



BMJ Open Autonomy-supportive decision-making in maternity care during prenatal consultations: a qualitative interaction analysis

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ABSTRACT

Objectives The aim of this study was to identify mechanisms of autonomy-supportive consultation (ASC) that maternity care professionals use during decision-making in prenatal consultations.

Design This study was a descriptive, qualitative analysis of professional–patient interactions in maternity care, using concepts and analytic procedures of conversation analysis.

Setting The prenatal consultations took place in hospitals and midwifery practices in the Netherlands. This study was part of a larger project. For the current study, we selected prenatal consultations concerning three topics in which patients make their own choices.

Participants The first author invited the patient who was waiting in the waiting room. Participants were not selected a priori.

Main outcome measures The main outcome measures were mechanisms of ASC.

Results We selected 20 consultations which were conducted by 20 different professionals. We found eight mechanisms in the professional–patient interaction which were categorised into three overarching themes. The first theme, ‘Lightheartedness’, comprises the interactional mechanisms ‘minimising language’ and ‘humour’. The theme ‘Orientation to agreement’ describes how professionals and patients seem to be oriented towards demonstrating agreement and mutual understanding. The last theme, ‘Offering information and options’, describes the professional formally giving factual information almost completely without verbal interaction between the professional and the patient.

Conclusion The results of this study show that the model of ASC can be enriched by adding minimising language and humour to the mechanisms that can be used to fulfil the psychological need ‘relatedness’. Second, our results show that professionals use only few mechanisms to meet the patients’ psychological needs ‘competence’ and ‘autonomy’. They mainly use information giving to meet patients’ need competence. To meet patients’ need for autonomy, the professionals keep all options open. This suggests that professionals could pay more attention to other mechanisms to meet patients’ needs for ‘competence’ and ‘autonomy’.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The strengths of this study are a large and rich dataset of audiotaped prenatal consultations.
- ⇒ The analysis focused on spoken, naturally occurring interactions.
- ⇒ The limitations of this study are the observation and audio taping might have influenced the interaction practices.
- ⇒ We did not include a patient survey to explore patients’ perceptions of the interaction.
- ⇒ We did not question the professionals why they interacted in a certain way.

INTRODUCTION

In the past few decades, researchers and healthcare professionals have become increasingly aware of the importance for healthcare professionals to form a partnership with their patients, because through this partnership patients feel actively involved in defining their problems and in devising feasible solutions.^{1,2} To stimulate this partnership, in line with the self-determination theory (SDT), healthcare professionals are expected to build a good relationship with their patients and facilitate them to actively participate in a consultation through competence building and autonomy support. However, this is a complex process, and its outcome depends on a delicately balanced interaction between the patient and the professional. Autonomous decision-making is particularly relevant in obstetric care, because the person who experiences the potential risk or harm (ie, the mother) is not always the same as the person who experiences the benefits of an intervention or treatment (ie, the baby).³

Theoretically, healthcare professionals can boost their patients’ motivation to participate actively in consultations and make their own choices regarding their health by fulfilling their patients’ basic psychological needs:

autonomy, competence and relatedness.⁴⁻⁶ According to the SDT, the fulfilment of these three basic psychological needs supports patients' autonomous forms of motivation and stimulates their self-regulated choices and behaviour.⁷ Autonomous motivation means that patients engage in actions of their own choice, without any perception of internal or external pressure.

An SDT-based intervention which helps professionals to facilitate patients in participating more actively in consultations and in making their own choices is autonomy-supportive consultation (ASC).^{4,8} Previous research has established that the success of ASC strongly depends on relationship building.⁹ Research has shown that healthcare professionals can advance 'relatedness' by using respectful language and taking time. To meet the patients' need for 'competence' (feeling effective), professionals can facilitate patients' knowledge by offering guidance and structure based on their professional knowledge. 'Autonomy' (feeling of being the source of one's own behaviours) can be enabled by exploring a patient's needs and facilitating a patient's free choice. Thus, healthcare professionals can apply different methods or 'mechanisms' to foster their patients' self-regulated choices and behaviours.^{4,10}

While ASC in general has been theoretically well described, it is unknown to what extent mechanisms of ASC are used by maternity care professionals in prenatal decision-making.

The present study aimed to gain insight into the way professionals use mechanisms of ASC in prenatal consultation. Our research question was: which mechanisms of ASC do maternity care professionals use during decision-making in prenatal consultations? The detailed description of interactions between maternity care professionals and their patients in daily practice could help to identify what is needed to optimise ASC in daily practice. This knowledge could enrich existing concepts and models and enable maternity care professionals to improve decision-making processes in their daily consultations.¹¹

METHODS

Study design

This study was a descriptive, qualitative analysis of interactions in maternity care. To answer the research question, first the data were analysed inductively to identify the interactional mechanisms used by professionals during decision-making in prenatal consultations. Then, these mechanisms are related to the existing models of ASC. The descriptions aimed to describe in detail the daily practice of decision-making but were by no means intended as normative judgements on what is good or bad practice.¹² We observed the interactions of maternity care professionals, specifically midwives and obstetricians, via non-participant observations.

Setting and sampling

The study was conducted in the Netherlands from March to October 2020. This study was part of a larger project, for which data were collected during 101 consultations conducted by 21 maternity care professionals. The consultations were observed in real time and audiotaped. The prenatal consultations took place in an academic hospital and a teaching hospital in Amsterdam and in 16 midwifery practices in both urban and rural areas, and in both small and large practices. We sampled purposefully to include a wide variety of settings in which the prenatal consultations took place.¹³ At the time the first author (JK) had finished her observation, the patient who was next in the waiting room was invited. Patients were not a priori selected.

Data collection and selection

For the current study, we selected prenatal consultations concerning three topics in which patients make their own choices: decision-making about participation in prenatal screening, participation in whooping cough vaccination, and decision-making about the birth, for example, regarding pain management or place of birth. Data collection was performed by JK. The consultations were anonymised, transcribed verbatim by two transcribers and checked for accuracy by two researchers.

The fragments from the consultations as presented in this paper were translated into English with the help of a native English speaker with Dutch fluency. To check the translation, these fragments were translated back by a native Dutch speaker with English fluency. The fragments were described in detail, while we looked for a balance to do justice to the analysis and keep the fragments legible. In line with conversation analysis (CA), each line is numbered. In all the fragments, a full stop in brackets represented a gap in the conversation of less than 0.3s and a full stop at the end of a turn represented a falling intonation; a comma indicated a slight rise in intonation, and a question mark was used when intonation strongly rose.¹⁴ See the table 'Simplified Jeffersonian transcription notation' in online supplemental appendix.

Analysis

The interactional analysis was performed making use of the ideas, concepts and analytic procedures of CA. CA has its origins in sociology and specifically in ethnomethodology. Its primary focus is in the language as a social phenomenon. It is used to study how social acts are organised in interaction and, as part of this research, how social acts are packaged and delivered in linguistic terms (eg, choice of words, phrasing).¹⁵ CA is a method that is suitable for viewing medical consultations as an interactive process organised in a way in which the professional and the patient alternately take turns and jointly construct their interaction.¹⁶ An interaction needs to be effective and efficient. For an interaction to be effective, the recipient must be able to recognise what the speaker wants to accomplish with a specific action or sentence.

Table 1 Summary of the five steps analytic tool by Pomerantz and Fehr¹⁸

Step 1	Selection of fragments for analysis
Step 2	Characterise actions in sequence
Step 3	Packaging of actions
Step 4	Turn taking
Step 5	How does it accomplish roles and relationships?

For an interaction to be efficient, the interactional partners show and check understanding of a sentence is sufficient. The patients' understanding was examined using the so-called 'next turn proof procedure' (NTPP); the effectiveness and efficiency of each turn are revealed in the response in the next turn.¹⁷

The interactions in the selected consultations were analysed using the five steps analytic tool of Pomerantz and Fehr¹⁸ (table 1).

In the first step, two researchers (JK, AdIC) independently selected fragments of consultations with the focus on decision-making, while they constantly discussed the selection process.

In the second step, the researchers examined the verbal actions that took place in the selected fragments. What kind of actions did the professional verbalise? The fragments contained sequences in which the following actions could be found: introduction of the topic, discussion of the provided information or decision and closure of the conversation about this topic.

In the third step, they analysed the packaging of these verbal actions. Packaging refers to the way professionals construct and deliver verbal actions in practice. It concerns the details of choice of words, and phrasing of options by the professional.

In the fourth step, the researchers analysed the timing and turn-taking in the interactions, including silences, interruptions and other interactional features in the turn taking process.

In the fifth step, they examined the relationship between the professional and the patient to determine how the ways in which professionals package their actions and take turns imply or create a specific role or relationship.

This analysis resulted in a description of typical interaction practices during decision-making in prenatal consultations, which were grouped into themes.

All analyses were done by JK and AdIC. JK is an educationalist, well-versed in the practice and theory of prenatal consultations because of her work as a lecturer in midwifery and her training as a midwife. AdIC is a linguist and an educationalist and is an experienced communication skills teacher in medical education, as well as being experienced in research on interaction.

To ensure the reliability of the results, we copied a standard practice for researchers making use of CA, meaning we took our data and analyses to data sessions and discussed our work with interaction researchers.¹⁵ For this study, we organised three data sessions with four to six

colleagues per session. The colleagues were linguists from different universities who work in the field of healthcare. We also checked our analytical procedure by asking a conversation analyst for feedback.

Reflexivity

Especially when analysing data from spoken interaction, which is complex, it is important to consider multiple possible interpretations and to have reflective and open discussions about the analysis. A micro-analysis of interactions can lead to discussions about what should or could have been said. We explicitly wanted to avoid an analytical culture of criticising healthcare professionals. Therefore, we considered interdisciplinarity in the team as key. Besides JK and AdIC, our interdisciplinary team consisted of the following members: LM, a psychologist and lecturer in communication and counselling; CJMV, a professor in midwifery and experienced midwife in a teaching hospital as well as in a midwifery practice; PB, a perinatologist who is also responsible for the obstetric education of bachelor and master students of VU university; SMP, a neurosurgeon and professor in Continuing Professional Education and well versed in medical practice as well as in education; and RAK, a doctor, an associate professor and a researcher in medical education. The authors discussed the results and the process of the data analysis on a regular basis. During these discussions, the authors' backgrounds were explained and used for the interpretation. Through these discussions, the primary researchers (JK, AdIC) maintained a critical and open view of the data and results.

Patient and public involvement

The results were also discussed with two members of a patient association, 'The Motherboard'. During this discussion we focused on the recognisability of our results from the patient's perspective. In addition, we asked the patients for their own examples within the described themes. The members of the Motherboard had no patient-maternity care professional relationship with any of the professionals who participated in our study.

RESULTS

Table 2 shows the characteristics of the professionals included in this study.

In the first analytic step, we selected 20 of the 101 prenatal consultations included in the larger project because they contained fragments that focused on decision-making. Given the richness of the data being enough to answer our research questions, we ended data collection after 20 consultations. The 20 consultations were conducted by 20 of the 21 professionals and contained a total of 28 fragments about decision-making.

Eight interactional mechanisms were identified, which were categorised into three overarching themes: (a) 'Lightheartedness', (b) 'Orientation to agreement' and (c) 'Offering information and options'. 'Lightheartedness'

Table 2 Characteristics of the professionals

Professionals	Age	Work experience	Profession
21	25–64 years	5–43 years	17 primary care midwives 2 hospital-based midwives 2 obstetricians

describes two interactional mechanisms: the use of mitigating language (I) and of humour (II). ‘Orientation to agreement’ describes how the professional and also the patient seem to be oriented towards demonstrating agreement and understanding by frequently using the word ‘yes’ (III), vague words (IV) and interruptions (V). The last theme, ‘Offering information and options’, describes how professionals give information and options. They reduced interaction with the patient (VI) and gave detailed and standardised information (VII) while they kept offering options (VIII). [Table 3](#) shows an overview of the results.

Lightheartedness

Within this theme, two interactional mechanisms were distinguished: minimising language (analytical step 3 of the analytic tool by Pomerantz and Fehr) and the use of humour (steps 3 and 4), both of which make the conversation seem lighthearted and friendly (step 5).

When introducing the topic, almost all the maternity care professionals tended to use so-called ‘mitigating’ or ‘minimising language’: in Dutch this means the use of diminutives, for example: ‘for a bit’ and actions are presented as quick or easy, for example: using the word ‘just’. In example 1 ([table 4](#)) and 2 ([table 5](#)), the maternity care professional introduced the topic about which a decision needed to be made.

The minimising elements ‘for a bit’, ‘just’ and ‘a little’ seem to add lightness to the conversation and to minimise the impact, in these cases, of discussing the birth.¹⁹

Table 3 Interactional mechanisms and overarching themes

Themes	Mechanisms	Examples
Lightheartedness	I. Minimising or mitigating language	Eg, Little idea, Just Example: 1,2,3
	II. Humour	Eg, Laughing Example 4
Orientation to agreement	III. Frequent use of ‘yes’	Example 5
	IV. Use of vague words	Eg, Something, Things Example 7
	V. Interruptions	Example 8
Offering information and options	VI. Lack of interaction	Figure 1
	VII. Detailed and standardised information	Eg, It is about 25% and with the other 75% Example 9, 10
	VIII. Offering options	Example 11

Table 4 Example 1: minimising language

01 Professional (P) And we were also going to talk about the birth for a bit.

This did not only happen when the topic was introduced, but also further along in the interaction (example 3) ([table 6](#)).

We assume that the professionals used minimising or mitigating language to protect the relationship with their patients by making decisions more palatable for their patients and to reduce discomfort.¹⁹

To keep the conversation comfortable and friendly for their patients, professionals also used humour and laughter, as is illustrated in example 4 ([table 7](#)), in which the birth was discussed.

Line 4 functions as an informal way to point out that the patient must make arrangements for her other children. The professional seems to use humour to discuss a potentially uncomfortable topic and to protect her relationship with the patient (step 5). The patient reacts in the same informal, even humorous way in line 5. The same pattern is observed in the discussion on pain relief. The unpleasant consequence of stopping pain relief before the second stage of the birth is put into perspective in line 18. The professional uses an informal even humorous way to bring this uncomfortable message across. She probably does this to protect her relationship with the patient (step 5). The final humorous remark in line 21 seems to be used by the professional to reduce the social distance (step 5). This supports relationship building.²⁰

Overall, humour has two functions in medical consultations: relationship building and relationship protection. Healthcare professionals mostly use the relationship building function. To do so, they use humour to reduce social distance, to manage power asymmetry or to create a relaxed atmosphere. The relationship protection function can be used to convey a serious or emotional message or to deal with a patient’s discomfort. Also, the patient can use humour to deal with emotional issues. If the professional is sensitive to the underlying emotions, humour could pave the way for more serious talk.²⁰ The theme shows the use of mitigation and humour to keep the interaction between the professional and the patient lighthearted and informal.

Orientation to agreement

This theme describes an orientation to agreement and understanding and contains three different interactional mechanisms. A mechanism found in almost all the interactions within this theme was that all conversational partners say ‘yes’ frequently as their response to a prior turn (step 4). Based on the NTPP, this ‘yes’ did not just function

Table 5 Example 2: minimising language

01 P Hey and what about the birth itself, did you give it a little thought at all?

Table 6 Example 3: mitigating language

01P	We know it's safe and that's why it's our job to give you information about it. Again, it is
02P	always your choice so you can decide for yourself what you would like to do with this <i>just</i>
03P	know that I have to provide that information. It's in here so think about it you can <i>just</i> do
04P	it from now on.

as listening token or a minimal encourager to keep the conversation going, but rather as a sign of mutual understanding or as a confirmation marker.¹⁷ However, many times, a positive 'yes' answer is given without the previous sentence (turn) being completed or made explicit.

In example 5 (table 8), participation in whooping cough vaccination is discussed.

It is unclear what is meant by the patient in line 6. Did she understand the information or is she accepting the offer? A stand-alone 'yes' to an offer in a medical consultation should not be taken as a confirmation.¹⁴

Table 7 Example 4: humour

01 P	Also not feeling the baby moving (.) the contractions themselves (.) and here is the number
02 P	for day and night. And then you bring a case that you will lay out ready.
03 Women (W)	Yes.
04 P	And then you leave your 2 other kids (.) somewhere?
05 W	Yes (.) no I have an emergency number, or in the basement with the door locked hee hee.
06 P	Yes, thats right hee hee then you can bring them here. We have a fishbowl.
Continues after physical assessment (second part of example 4)	
07 P	To come back to your question or not your question but comment pain relief, we have
08 P	everything, so epidural. Remifentanyl.
09 W	That's the thing eh? Yes that is fantastic hee hee you grab it sometimes that in your daily
10 W	life hee hee also sometimes, and then you think where is the button?
11 P	Hee hee (Loud Laughing) we can install it.
12 W	It's just so unkind that it that it is turned off when pushing (.) you need to be present for
13 W	that (.)I get that.
14 P	And mostly the baby.
15 W	Oh yes.
16 P	They get it as well and then they are born sleepy and they won't breathe.
17 W	Oh. No.
18 P	So remember that that is not to bully you.
19 W	No I know. I know it is also not hee hee I did it myself hee hee.
20 P	Hee hee (Loud laughing)
21 P	But they are so nice eh.

Table 8 Example 5: frequently yes

01 P	We know it's safe and that's why it's our job to give you information about it. Again, it is always your
02 P	choice so you can decide for yourself what you would like to do with this just know that I have to
03 P	provide that information. It's in here so think about it you can just do it from now on.
04 W	Okay.
05 P	And then make an appointment with the GGD and then they can(.) place it for you.
06 W	Yes.
07 P	Yes.

In example 6 (table 9), the maternity care professional wants to discuss the patient's preferences and wishes regarding the birth

In the example above the frequent use of the word 'yes' is highlighted. In lines 5, 7 and 10, the patient demonstrates that she has thought about her birth. The professional repeatedly responds by saying 'yes' (line 6, 9 and 11) (step 4). Line 12 demonstrates that it is not clear for the patient what information the professional wants. In lines 3, 7, 10 and 13 of the same fragment, the use of vague words is illustrated (step 3). Even when the meaning of the prior turn seems insufficiently clear, for example, because of the use of vague words, the recipient responds with a 'yes'.

In lines 18 and 23, the use of a double 'yes' is illustrated. The literature states that a double 'yes' is not an intense version of a single 'yes'. Depending on the peak pitch, a double 'yes' can mean that the previous speaker provides too much information that already is known or that the previous speaker is misaligned with an earlier utterance of the speaker.²¹ The double 'yes' in lines 18 and 23 seems to be a response to the previous speaker that the provided information was already known (step 4).

The use of vague words as mentioned in the example above is a second mechanism discussed within this theme. Actions are packaged (step 3) in vague words such as 'some stories' or 'things'. This is also illustrated in example 7 (table 10), in which participation in Non-Invasive Prenatal Testing (NIPT) is discussed.

The last mechanism that is discussed in the context of this heading is finishing each other's sentences to indicate 'being on the same page'. The professional seemed to understand the patient even before she finished her sentence (step 4). In example 8 (table 11), the birth is discussed.

In the example above, in lines 7 and 9 the professional interrupted the patient. In line 7, she finished the patient's sentences, in line 9 she closed the topic and raised the next topic on the agenda. Interruptions are normal in informal interactions, and women are interrupted more often than men (95% of the professionals were female). Interruptions also fit into interactions with the focus on agreement. Agreeing answers come earlier,

Table 9 Example 6: frequently yes and vague words

01 P	Hey and the birth itself, did you guys think a bit about that?
02 W	ahh... Well(.) I still find it difficult but hmm then with the Corona hmmm I got a hmm from
03 W	*** like that hmm mail with all kinds of online things.
04 P	Yes,
05 W	So then I did the online academy?
06 P	Yes?
07 W	So yes, she also told us something and coincidentally, we were playing around a bit
08 W	yesterday with the hmm birth plan heehee.
09 P	Yes, very good.
10 W	hmm And yes(.) for the rest yes(.) I have heard some stories of course. Hmmm (Interruption)
11 P	Yes exactly(.) yes.
12 W	Yes, for the rest...
13 P	Do you have any specific wishes? Things that you say during childbirth we would really like or
14 P	would like very much. If we're in charge, would we love to have it like this or whatever?
15 W	Hmm
16 Next of kin (N)	Anyway, you'd like to be in the hospital.
17 P	Look, that's already an important thing
18 W	Yes(.) yes
19 P	Okay (.) yes.
20 W	Yes that...hmm
21 N	For the rest it's yes (.) partly to see how it goes it's the first time so...
22 P	Yes(.) it's all new.
23 W	Yes(.) yes and we are- I think we're pretty level-headed that I'm kind of like hmm what
24 W	should happen(.) should happen Heehee.

even with partial overlap. These utterances have an affiliative character, orientated on comfort, support and reinforcement.²² The double 'yes' (lines 2 and 8) spoken by the patient seemed like a response to the professional, signalling that the provided information was already known (step 4).²¹

This theme is characterised by a focus on agreement even when the meaning of the prior turn seems unclear, for example, due to the use of vague words or incomplete sentences. The focus on agreement was also found in patients' responses on lighthearted interactions. The frequent use of the word 'yes' could be understood as a form of confirmation or as a listen token, and the effect on the conversation is that issues are handled rather quickly and are discussed somewhat superficially (step 5). The speaker, mostly the patient, is not encouraged to provide extra information.

Offering information and options

The interactional mechanisms described within this theme differ from the interactional mechanisms described earlier. When professionals were explaining

Table 10 Example 7: vague words

01 P	Let's check hee hee indeed (.) hey and suppose something would show up at the NIPT,
02 P	that there would be a syndrome or something in your child, what would that mean for you?

options by providing information or clarifying a procedure by giving instruction, most of them start to speak faster, they sometimes even speak in a higher tone of voice, and they leave almost no pauses. Sometimes it sounded as if they were reading a standardised written script aloud. During the information provision, there was little interaction, and the offered information was very detailed and standardised (steps 3 and 4). After giving the information, professionals tended to keep all options open and persisted in giving information and offering options.

The lack of interaction during information provision is illustrated by comparing the frequency of taking turns

Table 11 Example 8: interruptions

01 P	So the whole birth she had -
02 W	Yes(.) yes.
03 P	And your husband?
04 W	Also.
05 P	Also.
06 W	He also the umbilical cord - ()
07 P	Cut.
08 W	Yes(.) yes. That was nice.
09 P	(interruption partial overlap) Okay(.) And do you have any further wishes because it says you
10 P	might want that pump, that Remifentanil huh?

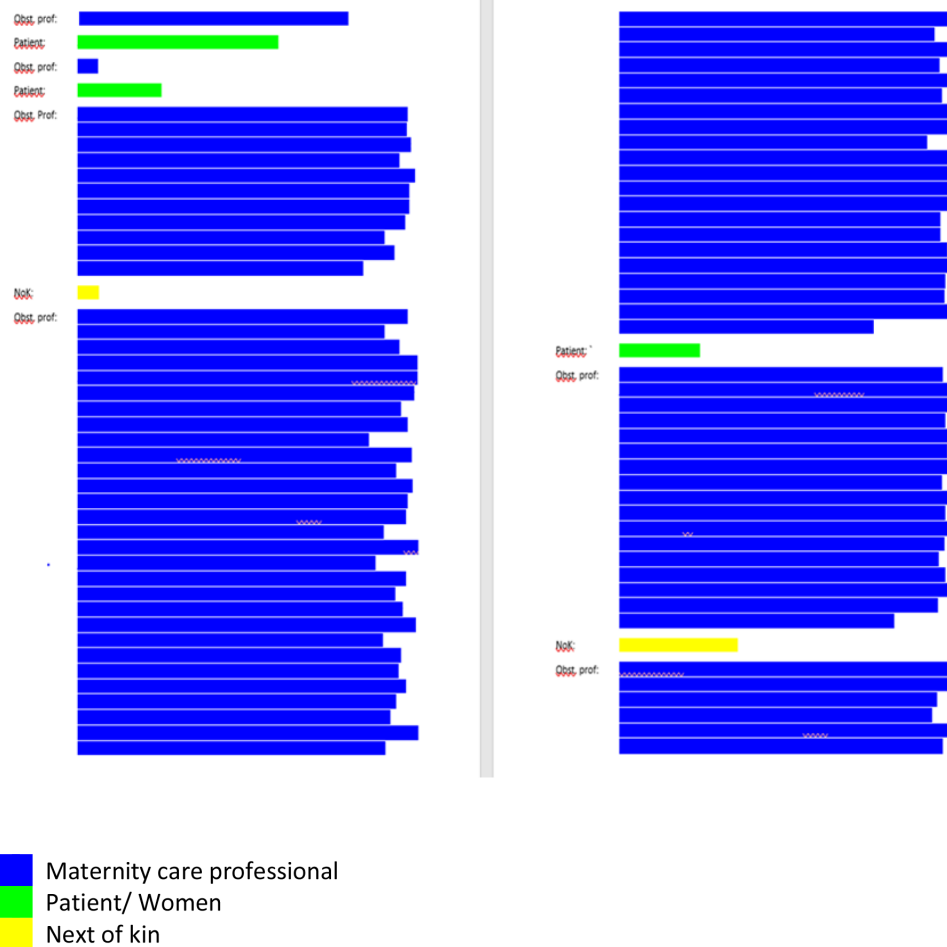


Figure 1 Turn taking during information-giving.

during information-giving (figure 1) to the turn taking during other parts of the consultation (figure 2). The coloured bars represent the amount of spoken text (step 4).

In the fragment represented in figure 1, in which the choice of prenatal anomaly screening is discussed, the professional (blue) provides information for more than 7 min. Once, the patient responds with ‘this is fine’ (green) and her next of kin responds a few times by humming (yellow). The information given during these 7 min is very detailed, and the professional makes use of numbers and statistics, see example 9 (table 12):

This way of providing information can be described as an objectivity-oriented strategy of information giving. When professionals use this strategy, they intended to give solid, objective, accurate standardised information. Within this strategy, the information giving is sometimes read verbatim from a standardised written script with scenarios.²³

Another mechanism discussed within this theme is the way standardised information is provided by professionals. The discussion often starts with a question to assess the patient’s prior knowledge, however, the professionals are giving information without any referral to the

patient’s prior knowledge. An example of this mechanism is shown below (example 10) (table 13).

The last mechanism discussed within this theme is keeping options open. In example 11 (table 14), in which the induction of labour is discussed, the professional keeps offering the patient options.

In the first sentence, the patient asks for information. In the next turn (line 3), the professional does not answer the question but presents some options (step 4). In line 9 the patient rephrases her question, but the professional continues to provide information on the options (lines 13, 15). The patient’s responses in line 18 seem to indicate that she is looking for something other than information on her options in line with her question in lines 1 and 2 (step 4). Professionals seem to intend to offer the patient a lot of space and options. However, sometimes the patient seems to be looking for guidance. Professionals find it difficult to give advice and guidance in an autonomy-supportive way. They tend to use a consumerist model by giving more options and information instead of a conversational model, in which both parties are actively involved and in which professionals recognise a patient’s need for help and address issues that could account for the patient’s hesitation.^{10 24}



Figure 2 Turn taking during other parts of the consultation.

This theme shows a specific interactional pattern during offering information and options that is characterised by less interaction between professional and patient, which differs from the previously discussed interactional patterns.

DISCUSSION

To the best of our knowledge, this is the first study that aimed to identify mechanisms of ASC that maternity care professionals use during decision-making in prenatal

Table 12 Example 9: detailed information

01 P	You have a 90% chance that the baby actually has it. If we find Edwards or Patau
02 P	syndrome, then it is somewhat lower. Then with one it is about 25% and with the
03 P	other 75% chance that your child really has that condition.

consultations. We found eight mechanisms of ASC in prenatal decision-making, which were classified into three overarching themes: (a) 'Lightheartedness', (b) 'Orientation to agreement' and (c) 'Offering information and options'. Professionals keep the interaction lighthearted by using (I) minimising language and (II) humour. They aim for joint agreement and understanding by frequently using the word (III) 'yes', (IV) vague words and (V) interruptions. During offering information and options, the interaction style changed. In this theme, the maternity care professionals (VI) reduced their interaction with the patient and (VII) gave detailed and standardised information while they (VIII) kept offering options.

Comparing our results with concepts and models on ASC in general healthcare revealed some remarkable aspects.^{4 8 10} In line with the literature, professionals gave priority to relationship building to fulfil the patient's psychological need of relatedness.^{9 25 26} However, they used other mechanisms to build and protect their relationship with the patient than those that were presented in concepts and models on ASC.¹⁰ The results show that the professionals included in our study protected their relationships by using minimising language, which reduces the seriousness of the conversation about decisions regarding pregnancy or delivery.¹⁹ The professionals in our study also frequently used humour to convey a serious or emotional message, thus protecting the relationship while dealing with the patient's discomfort.²⁰ Besides these mechanisms, professionals also built and protected their relationship with the patient by creating an atmosphere of understanding and agreement, which can contribute to a climate in which decisions seem quick and easy. McKenzie *et al*²⁷ also found that midwife-patient consultations appeared comfortable and unconstrained and that laughter was common. Although such an informal health climate was described before, to the best of our knowledge, this study is the first that unravels the interaction mechanisms and their effects on the decision-making. These mechanisms, which comprise the frequent use of 'yes', vague words and interruptions, make discussions somewhat superficial because professionals and patients seem to understand each other rather quickly. It is worth giving priority to relationship building, as relatedness is the overarching mechanism to support patients' autonomy in consultations. However, in professional-patient relationships, it is also important to take time to really become acquainted with the patients and to elicit their concerns and expectations.²⁶

A relatively superficial relationship can potentially undermine perceiving the patient's deeper feelings, for example, fear of labour pain or of loss of control, which could complicate competence building and autonomous decision-making. The professional-patient relationship can be at risk if competence building is insufficient, issues are discussed too perfunctorily and, consequently, decisions are made too soon. In most instances, if everything goes well, this will be without consequences (eg, negative screening results, healthy born babies). However, it could

Table 13 Example 10: giving standardised information

01 P	What do you know about it? Before I explain everything, that doesn't seem very useful to me either.
02 P	But it is important that you always know what you are getting into when you start this type of
03 P	testing.
04 W	I think the blood is taken and then I think it is actually the conclusion that there is a chance and then
05 W	you should be examined more closely or you can have yourself examined more closely. That's a bit
06 W	what I don't know very clear heehee.
07 P	Something like that,
08 N	Yes the same(.) we just really discussed it just the two of us but I've always said *** yes it's your body
09 N	and at the moment you are responsible, is so strong but hmm it's all your choice and
10 N	erm.(interruption P)
11 P	From a legal-technical point of view, it certainly is. (Yes(.) no(.) no but I mean interruption N) But you
12 P	are the father of the child of course so you can feel free to think something about it
13 N	(interruption talking) I have to feel comfortable with it and I certainly do. (Yes interruption P)
14 N	(Yes interruption V) I feel right now, I feel (Yes interruption V)
15 N	I'm totally comfortable with it. Hmm (Yes interruption V) That *** feels and determines
16 N	things (Yes interruption P) as she reasonably wants.
17 P	(.) What she thinks is important.
18 N	Yes(.) yes if it's all reasonable then I think so, then I'll definitely go with it yes, otherwise I'll hit the
19 N	brakes.
20 P	Yes I think it is important that you agree because it is quite important this topic and indeed it is
21 P	important that you know well what you are getting into for that when you talk about the NIPT it is
22 P	about an investigation that will count the child's chromosomes, _ _ _

become a problem if something unexpected happens (eg, the preferred place of birth is not available).

Our results indicate that maternity care professionals facilitate their patients' psychological need 'competence' almost exclusively by providing detailed information and the need 'autonomy' by offering options. We know from the literature that to meet patients' need for competence, it is also important to offer the patient structure and guidance.^{8 10} In some consultations, it seemed that patients expected other responses, for example, guidance, such as in example 11 concerning offering options. The informal character of the consultations possibly made it less appropriate for professionals to use more competence building interaction mechanisms, such as offering guidance using their professional knowledge or asking patients to summarise their options. We know from the literature that although it is important to provide professional guidance, professionals find it difficult to do so in an autonomy-supportive way because they are afraid to limit the patient's autonomy.¹⁰ Thus, compared with concepts and models on ASC, professionals seem to use other mechanisms to fulfil patients' need for relatedness and only few mechanisms to meet patients' need for competence and autonomy.

Implication of these results

The results of this study made it possible to enrich existing concepts and models and to enable

maternity care professionals to improve decision-making processes in daily practice. The results showed that it is possible to add minimising language and humour as mechanisms to fulfil the psychological need relatedness to existing concepts and models on ASC. Humour and minimising language are valuable interaction mechanisms that enable professionals to minimise a patient's discomfort or fear and to build or protect the relationship. Also, the mechanisms described in the theme 'Orientation to agreement' could have a positive effect on the relationship between professional and patient. However, these mechanisms also have the potential to threaten this relationship, because decisions could be made too easily without discussing the patient's concerns and expectations. It might therefore be important that professionals reflect on the way in which they build and protect relationships in relation to decision-making. The results show that professionals have a small repertoire to meet their patients' psychological needs 'competence' and 'autonomy'. This reflection can help professionals to possibly pay more attention to other mechanisms described in concepts and models on ASC to meet patients' needs for 'competence' and 'autonomy', especially in relation to decision-making. Our findings can help professionals to reflect on their own

**Table 14** Example 11: offering options

01 W	So since I thought that this conversation was also a bit of a look as well what steps can be taken now
02 W	and when (Yes, yes interruption P) should I be here with my bag if it all doesn't work.
03 P	<i>Yes, but that's (.)hmm in that sense. ... hmm You do have a lot of choice yourself how we continue</i>
04 P	these last week's hmm (.) it's really a little (.) I'm trying now. I'm going to tell you: what is there what
05 P	can we do and then you can decide what we want and (.) so one possibility is membrane sweeping
06 P	and we can also do that several times (.) That is possible today but we can make an appointment
07 P	hmm.
08 W	Okay.
Continued after physical examination (second part of example 11)	
09 W	I mean more (.) suppose we membrane sweeping on Thursday (Yes interruption P), we'll wait it out(.)
10 W	we'll be on Friday.
11 P	Yes.
12 W	hmm when is a logical time to go
13 P	four, five six, Induce?
14 W	Induce (.) that Monday.
15 P	That is also possible on Saturday, Sunday or Monday. Yes.
16 W	You do work every (Yes interruption P) I thought maybe it's not allowed on the weekend.
17 P	Yes, weekends are also allowed.
18 W	After (.) yes ... Yes. Pfft

ASCs because our results are directly gleaned from daily practice.

Strengths and limitations

A strength of this study is the large and rich data set, which enabled us to investigate 20 consultations of 20 different professionals in different contexts. The audio taped interactions provided the opportunity to meticulously analyse the daily practice of interactions between professionals and patients during decision-making. We realise that we might have influenced the interactional practices by observing and audio taping them, which is inherent to observing any interactions. We reduced this limitation by taking feedback from all parties afterwards. We especially gained confidence that our results are recognisable by requesting feedback of two patient representatives, who were able to provide several personal examples of the mechanisms we described in this study.

Our analysis was limited to the spoken interaction due to the use of audiotapes instead of video recording. From other studies, we knew that audiotapes are a proven concept in prenatal obstetric consultations.²⁸ Also, the use of audiotapes is common within research using concepts and analytic procedures of CA. This deliberate choice offered us the opportunity to include a relatively diverse and large population of professionals and patients.

Another limitation is that we only know *what* professionals said and that we do not know for sure *why* they said something in a certain way. We tried to optimise our interpretations by means of data sessions and discussions in our interdisciplinary research team. In a future study, we aim to explore *why* professionals keep their consultations comfortable and unconstrained most of the time and by doing so neglect relevant information and perspectives which diminish the patients' competence and autonomy.

Although we used the NTPP we do not know to what extent the patients felt part of the decision-making process. In a future study, it can be useful to add a patient survey to measure patients' perceptions' of the decision-making process.

Conclusions

This was a study into autonomy-supportive decision-making in prenatal consultations, focusing on the ways in which the interaction was steered towards fulfilling the three psychological needs (relatedness, autonomy, competence).

This study shows that in moments of decision-making, professionals use minimising language and humour as mechanisms to fulfil the psychological need 'relatedness'. Second, our results show that professionals use only few mechanisms to meet the patients' psychological needs 'competence' and 'autonomy'. Professionals mainly use information giving to meet patients' need for competence. To meet patients', need for autonomy, the professionals keep many options open. This suggests that professionals could pay more attention to other mechanisms to meet patients' needs for 'competence' and 'autonomy'. More research is necessary to unravel why there seems to be an orientation to agreement, as well as the light-hearted and almost informal nature of the consultations.

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