On a learning curve for shared decision making: interviews with clinicians using the knee osteoarthritis Option Grid

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Abstract

Rational: Tools used in clinical encounters to illustrate to patients the risks and benefits of treatment options have been shown to increase shared decision making. However, we do not have good information about how these tools are viewed by clinicians, and how clinicians think patients would react to their use.

Objective: Our aim was to examine clinicians' views about the possible and actual use of tools designed to support patients and clinicians to collaborate and deliberate about treatment options, namely Option Grid ™ decision aids.

Method: We conducted a thematic analysis of qualitative interviews embedded in the intervention phase of a trial of an Option Grid decision aid for Osteoarthritis of the knee. Interviews were conducted with six participating clinicians before they used the tool, and again after clinicians had used the tool with six patients.

Results: In the first interview, clinicians voiced concern that the tool would lead to an increase in encounter duration, to patient resistance regarding involvement in decision making, and potential information overload. At the second interview, after minimal training, the clinicians reported that the

tool had changed their usual way of communicating, and it was generally acceptable and helpful integrate it into practice.

Discussion and Conclusions: After experiencing the use of Option Grids, clinicians became more willing to use the tools in their clinical encounters with patients. How best to introduce Option Grids to clinicians and adopt their use into practice will need careful consideration of context, workflow and clinical pathways.

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Introduction

Shared decision making (SDM) is a collaborative process in which patients and clinicians make treatment decisions together by integrating evidence and patient preferences [1]. Despite increasing interest in how to implement shared decision making into clinical settings, efforts to do so meet many obstacles [2]. There have been many trials reporting that providing decision support tools to patients before their encounters with clinicians leads to their greater involvement in decision making [3]. However, we should be cautious about these claims because they are based on patient reports, and often established on a response to a single item such as 'were you more involved?' There are no studies which have provided observer-based data demonstrating that pre-encounter tools given to patients lead to shared decision making. Efforts to examine the relationship between patient-reported measures of shared decision making and observer-based assessments have not shown significant correlations [4, 5].

Other work has revealed that patients, despite being well-informed or well-educated, are very cautious about asking questions, expressing their preferences or disagreeing with clinicians, and are anxious about being labelled as difficult or demanding [6]. The conjecture that interventions which provide information about options before clinical encounters leads to different behaviors by patients, and to which clinicians respond positively, is frequently implied in the literature, but has not been definitively proven.

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A parallel stream of studies has used a different approach. Edwards and Elwyn, using a randomised crossover study design, showed that tools used in clinical encounters to illustrate risks of benefits and harms of treatment options led to substantial increases in patient involvement in decision making [7]. Montori argued that tools that have been purposely designed to generate conversations are more likely to lead to greater patient involvement [8]. In multiple randomised trials conducted at the Mayo clinic, tools used within clinical encounters led to significant increases in shared decision making [9]. In summary therefore, the use of tools specifically designed to generate deliberation and collaboration show promise [10, 11].

Option Grids are short decision support tools designed to be used in the clinical encounter. Essentially they are summary tables using one side of paper which facilitates rapid comparisons of options using questions that patients frequently ask.[12] Developers of these tools suggest that they are introduced, described and used collaboratively [12]: their content is frugal so that cognitive work is kept to a minimum [13], thereby prompting patients to ask question or seek clarifications. The intention is to confer 'agency' to both the clinician and their patient, helping frame the conversation as one of deliberation to explore key comparisons [14]. Wyatt et al studied videos and found that clinicians often struggled to use these tools as instructed [9]. Furthermore, we do not have good information about how these tools are viewed by clinicians, and how clinicians think patients would react to their use.

Our aim was to understand the reactions of clinicians to the concept of using Option Grid[TM] decision aids, one example of encounter tools, to explore their views about the anticipated challenges, feasibility and acceptability as they gained experience of using the tool during the intervention phase of the trial.

2.   Methods

This study was embedded in a trial designed to evaluate the impact of introducing Option Grids into clinical encounters between 72 patients and six clinicians (specialist physiotherapists) in an interface clinic in Oldham, Manchester, UK, the main results of which have been published elsewhere [11]. In the trial, each clinician consulted normally with six patients before receiving training in the use of the Option Grid, and then consulted with six patient using the Option Grid. The Pennine Musculoskeletal Clinic Limited holds an NHS contract to provide services to the local population, and had been previously engaged in quality improvement projects where shared decision making had been a focus. Patients who had knee pain likely to be due to osteoarthritis were approached, informed and consented. The intervention is described in Figures 1 and 2.

[insert Figures 1 and 2 here]

Clinician recruitment

Seven physiotherapists who usually review patients with knee osteoarthritis in the interface clinic were approached by a member of the study team and asked to participate. Our sample size calculation for the main study suggested that we would require six clinicians and six were subsequently consented to the study.

Data collection

Each of the six clinicians was interviewed twice by telephone at their workplace by the trial manager (KM). The first interview was conducted after they had viewed the Option Grid and were told about its *proposed* use with patients. The interview schedule covered the following topics: existing knowledge about and attitude toward shared decision making, the feasibility of taking this approach in existing workflows, focusing on how practical it might be to use the Option Grid and likely patient reactions. The second interview was conducted after each clinician had used the knee osteoarthritis Option Grid with six patients. The interview schedule covered the following topics: how using the tool modified interactions with patients, whether the tool was a help or a hindrance, their impression of patient reactions, whether this kind of encounter tool added value, was worthy of future implementation and how this might work successfully (for details see Figure 3).

Data analysis

Interviews were audio-recorded and transcribed. An inductive thematic analysis of the interview transcripts was undertaken [15]. KM and JR independently made notes on all transcripts. A codebook was generated through joint discussion with FW and transcripts coded by JR using the software NVivo 10 (QSR International). After coding JR identified candidate themes, which were discussed with GE, refined, and named collaboratively.

Ethical approval

The study protocol was approved by the South East Wales Research Ethics Committee (11/WA/0356). All clinicians were provided with written information about trial objectives and procedures and their written informed consent was documented.

3.   Results

Six of the seven clinicians approached agreed to participate in the study. The first interviews lasted an average of 18 minutes (range 14-26 minutes), and the second interviews with clinicians also lasted an average of 18 minutes (range 11-22 minutes). Five themes were identified and a coding framework developed (See Table 1). These themes are discussed in further detail in the next sections and illustrated with relevant examples.

[insert Table 1 here]

3.1   Anticipated unworkability

Although all the clinicians were supportive of the principles of shared decision making, and the purpose of the trial itself, they did have some specific concerns about the workability of the intervention. At their first interviews, the clinicians voiced a range of concerns about the Option Grid decision aid. They cited their prior experience of patients either not expecting to be involved in decision making, and that they anticipated that attempts to engage patients would be difficult if not impractical. When considering the potential use of a tool such as the Option Grid, they were apprehensive, and concerned that some patients might react negatively. Concern about time was probably the most prominent and voiced by all six clinicians, although appointment duration in this interface clinic are booked for 30 minutes. Here a clinician worries that using the Option Grid could lead to the:

... patient wanting to venture into quite a bit of discussion. (Clinician 3; Interview 1).

I suppose the only reservation would be about the time involved ... you probably will have to find a way ... that people have got time to read it themselves and digest it before you actually talk to them about it. (Clinician 6; Interview 1)

Two clinicians queried some of the evidence contained within the Option Grid, specifically about the number of joint injections that are recommended per year, which conflicted with local guidance. There were also anxieties about the format of the tool. Clinicians mentioned the potential of information overload, unfamiliar terms to patients, and concern about not being able to introduce the tool, and its tabular layout, to patients some of whom have poor health literacy or required an interpreter in the consultation, as the following quotes illustrate:

It might be too much for them to take in. (Clinician 4; Interview 1).

... the only barrier is how the patient sees it ... whether they truly understand, ... you'll always get someone that clearly doesn't quite get it. (Clinician 2: Interview 1)

I think some people ... might be a bit confused by it." (Clinician 5: Interview 1)

In terms of the content, there was evidence of some disagreement with the detailed content, viewing the information in the tool as facts that were rigid, whereas the intention is that the content provides a framework for further discussion, as is normal in clinical practice.

There was also some concern that the tool, by its very nature, declared the existence of multiple options, including the possibility of knee replacement surgery. Making the operative procedure explicit, and evident in writing, raised concern that this could lead to inappropriate patient demand. There was an implication in these statements that clinicians might not normally mention options if they were not deemed relevant or applicable.

I can't think of any significant disadvantages unless they [the patient] are very much fixed with an

option that they think is right for them which may not necessarily be right for them in your opinion.

(Clinician 3; Interview 1)

In summary, in the interviews undertaken before the Option Grid had been used, the clinicians were

cautious about the value of introducing the tool, and concerned that it could lead to inappropriate

demand for treatment.

3.2   Realising a learning curve

In the second interview, clinicians reflected on their early experiences of using the Option Grid.

Although they noticed that introducing the tool challenged established communication patterns,

there was also the acceptance that the change was not as disruptive as they had anticipated. Because

of the way options are presented in columns with 'frequently asked questions' placed in rows to

achieve comparisons, the layout stimulates conversations about comparing alternatives. This layout

made options more explicit and one clinician commented:

Say, for instance, knee replacement wasn't an option for the patient, you still give the sheet which had

the option on it … I had to guide them away from that.' (Clinician 2; Interview 2).

This new degree of explicit comparison of treatment options was uncomfortable for some clinicians,

because they felt obliged to discuss options that they might not otherwise have introduced to the

patient:

I felt I had to go through [all the options], even though one in five aren't happy with knee replacements. (Clinician 3; Interview 2).

It was noteworthy that clinicians reported that as they used the tool with more patients, to a total of six each, they found that their confidence increased in being able to integrate the tool into their practice.

Once you have done it a couple of times you are more comfortable in bringing it [the Option Grid] out … the third time it was pretty easy. Once people start using it, it's always simpler than you think. (Clinician 6; Interview 2).

One clinician realised that it was awkward until there had been some experience with using the tool:

You are so used to doing it one way … and it was sort of a bit awkward because it was different. It was time consuming until you got used to how it came into the assessment. (Clinician 2; Interview 2)

The same clinician also realised that the presentation of alternatives changed the nature of their interaction, essentially becoming less 'prescriptive':

I think it does make you think more deeply about what you are saying to the patient. I still guided them … I would say we will try the conservative measures first. But it certainly makes you not be so prescriptive in making the decision for them. (Clinician 2; Interview 2)

3.3   Overcoming anticipated unworkability

During the second interviews clinicians reflected that their initial feeling that using the tool would be challenging seemed unwarranted. In circumstances where clinicians had given the patients time to consider the Option Grid on their own, where feasible, they noticed that their concern that some patients would not be able to use the tool was unfounded, as was their worry that some patients would insist on treatment which was clinically felt to be unnecessary or inappropriate. Some clinicians had decided to leave the room for a few minutes after giving the Option Grid to the patient so as to allow them time to read it without being observed. One clinician was pleased to note that when he came back the patient said:

"Well, this isn't me [pointing to knee replacement surgery]. I'm not in column three, so it's one of these [medication or injection]". So it was OK. (Clinician 6; Interview 2).

As instructed during their training, they realised that the tool could be used as a 'scaffold' for a discussion: it did not require them to cover every single cell of the table in detail. The clinicians reported that they learnt to personalise the Option Grid, adding more information where relevant, and felt comfortable to guide patients to what they felt was the most relevant option:

I had patients … who weren't ready for a knee replacement so you ended up saying "right ignore the final column" or they had clearly tried injections so ... "don't worry about that bit". There was only one patient I could hand the Option Grid to and say "have a read of that and see what you think", with the rest I had to adapt it. But it was not that awkward to adapt it you know. (Clinician 1; Interview 2)

This realisation that it was acceptable, and helpful, to use the Option Grid in a flexible way when talking to each patient was an important part of learning how to integrate the tool into practice. A clinician described one suggested approach:

It would be easy to integrate. One patient would come in, and I would leave the room and give them five minutes. I would be getting on with a dictation for a previous patient or something like that. (Clinician 6; Interview 2).

The concerns voiced in the initial interviews that the Option Grid would require extra time were not realised. As the clinicians used the tool, they realised that they could fit it into their practice with minimal impact on encounter duration. The clinicians seemed to accept a marginal time increase, as they observed that the tool was acceptable to patients, as they became more skilled:

So overall the time taken is probably a little bit longer … but in my view the most important thing is the patients. (Clinician 1; Interview 2)

3.4   Observing added value

The interview data provided evidence that the use of the Option Grid had changed the communication pattern. The tool, by providing a way to compare options, catalysed a different, more neutral approach:

I had to not give away any clues, so they could look ... with completely unbiased eyes. It made me change the way I would normally do [in the encounter]. (Clinician 3; Interview 2).

Some clinicians expressed that the Option Grid had acted as a reminder to share accurate data about the probability of harms:

I don't think I would always say there is a possibility of getting an infection [from the steroid injection]... It's not the first thing that jumps to your mind. It's not always easy to remember the one in five infection [rate]... Those statistics you forget. (Clinician 3; Interview 2).

The interviews provided data to show that the clinicians were using the Option Grid as a way of engaging patients in decisions, and noted how a tangible, visible tool allowed them to step back from being solely responsible for making decisions:

A lot of patients are relying on you to make the decision and you don't really want to be doing that. You try and bounce it back to them. This is a nice way of being quite independent. (Clinician 4; Interview 2).

They like the fact that they have got it written down, and they can take the time to find out what their options are. I think they feel involved a bit more. (Clinician 5; Interview 2).

Clinicians had observed that the tools also stimulated discussion by empowering patients to ask questions about the accuracy of third party information, rather than be hesitant to question information given verbally from their own practitioner:

They would read it, and if it didn't quite answer what they wanted, they would say, 'What does this mean'?', or, 'What do you think of that?" You don't feel like you can offend a piece of paper. (Clinician 1; Interview 2).

3.5   Willingness to adopt into future practice

All of the clinicians stated that they would be open to the idea of using the Option Grid routinely in their future practice, although some clinicians stated that they would prefer to use it only if all three treatment options were available to the patient, suggesting that they had residual discomfort in discussing the risks and benefits of treatment options which they deemed inappropriate for patients:

Would you use the Option Grid in the future? (Interviewer)
Yes probably. If I had a free rein to use I would actually use it on those occasions when you get somebody in whose decision is pretty much those three options. (Clinician 1; Interview 2)

Yet, despite the seeming willingness to adopt the tools, it was also clear from the interview data that the Option Grids stood little chance of being embedded into practice unless they were viewed to be supported by a management directive, where the extra effort required was encouraged and recognised:

It has to be something ... that it's part of the service; [an expectation] that everyone is going to start using it [the Option Grid]; and at managerial level too. (Clinician 6; Interview 2).

4.   Discussion

Principal Findings

The clinicians in this study anticipated that although supportive of shared decision making as an approach, they would find the use of Option Grids impractical and that their patients would either be unwilling to use them, or find them overwhelming. In the event, after experiencing actual use of the Option Grids, the clinicians reported a learning curve, moving from self-conscious and awkward use of the tools to observing that they became much more comfortable with their use, realising that the tools conferred agency on both themselves and patients. They essentially described a learning curve that they experienced over a handful of clinical encounters. Their descriptions have resonance with descriptions of the conscious competence learning model of skill development [16], where *unconscious incompetence* leads to *conscious incompetence* and often a desire to overcome the deficit. Progress would allow *conscious competence* to become *unconscious competence* as skills become second nature.

The tabular presentation of options and frequently asked questions framed the discussion as one requiring the comparison of alternatives. The content enabled the clinicians to cite numerical data on event probabilities, adopt a more neutral stance, whilst at the same time empowering patients to ask more questions, seek clarification, overriding their tendency to remain passive in clinical encounters.

Clinicians also reported appreciating the added value that using the tools brought to their clinical interactions in terms of enabling patients to become informed and more engaged in a decision making process. Given that the increase in encounter duration was marginal, and that the clinicians found ways of using these tools flexibly, adapting to the individual needs of patients, we found

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general level support for their continued implementation into workflows. At the same time, the clinicians questioned whether adoption of this tool was in full alignment with future management policy for the service in which they worked.

Strengths and Weaknesses

This study captured clinicians' views at two time points, enabling us to analyse how views changed over time as they were introduced to Option Grids, and after they had experience of using them in their clinical settings. Although the interviews were conducted by the trial manager (KM) who had provided the Option Grid training, we notice from the transcripts that interviewees were candid and prepared to be critical. The interviewer asked the clinicians not to over-emphasise the benefits of the Option Grids and were told that we valued all their views no matter how critical. Two individuals (KM and JR) independently coded the transcripts, and their interpretation of the data was discussed with other members of the research team. We acknowledge that this is a small sample, and composed of clinicians working closely in a centre where there had been existing interest and involvement in shared decision making projects [17]. It is likely that support from the NHS centre to engage in SDM encouraged these clinicians to participate in the trial despite their initial skepticism about the workability. In this sense, their willingness to use the Option Grids may not be generalisable to other disciplines, or to different settings, although we would hope that results from this study may encourage other clinicians to consider using Option Grids in shared decision making consultations.

Comparison to other literature

The authors wish to be clear that Option Grids are not risk calculators. Although risk calculators have been developed for knee replacement surgery[18], they use models derived from the analysis of data from a large number of previous patients in a similar clinical situation and input the patient's medical history and current status into the model. Option Grids convey the pros and cons of different treatment options, and facilitate the conversation between patients and clinicians about clinical decisions, but they do not incorporate the individual patient data into a model to produce a risk score.

This work builds on previous work: an indication that using tools in clinical encounters could modify communication came from a trial of shared decision making conducted in 2001 [7]. Using an observer-based scale called Observer OPTION of shared decision making [19], an increase of 10.6 points was noted (p-value <0.001). Over the next decade the field focused on the study of pre-encounter tools given to patients in the form of booklets, videos or websites. These studies, summarised by Stacey [3], did not study the effect of such tools using observation-based assessments [20]. However, researchers at the Mayo Clinic have undertaken a series of trials using encounter tools, arguing that when such tools are based on user-led design principles, that it is possible to facilitate better conversations [8].

Examining the Mayo trials, Wyatt [9] examined the extent to which clinicians used these tools as intended in 229 video recorded encounters. The mean fidelity observed was 58%, with a wide range of variation. They observed that clinicians were inconsistent in their use of the tools, and only partly used them as intended, consistent also with other reports [21, 22]. Tiedje [23] used qualitative methods to study the use of encounter tools, and interviewed 19 clinicians who had used encounter tools designed for patients who had diabetes [24]. Their data confirm that clinicians were positive about using encounter tools and noted their positive impact on communication, despite feeling 'awkward' or 'unprepared' to use them [23]. Clinicians reported not having enough practice to 'get familiar with' the

tool before using it, partly echoing the data obtained in this study of Option Grids, where we observed shifts in attitudes, as well as observable changes in the extent of shared decision making [11]. Tiedje reported clinicians viewing the tools as 'flexible artefacts', adapting their use to individual patient's needs, whilst being somewhat sceptical about their utility and scientific validity. Tiedje conclusions are supported by clinicians in this study being willing to implement encounter tools in a program in the UK, where Option Grids were first developed [25].

Conclusion

Option Grids, and other similar tools, represent minimally disruptive methods of implementing shared decision making into routine care. The data in these interviews indicate that the clinicians, although initially sceptical, became more confident that Option Grids were acceptable to patients and that although they made options explicit and visible they did not lead to inappropriate patient demands. The clinicians noted how the tools led to them taking a more neutral approach to the discussion about treatment choice, and provided useful factual information. As a result, the clinicians declared willingness to consider their use in clinical encounters.

Practice Implications

There is evidence in the research literature of resistance to interventions that have been designed to support shared decision making, even where organizations and the professionals who work in them have espoused the value of patient centred care. It seems more likely that tools that have been designed to fit smoothly into existing work patterns, have a higher chance of being adopted widely.

5   Acknowledgements

6   References

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7   Figure legends

Figure 1 The Osteoarthritis of the Knee Option Grid

Figure 2 Using the Osteoarthritis of the Knee Option Grid

Figure 3 Interview schedule for clinicians

Table 1 Key themes and detailed elements

Table 1   Key themes and detailed elements

Theme	Detailed elements
1. Anticipated unworkability Anticipation that the tool might be difficult to use, would contain incongruent evidence, [fw1] and that some patients would react negatively.	Concerns that: - patients may be resistant to shared decision making - encounter durations would be lengthened - patient information overload - evidence incongruent with current clinical practice - terms and format unfamiliar to patients - using the Option Grid would lead to inappropriate patient demand.
2. Realising a learning curve Comfort levels in using the Option Grid improve with experience.	- Learning to use the tool - Familiarity and practice increases confidence - Awareness of a new communication style.
3**. Overcoming anticipated unworkability** Clinicians adopt techniques to enable the tools to be used, thereby overcoming their initial concerns	- Observing workability. - Reflection on how to integrate the tool in practice. - Personalising the tool to patient circumstance - Accepting marginal increase in consultation time.

4. Observing added value Clinicians reflected on the impact of the tool on the dialogue in the encounter.	Option Grid - encourages impartiality. - prompts provision of risk information - confers agency and patient involvement. - encourages question asking
5. Willingness to adopt into future practice Clinicians discuss willingness to adopt Option Grids in future practice.	- Reflection about how to adopt the tool into existing workflow. - Consideration of cultural change required for implementation into delivery systems.