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Shared decision making: Physicians' preferred role, usual role and their perception of its key components

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ABSTRACT

Objective: To investigate physicians' preferred and usual roles in decision making in medical consultations, and their perception of shared decision making (SDM).
Methods: A cross-sectional survey of 785 physicians in a large Dutch general teaching hospital was undertaken in June 2018, assessing their preferred and usual decision making roles (Control Preference Scale), and their view on SDM key components (SDMQ9 questionnaire).
Results: Most physicians (n = 232, 58%) preferred SDM, but more often performed paternalistic decision making (n = 121, 31%) in daily practice than they preferred (n = 80, 20%, $p < 0.0001$), most commonly because they judged the patient to be incapable of participating in decision making. Most physicians preferring SDM presented different options for treatment (n = 213, 92%) with their advantages and disadvantages (n = 209, 90%) but fewer made clear that a decision had to be made (n = 104, 45%) or explored the patient's wish how to be involved in decision making (n = 80, 34%).
Conclusion: Although most physicians prefer SDM, they often revert to a paternalistic approach and tend to limit SDM to discussing treatment options.
Practice implication: Teaching physicians in SDM should include raising awareness about discussing the decision process itself and help physicians to counter their tendency to revert to paternalistic decision making in daily practice.

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1. Introduction

There is a growing interest in the participation of patients in the medical encounter, with most patients wishing to collaborate with their physician in making decisions about diagnostic tests and treatment [1–3]. Shared decision making (SDM) is defined as "a process in which decisions are made in a collaborative way between patients and health care professionals, based on reliable information provided in accessible formats about different options, taking the concerns, personal circumstances and context of patients and their families into account" [4].

Medical decisions reached through SDM are associated with improved medication adherence, patient satisfaction, patient well-being and quality of life [5–8]. In addition, patients feel more involved in the decision making process and perceive greater control over their treatment choice [6,9,10]. There is also evidence that SDM may reduce healthcare utilization and costs because patients tend to choose less extensive and aggressive treatment in a shared decision than their physicians decide about the treatment [5–7,11,12].

Although physicians are aware of patients' overall preference for SDM, and despite its documented effectiveness on relevant patient outcomes, SDM is applied in daily clinical practice to a limited extent only [13–18]. Many physicians feel that they already involve patient in decisions about their care, and they often do not see how SDM differs from their usual practice [18]. This attitude is a challenge for implementing SDM in routine clinical practice. To support the implementation of SDM, a thorough understanding of physicians' perceptions regarding SDM is needed. A systematic review from 2015 described 43 studies examining physician attitudes towards SDM [2]. However, most of these studies were performed more than ten years ago (when SDM was not as publicly debated as it is today) [1] and involved relatively small groups of physicians from a single discipline (most commonly oncology or mental healthcare) or addressed a single medical problem (e.g. breast cancer, trigger finger) [2].

Because SDM is being increasingly presented as the preferred model for patient care, both in the scientific community [4,19] and

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Table 1
Control Preference Scale response options and the classification of responses for analysis purposes.

Response options	Role
The patient makes the final decision about the treatment or further investigations.	Informative role.
The patient makes the final decision about the treatment or further investigations after seriously considering my opinion.	
The patient and I share the responsibility for deciding which treatment or further investigation is best for the patient.	Shared decision making.
I make the final decision about the treatment or further investigations, but seriously consider the patient's opinion.	Paternalistic role.
I make the final decision about the treatment or further investigations.	

at health care organization/administration level [17,18,20], an up-to-date overview of SDM perception of physicians from a wide range of disciplines and backgrounds is needed to assess the resistance or support from the medical community regarding further implementation of SDM. We therefore designed the present study to (a) assess the preferred and usual approaches to decision making in medical consultations from a wide range of physicians, (b) identify barriers physicians perceive in their practice to employing the preferred decision making model, and (c) explore physicians' perception of the key components of SDM.

2. Methods

2.1. Participants

A cross-sectional survey of physicians in Isala Hospital, Zwolle, the Netherlands was undertaken in June 2018. This is one of the largest hospitals in the Netherlands, an 1100 bed teaching facility in a mixed urban-rural area serving a population of approximately 600 000 people. A digital questionnaire was sent to all 785 physicians (453 medical specialists, 200 medical residents, 78 nurse practitioners (NPs) and 54 physician assistants (PAs)) along with an email inviting them to participate in the study.

2.2. Questionnaire

The questionnaire consisted of two validated instruments: the Control Preference Scale (CPS) and the 9-item Shared Decision Making Questionnaire (SDMQ9), along with a series of background variables (age, gender and medical specialty).

2.2.1. Control preference scale (CPS)

The CPS was designed to assess patients' preferences in the decision making process in a medical consultation [3]. It has been validated across several patient and clinical contexts and has been shown to have good reliability [8]. We adapted the CPS statements to assess physicians' preferences in decision making in two types of consultations in their daily work: a patient with a common medical problem and a patient with a rare medical problem. They were asked to record both their preferred and their usual roles in this scenario, with 5 possible response options (Table 1).

When respondents reported a discrepancy between their preferred and usual roles in clinical decision making, they were asked to report which barrier(s) kept them from taking their preferred role by checking one or more predefined response options (my preferred role takes too much time, my patients prefer another model of decision making, my supervisors prefer a different model of decision making which I am supposed to follow, I am insufficiently skilled in my preferred decision making role) or by specifying another barrier in an open text field.

2.2.2. The 9-item shared decision making questionnaire (SDM Q9)

Participants were asked to complete the validated Dutch version of the SDM Q9 questionnaire, assessing the physician's perception of the extent of their own shared decision making (SDM) during a medical encounter, keeping a patient with a common medical problem in mind [21,22]. For each of the nine statements of this questionnaire, we limited the response options to agree, neutral, disagree, or not applicable.

As the final item of the questionnaire, we added a question on how physicians deal with patients who disagree with the decision made by the physician (I execute the decision nonetheless, I try to convince the patient of the appropriateness of my decision, I try to find out why the patient disagrees with my decision, I follow the patient's decision, or other).

2.3. Ethics

The Ethical Review Board of Isala Hospital approved the study; all participants completed a digital informed consent form.

2.4. Definitions

2.4.1. Preferred or usual role

The responses to the CPS questionnaire were classified into three decision making roles for analysis purposes (Table 1): informed, SDM and paternalistic role [23].

2.4.2. Discrepancy

The discrepancy between the preferred and usual role were classified as being "more active" if the physician usually took a paternalistic role when preferring SDM or an informative role and "more passive" if the physician usually chose an informative role when preferring SDM or paternalistic role.

2.4.3. Disciplines

The different medical specialties were divided into three groups [24]: medical, surgical, and supportive disciplines.

2.4.4. Type of physicians

We compared questionnaire responses between different types of physicians: medical specialists, medical residents, NPs and PAs.

2.5. Statistical analysis

We used chi-squared tests to compare proportions and student *t*-test to compare group means. We used logistic regression analyses to analyze the effect of physician type on the preferred and usual decision making roles, adjusting for age and gender. The SDM Q9 results were first analyzed, as individual items, for which we computed whether the respondent agreed or disagreed. Next, we added the number of statements that respondents agreed with (SDM Q9 agreement score), yielding a score ranging from 0 to 9. This SDM Q9 agreement score was compared between groups with the different preferred roles by one-way ANOVA.

Preferred and usual roles were analyzed for consultations with a patient with a common problem and with a rare problem. IBM SPSS statistics version 22.0 was used for statistical analyses.

3. Results

3.1. Demographics

Of the 785 eligible physicians, 426 (54%) filled out the questionnaire. After excluding 32 questionnaires with incomplete or missing data, 394 fully completed questionnaires (50%) were available for analysis. Respondents' characteristics are presented in Table 2. There were no significant differences in age and gender between respondents and the root population of Isala physicians (p values ≤ 0.09). The questionnaire was completed by 250 medical specialists (63% of respondents), 75 medical residents (19%), 44 NPs (11%) and 25 PAs (6%).

Participants' responses to CPS questions about their preferred and usual roles are presented in Table 3, both for the whole group of respondents, and by physician subgroup. The results below refer to physicians' preferred and usual roles for patients with a common medical problem, unless otherwise specified.

3.2. Preferred role

Most physicians preferred SDM (n = 232, 59.2%) in a consultation with a patient with a common medical problem, with the remaining respondents equally distributed between informative (n = 80, 20.4%) and paternalistic roles (n = 80, 20.4%, Table 3). Gender and age were not associated with physicians' preferred role ($p > 0.13$). Overall, there was no significant difference in the preferred decision making role between doctors (medical specialists and residents) and allied health professionals (NPs and PAs) ($p = 0.27$, Table 3). However, residents expressed a considerably stronger preference for paternalistic decision making (n = 25, 33%) than medical specialists (n = 46, 19%, $p = 0.023$, Table 3).

This difference in preference was not seen in encounters about rare medical problems, in which both medical specialists and residents preferred a paternalistic approach (24.3% and 29.2% respectively, $p = 0.422$). The preference for SDM was particularly striking in NPs (72.7%). PAs significantly more often preferred a paternalistic approach (29.2%) than NPs (4.5%, $p = 0.015$, Table 3).

Physicians from medical disciplines showed a stronger preference for SDM (n = 156, 65%) than those from surgical disciplines (n = 63, 53%) ($p = 0.025$). This only applied to medical specialists, and not to medical residents, NPs and PAs (p values > 0.2).

3.3. Usual role

Most physicians (n = 200, 50.8%) reported SDM as their usual model in a consultation. Gender and medical discipline did not influence physicians' usual role. Age, by contrast, was significantly associated with the physician's usual role, with physicians in the SDM group being on average 4 years older compared to those usually taking a paternalistic approach (mean (SD) ages 45.5 (10.9) years and 41.3 (11.4) years, respectively, $p = 0.001$). The youngest physicians (aged < 35 years) were significantly more likely (n = 99, 45%) to play a paternalistic role than physicians aged 35–50 (n = 168, 29%) or > 50 years (n = 123, 22%, $p = 0.0032$).

Table 3
Preferred and usual decision making roles of different types of physicians in consultations with a patient with a common medical problem.

Physicians	Preferred role		Usual role	
All respondents				
Informative	80	(20.4%)	69	(17.7%)
SDM	232	(58.2%)	200	(50.8%)
Paternalistic	80	(20.4%)	121	(31.0%)
Total	392		390	
Medical specialists				
Informative	53	(21.5%)	46	(18.7%)
SDM	147	(59.8%)	134	(54.5%)
Paternalistic	46	(18.7%)	66	(26.8%)
Total	246		246	
Medical residents				
Informative	12	(16.0%)	9	(12.0%)
SDM	38	(50.7%)	31	(41.3%)
Paternalistic	25	(33.3%)	35	(46.7%)
Total	75		75	
Nurse practitioner				
Informative	10	(22.7%)	9	(20.5%)
SDM	32	(72.7%)	26	(59.1%)
Paternalistic	2	(4.5%)	9	(20.5%)
Total	44		44	
Physician assistant				
Informative	5	(20.8%)	5	(20.0%)
SDM	12	(50.0%)	9	(36.0%)
Paternalistic	7	(29.2%)	11	(44.0%)
Total	24		25	

3.4. Discrepancy between preferred and usual roles

The physicians in our study significantly more often took a paternalistic role in their consultations (31%) than they preferred (20%, $p < 0.0001$, Table 1). This difference was observed in all types of physicians (all p values < 0.003). Concurrence of preferred and usual roles in decision making was reported by 282 respondents (72.5%), while 31 (8.0%) and 76 respondents (19.5%) preferred to be more active and more passive, respectively, than they usually achieved in their consultations. A comparable discrepancy between preferred and usual roles was reported for consultations with a patient with a rare medical problem, in which physicians played a significantly more active role than they preferred ($p < 0.0001$).

Table 2
Respondents' demographic and work characteristics (n = 394).

Characteristics	Medical specialist N (%)		Medical residents N (%)		Nurse practitioner N (%)		Physician assistants N (%)		Total	
Response questionnaire	250	(55.2%)	75	(37.5%)	44	(56.4%)	25	(46.3%)	394	(50.0%)
Gender										
Male	156	(62.4%)	29	(38.7%)	5	(11.4%)	10	(40.0%)	200	(50.8%)
Female	94	(37.6%)	46	(61.3%)	39	(88.6%)	15	(60.0%)	194	(49.2%)
Age										
Mean (year)	48.3	(SD 9.6)	30. 6	(SD 5.5)	43.5	(SD 9.7)	43.7	(SD 8.2)	44.1	(SD 11.2)
Experience										
Mean (year)	14.7	(SD 9.1)	5.4	(SD 4.9)	6.9	(SD 4.5)	7.2	(SD 4.0)	11.6	(SD 8.8)
Discipline										
Medical	149	(59.6%)	49	(65.3%)	30	(68.2%)	16	(64.0%)	244	(61.9%)
Surgical	71	(28.4%)	26	(34.7%)	13	(29.5%)	8	(32.0%)	118	(29.9%)
Supportive	30	(12.0%)	0	(0.0%)	1	(2.3%)	1	(4.0%)	32	(8.1%)
Total	250		75		44		25		394	

Table 4
Number (percentage) of respondents agreeing with the SDM Q9 statements in the three response groups regarding preferred decision making role.

SDM Q9 Statements	Informed (n = 80)		SDM (n = 232)		Paternalistic (n = 80)		p-value	Total (n = 392)	
I make clear to my patients that a decision needs to be made in a consultation.	32	(40.0%)	104	(44.8%)	41	(51.3%)	0.355	177	(45%)
I want to know exactly how the patients want to be involved in making the decision.	19	(23.8%)	80	(34.4%)	20	(25.0%)	0.100	119	(30%)
I tell the patients that there are different options for treating the medical condition.	69	(86.3%)	213	(91.8%)	69	(86.3%)	0.209	351	(90%)
I precisely explain the advantages and disadvantages of the treatment options to my patients.	67	(83.8%)	209	(90.1%)	68	(85.0%)	0.231	344	(88%)
I help the patients to understand all the information.	66	(82.5%)	203	(87.5%)	71	(88.8%)	0.439	340	(87%)
I ask the patients which treatment option they prefer.	63	(78.8%)	182	(78.4%)	59	(73.8%)	0.658	304	(78%)
I thoroughly weighed the different treatment options with my patients.	46	(57.5%)	127	(54.7%)	33	(41.3%)	0.070	206	(53%)
I select a treatment option together with my patients.	59	(73.8%)	166	(71.6%)	36	(45.0%)	P<0.001	261	(67%)
I reach an agreement with my patients on how to proceed.	65	(81.3%)	194	(83.6%)	67	(83.8%)	0.877	326	(83%)
SDM Q9 agreement score (mean (SD))	6.1	(2.1)	6.4	(1.9)	5.8	(1.9)	0.021	6.2	(1.9)

Gender, age, type of physician and medical discipline were not significantly associated with the discrepancy between preferred and usual roles (all p values > 0.16).

3.5. Barriers

Only 44 physicians (11%) reported one or more barriers to applying SDM in their consultations. The most frequently reported barriers were the physicians' perception that their patients were incapable of making the decision (e.g. because of cognitive impairment, complexity of the medical problem, or the influence of emotions) mentioned by 21 (48%), that the model of decision making was situation-dependent (n = 7, 15.9%) and that the patients expressed a preference for another model of decision making (n = 6, 13.6%). Lack of time was only reported twice (4.5%).

3.6. SDM Q9

The SDM Q9 agreement score of physicians with different preferred roles in decision making are presented in Table 4. Physicians preferring SDM showed a small but significantly higher total SDM Q9 agreement score than those preferring a paternalistic role (6.4 vs. 5.8, p = 0.021). Physicians preferring SDM most commonly agreed with the statements that they tell patients about different treatment options (n = 213, 92%) and their advantages and disadvantages (n = 209, 90%) and that they help the patients to understand all the information (n = 203, 88%, Table 4). Physicians preferring SDM less often agreed with the statements that they make clear that a decision needs to be made (n = 104, 45%) and that they want to know how patient wish to be involved in decision making (n = 80, 34%). Type of physician and medical discipline were not significantly associated with SDM Q9 agreement score (p > 0.1).

In response to the question on how respondents deal with patients who disagree with the physician's decision, most respondents (n = 323, 84%) reported wanting to find out the patient's reason for disagreeing with the physician's decision. Only 31 physicians (8.1%) reported trying to convince their patients of the appropriateness of the decision. The latter was more common among physicians preferring a paternalistic role (12/80, 15%) than physicians preferring SDM or informed role (19/303, 6.2%, p = 0.011). There were no significant differences in the responses to this question by medical specialists, residents, NPs and PAs. However, surgical physicians more often tried to convince their patients of the appropriateness of their decision (16/114, 14%) than the medical physicians (7/239, 2.9%, p = 0.001).

4. Discussion

4.1. Discussion

Although most physicians in this study reported SDM as their preferred role in a medical encounter, they were significantly more likely to perform paternalistic decision making in daily clinical practice than they preferred. The physicians tended to limit SDM to discussing treatment options, with considerably less attention to addressing the decision making process itself. These results expand and elaborate those of previous studies showing that the preferred role for SDM is applied in daily clinical practice to a limited extent only [2,6,13–18,20].

A previous study showed that the preference for SDM in surgeons is related to the years of clinical experience [25], in line with the finding that residents, the youngest physicians in our study, were least likely to usually perform SDM in their consultations (Table 3). It appears, therefore, that a certain degree of clinical experience is needed to perform SDM in medical specialist practice. The significantly lower preference for SDM seen in residents is disturbing, given the increasing public and policy-makers' preference for SDM. Our study does not provide data on the residents' reasons to prefer paternalistic decision making. One possible explanation could be that SDM is not being taught and role-modeled as the preferred model of decision making in contemporary clinical teaching. Another could be that residents lack the clinical experience which appears to be important to be able to practice SDM in practice. Further research is needed, however, to explore the reasons for this difference in decision-making attitude and behavior between medical specialists and residents.

Our study also showed a considerable difference in the preferred decision making model between medical specialties, with more support for SDM in physicians from medical than those from surgical disciplines. Although a large US study performed in 2000–2001 showed no difference between primary care physicians, medical and surgical specialists in their preference for SDM [26], our findings are in agreement with a small study in 2012 in which surgeons reported less support for SDM than physicians from other disciplines [27]. Overall, these results suggest that physicians from medical disciplines are more supportive of the contemporary movement towards SDM as the preferred decision making model than their surgical colleagues. The reasons for these differences resonate with commonly held beliefs in the Netherlands but require further study. The differences in physicians' SDM attitude and self-reported behavior between patients with common and rare medical conditions suggests that the

attitudes and behaviors of physicians regarding the clinical decision making process are at least partly context-specific [28].

More than half of the physicians in our study expressed the conviction that they already applied SDM in their consultation (Table 2) [17,18], but their responses to the SDM Q9 statements (Table 4) showed that this focused on discussing treatment options, with fewer attention to steps actually involving the patient in the decision making process, such as highlighting that a decision was to be made, wanting to know how patients wish to be involved in decision making, and weighing the pros and cons of different options together with the patient. These findings are in agreement with those from a previous study, which commented "Although the clinicians' long held commitment to doing what they think is best for their patients is well intended, it fails to recognize that patients' values, opinions or preferences are important and might differ from their own" [29]. Despite the overall preference for SDM as the optimal decision making approach, both in the scientific literature and as advocated by patient organizations and policy makers [4,19,17,18,20], and despite their own conviction that they already perform SDM [17,18], the results of the present study show that physicians continue to exhibit a rather limited view of what SDM is and how it can be practiced. Their tendency to revert to paternalistic decision making because they feel the patient is incapable of participating in the decision making process [2,30], in itself an expression of paternalistic behavior, underscores the ongoing need to educate physicians in the principles of all key steps in SDM, including those involving the decision making process itself. Creating more awareness of these key steps in SDM is needed to improve the implementation of SDM and to help physicians to counter their tendency to revert to the paternalistic model. It is encouraging to note that, in contrast with previous research [2,25,30,31], time constraints were hardly ever mentioned as a barrier to apply SDM in the present study, suggesting that physicians are willing to explore possibilities to perform SDM in their clinical practice, despite management and cost effectiveness pressures. However, bearing in mind that few respondents mentioned barriers to applying SDM in our study, and that physicians feeling time constraints at work may have been more likely not to have participated in the study, this finding should be interpreted with caution.

4.1.1. Strengths and limitations of this study

Our study adds to the existing literature, because it shows that this discrepancy between preferred and usual model of decision making occurs across the spectrum of medical specialties and persists in the present age, despite the increasing scientific and public awareness of the advantages of SDM. The large study sample and validated methods support the robustness of our findings.

One limitation of this study is that it relied on physician self-report and thus may be at risk of social desirability bias [32]. The increased attention to SDM in the literature and in clinical practice might have prevented some doctors from expressing even more explicit reservations about SDM [33]. The use of self-reported measures previously resulted in an overestimation of the actual degree of information provision and SDM compared with analyses of audio and video recordings of clinical consultations [34]. Because such comparisons of reported and actual SDM behavior in clinical consultations are rare, further studies analyzing physician's SDM behavior in clinical consultations and its effects on patient motivation and self-management behavior are needed. Secondly, it cannot be excluded that physicians with a more positive attitude toward SDM may have been more inclined to return the questionnaire.

We designed this study to obtain an accurate impression of the SDM attitudes and behaviors of physicians providing regular hospital-based care. A nationwide online survey would have yielded respondents from different hospitals but probably with a very low response rate [31,35]. Performing the study in a single large hospital allowed us to direct our efforts towards obtaining a high response rate. We chose the latter approach, because we argued that a high response rate would increase the validity of our results and the representativeness of our study sample. Because this study was performed in a single Dutch hospital, it remains to be established whether our findings can be generalized to other settings and countries.

4.2. Conclusion

In this study of a large sample of physicians in a large teaching hospital in the Netherlands, most physicians prefer to use SDM in their medical encounters and express the view that they already do this in practice. However, they report to commonly revert to paternalistic decision making, most often because they feel the patient is incapable of participating in the decision making process. Most physicians preferring SDM presented different options for treatment, but few reported involving the patient in this process, illustrating a rather limited view most physicians in this study had of the key steps of SDM.

4.3. Practice implication

The findings of this study highlight the need to take a comprehensive view to improve the implementation of SDM in clinical practice. Teaching physicians in SDM should not only focus on presenting different treatment options with their medical pros and cons, for example in decision aids, but include raising awareness about the decision process itself and how to involve patients actively in it. This may help to let physicians reflect on their tendency to revert to paternalistic decision making in daily practice. Patient advocacy organizations and health care management should support physicians in implementing the patient engagement steps in SDM, by emphasizing their importance. Further studies are needed to analyze the actual decision making process between physicians and patients in daily clinical practice in more detail, to search for determinants in this behavior on desired patient reported outcome and experience measures, and on beneficial medical outcomes.

Author's contribution

All authors have individually contributed to the article: in drafting the article and revising it critically for important intellectual content and have approved the final version submitted.

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Declaration of Competing Interest

No conflicts of interest declared.

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