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The use of implicit persuasion in decision-making about treatment for end-stage kidney disease

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Abstract

Background: There are various options for managing end-stage kidney disease. Each option impacts the lives of patients differently. When weighing the pros and cons of the different options, patients' values, needs and preferences should, therefore, be taken into account. However, despite the best intentions, nephrologists may, more or less deliberately, convey a treatment preference and thereby steer the decision-making process. Being aware of such implicit persuasion could help to further optimise shared decision-making (SDM). This study explores verbal acts of implicit persuasion during outpatient consultations scheduled to make a final treatment decision. These consultations mark the end of a multiconsultation, educational process and summarise treatment aspects discussed previously.

Methods: Observations of video-recorded outpatient consultations in nephrology ($n = 20$) were used to capture different forms of implicit persuasion. To this purpose, a coding scheme was developed.

Results: In nearly every consultation nephrologists used some form of implicit persuasion. Frequently observed behaviours included selectively presenting treatment options, benefits and harms, and giving the impression that undergoing or foregoing treatment is unusual. The extent to which nephrologists used these behaviours differed. **Conclusion:** The use of implicit persuasion while discussing different kidney replacement modalities appears diverse and quite common. Nephrologists should be made aware of these behaviours as implicit persuasion might prevent patients to become knowledgeable in each treatment option, thereby affecting SDM and causing decisional regret. The developed coding scheme for observing implicit persuasion elicits useful and clinically relevant examples which could be used when providing feedback to nephrologists.

Introduction

At some point in their lives, patients with end-stage kidney disease (ESKD) have to choose some form of kidney replacement therapy. In the Netherlands, this concerns around 2000 new patients per year.¹ Each treatment modality (transplantation with living or deceased donor kidney, conservative treatment, peritoneal dialysis or haemodialysis, during the day or nocturnal, at home or in-centre) impacts daily life differently. To make a choice, patients need to understand all options, advantages and risks, and to choose a modality that suits their needs, living and medical circumstances best; a challenging task for patients and their nephrologists.

Despite the best intentions to provide objective information, decision-making does not take place in a vacuum. Information processing is – more or less deliberately – influenced by the way information is provided. Prejudiced, potentially modifiable beliefs and perceptions among healthcare providers may affect treatment preferences and so may the hospital policy with regard to a specific treatment.^{2,3} These prejudices can, unintentionally, influence information provision and induce implicit persuasion. Such implicit persuasion raises the question if the shared decision-making (SDM) process regarding preferencesensitive kidney treatment modalities is as non-directive as it should be. Research shows that doctors' authority in the domain of medical reasoning impacts patients' responses^{4,5} also in nephrology.⁶ Even the way in which advantages and disadvantages of treatments are presented impacts significantly on decisions made.⁷ Decisions can also be influenced by ignoring patients' doubts or objections⁸ or by using specific discourse strategies in presenting insecurities.⁹ Importantly, there is no 'one-size-fits-all' strategy when it comes to decision-making; although all patients are potentially able and willing to participate in decision-making, some need more guidance in this process than others.¹⁰

Unraveling nephrologists' communication in consultations in which a final treatment decision is made is needed to ensure that patients receive balanced information regarding available treatment options and to guarantee equal access to all suitable options. This explorative study investigates the use of implicit persuasion regarding treatment options presented by nephrologists. Within this concept, persuasion is defined as communication that is intended to achieve specific persuasive goals, and implicit refers to 'without intention', 'not on purpose' or 'not aware of'. Investigating implicit persuasion during everyday care offers insights into the changes that might be needed to allow equal treatment modality choices for all patients. Therefore, the following research question is addressed: What verbal acts of implicit persuasion do nephrologists show during outpatient consultations with patients with ESKD in which a final treatment decision has to be made?

Methods

This explorative study is embedded within a larger study on SDM in nephrology. In this study, video recordings are made of outpatient consultations between nephrologists and patients with chronic kidney disease in which a final treatment decision needs to be made. These consultations mark the

end of a multi-consultation educational process and summarise the treatment aspects discussed with the patient previously. The Committee on Research involving Human Subjects (CMO) Regio Arnhem-Nijmegen exempted the study from formal ethical approval (number 2019-5080).

Study population

Between July 2019 and January 2020, consecutive patients with chronic kidney disease (estimated glomerular filtration rate <20 ml/min/1.73 m²) were asked to participate in the study by a nephrologist working in one of five participating hospitals in the Netherlands. Eligible patients had to be ≥18 years of age and awaiting an appointment with their nephrologist to choose a form of treatment. Written informed consent was obtained from patients and nephrologists. The participants were informed that the project focused on the way treatment options were discussed and treatment decisions were made.

Procedure

Before the consultation, patients completed a questionnaire assessing their sociodemographic characteristics, decisionmaking preference (five options, Table 1) and level of health literacy. A lower level of health literacy was determined by educational background (elementary school and preparatory secondary vocational education) and confirmative answers on three validated multiple-choice health literacy questions: 'How often do you have someone help you read hospital materials?' (from 'always' to 'never'), 'How confident are you filling out medical forms by yourself?' (from 'not at all' to 'extremely') and 'How often do you have problems learning about your medical condition because of difficulty understanding written information?' (from 'always' to 'never').¹¹ The consultation was recorded with an unmanned video camera, directed towards the nephrologist.

[Table 1]

Coding scheme

To detect verbal acts of implicit persuasion, a coding scheme was developed. This scheme elaborated on the scheme developed in oncology¹² as well as on behaviours described by others.¹³ Descriptions and examples of behaviours were adapted to fit the setting of nephrology. For example, the word 'oncologist' was replaced by 'nephrologist' and exemplary quotes regarding endocrine therapy were replaced by quotes regarding dialysis treatment. In addition, certain communicative behaviours were added to the scheme. One of these behaviours was 'Trying to avoid offering other treatment alternatives', a behaviour described by Karnieli-Miller and Eisikovits but not listed by Engelhardt et al.^{12,13} In the current scheme, this behaviour was included, although reversely coded to 'selectively presenting treatment alternatives' to correspond with the direction of other coded behaviours. Furthermore, behaviours describing a selective presentation of benefits and harms of a treatment were incorporated, as various dialysis modalities have a comparable clinical outcome but different impact and complications that could be relevant for the choice the patient has to make.

A list of the most frequently mentioned benefits and harms as well as the most prevalent side effects was made based on literature.¹⁴⁻²⁰ Additionally, certain behaviours such as 'mild to serious medicine: a gradual decision' were removed from the coding scheme. 'Having one treatment implicitly tag along with another' was removed as well, because this is not relevant for treating patients with ESKD: for example, incentre haemodialysis is usually not combined with peritoneal dialysis. The resulting scheme was reviewed by three nephrologists (ACA, BCvJ and MR) to assess unambiguity and completeness. The behaviour 'emphasising the seriousness of the disease' was removed because, according to the clinicians, this has no influence on the choice. Moreover, the list with the most prevalent side effects was adapted to fit what the experts experience in clinical practice. The resulting 18-behaviour coding scheme (Appendix 1) was applied on the 20 video-

recorded consultations. Coding took place in an observation room only accessible to researchers involved in videoobservation studies. The coding scheme was tested on four consultations (20%) by two independent researchers (EP and LS) to ensure interrater reliability.²¹ After the first two consultations, the agreement was 58.5%. For that reason, the definitions of the 18 behaviours in the coding scheme were further tightened and after coding a second set of two consultations, the agreement was sufficiently high (74.3%). The remaining 16 consultations were coded by one researcher (EP) using Behavioural Observation Research Interactive Software version 7.9.7.²²

Data analysis

In this study, different examples of verbal implicit persuasion acts were explored. The results section provides fragments of the communication as illustrations of the observed acts of implicit persuasion categorised in four themes.

Results

Sample characteristics

Nine nephrologists from five Dutch hospitals included 20 patients (mean 2.2, see Table 1). Patients were on average 70 years of age (range 51–82 years) and half of them were male. Before the consultation, 11 patients indicated that they wanted to make a treatment decision together with the nephrologist and 5 patients wanted to make a decision in which they strongly considered the nephrologist's opinion (Table 1). Twelve patients had a lower level of education.

The use of implicit persuasion

In almost all consultations (19/20), nephrologists used verbal acts of implicit persuasion (mean 4; range 0–9, see Figure 1) which differed in number and type (Table 2). These verbal acts could be distinguished in four themes, that is, discussing side effects and benefits/harms unequally, using guideline or age as authority, making assertions about patient's personality/others like you and selectively presenting treatment options.

Discussing side effects and benefits/harms unequally

In a few consultations (3/20), benefits and harms were not discussed at all. In other consultations (4/20), certain benefits and harms were emphasised, as in the example below:

[Figure 1]

[Table 2]

It is especially for home dialysis a good option [dialyzing shorter but more often]. If you do it often, it is the most convenient to do it at home, because then you do not have to leave. [. . .] But it is most convenient to do it at home, otherwise you keep driving back and forth. (Patient: male, 51 years of age)

Side effects and complications were not discussed in 10/20 consultations. In one consultation, selectively presenting side effects or complications took place in favour of a treatment, and in six consultations, presentation took place at the expense of a treatment. In four consultations, the occurrence or impact of a complication was downplayed, as in the following example:

It does not have to happen. And in general, if you have peritonitis with peritoneal dialysis, it is less serious than, for example, with another patient. [. . .] But it is possible. Per patient, we can have

peritonitis once every six months. More than that should not happen. Usually it is less. We have much less. (Patient: female, 78 years)

Nephrologists selectively discussed benefits and harms of different treatment options, both in favour as well as against a certain treatment. In the fragment below, benefits and harms of living with the specific type of treatment are presented in favour of transplantation and at the expense of peritoneal dialysis:

What I hear from people, they say “I’ve got my life back”. You will always keep your hospital appointments, but you can go on holiday if you want, you can take a walk if you want . . . -
With peritoneal dialysis, that is also possible, but it is different. You are always dependent on such a device. You feel less autonomous. (Patient: female, 62 years)

Using guideline or age as authority

In six consultations, the clinician presented a guideline as an authority. Age was given as an authorised reason to undergo or forego a treatment in four consultations, as is also shown in the following example:

Normally, I am quite in favor of conservative treatment, but you are too young for that, to be honest. (Patient: female, 56 years)

In 6/20 consultations, the implicit persuasion act ‘giving the impression that undergoing or foregoing treatment is quite unusual’ was observed. In these consultations, this impression was mostly given with regard to the age of the patient. For example:

And if you are not being dialyzed, it will slowly deteriorate. And that [conservative treatment] is especially for people who are slightly older who have doubts. [. . .] For younger people, that is often not the case. (Patient: male, 51 years)

Making assertions about patient’s personality/others like you. In some consultations (4/20), other patients were taken as an example, as in the following example:

We’ve had a couple with the husband dialyzing, and the wife setting up the machine. So, they could manage all by themselves. That means that you can organize your own life. (Patient: female, 78 years)

In 5/20 consultations, the nephrologist made assertions about the patient’s personality without checking these with the particular patient:

As I know you, to do the things like you do them now, that is very important and valuable for you. But because you are still so active, it seems a bit contradictory to say that we are not going to dialyze. (Patient: female, 76 years)

Selectively presenting treatment options.

In 13/20 consultations, treatment options were selectively presented. In other consultations, certain treatment options were mentioned very briefly (Table 2). In seven consultations, the option to be conservatively treated was not mentioned at all. In five consultations, kidney transplantation was not mentioned either. Twice, kidney transplantation was mentioned but not further discussed. In both cases, the nephrologist stated that transplantation would not be suitable for the patient due to the patient’s age:

Transplantation is also an option, but given your age, you are too old for that, so that is not an option. Above the age of 75, they actually don't do it anymore. (Patient: male, 80 years)

Even though the two different dialysis modalities – peritoneal dialysis and haemodialysis – were both discussed in every consultation, a further distinction between the various forms of peritoneal dialysis and haemodialysis was not always made. In most consultations, the two types of peritoneal dialysis, continuous ambulatory peritoneal dialysis and automated peritoneal dialysis, were discussed with the patient. In 7/20 consultations, a distinction was made between incentre haemodialysis and haemodialysis at home. Yet, in two of these cases, the possibility to do it at home was only briefly mentioned, either because the nephrologist was interrupted or implied that he did not see the advantage of performing haemodialysis at home:

Hemodialysis could also be done at home, but I don't know if that offers much added value. (Patient: female, 73 years)

Variation among nephrologists in applying implicit persuasion

Some implicit persuasion acts were used more often by certain nephrologists than by others. For example, all nephrologists except two, selectively presented treatment options in each consultation. One of these two nephrologists was the only nephrologist who minimised the impact of side effects/complications. Furthermore, two nephrologists used other patients as examples, but none of the others did. Both clinicians displayed this behaviour twice.

Discussion

This explorative study investigated the use of implicit persuasion within nephrology through the observation of video-recorded outpatient consultations with patients with ESKD in which a final treatment decision has to be made. We observed that in almost every consultation the nephrologist uses verbal acts of implicit persuasion at least once. When such implicit persuasion takes the form of selectively discussing treatment options, this could jeopardise the SDM process. To prevent such impact, nephrologists might need to become aware of the way they support patients in their decision-making process and be taught to become more sensitive of the extent to which patients need guidance in this respect. This is even more relevant for communication-vulnerable patients such as patients with limited health literacy.²³ For these patients, complex medical information is especially difficult to understand and apply which engenders the risk that treatment decisions are made without them being fully informed or knowledgeable of all possibilities. Yet, they too need and want to become involved in the decision-making process.²⁴

The frequency in which implicit persuasion was observed suggests that most nephrologists have a preference for a treatment modality most suitable for a patient. Sometimes, the clinician explicitly stated a recommendation. Such a recommendation about the treatment choice might be appropriate, when a patient specifically asks for the opinion of the doctor. However, only five patients wanted to know the doctor's opinion. Therefore, clinicians should be careful when making a recommendation, as this can lead to lower perceived patient involvement.²⁵ Additionally, it may hinder the consideration of options,²⁶ thereby influencing the treatment decision,²⁷ risking decisional regret²⁸ and reduced quality of life.⁶ When clinicians do want to make a recommendation, they need to make clear that they do so for medical reasons and inform the patient in an explicit way why they give this recommendation. Still, patients may have arguments and values that go against a recommendation, which need to be taken seriously. Implicit persuasion has previously been described as unwittingly convincing patients to agree with a certain point of view about a treatment decision.¹³ However, this does not necessarily have to be the case. As indicated above, clinicians might display these behaviours unintentionally, without the goal of steering a patient in the direction

of a specific choice. Some of the observed acts of implicit persuasion, such as using another patient as an example, might be attempts to comfort a patient or to reduce anxiety.

The Dutch clinical practice guideline states that – ideally – patients should be informed about all treatment options.²⁹ In the majority of the consultations we investigated, treatment modalities were selectively discussed by the nephrologist or not discussed in a neutral way. The options for dialysis were most often discussed with the patient, whereas in several consultations neither transplantation nor conservative treatment was mentioned. Yet, also in consultations where treatment possibilities were extensively discussed, the clinician did not always talk about all options. In conformity with the clinical guideline, SDM implies being open about all available treatment options. This theoretical stance seemingly contradicts with the implicit persuasion acts observed in the present study. Yet, nephrologists can have several, plausible reasons to deviate from the clinical guideline. In addition, treatment modalities that were not discussed or ruled out as an option for medical reasons could have been discussed with the patient in previous consultations. Nevertheless, it remains worthwhile to summarise or at least mention all modalities during the final decision-making visit, since patient's preference might have changed or previous information might have been forgotten.

Another determining factor in selectively presenting treatment information could be patient's age. The patients in the seven consultations in which conservative treatment was not discussed were all below the age of 75 years. The patients in the five consultations in which transplantation was not discussed were all above the age of 75 years. In three consultations, age was explicitly given as a reason not to opt for transplantation or conservative treatment. Although the effects of kidney replacement therapy above the age of 80 are not clear,^{30,31} the clinical practice guideline does state that age as such should not be used as a determining factor for a choice of treatment. Comorbidities, quality of life and functional health should be considered as well when advising a patient.²⁹ The clinician can, on the other hand, inform an older patient with multiple comorbidities that kidney replacement therapy might not give a better survival than conservative treatment. It is also possible that the medical history of the patient caused the selective presentation of the treatment options. Still, all other options need to be considered and discussed with the patient to optimise SDM.

The benefits, harms and side effects of treatment modalities were also often selectively presented. In several consultations, the focus was on the benefits of only one treatment modality. This corresponds to a study in which clinicians overestimated benefits and minimised harms surrounding preoperative radiotherapy for rectal cancer patients.³² It is possible that the observed selective presentation influences the decision-making process, as research has shown that a lack of information as well as the way in which information is framed and conveyed can influence a decision.³³ Although healthcare providers should present the information considering the context of the patient, this information provision should not be selective or directive, since the decision depends on the person's own weighing of benefits and harms.³²

In several consultations, nephrologists also gave the impression that undergoing or foregoing treatment is unusual or made assertions about a patient's personality. This partly corresponds with the results from a previous study in which the most frequently occurring acts of implicit persuasion were presenting a minimal number of side effects and presenting a treatment option as an authorised 'we' decision.¹² Yet, not all forms of implicit persuasion are negative for the decision-making process. For instance, it can be valuable and even be considered mandatory to adjust patients' beliefs to more realistic ones.^{34,35} Still, the use of persuasive behaviours beyond the removal of incorrect beliefs is usually not appropriate, even if it is unintentional.³⁵

Methodological considerations

Findings from this explorative study contributed to a deeper understanding of the subtleties in clinical decision-making. The applied coding scheme for capturing implicit persuasion was developed with input from experienced nephrologists. The scheme was applied to 20 video-recorded outpatient

consultations, a high enough number given the qualitative nature of our study. The interrater reliability of the scheme was sufficiently high. Nevertheless, it is recommended to assess other psychometric properties of the scheme in future studies. A limitation is that for each patient only one consultation was recorded and analysed, that is, the consultation in which the final treatment decision was made. However, a decision whether or not to start kidney replacement therapy is not made in one consultation, it takes multiple consultations with the nephrologist as well as other healthcare professionals. Hence, treatment options as well as benefits and harms that were not discussed in the observed consultations could have been mentioned in previous consultations. Nonetheless, it should be the explicit purpose of the final consultation to summarise all treatment information discussed previously and use this to decide on the best treatment option. Lastly, the question can be raised whether the presence of the video recorder during the consultation has influenced the behaviour of patient and clinicians. There are no indications that a video recorder significantly influences behaviour³⁶ and nephrologists were unaware that implicit persuasion was the focus of our interest.

Conclusion

This is the first study investigating the use of implicit persuasion in nephrology; former studies were predominantly done in oncology. The study shows that nephrologists, deliberately or not, display implicit persuasion acts in consultations where patients with ESKD have to make a treatment decision. Nephrologists need to be made aware of their subtle communication and the effect it may have on patients, so that they can change their behaviour accordingly, when needed. For now, the question remains to what extent implicit persuasion is harmful in view of, for example, decisional regret and emotional well-being of the patient. In addition, more in-depth understanding of the extent in which selectively discussing treatment options and side effects are done deliberately and based on clear medical contraindications, is worthwhile to gain.

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Author contribution

Sandra van Dulmen, PhD, and Emma Peereboom, MSc, contributed equally to this article and share the first authorship.

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Appendix 1

Table 1A. Observation scheme for coding implicit persuasion in nephrology.

Behaviour	Description	Behaviour used? (multiple options)
A	Selectively presenting treatment options Although multiple treatment options exist, the clinician does not present all these options (even if the patient already has a clear preference). Only code the treatment options that are being discussed. <i>NB. The clinician can name the treatment but does not discuss it further and does not clarify why the patient would (not) need that treatment.</i>	No Yes: Dialysis general (Dial) Haemodialysis (HD) Peritoneal dialysis (PD) Kidney transplant (KTx) Conservative (Cons)
B	Discussing other treatment options after the treatment choice has been made Only after deciding on a treatment, other treatment options are discussed.	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
Behaviour	Description	Behaviour used? (multiple options)
C	Selectively presenting side effects/ complications in favour of a treatment ^a	No Yes, and alluded to: Dial, HD, PD, KTx and Cons Not discussed
D	Selectively presenting side effects/ complications at the expense of a treatment ^a	No Yes, and alluded to: Dial, HD, PD, KTx and Cons Not discussed
E	Selectively presenting benefits and/or disadvantages in favour of a treatment ^b	No Yes, and alluded to: Dial, HD, PD, KTx and Cons Not discussed
F	Selectively presenting benefits and/or disadvantages at the expense of a treatment ^b	No Yes, and alluded to: Dial, HD, PD, KTx and Cons Not discussed
G	Emphasising the benefits or disadvantages of a treatment ^c The benefits and/or side effects of a treatment are emphasised (e.g. 'The benefits are substantial' or 'The benefits outweigh the side effects').	No Yes, and alluded to: Dial, HD, PD, KTx and Cons Not discussed
H	Minimising the impact of a treatment E.g. 'Peritoneal dialysis is a relatively easy treatment'.	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
I	Minimising the impact of side effects/ complications The clinician emphasises that side effects/complications do not occur often, minimises the impact, or emphasises that he/she and/or the patient is able to control and oversee the side effects of treatment. E.g. 'You may feel nauseous, but I can give you a drug that you can take when you suffer from that'.	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
J	Presenting the side effects/benefits/ disadvantages after the final treatment decision has been made The side effects of a treatment are discussed after a decision on the treatment is made.	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
K	Presenting treatment as an authorised decision based on 'the guideline' The guideline is presented as an authority, which the patient should abide by. E.g. 'The guideline states that...'	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
L	Presenting treatment as an authorised 'we' decision The clinician presents the treatment as an authorised decision based on consensus amongst experts. E.g. 'We are in favour of...'	No Yes, and alluded to: Dial, HD, PD, Tx and Cons
M	The illusory power to decide The actual decision is already made, but by leaving the decision on when and whether or not to terminate the treatment in the patients' hands, the illusion is created that treatment decision-making was shared or even patient-driven.	No Yes, and alluded to: Dial, HD, PD, KTx and Cons

Table IA. (continued)

N	Emphasising the seriousness of a treatment	E.g. <i>'very though'</i> or <i>'extremely important'</i> .	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
O	Frightening patients about non-compliance	The clinician stresses what could go wrong if the patient does not comply with the recommended course of treatment, e.g. regarding the method of home dialysis or regarding dietary advice.	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
P	Making assertions about the patients' personality	The clinician makes assertions about the patient's personality, e.g. about what he/she can or cannot handle. E.g. <i>'To me, you seem like a person who wants to do it all right'</i> .	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
Q	Deterring vs. encouraging: using others as examples	The clinician uses other patients' frightening or hopeful stories as examples. E.g. <i>'From other patients we know...'</i>	No Yes, and alluded to: Dial, HD, PD, KTx and Cons
R	Giving the impression that undergoing or foregoing treatment is quite unusual	The clinician emphasises that it is very unusual for patients like yourself to undergo or forego treatment. E.g. <i>'Most patients like yourself decide for peritoneal dialysis'</i> .	No Yes, and alluded to: Dial, HD, PD, KTx and Cons

^aExamples of side effects (nieren.nl)³⁷:

Dialysis general: fluid accumulation/high blood pressure/shortness of breath, thirst due to fluid restriction, itching, increased risk of infections and reduced physical condition.

Haemodialysis: side effects due to too much fluid withdrawal in too short a time (low blood pressure, muscle cramps and dizziness), dialysis hangover, vascular access-related problems and central venous catheter (infections of the shunt and catheter occlusion).

Peritoneal dialysis: side effects due to glucose in the dialysis fluid (less appetite, weight gain and change of peritoneum) and peritonitis.

Transplantation: surgical complications (bleeding and infection), rejection of the transplant, increased risk of infection and cancer as a result of the immunosuppressive medication.

^bExamples of benefits^{14,16,18-20,38}:

Transplantation: compared with dialysis reduced mortality and cardiovascular events and better-reported quality of life.

Conservative treatment: no treatment burden.

^cExamples of disadvantages^{14,17-20}:

Transplantation: long waiting list (in the Netherlands, 3.5 years on average waiting for a kidney of a deceased donor).

Conservative treatment: deteriorating condition due to decline of the kidneys function and possible limited survival (depending on age and comorbidity).

Tables and figures

Table 1. Patient, nephrologist and consultation characteristics.

Patient characteristics (n = 20)	
Age (mean; range)	70 (51–82) ^a
Sex (male)	10
Level of education	
Low (elementary school and preparatory secondary vocational education)	12
Intermediate (senior secondary education, high school and vocational training)	4
High (university of applied sciences and research university)	4
Decision-making preference	
The doctor should make the decisions using all that is known regarding treatments	1
The doctor should make the decisions but strongly consider my opinion	2
The doctor and I should make the decisions together on an equal basis	11
I should make the decisions but strongly consider the doctor's opinion	5
I should make the decision using all I know or learn about the treatments	1
Level of health literacy	
Help in reading hospital material (<i>often/always</i>)	2
Confidence in filling out medical forms (<i>not confident</i>)	2
Problems learning about the medical condition because of difficulty understanding written information (<i>often/always</i>)	0
Nephrologist characteristics (n = 9)	
Sex (male)	4
Number of patients included (mean; range)	2.2 (1–5)
Hospital (n = 5)	
Non-academic	3
University medical centre	2
Consultation length (in minutes; range)	25 (15–39)

^aMean age was calculated over a smaller n (n = 17) due to three missing values.

Figure 1. Number of implicitly persuasive behaviours observed per consultation.

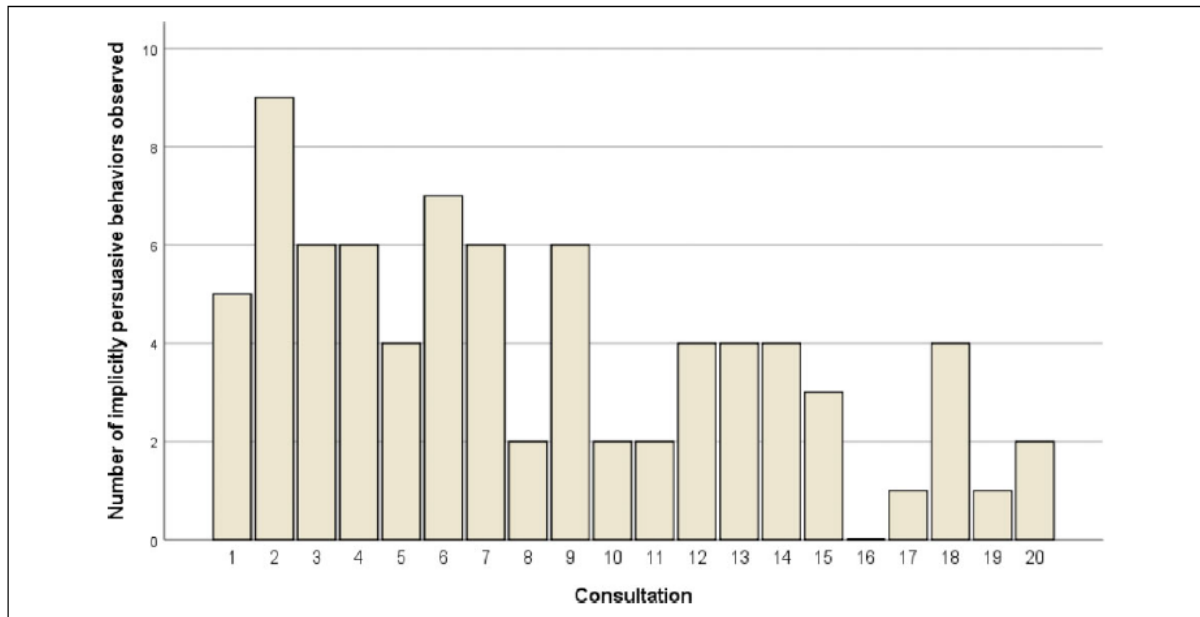


Table 2. Number of consultations with verbal acts of implicit persuasion in order from highest to lowest frequency.

<u>Verbal act of implicit persuasion</u>	N
Selectively presenting treatment alternatives	13
Selectively presenting benefits and/or disadvantages in favour of a treatment	11
Selectively presenting side effects/complications at the expense of a treatment	6
Selectively presenting benefits and/or disadvantages at the expense of a treatment	6
Presenting treatment as an authorised decision based on ‘the guideline’	6
Giving the impression that undergoing or foregoing treatment is quite unusual	6
Making assertions about the patients’ personality	5
Emphasising the benefits or side effects of a treatment	4
Minimising the treatment’s impact	4
Deterring vs. encouraging: using others as examples	4
Emphasising the seriousness of a treatment	3
Discussing other treatment options after the treatment choice has been made	2
Emphasising the ability to control the side effects of the treatment	2
Presenting the side effects/benefits/disadvantages after the final treatment decision has been made	2
Presenting treatment as an authorised ‘we’ decision	2
Selectively presenting side effects/complications in favour of a treatment	1
The illusory power to decide	1
Frightening patients about non-compliance	0