

Shared decision making training programs for doctors: A Rapid Review

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Executive Summary

Background and Objective

As a key task of reviewing the National Standards Training Strategy, the implementation of an education and training program to develop skills of the health workforce to partner with patients in their care was identified. This education and training could include techniques and skills in shared decision making to equip clinicians to partner with patients in their care. To inform the development and implementation of a training program for doctors in shared decision making (SDM) this review was conducted to determine what training programs exist for doctors in health services.

Findings

- This review included both peer reviewed and grey literature.
- There is limited evidence about training in shared decision making (SDM) specifically for doctors only in the secondary care setting.
- Of the peer-reviewed literature included in this report, the two randomised controlled trials ^[2,4] and case control study ^[5] were ranked as having a low risk of bias, while the two cohort studies were at high risk of bias. ^[3,6]
- High-level evidence that includes multi-disciplinary professionals ^[1], nurses, doctors and allied health practitioners does suggest that SDM training is effective. Two training programs, the SHARE approach and MAGIC program ^[9,10] were designed to encompass the broader target group of healthcare professionals (i.e. doctors, nurses, allied health, etc.), and not solely doctors, hence interpretation of effectiveness for doctors only is difficult.
- From the available evidence, training programs for doctors vary from an hour to two hours in length, carried out over multiple sessions across several days. (Table 2)
- Other interventions such as pocket cards, manuals, decision aids, and visual aids are used during training.
- Training outcomes such as patient-physician relationships, communication, patient perception, quality of life, are measured using varied published frameworks, scales and questionnaires. Follow-up of training outcomes ranged from three months to up to three years; with significant effect on shared decision making, communication and action scores. ^[2,4,6]
- Improvements in patient involvement, ^[5] communication, ^[2] counselling and advice, ^[3] program usefulness and increased knowledge ^[6] have been reported following SDM training.
- Roleplay was also suggested to be an important component for training. ^[6]
- There were no differences in quality of life outcomes for patients when comparing SDM training in oncologists and those doctors that did not receive SMD training. ^[2]
- A range of tools were used to evaluate SDM training including: Active Patient Participation Coding (APPC), Verona VR-CoDES, Prognostic and Treatment Choices (PTCC) Informing subscale, PTCC Balanced Framing subscale, The Human Connection (THC) scale, Health Care Climate Questionnaire (HCCQ), Perceived Efficacy in Patient-Physician Interactions (PEPPI) scale, Quality of Life (QOL) questionnaires. ^[2]

Background

As a key task of reviewing the National Standards Training Strategy, the implementation of an education and training program to develop skills of the health workforce to partner with patients in their care was identified. This education and training could include techniques and skills in shared decision making to equip clinicians to partner with patients in their care. To inform the development and implementation of a training program for doctors in shared decision making (SDM) this review was conducted to determine what training programs exist for doctors. The Director, Medical Services has requested for a review of the evidence by the Centre of Clinical Effectiveness (CCE) to inform the development and implementation of a training program for doctors in shared decision making.

Objectives

The objective of this review was to determine what training programs exist for doctors to inform the implementation of SDM in health services?

In particular, the review will focus on:

- Training frameworks
- Training strategies
- Evaluations of training programs/strategies

Methodology

The following methods were used when undertaking a search, inclusion and selection of evidence for this report.

Inclusion/Exclusion Criteria

Table 1. Inclusion/Exclusion criteria

Population	Include: Doctors in hospitals Exclude: General practitioners, nurses, other health professionals
Interventions	Include: Training and/or education in shared decision making (SDM)
Context	Include: In the hospital setting Exclude: General Practice
Outcomes	Any
Types of evidence	Include: All types (Peer-reviewed and grey literature) Cochrane was limited to reviews and protocols; Grey literature was limited to reports and publications. Exclude: Webinars, blogs and opinion pieces
Limits	Date: Pubmed from 31/12/2017; OVID Medline from 2017; Cochrane from 1/06/2017; Grey literature sources from 2013 – current Language: English

Search strategy

Peer reviewed literature

One systematic review was known to the authors that was conducted on the same topic but included all healthcare workers. [1] As a result, a repeated search was conducted by one author (CJ) searching the literature for the last dates stated in the review. Searches of OVID Medline, Pubmed and the Cochrane Library were conducted. (Please refer to Appendix for details on search terms and databases). Titles and abstracts identified were exported to EndNote X7 (Thompson, Reuters, Carlsbad, California, USA).

Grey literature

An iterative search of the grey literature was conducted by one author (GY) using search terms and databases detailed in the Appendix. No date limitations were imposed in the grey literature search.

Study Selection

Title and abstracts of peer reviewed literature were screened and excluded if they did not meet eligibility criteria (Table 1). Where the title and abstract was not enough to make a decision, the full text of the article was retrieved. A total of 22 full texts or peer review literature and articles of grey literature were retrieved. Relevant studies that were referenced in the 2018 Cochrane review^[1] that met the inclusion criteria (Table 1) were also identified and selected for inclusion.

Results

Total of 2168 papers were exported to Endnote. Filtering in Endnote for the terms 'doctor' OR 'physician' reduced the pool to 571.

The 571 peer-reviewed articles identified from the medical databases (after filtering in Endnote) were screened using inclusion and exclusion criteria established *a priori*. After screening titles and abstracts (GY and CJ), 17 studies were retrieved for the full texts to be read and a final decision made on inclusion.

From the Cochrane review^[1] one study met the inclusion criteria of this report.^[2] Further, secondary searching of references and citations also retrieved two studies^[3,4] not captured by the Cochrane review.^[1] All other studies were published after the Cochrane review.^[5,6] As a result, a grand total of 5 peer-reviewed studies were included in this review.

Of the grey literature results, 524 articles were screened online using the inclusion/exclusion criteria in Table 1, and selected for inclusion by GY. Articles published from 2013 onwards were selected for inclusion in the review. A total of 22 full texts of peer-reviewed literature and grey literature were retrieved, and 8 were selected for inclusion in the review.^[8,11-14]

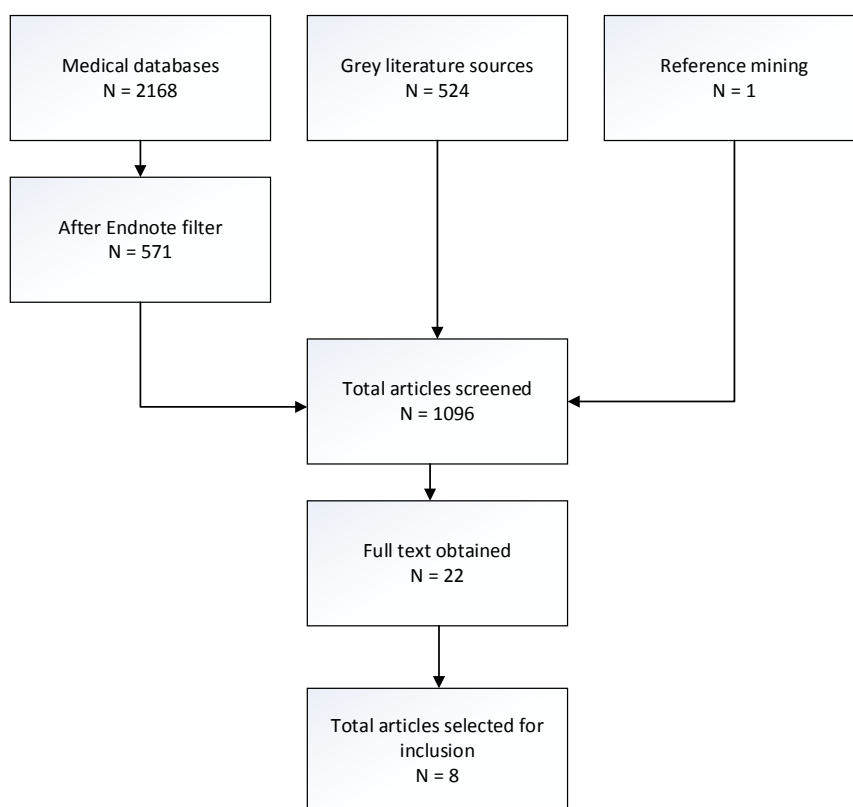


Figure 1. PRISMA Flowchart of articles selected

Quality Appraisal

The quality of the peer-reviewed papers was appraised using the appropriate Joanna Briggs Institute appraisal tool based on the design of the study,^[7] and an overall risk of bias was reported for each study.

Summary of Findings

Of the eight resources included in this review, two were randomised control trials^[2,4] two were cohort studies,^[3,6] and one was a case-control trial.^[5] Of the resources from grey literature, one was not set in a particular setting,^[8] and the others were set across a range of primary and secondary settings.^[9,10] The settings included: oncology;^[2,5] psoriasis;^[3] general surgery,^[6] and a multicenter trial including a stroke unit, multiple sclerosis outpatient ward, stem cell transplantation unit, clinics of dentistry, radiation oncology, surgery, neurosurgery, and three clinics of gynecology.^[4] Below is the summary of findings outlined by setting type (Table 2). The two randomised controlled trials^[2,4] and case control study^[5] were ranked as having a low risk of bias, while the two cohort studies were at high risk of bias.^[3,6]

Peer reviewed literature

There is limited evidence about training in shared decision making specifically for doctors in the secondary care setting. The previous Cochrane review^[1] that examined interventions for the use of shared decision-making by diverse healthcare professionals (hospital doctors, consultants, and general practitioners and nurses) consisted of 87 studies; 28 of which targeted healthcare professionals which potentially illustrates that a multidisciplinary approach to SDM training is common, given that this review found only 5 studies that were physician specific. The five peer-reviewed papers that were included in this review were based in varied secondary healthcare settings and evaluated using different frameworks and strategies. Nevertheless improvements in patient involvement,^[5] communication,^[2] counselling and advice,^[3] program usefulness and increased knowledge^[6] have been reported following SDM training. Roleplay was also suggested to be an important component of training.^[6] There were no differences in quality of life outcomes when comparing SDM training in oncologists and those doctors that did not receive SMD training.^[2] Table 2 provides detail regarding the specifics of each training program.

A range of tools were used to evaluate the effects of SDM training including: Active Patient Participation Coding (APPC), Verona VR-CoDES, Prognostic and Treatment Choices (PTCC) Informing subscale, PTCC Balanced Framing subscale, The Human Connection (THC) scale, Health Care Climate Questionnaire (HCCQ), Perceived Efficacy in Patient-Physician Interactions (PEPPI) scale, Quality of Life (QOL) questionnaires.^[2] Table 2 provides a full outline of the tools used to evaluate SDM.

The follow-up of effects of SDM training was carried out after a period of three months^[4] to up to three years^[2] in two randomised controlled trials, and six months in one cohort study.^[6] An increase in SDMmass, based on the MAPPIN'SDM (Multifocal Approach to the 'Sharing' in SDM) system, was shown at the three month follow-up^[4]; communication scores showed a significant intervention effect after 1-2 months^[2]; and summative actions score showed significant increase after six months.^[6] Two studies did not mention a follow-up period.^[3,5] Table 2 provides further detail on these outcomes.

Grey literature

Of the five resources retrieved, none evaluated SDM training programs specifically for doctors in secondary health settings. However, three documents included evidence on the implementation and evaluation of SDM training programs for clinicians in the secondary health settings, and were regarded as fit for the purpose of the review. Therefore it was the author's decision *a posteriori* to include three articles of grey literature on SDM training programs for doctors and nurses; only relevant data was extracted and presented in the review. As a result, data extracted from the grey literature are reported separately in Table 3.

The Health Foundation's MAGIC program^[10] reported that SDM was a 'core characteristic of their routine practice' was broadly similar across primary and secondary care, although SDM appeared to be more firmly embedded into secondary care as compared to primary care (36% vs 21%). As a result, although outcomes in Table 3 reflect overall training effectiveness in both primary and secondary health care services, they provide an accurate assessment of the overarching effectiveness of the MAGIC program training. Unfortunately, only 58% of clinicians in secondary care (compared to 79% working in primary care) reported that SDM practices and processes are sustainable as result of involvement in the MAGIC program.

The SHARE approach and MAGIC program^[9,10] were designed to encompass the broader target group of healthcare professionals (i.e. doctors, nurses, allied health, etc.), and not solely doctors therefore, results in Table 3 should be interpreted with caution. Nevertheless, SDM training is a multi-healthcare professional responsibility and not limited to doctors is suggested by high level peer-reviewed evidence. The use of role-play in SDM training is a common theme supported by both peer-reviewed literature and grey literature.

Additional resources

For the review to be fit for purpose, and to address end-user perspectives on the use of the review, a summary of useful links to evidence-based sources of grey-literature are also included in the Appendix.^[8,11-14]

Limitations

The authors of the Cochrane review^[1] conclude that it is uncertain whether any interventions for increasing the use of SDM by healthcare professionals as measured by observers or reported by patients are effective because the certainty of the evidence is very low. The five items of peer-reviewed literature identified in this review varied in methodological quality and the two cohort studies were at high risk of bias. The heterogeneity within peer-reviewed literature, with respect to specialty settings and reported outcomes, limit the generalisability of results.

The SHARE approach and MAGIC program^[9,10] were both designed to encompass the broader target group of healthcare professionals, and not solely doctors and therefore, the results of these projects should be interpreted with caution.

Conclusions

There is limited evidence about training in shared decision making specifically for doctors in the secondary care setting. Further, high level evidence does suggest that SDM training is a multi-healthcare professional responsibility.

Training programs for doctors vary from an hour to two hours in length, carried out over multiple sessions across days. Other interventions such as pocket cards, manuals, decision aids, and visual aids are also used during training. Training outcomes such as patient-physician relationships, communication, patient perception, quality of life, are measured using varied published frameworks, scales and questionnaires. Follow-up ranged from three months to up to three years.

Improvements in patient involvement, communication, counselling and advice have been reported following SDM training. Increased understanding of the benefits of SDM, attitude towards SDM and resident knowledge have also been reported as a result of SDM training. A role-play aspect of training is identified as an important component to be incorporated.

Table 2. Summary of findings from peer reviewed literature with respect to the training content, format and outcomes reported.

Setting	Content of Training	Training Format	Evaluation and Outcomes of Training on Shared Decision Making
<p>Oncology [2] (non-hematologic cancer)</p>	<p>Session 1 (1 hour)</p> <ul style="list-style-type: none"> 15-min video demonstrating four key evidence-based communication behaviours in advanced cancer (engaging, responding, informing, framing). 5-20 minute mock office visit with standardized patients portraying a “patient” with stage 4 colon cancer and his “wife”. Oncologist and standardised patient instructors come to agreement on 1-2 of the four skills to work on during the upcoming month. Oncologist receives a copy of the DVD to review, a pocket sized card with key communication skills listed and copies of the patient My Cancer Care booklet. <p>Between sessions</p> <ul style="list-style-type: none"> Standardised patient instructors prepare and send written feedback to the oncologist about the mock office visit. Research assistant audio records office visits of two real patients from the oncologist’s practice. Standardised patient instructors listen to and provide written feedback on actual. <p>Session 2 (0.75–1 hour) – Approximately 1 month later, after 1-2 study patients have completed patient coaching.</p> <ul style="list-style-type: none"> Review of prior session and feedback. 15-20 minute mock office visit with the standardised patient instructors. The “patient’s” cancer has progressed further despite treatment. Feedback on the 1-2 key skills identified at the end of Session 1, with opportunity for discussion of the other skills if the oncologist wishes to do so. 	<p>2.75 hours In-office physician training (1.75 h + 1 h);</p> <p>3-days on-site trainings</p>	<p>Evaluation Tool:</p> <ul style="list-style-type: none"> Active Patient Participation Coding (APPC) Verona VR-CoDES Prognostic and Treatment Choices (PTCC) Informing subscale PTCC Balanced Framing subscale The Human Connection (THC) scale Health Care Climate Questionnaire (HCCQ) Perceived Efficacy in Patient-Physician Interactions (PEPPI) scale Quality of Life (QOL) questionnaires (i.e., McGill QOL scale single item, McGill Psychological Well-Being subscale, McGill Existential Well-Being subscale, FACT-G Physical Functioning subscale, and FACT-G Social Functioning subscale) <p>Outcomes:</p> <p>Significant intervention effect in overall communication score (effect size 0.34; p=0.02)</p> <ul style="list-style-type: none"> Of the four individual communication component measures, only the ‘engaging’ measure was statistically significant. No statistically significant effects of the intervention on ‘responding’, ‘informing’ or ‘framing’. <p>No significant differences in quality of life outcomes</p> <ul style="list-style-type: none"> No statistically significant effects of the intervention for 2-year survival and curability estimates. Quality of life was stable until 6 to 9 months prior to death, with a terminal decline; overall, quality of life differences between intervention and control were not statistically significant. There were no observed intervention effects on health care utilisation.

Setting	Content of Training	Training Format	Evaluation and Outcomes of Training on Shared Decision Making
Multiple units ^[4]	<p>The manual</p> <ul style="list-style-type: none"> The manual was developed to comprehensively explain the idea of SDM according to the 15 SDM skills addressed by MAPPIN'SDM (Multifocal Approach to the 'Sharing' in SDM). The manual provides examples of different degrees of SDM performance for each skill. <p>The video tutorial</p> <ul style="list-style-type: none"> Linked to the manual, a video tutorial (on DVD) was developed showing a neurologist discussing a decision about immunotherapy with a patient. This scripted role-play illustrates the 15 skills: <ol style="list-style-type: none"> Defining the problem Equipoise statement Preferred communication approach Role attribution Listing options Pros and cons Expectations Indicating source of recommendations/evidence Doctors evaluation of patients understanding Patient evaluation of physician understanding Opportunity for questions (from patient) Opportunity for questions (from physician) Supporting strategies of decision making Indicate decision Follow up arrangements <p>The face to face feedback (15 minutes)</p> <ul style="list-style-type: none"> Trainees were given structured feedback based on a MAPPIN'SDM assessment of their own consultation video. Referring to scenes from this video, the feedback addressed a few selected aspects of SDM that seemed to be crucial to achieve higher levels of SDM. <p><i>*SDMmass (based on the MAPPIN'SDM system) incorporates patient and observer perceptions of involvement and doctor-patient concordance on perceived involvement.</i></p>	In situ training module	<p>Evaluation Tool:</p> <ul style="list-style-type: none"> MAPPIN'SDM Shared Decision Making Questionnaire (SDM-Q) Dyadic version of the Decisional Conflict scale (Dyadic DCS) Uncertainty Profile (UP24) <p>Outcomes:</p> <p>Significant increase in shared decision making</p> <ul style="list-style-type: none"> *SDMmass score increased significantly in the intervention group compared to controls (effect size 0.58; $p=0.05$) Among the three SDMmass components (patient rating, physician rating and observer rating), the patients showed the biggest difference from pre to post training compared to the waiting period of the controls. No significant differences were found in the other components (physician rating and observer rating). <p>Higher SDM level ratings from clinicians</p> <ul style="list-style-type: none"> After the first feedback session the physicians already rated their SDM level higher, while patients and observers did not. <p>Higher SDM level ratings in patients</p> <ul style="list-style-type: none"> After the second feedback session, the physicians did not claim to have further increased the SDM level compared to the previous consultation. Nevertheless, the effect then became noticeable for the patients and observers (although non-significant). As the control group also received the full training, it was possible to replicate the training effect (pre-post comparison). The first session alone (manual, video tutorial and first feedback session) only resulted in a small change, whereas the second feedback session (although identical in didactics and structure) made a larger difference. <p>No significant correlation between SDM performance and consultation time</p> <ul style="list-style-type: none"> Due to the very heterogeneous sample with very

Setting	Content of Training	Training Format	Evaluation and Outcomes of Training on Shared Decision Making
			<p>divergent consultation times, this question was operationalised as relative change compared to each physician's baseline.</p> <ul style="list-style-type: none"> Physicians that the SDM training module was helpful in structuring consultations and in saving consultation time.
Psoriasis ^[3]	<p>Stage A – Learning from current practice performance assessment</p> <ul style="list-style-type: none"> Assess current practice using the identified performance measures, through chart reviews or other appropriate mechanisms. Participating physicians are actively involved in the analysis of the collected data to determine the causes of variations from any desired performance and identify appropriate intervention(s) to address these. Each participant self-audited at least 10 of their patient charts for stage A (which met the inclusion criteria) and entered these data into an online portal. <p>Stage B – Learning from the application of the performance improvement activity to patient care</p> <ul style="list-style-type: none"> Implement the intervention(s) based on the results of the analysis in stage A, using suitable tracking tools. Physicians receive guidance on appropriate parameters for applying the intervention(s). Each participant received a data summary of their stage A performance and an aggregate data summary of their peers (multisource feedback) before proceeding to formulation of a personalised improvement plan as part of stage B. <p>Stage C – Learning from the evaluation of the performance improvement effort</p> <ul style="list-style-type: none"> Re-assess and reflect on performance in practice measured after the implementation of the intervention(s) in stage B, by comparing with the assessment done in stage A and using the same performance measures. Summarise any practice, process, and/or outcome changes that resulted from conducting the performance improvement activity. Six to 12 months after implementation of the improvement plan, participants self-audited at least 10 different patient charts for stage C (which met the inclusion criteria). Participants completed an evaluation of the performance improvement activity upon completion of stage C, which included the participant to rate the usefulness of the materials provided in stage B, the degree to which the learning objectives were met, and 	<p>Three stage approach.</p> <p>Duration of programme unknown.</p>	<p>Evaluation Tool:</p> <ul style="list-style-type: none"> Chart audit tool developed by workgroup and staff <p>Outcomes:</p> <p>Increase in patient counselling and advice</p> <ul style="list-style-type: none"> Significant improvement in participants' determination of the current treatment plan included consideration of patient preference. An increase in dermatologists involving the patient in the development of the treatment plan (90.6% in stage A to 95.7% in stage C).

Setting	Content of Training	Training Format	Evaluation and Outcomes of Training on Shared Decision Making
	the level of commercial bias in the activity.		
Surgery ^[6] Senior general surgical residents	<p>Didactic session</p> <ul style="list-style-type: none"> The didactic session involved a 15-minute predesigned lecture by faculty covering the unique decisional challenge presented by patients with poor underlying prognosis facing a new life threatening surgical emergency, the burden of unwanted and non-beneficial care, and a case presentation with narrative examples. <p>Live demonstration</p> <ul style="list-style-type: none"> A 10-minute live role-play demonstration by two faculty members was conducted. <p>Small-group practice</p> <ul style="list-style-type: none"> The remaining training consisted of small-group practice through case-based role-play facilitated by trained instructors. In groups of 2–3, residents used predesigned case prompts to practice using the Best Case/Worst Case (BC/WC) framework. The BC/WC framework is a decision-support tool developed to improve communication between surgeons and patients facing high-risk surgical decisions. Residents were provided with pocket cards with the BC/WC visual aid. Residents used observation forms, also developed by the developers of the BC/WC tool, to check each other's performance during this practice. Trained instructors observed and facilitated this session. <p>Debriefing</p> <ul style="list-style-type: none"> A 15-minute large-group debriefing to discuss the use of the BC/WC. Residents were encouraged to do more practice at home before their formative performance evaluation and to use the tool clinically once their evaluation was completed. 	2 hours	<p>Evaluation Tool:</p> <ul style="list-style-type: none"> The Best Case/Worst Case (BC/WC) Framework Ottawa Decision Support Framework Acceptability questionnaire <p>Outcomes: Resident self-reported programme useful and increased knowledge After the intervention,</p> <ul style="list-style-type: none"> 89% of residents agreed that the intervention was useful; 83% of residents agreed that it had increased their knowledge; 78% of residents agreed that it had increased confidence in having conversations with patients at high risk facing a life-threatening surgical emergency. Summative actions score significantly increased pre- and post-intervention (p=0.04). Summative attitudes and confidence scores remained unchanged (p>0.05). <p>Roleplay an important component</p> <ul style="list-style-type: none"> Residents reported that the opportunity to role play was a valuable component of the training programme. Some residents felt that it was difficult to simulate real conversation during the practice session.
Oncology ^[5] (colon and breast cancer)	<p>Full day (8 hours)</p> <ul style="list-style-type: none"> Introductory talk: background and essentials of shared decision making Description and explanation of shared decision making skills Exchange of experience: observation of shared decision making skills in a demo video Exchange of experience: exercises to develop shared decision 	12 hours (2 Sessions: 8h + 4 h)	<p>Evaluation Tool:</p> <ul style="list-style-type: none"> Control Preferences Scale (CPS) Patient Perception Scale (PPS) <p>Outcomes: Significant increase in patient involvement during consultation</p>

Setting	Content of Training	Training Format	Evaluation and Outcomes of Training on Shared Decision Making
	<p>making skills, with video feedback</p> <ul style="list-style-type: none"> • Introductory talk: risk • Communication and decision aids • Exchange of experience: use of decision aids in role play <p>Half day refresher (4 hours)</p> <ul style="list-style-type: none"> • Discussion of implementation difficulties, gathering of difficult situations • Exchange of experience: exercises to develop shared decision making skills, with video feedback 		<ul style="list-style-type: none"> • 60% of patients asked, opted for a collaborative SDM approach with their physician, irrespective if they were in the intervention or control group. • 92% vs 67% of patients in the SDM training group vs control group perceived collaborative or active decision making, respectively. • 8% vs 33% in the SDM training group vs control group experienced paternalism, respectively.

Table 3. Summary of findings from grey literature with respect to the training content, format and outcomes reported.

Setting	Content of Training	Training Format/ Evaluation	Outcomes of Training on Shared Decision Making
General Hospital ^[8]	<p>Agency for Healthcare Research and Quality SHARE approach</p> <ul style="list-style-type: none"> • Shared-decision making training for residents was part of PCMH recertification. • Short didactic lecture followed by small break-out sessions. During the break-out sessions, residents participated in role-playing exercises to practice shared decision making. The role-play exercises were facilitated by preceptors in the residents' continuity clinics. <p>Role-playing scenarios focused on three categories:</p> <ul style="list-style-type: none"> • Cardiovascular health and statins • Osteoporosis • Diabetes <p>All were provided with a double-pocket folder with SHARE Approach materials that they could take home and use for future</p>	3 training sessions	<p>Evaluation Tool:</p> <ul style="list-style-type: none"> • Feedback cards <p>Outcomes:</p> <ul style="list-style-type: none"> • Most residents reported they that enjoyed their experiences.
Hospitals ^[9,10] (paediatric tonsillectomy,	<p>The Health Foundation MAGIC Programme</p> <p>Delivery of training and workshops:</p> <ul style="list-style-type: none"> • Using role play and sharing practical skills to apply SDM 	<p>Two level training (basic/introductory and advanced)</p> <p>Duration of training</p>	<p>Evaluation Tool:</p> <ul style="list-style-type: none"> • Theory of change and realistic evaluation using Programme Logic framework

Setting	Content of Training	Training Format/ Evaluation	Outcomes of Training on Shared Decision Making
obstetrics, breast care, urology)	<ul style="list-style-type: none"> Using local facilitators (clinical peers with relevant knowledge) Encouraging clinician autonomy in identifying the subject of interest and developing their own project plans <p>Content of training:</p> <ul style="list-style-type: none"> Quality improvement (QI) methods (i.e., using Plan-Do-Study-Act tool) Sharing available evidence (by international and experienced SDM practitioners) on outcomes, and benefits of SDM How to use specific words and phrases (i.e., words that build trust and empathy, demonstrate understanding of patient's needs and priorities, highlight each one's roles in decision-making, exploring feelings and options, and agreeing on a way forward) How to appropriate body language (i.e., having "open and welcoming" body language instead of sitting behind the desk. Tailoring clinician's approach to specific patient needs (i.e., use of decision tools, active engagement and using active listening) 	unspecified.	<ul style="list-style-type: none"> Observation at MAGIC local design team (LDT) and core design team (CDT) meetings In-depth interviews with MAGIC participants and stakeholders Interviews with patient representatives Improvement stories <p>*Outcomes:</p> <p>Increase in understanding of benefits, and attitude towards SDM</p> <ul style="list-style-type: none"> 85% of clinicians saying that their understanding had been developed to a great extent or to some extent as a result of the programme. 38% of clinicians who had taken part in advanced MAGIC training agreed strongly and a further 55% agreed that the training 'has helped me to better understand the concepts and theory behind SDM'. 93% of clinicians in advanced training agreed or strongly agreed that the training had helped them to explain to others what SDM is and why it is good clinical practice; 43% were likely to strongly agree it had positively challenged their practice compared to 18% who had taken part in the introductory training only. <p>Building clinicians' skills and confidence in delivering SDM</p> <ul style="list-style-type: none"> 36% of clinicians in advanced training strongly agreeing and 57% agreeing that the training 'has helped me understand how I can practice SDM in my specific setting'. 69% agreed that the introductory training had helped them to understand how they can practice SDM in their specific setting. 33% of participants in the extended skills training strongly agreed and 57% agreed that the training had influenced their day-to-day practice. <p><i>*reflect outcomes of clinicians (i.e., doctors and nurses) based in both primary and secondary health care settings combined</i></p>

Key: SHARE – Seek, Help, Assess, Reach, Evaluate; MAGIC – MAKing Good Decisions In Collaboration

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Appendix

Useful evidence-based grey literature sources

Table 4. Useful evidence-based grey literature sources that have evaluated their training programs, tools and resources in the implementation shared decision making targeting all healthcare professionals.

[Agency for Healthcare Research and Quality](#) ^[8]

The SHARE (Seek, Help, Assess, Reach, Evaluate) Approach

ARHQ SHARE Approach is a five-step process for implementing shared decision making, which offers physicians and other health care professionals a collection of tools and training resources to support the implementation of shared decision-making in practice.



[Australian Commission on Safety and Quality in Health Care](#) ^[11]

The Commission is developing a series of patient decision aids to support health services and clinicians to engage with patients as partners in their own care.

[Ottawa Hospital Research Institute](#) ^[12]

The Cochrane Review of Interventions to Increase Adoption of Shared Decision Making found that when health professionals participated in education, they were more likely to use patient decision aids and share decision making with patients.

As part of a 5-step implementation toolkit (Step 4.2 - Training), the following are some of the evidence and theory-based educational programs developed and evaluated by their research programme.

- *Ottawa Decision Support Tutorial*

An online tutorial based on the Ottawa Decision Support Framework was designed to help health professionals further develop their knowledge and skills in providing decision support.

- *Interprofessional Shared Decision Making (IP-SDM) Skill-Building Workshop*

Based on the key elements of the IP-SDM conceptual model, the IP-SDM Skill-Building 3-hour Workshop aims to build skills in considering team-based approach to involving patients in the decision making process, assessing patients' decisional needs, using evidence- and theory-based interventions to support or coach patients making decisions, self-appraising the quality of decision support, and exploring ways to implement decision support.

- *Curriculum-Based Tools*

Integrating Patient Decision Support Curriculum consist of a stepwise series of lectures, problem-based case scenarios, and assignments that can be embedded as a thread across a curriculum for health professionals.

[The Mayo Clinic's Shared Decision Making National Resource Centre](#) ^[13]

Shared Decision Making National Resource Center is involved in setting international standards for patient decision aids (IPDAS standards), state-wide shared decision making practices through the Minnesota Collaborative on Shared Decision Making, and promoting national and international dialogue about patient-centered care. The partnerships are best reflected in the composition of the initiative's distinguished Advisory Board.

Decision aids share information and create a conversation about the options and their relative merits and downsides. These decision aids are designed in a user-centered way, developed by the Wiser Choices Program; they have been

tested in randomised trials in usual clinical settings and comply with the latest [IPDAS standards](#).

The Health Foundation ^[14]

Making good decisions in collaboration (MAGIC) programme

MAGIC programme aimed demonstrate that shared decision making (SDM) can feasibly, affordably and sustainably become a core characteristic of routine clinical care, both within primary and secondary care and at large scale.

This was done through skills development and engagement, such as introductory and advanced skills development workshops for participating clinicians; guidance on developing, adapting and implementing decision support tool; and facilitation and peer support for clinical teams.

Evaluation found that the MAGIC programme successfully supported clinical teams to test and develop a range of SDM tools, approaches, and changes to clinical practice. This included decision quality measures (DQMs), shared decision making questionnaires (SDMQ) Option Grids, Brief Decision Aids (BDAs) and marketing campaigns. Many of the decision support tools and other inputs (such as the Ask 3 Questions campaign materials) have proved useful and popular, incentivising staff to develop and refine their own tools.

Search details

Table 5. Databases searched and their respective search terms

Number of search & database	Search terms
PubMed	
#1	No. Search terms Results #1 (shared decision*[tiab] or sharing decision*[tiab] or informed decision*[tiab] or informed choice*[tiab] or decision aid*[tiab] or ((share*[ti] or sharing*[ti] or informed*[ti]) and (decision*[ti] or deciding*[ti] or choice*[ti])))
#2	#2 (decision making[mh:noexp] or decision support techniques[mh:noexp] or decision support systems, clinical[mh] or choice behaviour[mh:noexp] or decision making*[tiab] or decision support*[tiab] or choice behaviour*[tiab] or ((decision*[ti] or choice*[ti]) and (making*[ti] or support*[ti] or behaviour*[ti])))
#3	#3 (patient participation[mh] or patient participation*[tiab] or consumer participation*[tiab] or patient involvement*[tiab] or consumer involvement*[tiab] or ((patient*[ti] or consumer*[ti] and (involvement*[ti] or involving*[ti] or participation*[ti] or participating*[ti])))
#4	(professional-patient relations[mh] or ((nurses[mh] or physicians[mh] or nurse*[ti] or physician*[ti] or clinician*[ti] or doctor*[ti] or general practitioner*[ti] or gps[ti] or health care professional*[ti] or healthcare professional*[ti] or health care provider*[ti] or healthcare provider*[ti] or resident*[ti]) and (patients[mh] or patient*[ti] or consumer*[ti] or people*[ti]))
#5	(clinical trial[pt:noexp] or randomized controlled trial[pt] or controlled clinical trial[pt] or evaluation studies[pt] or comparative study[pt] or intervention studies[mh] or Evaluation Studies as Topic[mh:noexp] or program evaluation[mh:noexp] or random allocation[mh] or random*[tiab] or double blind*[tiab] or controlled trial*[tiab] or clinical trial*[tiab] or pretest*[tiab] or pre test*[tiab] or posttest*[tiab] or post test*[tiab] or prepost*[tiab] or pre post*[tiab] or controlled before*[tiab] or "before and after"[tiab] or interrupted time*[tiab] or time serie*[tiab] or intervention*[tiab])
#6	((#1 OR (#2 AND #3) OR (#2 AND #4) OR (#3 AND #4) AND #5)
#7	((#1 OR (#2 AND #3) OR (#2 AND #4) OR (#3 AND #4) AND #5) Filters: Publication date from 2015/01/01 to 2017/12/31
Embase (OVID)	
#1	(shared decision or sharing decision or informed decision or informed choice or decision aid).ti,ab. or ((share* or sharing* or informed*) and (decision* or deciding* or choice*)).ti
#2	exp clinical decision making/ or exp decision making/ or exp decision support system/ or exp ethical decisionmaking/ or exp family decision making/ or exp medical decision making/ or exp patient decision making/ or (decision making or decision support or choice behaviour).ti,ab. or ((decision* or choice*) and (making* or support* or behaviour*)).ti
#3	exp patient participation/ or (patient participation or consumer participation or patient involvement or consumer involvement). ti,ab. or ((patient* or consumer*) and (involvement* or involving* or participation* or participating*)).ti
#4	exp doctor patient relation/ or exp nurse patient relationship/ or ((exp nurse/ or exp physician/ or (nurse* or physician* or clinician* or doctor* or general practitioners or gps or health care professionals or healthcare professionals or health care providers or healthcare providers or resident*)).ti. and (exp patient/ or (patient* or consumer* or people*).ti.))
#5	1 or (2 and 3) or (2 and 4) or (3 and 4)
#6	exp clinical trial/ or exp randomized controlled trial/ or exp controlled clinical trial/ or exp controlled trial/ or exp pretest posttest control group design/ or exp comparative study/ or exp evaluation research/ or exp intervention study/ or exp randomization/ or (random* or double blind or controlled trial or clinical trial or pretest* or pre test or pre tests or posttest* or post test or post tests or prepost* or pre post or controlled before or "before and after" or interrupted time or time serie? or intervention*).ti,ab
#7	(2015* or 2016* or 2017*).yr.
#8	5 and 6 and 7
#9	limit 8 to embase
The Cochrane Library	
#1	((shar* or inform*) near/3 (decision* or aid* or deciding* or choice*)):ti,ab,kw

#2	((decision* or choice*) near/3 (making* or support* or behaviour*)):ti,ab,kw
#3	((patient* or consumer*) near/3 (involvement* or involving* or participation* or participating*)):ti,ab,kw
#4	((nurse* or physician* or clinician* or doctor* or general practitioner* or gps or health care professional* or healthcare professional* or health care provider* or healthcare provider* or resident*) near/3 (patient* or consumer* or people*)):ti,ab,kw
#5	#1 or (#2 and #3) or (#2 and #4) or (#3 and #4)
#6	#1 or (#2 and #3) or (#2 and #4) or (#3 and #4) Publication Year from 2015 to 2017

Table 6. Grey literature

Source	Results
Beryl Institute	44
The Health Foundation	238
Sax Institute	130
ARHQ	112