 3 min or so to read an Option Grid – in some cases less time than it might take to explain the same information verbally. Yet, being asked to read an Option Grid will be a novel experience for many patients. To remove the pressure of feeling observed, clinicians suggested that they should ask the patient’s permission to do another task, typically turn to use their computer to enter notes. The clinician should remain silent until the patient indicates that they have read the Option Grid.

3.2. Handover effect

Interviews with participating clinicians and observations during training events confirmed that handing the Option Grid to the patient had an impact on the communication process. Interpreting what clinicians said from a sociological perspective the patients receive a representation of institutional knowledge, endorsed by virtue that it is given to them by their clinician. It also makes concrete two of the most difficult steps in shared decision making – to make options visible, and to enable comparison of options in relation to personal questions and preferences. Reflecting on their experiences of using Option Grids, clinicians felt that the handover step achieves two things:

1. **Respect**: It signals the clinician’s respect for patients as relevant contributors to the process of making decisions.

2. **Power transfer**: It signals a transfer of power and responsibility – the handover of an Option Grid effects a shift in the interactive relationship.

Clinicians noted that this shift in power seemed to be emphasized by providing the patients with a pen, saying that it can be used, if they wish, to underline relevant issues or make notes. It was as if giving the patient the instruction to annotate the document symbolizing a transfer of ownership and the legitimacy of participation, permitting relevant questions. Box 1 provides examples of their use in clinical practice.

### Box 1. Using Option Grids in practice.

**Case 1** A 48 years old man with high cholesterol. Concerned about a history of heart attacks in his family, a 48 years old man asked his family doctor for a cholesterol test. It came back raised. Initially he wanted to have medication, but after reading the Option Grid with the doctor he realized that he also had to make radical changes to his lifestyle in order to reduce his risk as becoming aware that statins were not free of side effects.

**Case 2** A 50 years old woman with breast cancer. This patient used an Option Grid to compare mastectomy to lumpectomy (conservation surgery with radiotherapy). She noticed the difference in the local cancer recurrence rate, observing that it was double in lumpectomy. She was also alerted to the side-effects of radiotherapy, such as breast tenderness and shrinkage. These issues were important to her decision.

**Case 3** A 60 years old man with early cancer of the vocal cord. Radiotherapy and surgery are both reasonable treatment options. As the patient read the Option Grid he underlined issues for discussion. He asked about the degree and duration of hoarseness associated with radiotherapy. He emphasized that, for him, communicating with his family were of more importance than survival at any cost. The Option Grid helped to highlight his own preferences. It did so in a short time, as well as indicating the need for more detailed deliberation before making a final decision.

3.3. Clinician views on the value of Option Grids

Feedback from teams in the MAGIC program who routinely used the Option Grids (for a range of clinical topics including breast cancer, tonsillectomy, head and neck cancer, cholesterol-lowering therapies) provided evidence that the tools provide the following benefits: (1) standardization, (2) visualization and (3) operationalization.

1. **Standardization**: Option Grids standardize the provision of information, facilitate patients’ understanding of treatment options, and make consultations easier:

   “We have always done this – give information to patients – but now it’s in a more organised fashion … everybody will use the same Grid, so all the patients will have the same information.” (surgeon, multi-disciplinary head and neck cancer team)

2. **Visualization**: Second, the tool helps patients to visualize the difference between treatment options:

   “… patients can now actually see for themselves the actual differences in the choices they have, on a piece of paper. Previously they had to imagine it. Now they can actually see it on a piece of paper … This visualisation … makes things easier for them to understand.” (breast surgeon, multi-disciplinary breast cancer team)

3. **Operationalization**: Third, it acts to operationalize this step, as an aide-mémoire for experienced staff and a training tool for junior staff:
“When I started… I always used to ask the nurse, did I forget anything… But if you have an Option Grid in front of you it gives you the points you have to go through, then you know you haven’t missed anything. So it’s a very good training tool for juniors as well… it gives them confidence that they’ve covered all the points.” (breast surgeon, multi-disciplinary breast cancer team)

4. Discussion and conclusion

4.1. Discussion

We have described the experience of UK NHS teams in a quality improvement project as that used a new type of tool to facilitate shared decision making. It fits the requirement of a conceptual model illustrated in Fig. 2, and described in detail elsewhere [19]. The model calls for two different types of tools to support shared decision making; brief tools for use inside clinical encounters and more elaborate tools for independent use. Option Grids stimulate choice talk and support option talk – therefore providing a visible and concrete platform for decision talk, in short: shared decision making. We have observed that Option Grids catalyze shared decision making and lead to patients being more willing to ask questions, seek out further information and deliberate, with others, helping them become better informed to discuss decisions with clinicians.

4.2. Conclusion

We argue that the process of providing brief decision support tools should become a central part of the clinical encounter and not a process that is divorced from the face-to-face dialog. By using brief summaries, that are organized according to the questions that patients frequently ask, these tools provide a way to make rapid comparisons between alternatives, and we have noted how clinicians become enthusiastic about using them to accomplish shared decision making.

4.3. Practice implications

Although clinicians generally report motivation to involve patients in decisions [27,28], they also wish for support to develop both their communication skills and the tools they feel could help them. When clinicians observe the use of Option Grids, it seems to overturn the claim that clinicians often make – that patients “don’t want to be involved in decisions”. Patients also want treatments they understand and that they feel with serve their interests. Our observations in this early work with Option Grids, suggest that these tools facilitate shared decision without the need to focus on communications skills as such, reinforcing Salmon’s claim that clinicians are, by and large, effective communicators [29]. We suggest that Option Grids are one example where effective tools generate better interactions and we are undertaking further work to consolidate this.

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Conflict of interest

None of the authors have a conflict of interest to declare. At completion, Option Grids are published online on an open access website.

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