

## ORIGINAL ARTICLE

# The current extent of and need for shared decision making in atopic dermatitis and psoriasis in the Netherlands: an online survey study amongst patients and physicians

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## Abstract

**Background** In shared decision making (SDM), patients and physicians work together to choose the best treatment option for an individual patient. Atopic dermatitis (AD) and psoriasis are particularly suitable for SDM, considering that the best treatment option depends on a patient's preferences and values (preference-sensitive decisions). Currently, it is unknown to what extent SDM is applied in treatment decisions for these diseases in the Netherlands.

**Objectives** Primary, to assess the current extent of SDM in AD and psoriasis in the Netherlands amongst patients and dermatologists. Secondary, to assess the degree to which patients and physicians endorse SDM, to explore which characteristics are related to their preference to be involved in SDM and to identify which barriers and facilitators for SDM they perceive.

**Methods** Two similar online surveys, one for patients with AD or psoriasis and one for (resident) dermatologists, were carried out. The surveys comprised validated questionnaires (shared decision making questionnaire (SDM-Q; range 0–100), Control Preference Scale) and study-specific statements mainly regarding barriers and facilitators for SDM.

**Results** The responses of 219 patients and 147 physicians were analysed. Dermatologists experienced significantly more SDM than patients (SDM-Q 82 vs 55;  $P < 0.01$ ). Most patients and dermatologists prefer to share treatment decisions. Mainly facilitators for SDM were perceived, including the positive perception of patients and dermatologists regarding SDM. The perceived barriers included lack of continuity of care by the same physician and lack of time.

**Conclusion** Despite the dermatologists' optimistic perspective, patients experience a limited extent of SDM and physicians should be aware of this gap. Improvement of SDM in AD and psoriasis is needed. The positive attitude of patients and dermatologists towards the process and outcome of SDM is important facilitators, while barriers were mainly perceived on an organizational level.

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## Conflict of interest

GEvdK, FMV, EMAS and PMGS have no conflicts of interests to declare. PhIS has served as a consultant to AbbVie, Anacor, Leo Pharma, Novartis and Sanofi, has received independent research grants from Leo Pharma and Schering-Plough, has been involved in performing clinical trials with many pharmaceutical industries that manufacture drugs used for the treatment of atopic dermatitis, and is Chief Investigator of the Dutch atopic dermatitis/eczema registry – TREAT NL.

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## Introduction

In shared decision making (SDM), patients and physicians work together to make healthcare decisions, based on the best available evidence, clinical expertise and patients' values.<sup>1,2</sup> It is a shift from a paternalistic relationship towards

a more equal collaboration between patients and physicians.<sup>3</sup>

Arguments for SDM today are mainly based on ethical principles such as respect of patients' autonomy and values.<sup>4</sup> In literature, there is no uniform definition for SDM, but several suggestions of what steps or elements should be

incorporated in a consultation in order to perform SDM are made.

Stiggelbout *et al* describe four steps: (i) inform the patient that a decision has to be made and that the patient's opinion is important, (ii) explain the options and the pros and cons of each relevant option, (iii) discuss the patient's preferences and support the patient in deliberation, and (iv) discuss the patient's decisional role, make or defer the decision and discuss possible follow-up. Other researchers propose three<sup>5</sup> or nine<sup>6</sup> steps which are similar in essence.

Shared decision making is especially suitable for preference-sensitive decisions. In such decisions, the available options are comparable regarding benefits and harms, and the best option depends on patients' values. Many treatment decisions in dermatology are preference-sensitive and therefore suitable for SDM.<sup>2,7,8</sup> In this study, we focus on treatment decisions in atopic dermatitis (AD) and psoriasis; two chronic inflammatory skin diseases with several available treatment options in which the best option is largely dependent on patients' (psychological) burden of disease, preference and values.

Patient decision aids (PDAs) are tools that support patients and physicians in the process of SDM by providing information about risks and benefits of treatment options and helping to identify patients' personal values. The use of PDAs improves patients' knowledge, helps them feel more clear about their values and promotes patients' engagement and autonomy leading to more value-congruent choices.<sup>9</sup> The need for decision aids in psoriasis was previously addressed.<sup>7,10</sup>

However, little is known about the current extent in which SDM is applied in daily clinical practice in dermatology, or in AD and psoriasis specifically. Furthermore, no research was performed towards the aspiration of patients and dermatologists to apply SDM in daily practice.

Yet, a survey amongst 7851 Dutch patients with various diseases showed that the majority of respondents want to be involved in decision making (67% always, 27% sometimes).<sup>11</sup> Twenty-two per cent of participants in this survey responded that no treatment options were discussed at all, which emphasized the need for improvement of SDM in the Netherlands.

If we identify a need to improve SDM in AD and psoriasis, and we can identify the perceived barriers and facilitators, suitable strategies towards improvement of patient care with SDM can be made accordingly.

## Objectives

### Primary

- To assess the extent to which patients and dermatologists experience SDM when making a treatment decision in AD or psoriasis.

### Secondary

- To explore to what degree patients and dermatologists prefer to be involved in SDM for treatment decisions for topical therapy, photo therapy or systemic therapy in AD and psoriasis.

- To explore which characteristics of patients and dermatologists are related to their preference to be involved in SDM.
- To explore which barriers and facilitators for SDM are perceived by patients and dermatologists.

## Methods

### Study design

For this exploratory survey study, we developed two comparable online surveys, for patients and dermatologists, respectively, which were carried out using LimeSurvey version 2.6.7-LTS. The questionnaires took about 10 min to complete. All data were collected anonymously, which required completion in a single attempt since data could not be saved. The Medical Ethics Committee of the Amsterdam UMC approved the study and waived the need for a written informed consent.

### Participants

Inclusion criteria for patients were an age of 18 years or older, a diagnosis of AD or psoriasis and a treatment visit with a dermatologist or dermatology resident in the past 2 years.

The patient questionnaire was accessible via the Dutch national patient associations; Association for People with Atopic Dermatitis (VMCE) and Psoriasis patients the Netherlands (PN). For AD patients, the survey was emailed to all members and a link to the survey was placed on the VMCE website and social media platforms. For psoriasis patients, a link was placed on the PN website and social media platforms, an invitation to participate was published in the PN magazine, and flyers were spread during World Psoriasis Day 2018.

Dermatologists and dermatology residents (further referred to as dermatologists) were eligible to participate whether they were practicing in the Netherlands and a member of the Dutch Society of Dermatology and Venereology (NVDV). They were invited by email, and a single reminder was sent after 1 month.

### Questionnaires

The surveys consisted of validated measures and study-specific statements developed by the research group. To measure the extent to which SDM is currently experienced when making a treatment decision for AD or psoriasis, we used the validated Dutch translation of the nine-item shared decision making questionnaire (SDM-Q), consisting of a patient questionnaire (SDM-Q-9) and a similar version for physicians (SDM-Q-doc).<sup>12</sup> Originally, these questionnaires were designed to evaluate the extent of SDM after a consultation. We slightly adapted them to make them applicable for consultations in general, following Kunneman *et al*.<sup>13</sup>

Each of the nine items was scored on a 6-point Likert scale from 0 (no SDM) to 5 (optimum SDM) resulting in a score of 0–45, which was then converted to a 0–100 scale.

To define to what extent participants want to be involved in SDM, we used the Control Preference Scale (CPS).<sup>14</sup> The CPS was originally designed for patients and comprises a single question to indicate their desired role in treatment decision making (Fig. 3). When we used the CPS for the treatment of phototherapy or systemic therapy, we added the option '(F) I don't know what treatment with phototherapy/systemic therapy entails and skip this question'. The questions were slightly adapted in the physicians' questionnaire to reflect their perspective (Fig. 3).

Additional study-specific statements (responded to on a 4-point Likert scale from totally agree to totally disagree; Tables 2 and 3) were included to explore the barriers and facilitators patients and dermatologists experience and to further explore the extent of SDM they experience. The statements regarding perceived barriers and facilitators were based on previous studies.<sup>15–18</sup> They were classified in (i) factors related to healthcare organization such as time for a consultation and continuity of treating physician and (ii) factors related to the decision making interaction such as believes about the importance of one's role in SDM.<sup>16</sup> The statements regarding the extent of SDM were based on the observing patient involvement (OPTION) 5 instrument.<sup>19</sup>

### Statistical analysis

Data were analysed using IBM SPSS version 25. The results of the SDM-Q-9 questionnaires were compared with a Mann–

Whitney *U* test since data were not normally distributed. The CPS scales of patients and dermatologists were compared with a chi-squared test. To define any patient or physician characteristics which correlated with (predict) the desire for SDM, a Somers' *d* test was performed. A value under 0.3 predicts < 30% of the outcome, which was considered 'little if any correlation'.<sup>20</sup> Results of the additional statements were presented descriptively.

## Results

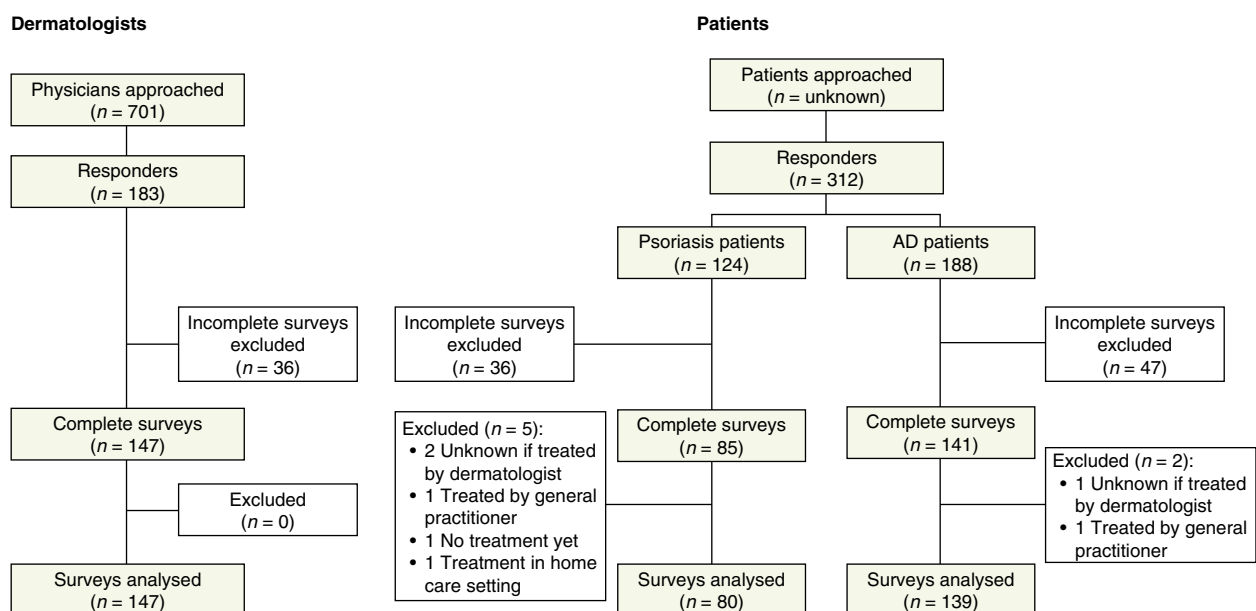
### Participants

We invited an unknown number of patients (due to the strategy as described in the methods section) and 701 physicians. Incomplete surveys were excluded from analysis: 47 for patients with AD, 39 for patients with psoriasis and 36 for dermatologists.

Seven patients were excluded because it was unknown if they were treated by a dermatologist ( $n = 3$ ), were treated by a general practitioner ( $n = 2$ ) and in a home care setting ( $n = 1$ ) or because no treatment decision was made yet ( $n = 1$ ).

We analysed the responses of 139 patients with AD, 80 patients with psoriasis and 147 dermatologists (Fig. 1). Demographic (and for dermatologists professional) characteristics of the participants are summarized in Table 1.

Almost all dermatologists (97%) were familiar with the term 'SDM' before participating in this study and 18% had previously



**Figure 1** Incomplete surveys were defined as missing  $\geq 10$  items. AD, Atopic dermatitis.

**Table 1** Demographics of participating patients and dermatologists

	<b>Patients n = 219 (%)</b>
Men	63 (29)
Age, yr	
<30	28 (13)
30–39	37 (17)
40–49	53 (24)
50–59	52 (24)
≥60	49 (22)
Skin disease	
Psoriasis	80 (37)
Atopic dermatitis	139 (63)
Disease duration, yr	
<1	2 (1)
1–5	16 (7)
6–10	17 (8)
11–15	16 (7)
>15	168 (77)
Last or current treatment	
Topical	182 (83)
Phototherapy	55 (25)
Systemic therapy	90 (41)
Education	
ISCED 0-1	4 (2)
ISCED 2	31 (14)
ISCED 3-4	75 (34)
ISCED 5-6	70 (32)
ISCED 7-8	39 (18)
	<b>Dermatologists n = 147 (%)</b>
Men	45 (31)
Age, yr	
<30	10 (7)
30–39	57 (39)
40–49	34 (23)
50–59	38 (26)
≥60	8 (5)
Experience, yr	
Resident	31 (21)
<5	36 (25)
5–9	16 (11)
10–19	30 (20)
20–29	31 (21)
≥30	3 (2)
Work setting	
Academic hospital	35 (24)
Non-academic hospital	85 (58)
Private practice	27 (18)
Planned time new patient visit, min	
5	0 (0)
10	83 (57)
15	37 (25)
20	16 (11)

**Table 1** Continued

	<b>Dermatologists n = 147 (%)</b>
≥25	11 (8)
Planned time follow-up visit, min	
5	21 (14)
10	106 (72)
15	18 (12)
20	2 (1)
≥25	0 (0)

ISCED, International Standard Classification of Education; min, minutes; Yr, year.

\*More options could be selected, for example topical and systemic therapy.

followed a training or lecture about SDM. About half of the patients (52%) were familiar with the term 'SDM' before this study.

### The extent to which patients and dermatologists experience SDM

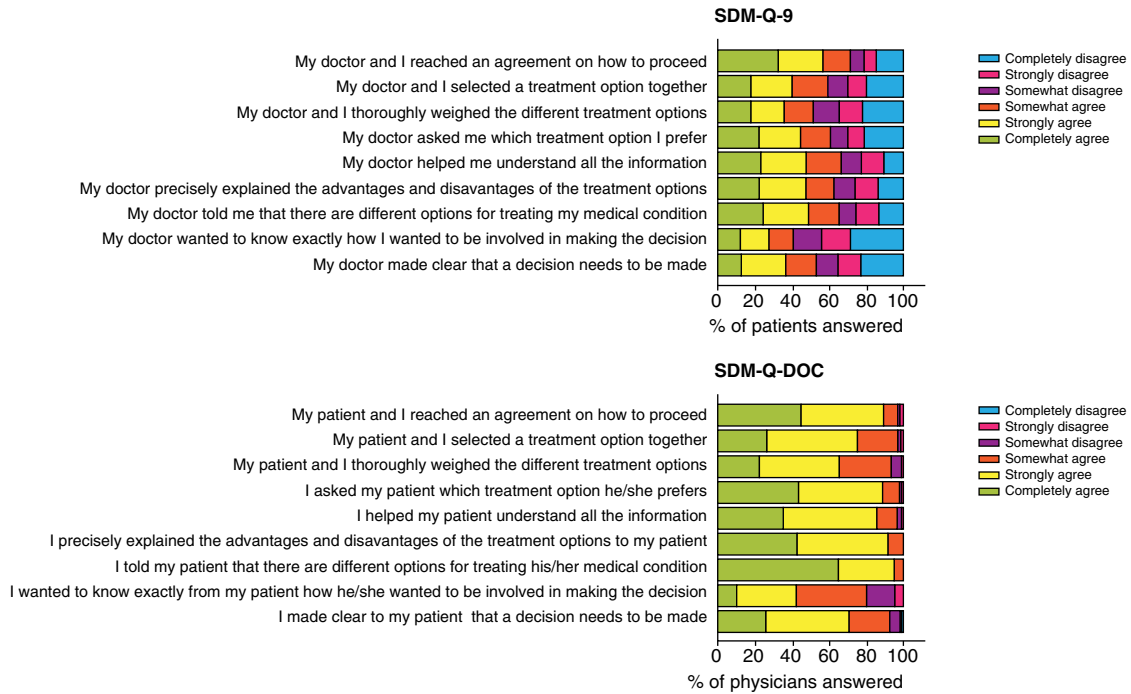
The mean total score of the SDM-Q questionnaire (range 0–100) was significantly higher for dermatologists, 82 (95% CI 80; 83) compared to 55 for patients (95% CI 51; 58,  $P < 0.01$ ), indicating that dermatologists experienced a higher degree of SDM compared to patients. The largest discrepancy between patients and dermatologists was found for the statement that different treatment options were discussed (Fig. 2). There was no difference between patients with AD or psoriasis (54 vs. 55,  $P = 0.82$ ) in the extent to which they experienced SDM.

Notably, 56 patients (26%) indicated that their dermatologist had not discussed different treatment options. Of these patients, 63% had started with topical therapy, 14% with phototherapy and 23% with systemic therapy.

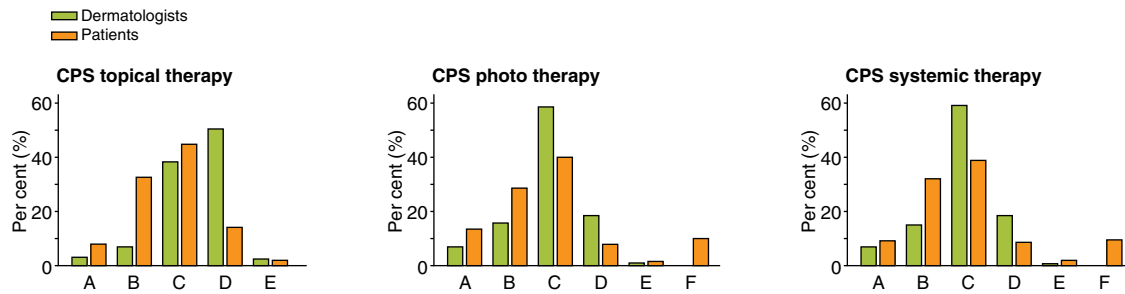
Most dermatologists (87%) reported to discuss the option of no treatment, but only 33% of the patients reported this. Of the dermatologists, 68% reported to ask patients which treatment aspects they find important (e.g. onset of action or side effects) and 60% of the patients indicated to have been asked this.

### The degree to which patients and dermatologists prefer to be involved in SDM

Regarding treatment decisions for topical therapy, most dermatologists (50%) indicated to 'prefer to make the final treatment decision, but seriously consider the patients opinion'. For both photo therapy and systemic therapy, 59% of the dermatologists preferred to make a shared decision. For biologics specifically, 36% preferred to share the responsibility and 38% preferred to make the final treatment decision but seriously consider the patients opinion.



**Figure 2** Experienced extent of SDM by patients and dermatologists measured with SDM-Q-9 and SDM-Q-DOC respectively. SDM, Shared decision making; SDM-Q-9, 9-item shared decision making questionnaire for patients; SDM-Q-DOC, 9-item shared decision making questionnaire for physicians.



**Figure 3** Control preference scale (CPS). Dermatologists: (A) I prefer to leave all treatment decisions to my patient; (B) I prefer that my patient makes the final treatment decision after seriously considering my opinion; (C) I prefer that the patient and I share responsibility for deciding which treatment is best; (D) I prefer that I make the final treatment decision, but seriously considers my patient’s opinion; (E) I prefer to make the final treatment decision. Patients: (A) I prefer to make the final treatment decision; (B) I prefer to make the final treatment decision after seriously considering my doctor’s opinion; (C) I prefer that my doctor and I share responsibility for deciding which treatment is best; (D) I prefer that my doctor makes the final treatment decision, but seriously considers my opinion; (E) I prefer to leave all treatment decisions to my doctor; (F) I don’t know what treatment with phototherapy/systemic therapy encounters and skip this question.

Most patients preferred ‘to share the responsibility with their doctor’ when making a treatment decision for topical therapy (45%), phototherapy (40%) or systemic therapy (39%). However, a substantial part of patients, (around 30% for all three therapy groups) ‘prefers to make the treatment decision after seriously considering my doctors opinion’ (Fig. 3).

**The patients and dermatologists characteristics related to their preference for SDM**

We did not identify a relevant correlation (defined as Somers  $d \geq 0.3$ ) between dermatologists’ years of experience and the preference for SDM in topical therapy (Somers’  $d = -0.18$ ,  $P < 0.01$ ) photo therapy (Somers’  $d = -0.02$ ,  $P = 0.75$ ) or

systemic therapy (Somers'  $d = -0.02$ ,  $P = 0.75$ ). The same applied for work setting (Somers'  $d = -0.09$ ,  $P = 0.20$ ;  $d = 0.07$ ,  $P = 0.28$ ;  $d = 0.07$ ,  $P = 0.34$ ) or planned consultation time (Somers'  $d = 0.14$ ,  $P = 0.04$ ; Somers'  $d = 0.01$ ,  $P = 0.85$ ; Somers'  $d = 0.00$ ,  $P = 1.00$ ) and topical therapy photo therapy or systemic therapy, respectively. Previously followed courses or lectures about SDM did correlate with an enhanced preference for SDM in, respectively, topical therapy, photo therapy and systemic therapy (Somers'  $d = 0.30$ ,  $P = 0.01$ ; Somers'  $d = 0.31$ ,  $P < 0.01$ ; Somers'  $d = 0.34$ ,  $P < 0.01$ ).

For patients, no correlation was found between age and the preference for SDM in topical therapy, photo therapy or systemic therapy (Somers'  $d = 0.04$ ,  $P = 0.40$ ; Somers'  $d = 0.04$ ,  $P = 0.31$ ; Somers'  $d = 0.05$ ,  $P = 0.31$ , respectively).

The same applied for disease duration (Somers'  $d = -0.05$ ,  $P = 0.55$ ; Somers'  $d = -0.07$ ,  $P = 0.37$ ; Somers'  $d = -0.16$ ,  $P = 0.051$ ) or highest level of education (Somers'  $d = -0.11$ ,  $P < 0.05$ ; Somers'  $d = -0.003$ ,  $P = 0.96$ ; Somers'  $d = 0.09$ ,  $P = 0.12$ ) and topical therapy, photo therapy or systemic therapy, respectively.

### The perceived barriers and facilitators for SDM

**The barriers or facilitators regarding healthcare organization** The most frequently reported barrier to participate in SDM by patients (72%) was a lack of continuity in treating physician (Table 3). Time constraints were mentioned as a barrier for SDM by 38% of the dermatologists and 15% agreed with the statement that SDM is not realistic because it takes too much time (Table 2). No correlation could be found between the level of agreement with this statement and the actual planned time for a consultation (for a new patient or a follow-up visit; Somers'  $d = -0.17$  and Somers'  $d = -0.01$ , respectively).

**Barriers or facilitators regarding the decision making interaction** All participating dermatologists (100%) believed that SDM is important and nearly all patients agreed. Also, both patients and dermatologists considered AD and psoriasis suitable for SDM.

Most dermatologists (82%) assumed that patients want to be involved in SDM, and 75% of patients felt that dermatologists want them to be involved in the treatment decision. Both patients and dermatologists reported to believe that SDM contributes to better treatment choices, improved treatment satisfaction and adherence. All of these findings facilitate SDM.

A barrier might be that 50% of the dermatologists believed that they are most capable of choosing the best suitable treatment. Also, 39% of dermatologists considered patients' knowledge about the disease and treatment options sufficient to participate in SDM. In contrast, most patients (81%) believed their knowledge is sufficient for SDM and 93% reported to feel confident to participate in SDM. Yet, the majority of patients

(59%) indicated that they prefer to receive more information before participating in SDM.

Patients reported most frequently to have received information about their treatment options directly from their dermatologist (89%), a website they found themselves (29%) and by patients societies (25%). Twelve (5%) patients received no information at all (Table 4).

A table or chart with an overview of treatment options was considered relatively most helpful by 32 patients out of 36 (89%). Leaflets from the hospital were considered helpful least often (Table 4).

Fifty-nine patients (27%) preferred to receive information in a different way than they had received (Table 4). Most of these patients ( $n = 40$ , 68%) preferred a chart or table with an overview of treatment options.

### Discussion

Taking into account the four steps for SDM as described by Stiggelbout *et al*, we found that (step 1) 37% of the patients (strongly or totally) agree with the statement that it was made clear that a treatment decision had to be made. This number is low compared to other studies, but these were not performed on dermatology patients.<sup>21,22</sup>

Concerning step 2, about half of the patients report (to strongly or totally agree) that different treatment options including the pros and cons were discussed and a quarter reported that no options were discussed. More complete information about the treatment options seems necessary, which was also demonstrated in a Canadian survey study amongst psoriasis patients.<sup>23</sup> Other studies confirm that patients want more information than what physicians expect.<sup>22,24</sup> Decision aids are particularly helpful here, and they have shown to improve patients' knowledge and risk perception.<sup>9</sup> Also, the use of decision aids can meet the preference of the majority of the patients (72%) to consider the treatment options at home.

For step 3, 44% of the patients reported (to strongly or totally agree) that their preferences towards therapies were discussed and 60% reported they were asked which treatment aspects they found important. Only 35% (strongly or totally) agrees that the options were thoroughly weighted. In a systematic review, it was reported that patient preferences were discussed in only 1 of 17 studies, and on a level below baseline skills.<sup>21</sup> Unlike in our study, these outcomes were objectively measured. Nevertheless, it seems that dermatologists in the Netherlands perform relatively well on this step.

Finally, regarding step 4, 27% of patients report (to strongly or totally agree) that their dermatologists asked if and how they wanted to be involved in the treatment decision and 39% reported that the treatment decision was shared. This was slightly higher than the 29% reported in the Canadian survey.<sup>23</sup>

There is quite a difference between patients and dermatologists in the reported extent of SDM (although conclusions

**Table 2** Responses on study-specific statements – dermatologists (*n* = 147)

Statements for dermatologists	Totally disagree <i>n</i> (%)	Disagree <i>n</i> (%)	Agree <i>n</i> (%)	Totally agree <i>n</i> (%)
<b>Barriers or facilitators regarding healthcare organization</b>				
SDM is not realistic because it takes too much time.	29 (20)	96 (65)	21 (14)	1 (1)
I do not have enough time to let patients participate in the treatment decision.	17 (12)	74 (50)	45 (31)	11 (8)
Physician payment should be based on how well they do on SDM.	67 (46)	65 (44)	10 (7)	5 (3)
<b>Barriers or facilitators regarding the decision making interaction</b>				
Treatment decisions in psoriasis are suitable for SDM.	1 (1)	9 (6)	95 (65)	42 (29)
Treatment decisions in AD are suitable for SDM.	1 (1)	14 (10)	97 (66)	35 (24)
SDM is important	0 (0)	0 (0)	83 (57)	64 (44)
SDM is low on my priorities.	47 (32)	87 (59)	12 (8)	1 (1)
SDM improves satisfaction with the treatment.	0 (0)	9 (6)	93 (63)	45 (31)
SDM improves treatment adherence.	0 (0)	7 (5)	90 (61)	50 (34)
SDM decreases decisional conflict in patients.	7 (5)	66 (45)	60 (41)	14 (10)
SDM leads to better treatment decisions.	0 (0)	22 (15)	90 (61)	35 (24)
Patients want to participate in the treatment decision	1 (1)	25 (17)	98 (67)	23 (16)
Patients have sufficient knowledge of their disease to participate in SDM.	9 (6)	81 (55)	52 (35)	5 (3)
Patients know what treatment aspects they find important.	0 (0)	24 (16)	110 (75)	13 (9)
I ask patients if they want to be involved in the treatment decision.	6 (4)	54 (37)	69 (47)	18 (12)
I find patients that want to be involved in the treatment decision difficult patients.	55 (80)	80 (54)	9 (6)	3 (2)
I believe that as a physician I am most capable of choosing the best suitable treatment for a patient.	13 (60)	60 (41)	70 (48)	4 (3)
Patients should trust physicians to make all treatment decisions for them.	19 (85)	85 (58)	36 (25)	7 (5)
Wrong treatment decisions can be made because of SDM.	37 (91)	91 (62)	18 (12)	1 (1)
I discuss only the treatment options that I consider appropriate for a patient.	4 (3)	41 (28)	85 (58)	17 (12)
Patients can only participate in SDM if their knowledge is sufficient, and they are confident enough to discuss treatment options with their physician.	3 (2)	40 (27)	80 (54)	24 (16)
Decision aids with a summary of pros and cons of treatments (such as online decision aids or option grids) would be useful.	0 (0)	10 (7)	84 (57)	53 (36)
<b>Statements regarding the extent of SDM</b>				
I discuss the option of no treatment.	1 (1)	18 (12)	104 (71)	24 (16)
I ask patients what treatment aspects they find important (e.g. onset of action, drug survival or long-term safety).	1 (1)	45 (31)	92 (63)	9 (6)
I check if a patient understood the treatment options correctly (e.g. by asking to summarize the options).	3 (2)	62 (42)	71 (48)	11 (8)

SDM, Shared decision making.

should be taken carefully as the patients in this study were not patients of the participating dermatologists). Possibly, several aspects of SDM are discussed by dermatologists, but are not remembered by patients or not recalled correctly as reported in several studies.<sup>13,25,26</sup> However, one could argue that in that case SDM was not performed satisfactorily, and improvement is nevertheless necessary. Additionally, it is known that both patients and physicians subjectively report higher levels of SDM

compared to what is objectively measured when consultations are audiotaped.<sup>27,28</sup> Being aware of the lower experienced extent of SDM by patients might encourage dermatologists to make more efforts to improve SDM.

Previously followed courses or lectures about SDM were the only characteristic in dermatologists that correlated with an enhanced preference for SDM. We could not identify any patients' characteristics that correlate with the preference for

**Table 3** Responses on study-specific statements – Patients (*n* = 219)

Statements for patients	Totally disagree <i>n</i> (%)	Disagree <i>n</i> (%)	Agree <i>n</i> (%)	Totally agree <i>n</i> (%)
<b>Barriers or facilitators regarding healthcare organization</b>				
Physicians have enough time for SDM.	21 (10)	75 (34)	95 (43)	28 (13)
If I am always treated by another physician, I find it more difficult to participate in the treatment decision.	18 (8)	43 (20)	97 (44)	61 (28)
I prefer to consider the treatment options at home before I can participate in the treatment decision.	9 (4)	52 (24)	123 (56)	35 (16)
<b>Barriers or facilitators regarding the decision making interaction</b>				
SDM is important	1 (1)	3 (1)	96 (44)	119 (54)
SDM improves satisfaction with the chosen treatment for me.	1 (1)	11 (5)	144 (66)	63 (29)
SDM improves treatment adherence for me.	6 (3)	30 (14)	130 (59)	53 (24)
SDM limits my doubts about the chosen treatment.	6 (3)	20 (9)	142 (65)	51 (23)
SDM leads to the best therapy for me.	2 (1)	27 (12)	141 (64)	49 (22)
Physicians want patients to participate in SDM.	5 (2)	49 (22)	115 (53)	50 (23)
My knowledge is sufficient to participate in the treatment decision.	6 (3)	35 (16)	111 (51)	67 (31)
My knowledge of my disease and previous treatments is as important as the knowledge of the physician.	3 (1)	26 (12)	109 (50)	81 (37)
I know which treatment aspects I find important (e.g. how quick it works or what side effects occur on the long term).	3 (1)	15 (7)	112 (51)	89 (41)
I am afraid that physicians think I am a burden when I get involved in the treatment decision and that this negatively influences the treatment outcome.	64 (29)	111 (51)	29 (13)	15 (7)
Physicians know best which treatment suits me best.	10 (5)	80 (37)	110 (50)	19 (9)
I am afraid to make a wrong decision when I am involved in the treatment decision.	76 (35)	106 (48)	30 (14)	7 (3)
I feel confident enough to participate in the treatment decision.	2 (1)	13 (6)	120 (55)	84 (38)
The words that physicians use in their explanation are too difficult to participate in the treatment decision.	47 (22)	129 (59)	36 (16)	7 (3)
<b>Statements regarding the extent of SDM</b>				
Physicians discuss the option of no treatment.	61 (61)	86 (39)	68 (31)	4 (2)
Physicians ask me which treatment aspects I find important (e.g. how quick it works or what side effects occur on the long term).	21 (10)	66 (30)	91 (41)	41 (19)
Physicians check if I understood the treatment options correctly (e.g. by asking me to summarize the options).	19 (9)	70 (32)	107 (49)	23 (11)
I prefer to receive more information before I can participate in the decision for my treatment.	8 (4)	60 (27)	120 (55)	31 (14)

SDM, Shared decision making.

SDM, but the groups are relatively small for this analysis. Nevertheless, we suggest that no patients are excluded from SDM beforehand.

Regarding the barriers and facilitators for SDM, mostly facilitators were found. Both patients and dermatologists acknowledge each other's willingness to apply SDM and both groups believe that SDM results in improvement of patient care. These facilitators are also most frequently reported in literature.<sup>29</sup> Barriers are most often perceived on an organizational level, such as continuity in treating physician and lack of time. One way to address these issues could be to involve other healthcare practitioners such as (specialized) nurses to further explain treatment options before making the final decision with the dermatologist. Other often reported barriers are lack of applicability due to

patient characteristics or clinical situation, but these were not confirmed in our study.<sup>29</sup>

### Strengths and limitations

Our study compares the views of patients and dermatologists, which helps to obtain a complete picture of the current situation. Like all survey studies, this study is prone to recall bias and there might be a selection bias since patients and dermatologists with an interest in SDM are more likely to participate. The participating patients were not treated by the participating dermatologists. Incomplete surveys were not included in analysis. Reasons for discontinuation were not collected, but possibly the need to finish the survey in a single attempt has played a role. Patients were recruited via the national patient societies, and



**Table 4** Current way and preferred ways to provide information about treatment options as reported by patients and dermatologists

	Information provided – dermatologists (n = 147)	Information received – patients (n = 219)	The received information was helpful – patients (n = 173) who received that information	I prefer to receive information in another way – patients (n = 59) who received that information	Preferred way to receive information – patients who preferred to receive another way (n = 59)
	n (%)	n (%)	n (%)	n (%)	n (%)
Consultation physician	147 (100)	195 (89)	163 (85)	42 (22)	23 (39)
Consultation nurse/assistant	58 (39)	55 (22)	27 (49)	4 (7)	11 (19)
Table with treatment options	34 (23)	36 (16)	32 (89)	4 (11)	40 (68)
Friends and family	NA	28 (13)	13 (46)	8 (17)	0 (0)
Leaflets from hospital	131 (89)	35 (16)	10 (29)	2 (6)	11 (19)
Patient society	NA	55 (25)	22 (40)	8 (15)	10 (17)
Websites recommended by hospital	73 (50)	10 (5)	4 (40)	0 (0)	18 (30)
Website I found myself	NA	63 (29)	NA	20 (32)	1 (2)
No information	0 (0)	12 (5)	NA	11 (92)	NA
Other	9 (6)	9 (4)	NA	0 (0)	0 (0)

For each statement, one or more answers could be given.  
NA, not applicable.

their members might be more actively involved with disease management. This study lacks objective measurements of the extent of SDM; therefore, it is not to say whether the differences between patients and dermatologists are accountable to one group.

### Future perspective

The results of this study show that improvement of SDM in AD and psoriasis is needed. Potential steps to accomplish this include education on the concept of SDM and training in communication skills for physicians on how to attain SDM during a consultation.<sup>30</sup> Preferred ways are consultation simulations with trained actors or colleagues and include not only treating physicians but also other involved healthcare professionals.<sup>4,22,31</sup> Furthermore, since only half of the patients were familiar with SDM, patient education is important to create awareness about SDM and encourage patients to actively participate in the treatment decision. Decision aids are appreciated by patients and are helpful to improve SDM. Compact 1-page encounter decision aids have recently been developed for AD and psoriasis in the Netherlands.<sup>9,32–34</sup> However, they cannot replace the consultation between patients and their dermatologist. Although patients and dermatologists presume beneficial effects of SDM, data on the effect of SDM on treatment satisfaction and adherence are lacking and clinical trials are needed.

### Conclusion

Both patients and dermatologists prefer SDM for treatment decisions in AD and psoriasis. Despite the dermatologists optimistic perspective, the extent of SDM that patients experience is limited and physicians should be aware of this gap. Improvement of SDM in AD and psoriasis is needed in all four steps. The positive attitude of patients and dermatologists towards the process and outcome of SDM is important facilitators. The most important perceived barriers include a lack of continuity of care by the same physician and a lack of time. Further steps to improve SDM in dermatology can include training of physicians, education in patients, and the development and implementation support tools such as decision aids.

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