

A Content Analysis Of Patient Centredness In Hypertension Care After Consultation Training For Nurses

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Abstract

Lifestyle changes are important when it comes to reducing the risk factors for cardiovascular complications. There is evidence that these changes are more successful if counselling is conducted in a patient-centred way. The purpose was to analyse how nurses used patient-centred counselling with hypertensive patients after video-recorded consultation training. Nineteen nurses from nurse-led clinics in hypertension care at Swedish health centres participated in residential counselling. Two audio-recordings with hypertensive patients in regular practice were made before and after the training and analysed with the emphasis on patient centredness. Weighing up the pros and cons, the identification of beliefs about treatment and negotiations about the reasons for and where to begin behavioural change increased. A slight increase in reflections and pauses was observed. Expansive and provocative questions and the identification of goals or goal-setting were used sparsely. As a result of the training, the nurses gave individually-adapted information more frequently.

The study was performed at Institute of Health and Care Sciences, The Sahlgrenska Academy at Göteborg University, Göteborg, Sweden

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BACKGROUND

The aim of counselling in hypertension care is to reduce the risk factors for cardiovascular complications, such as stroke and coronary diseases. The risk factors are smoking, high alcohol consumption, overweight, sedentary lifestyle, lipid disturbances and perceived high level of stress (1).

Counselling in a patient-centred way is designed to facilitate the active involvement of the patient to manage the illness. In this context of risk factor management, this means performing self-care to change behaviour (2). In the literature, patient, person and client centredness are used interchangeably. Kasch & Dine (3) use the word person centredness and define it as a nursing action that "encourages the patients to disclose how they see their own world, what they are experiencing, and the meanings these experiences have for them". The key is to understand the patients' experiences from their own point of view by

encouraging them to express their ideas, feelings and expectations. McCormack (4) has a more philosophical view and argues that the heart of person-centred nursing is being in a relationship with other persons, being in a social world, being in the patient's context and recognising and respecting the patient to preserve the patient's sense of self. This represents a shift from an authoritarian delivery model to a participatory model in which patients are encouraged actively to participate in decision-making processes with the emphasis on an equal partnership (5). According to the Swedish National Board of Health and Welfare (6), the care of patients should emphasise concordance and the patient should receive individualised information about his state of health and opportunities for treatment (7).

Health education is an activity designed to enhance health by increasing the patient's theoretical and practical knowledge in order to bring about a change in attitude towards health and health behaviour (8). Using this perspective creates the basis for a discussion with the patient with the aim of motivating lifestyle changes. There is evidence that patient-centred approaches lead to increased patient satisfaction and adherence and improve health outcomes (9, 10). The absence of training and lack of confidence in the skills and knowledge to counsel patients have been cited as reasons for not performing prevention counselling (11). A Cochrane Review (12) assessed interventions to promote patient

centredness and intervention studies of patient centredness for health care providers. The results showed that patient-centred training for providers with or without the use of behaviour-specific materials in the consultations might lead to significant increases in patient centredness and have a positive impact on patient satisfaction with care. More intervention studies of patient centredness were requested. The aim of the study was to analyse how nurses used patient-centred counselling with hypertensive patients after consultation training.

METHOD AND MATERIAL

As part of a larger randomised, controlled project, the SOPHI study (Sjuksköterskans omvårdnad av patienter med hypertoni (Nursing management of patients in hypertension care)), a request for participation in the study was made to nurses working at nurse-led clinics for hypertension through an inventory of Swedish health centres with nurse-led clinics. Nurses in the control group did not record any consultations and nothing from their work is reported here. Nineteen of 31 nurses in the intervention group were finally able to participate in the consultation training. Reasons for not being able to participate were not getting permission from the head of the health centre, being understaffed or family considerations. The participating nurses were 38 to 59 years of age (m=47) and had been working for four to 36 years (m=20) since their registration. The nurses had been working at the nurse-led clinic for hypertension from one to 16 years and 13 of them had special education for working in primary health care. The special education, public health, is a one-year training course on which health promotion, patient education and strategies to help patients to develop self-care activities are emphasised.

The training took the form of a residential course lasting three days on three occasions during the winter of 2003 and 2004 with five, six and eight participants on each occasion. The main content of the course was patient centredness for health behaviour change (13), the stages of change model (14), guidelines for cardiovascular prevention (1), lifestyle factors, and pharmacological treatment. What was meant by patient centredness for health behaviour change is shown in Table 1. The nurses were, for example, encouraged not to feel uncomfortable about silent moments and to use expansive ways of putting questions such as “Tell me more...”. To get practice, consultations between the nurses and simulated patients were video-recorded in small groups. To assess the nurses' performance, the Prismatic model (15), which contains patient perspectives, time spent, social perspectives,

gender aspects, agendas, medical aspects, explanations and body language, was used. Furthermore the use of the stages of change model was evaluated. Assessments of the counselling training were made during the recordings and then once more at playback with two supervisors participating.

Figure 1

Table 1: Description of every part of patient centredness () and the various categories. To define the whole of the counselling, the categories “closed question” and “disregard” were added as expressions of when patient centredness was not present.

Patient centredness	Description	Category
Using open questions	Questions that can not be answered with just a “yes” or “no”	Open question
Using closed questions	Questions that can be answered with just a “yes” or “no”	Closed question
Using expansive ways of putting questions	Using questions that start with describe, list, tell me more, for example, to get the patient to go into detail and unfold a line of thought	Expansive expression
Reflecting on what is said	Repeating the last words, rewording or checking on something to make sure it has been correctly understood	Reflection
Perhaps provoking the patient	Provoking to lead the patient to talk about why to change behaviour	Provoking
Allowing pauses	Allowing one’s own and the patient’s pauses to leave room for thought and reflection	Pauses
Identifying the patient’s perceived threats to health	Identifying or actively asking for the patient’s apprehensions of threats to health	Identifying perceived threats to health
Identifying the patient’s perceived vulnerability to complications	Identifying or actively asking for the patient’s apprehensions about complications of hypertension	Identifying perceived vulnerability to complications
Disregarding the patient’s expressed apprehensions or questions	Not dealing with the patient’s expressed apprehensions or questions	Disregard
Making it easier for the patient to obtain and assimilate relevant knowledge	Making it easier to obtain and assimilate relevant information with a booklet or checking what the patient has heard or read before	Obtaining and assimilating relevant knowledge
Helping the patient to see opportunities of changing behaviour	Giving suggestions about action to be taken or giving support for expressed thoughts	Seeing opportunities for change
Helping the patient to weigh up the pros and cons for changing behaviour	Asking the patient what the patient appreciates and what he/she dislikes about a particular behaviour	Weighing up the pros and cons
Identifying the patient’s beliefs in the power of changing behaviour	Identifying or actively asking for the patient’s beliefs about the efficacy of behavioural change	Identifying trust in non-pharmacological treatment
Negotiating the reason for behavioural change	Discussing the basis for and the importance of making changes and the risks of not changing behaviour	Negotiating reason for change
Negotiating where the patient should start his/her behavioural change	Discussing which behaviour to start with and how the patient could start changing behaviour	Negotiating where to begin the change
Negotiating the goal for changing behaviour	Discussing what the change should produce	Negotiating the goal for change
Negotiating the behaviour the patient should change	Discussing the behaviours that are important to change	Negotiating what to change
Summarising the counselling	Summarising possible needs for change	Summarising

To assess the effects of the training, the nurses in the intervention group audio-recorded consultations with two patients at their regular nurse-led clinic before and after the intervention. The patients were to be diagnosed with hypertension with or without medication. They could have had hypertension for a long time or have been diagnosed recently and there were no specific requirements with respect to gender or age. The first appointment between the patient and the nurse was audio-recorded. This was set, as it is expected that an assessment of the patient's individual risk

profile will be performed at the first consultation. The audio-recordings after the intervention, also at the patients' first appointment, were made within three months after the training. Thirty-six recordings before (one of the recordings before the training was lost due to technical problems) and 35 after the intervention were transcribed verbatim (16) (Table 2). Before transcription, the recordings were listened to by the researchers (ED, AB, KK) in order to obtain a first impression of the consultations. After the transcription, one of the researchers (ED) edited the transcriptions while listening to the recordings, corrected words/passages that had not been heard correctly and changed the names of people and places to maintain confidentiality. The transcriptions were then read several times. The researchers (ED, KK) listened to the recordings and validated the transcriptions independently. The words were counted and assessments of the open and closed questions were made.

Figure 2

Table 2: Transcription guideline ().

Sign	Explanation
comma ,	continuation intonation
full stop .	end intonation
?	questioning intonation
-	interrupted word or utterance
--	ebbing away
--?	interrupted word with a questioning gap left
* *	laughter in the voice while speaking
((laughter))	pure laughter, crying, sighs and so on
(.) or space dot space	micro-pause of less than one second
(3s)	longer pause in seconds
uu	prolongation of vowel in a word
(word)	back-channel utterance

The analysis of the recordings was performed using content analysis (17) with QSR NUD*IST Vivo 1.2 software. As patient centredness contains specific elements that were going to be studied, these elements were put into categories (Table 1). The passages in the text that related to counselling about risk factors and behavioural change were first identified for analysis as belonging to the area of non-pharmacological treatment, i.e. smoking, alcohol, weight, exercise, blood lipids and stress. In these passages, the elements of patient centredness expressed by the nurse were then identified and coded into the predefined categories. The coded passages in the text, the units, could be a sentence, several sentences or just some words and these passages sometimes needed to be seen in their context in order to be assessed as being relevantly coded. After all the recorded consultations were coded, the coding was started again with the first coded consultations to check for any inconsistency in the coding procedure. The main coding was performed by one researcher (ED) and three researchers (ED, AB, KK)

were engaged in discussions about identifying text for coding and the features of the categories. The coded excerpts were also compared to verify any inconsistency in the coding. When the categories were identified in the recordings, the result was put together in a diagram to look for any pattern that might emerge (Table 3 and Table 4). A comparison was made to see whether there was any difference in the counselling before and after the intervention for each nurse.

Figure 3

Table 3: Examples from the diagram where no obvious differences in the pattern of using patient centredness could be detected before and after the training. The figures represent the number of times in each consultation the categories could be identified when lifestyle changes were counselled.

Categories describing patient centredness	Nurse A		Nurse B		Nurse C	
	Before training	After training	Before training	After training	Before training	After training
Open question	3	5	2	2	2	3
Closed question	1	2	3	3	3	2
Expansive expression					2	1
Reflection	13	3	4	2	1	7
Provoking					6	2
Pauses		6	13	4	2	2
Identifying threat to health		1		3	1	
Identifying perceived vulnerability	1		1	1		
Disregard						
Obtaining and assimilating relevant knowledge		2	3	5	2	2
Seeing opportunities for change	1	1	4	10		
Weighing up pros and cons			4	1	1	3
Identifying trust in non-pharmacological treatment	1		1			
Negotiating reason for change		1		1	3	2
Negotiating where to begin the change	1	1	2	1	2	2
Negotiating the goal for change	1	1	1	1		
Negotiating what to change	2	1		2		
Summarising				1		

Figure 4

Table 4: Examples from the diagram where differences in patterns of using patient centredness could be detected before and after the training. The figures represent the number of times in each consultation the categories could be identified when lifestyle changes were counselled. A cipher is put in the first column for nurse E to indicate that no units for coding patient centredness could be found.

Categories describing patient centeredness	Nurse D		Nurse E		Nurse F	
	Before training	After training	Before training	After training	Before training	After training
Open question	1	1	3	0	2	3
Closed question	1	4	2	1	3	1
Expansive expression					1	2
Reflection		4	2		6	7
Provoking					4	2
Pauses	1	2	2	1	9	4
Identifying threat to health	1	2			1	1
Identifying perceived vulnerability						
Disregard	1					
Obtaining and assimilating relevant knowledge		11	4		3	1
Seeing opportunities for change		4				1
Weighing up pros and cons		1	3			2
Identifying trust in non-pharmacological treatment	1	2				2
Negotiating reason for change		2				
Negotiating where to begin the change		3	1		4	1
Negotiating the goal for change					1	1
Negotiating what to change	2	2	2		1	1
Summarising	1	1	1		1	1

ETHICS

This multi-centre study was approved by the Local Ethics Committee at the Faculty of Medicine, Göteborg Ö363-00, and the heads of the health centres were asked to make a supplementary application for the areas not included in Göteborg's area of responsibility. The nurses and patients participated after written informed consent. The audio-recordings and transcriptions were treated with confidentiality.

RESULTS

The number of turns (a person's uninterrupted utterance) increased, even for the shortest consultations. The range of the number of words in the turns decreased for both nurses and patients after the training (Table 5). Findings from different parts of patient centredness are presented with examples and excerpts (all from after the training with the exception of Excerpt 2).

Figure 5

Table 5: Description of the length, number of words and turns in the consultations.

	Before the training n=35	After the training n=35
Length of the consultations in minutes, m (range)	18 (3.5-64)	20,5 (5-46)
Number of words by patient, m (range)	1500 (201-8281)	1567 (298-2888)
Number of words by nurse, m (range)	1247 (203-3759)	1483 (307-4208)
Number of turns, m (range)	126 (29-371)	145 (43-278)
Number of words in each turn patient, m (range)	23 (1-1024)	20 (1-274)
Number of words in each turn nurse, m (range)	21 (1-529)	21 (1-264)

¹A person's uninterrupted utterance

OPEN AND CLOSED QUESTIONS

The nurses used open and closed questions to the same extent before and after the training. A closed, direct question was most common in relation to smoking and taking snuff, but a question of this kind could also be asked in relation to physical exercise, such as "Do you exercise?" or "Do you go for walks and things like that?". A closed question could also be put with a suggestion "What I was thinking about, alcohol, and is it moderate-?" or negated like "And not so many coffee breaks and that kind of thing--?".

EXPANSIVE AND PROVOCATIVE QUESTIONS, REFLECTIONS AND PAUSES

The expansive way of leading the counselling forward was found very rarely both before (n=4) and after the training (n=1). Examples include "What thoughts do you have when thinking about food?" and, regarding blood lipids, "What did you do then, or what thoughts do you have about this, that you have high, and it's jumping a bit and--?".

After the training, two turns in one consultation were found to be mildly provocative: "There are no vegetables you like, or--?" and "Don't you like fruit either?". No provocative question was found before the training.

The use of reflection as a conversational method appears to be a style the nurse does or does not have. In some cases, rich reflections were combined with frequent pauses. One nurse increased her use of both reflections and pauses while talking to the patient (Excerpt 1), while another nurse only increased the use of pauses.

Excerpt 1

41. P: Yes, but not any more. (noo) ((giggles))

42. N: So you had it before?

[----]

47. N: No alcohol, no. (3s) So it's the other risk factors, is it (yes)

P = patient, N = nurse

IDENTIFICATION OF THREATS TO HEALTH, PERCEIVED VULNERABILITY AND DISREGARD

The topics of threats to health (n=24 before) and perceived vulnerability (n=3 before) occurred occasionally in the consultations and no difference could be found after the training. Before the training, the patient's apprehensions were disregarded in four consultations, but after the training disregard of the patient's questions could not be found in any consultation. In one case before the training (Excerpt 2), the patient was confused about his cholesterol and received no clarification from the nurse, even though she made a reflection in turn 103 and there was a pause of five seconds in turn 104. The nurse leaves the patient's concerns unanswered and instead asks about the distribution of meals over the day.

Excerpt 2

102. P: Yes, but there isn't that much fat, I think all this about cholesterol is odd . I think it's bloody odd.

103. N: You mean that it's so high?

104. P: Yes, she said it isn't high but it's on the way to being high, she said, so (yees) she wants to get it down slightly. (yees, but-) But I still think it's odd, after all I don't eat that much greasy food and that kind of thing. (no) (5s) I don't know-- (no)

105. N: What about regular meals or--?

RELEVANT KNOWLEDGE, OPPORTUNITIES, WEIGHING UP AND IDENTIFICATION OF BELIEFS ABOUT TREATMENT

Several nurses (n=9 before) had a very firm agenda on which a great deal of information was provided in a standardised form, irrespective of the patient's problems. After the training, information was generally supplied whenever relevant more frequently than before and the nurse asked the patients what they knew about a topic before starting to give information. The nurse then could fill in gaps of knowledge (Excerpt 3), correct the patient (Excerpt 4) or support him.

Excerpt 3

120. N: Well, when it comes to blood pressure, it could have been . they are contracted . the blood vessels . which increase the pressure . inside them (oh, I see) Just like a

water hose which purses up and the pressure inside increases. And . having high blood pressure for a long time can cause the inside of the blood vessels . to erode slightly and be easily damaged.

121. P: Yes, it isn't good (noo) to have something like that for a long time.

122. N: Because then it's easier for it to build up (yees) just like a waste pipe (mm) or something like that . so it's easier for deposits to form. And if that starts and gets stuck, then it's even (yes, that will soon be the end) easier for it to get stuck again. (yes) And then it's good . with this kind of thing- eer like fat, that we're talking about- to use oil. Because it can remove some of the deposits from the inside. (oh, I see)

123. P: I shall have to ask my wife if we can do that.

Excerpt 4

185. N: And then you have, it's important when it comes to bought food that's marked with the keyhole [healthy eating] symbol for low-fat and high-fibre food.

186. P: So it isn't a con then, the keyhole symbol? (noo) It isn't?

187. N: No, it isn't. (I see, no, no)

There was no change when it came to helping the patient to see the opportunities for change after the training, but a slight increase in weighing up the pros and cons (n=9 before, n=14 after) and identifying beliefs about non-pharmacological treatment (n=6 before, n=8 after) was seen. Weighing up the pros and cons was not clearly expressed as an exhortation to list the positive and negative aspects of a behaviour but as more subtle expressions by the patient (Excerpt 5).

Excerpt 5

97. N: So you drink the green [medium-fat] milk?

98. P: We have it in the morning (yees) for our cornflakes. (yes, exactly)

99. N: So you could perhaps consider changing to the blue [low-fat]. But- (weell) and then- you dont' think it tastes as good?

100. P: Well, it's skimmed milk! (*yees, exactly*)

NEGOTIATING REASONS AND GOALS FOR CHANGE, WHERE TO BEGIN AND WHAT TO CHANGE

Negotiating reasons for (n=4) and where to start a change of behaviour (n=9) was discussed more often in consultations after the training (reasons n=10, where to start n=15)

compared with before. The reasons for making behavioural changes were not clearly expressed in any turn, but throughout the consultations the nurse clearly expected the patients to have picked up the message of threat from their risk factors. One patient said: "I was really pleased to be able to come here (yes) (3s) but I had actually read in . yes, in the newspaper . about high blood pressure (mm) and that you go to the doctor (mm) you get some pills (mm) that you take . and that's all there is to it". One patient thought aloud about where and how he was going to start reducing his weight, saying: "Yes, I can cut down- you can of course cut down on food, (mm) and perhaps eat more often and eat less, (mm) that might be good, I don't know". In another consultation, the nurse and patient discussed the patient's smoking and the nurse made the following suggestion: "Well, even if you don't stop completely, you could halve it or think every time you light your pipe 'perhaps I don't need it right now' (no, exactly) 'I can wait until after dinner and then- "".

Goals for behavioural change, e.g. how far or for how long the patient should take walks or the estimated ideal weight, were discussed in a few consultations both before and after the training. Negotiations about what behaviour that was important to change occurred in half as many consultations after the training (n=7) compared with before (n=13). In Excerpt 6, the patient himself articulates what he thinks he is able to do to get his blood pressure, as he put it, to be "OK".

Excerpt 6

51. N: And that isn't really [good] as the values indicate (noo).

52. P: No, eer . it would be good if I could . increase my exercise, perhaps take two walks instead of one a day (mm) losing weight is good (yees) I presume.

SUMMARIES

Summing up at the end of the visit took place in nine consultations both before and after the training and it was more or less the same nurses who did this. Some summaries are a result of an interaction with the patient which could stretch over several turns with new discussions about some circumstances relating to the patient's private life and some are short and concise, like the one in Excerpt 7.

Excerpt 7

152. N: So if we summarise things, these risk factors- you are living a . healthy life, you could say. There isn't perhaps that much you can change, you don't smoke, you have

nothing hereditary- and you can't really influence that in any case. When it comes to alcohol, you think that . you consume a very moderate amount (yes) and so there isn't much you can do there. Stress isn't something you . experience? (noo) Eating habits- well, I suppose it's possibly-

153. P: Yes, these fat-things (yees) which you-

OVERALL PATTERN

The diagrams (Tables 3 and 4) show examples of the way a pattern from the coding could be found. No obvious differences in counselling style could be detected when comparing the situation before and after the training in nurses A, B and C, although nurse A and nurse B had a patient-centred style from the beginning (Table 3). Nurse C did not have a style of this kind from the beginning nor did she achieve it after the training. In Table 4, there are differences in counselling style between before and after the training. Nurses D and E increased their use, but nurse F reduced her initially high use of patient centredness in the consultations.

DISCUSSION

The most obvious result of this study was that the nurses gave individually adapted information more frequently. The consultations became more focused, with greater scope for interaction. The number of turns increased, even for the shortest consultations, and the range of the number of words in the turns decreased. There was no change in the use of open and closed questions, identifying threats to health and perceived vulnerability or helping the patient to see opportunities. There were no more summaries after the training. Weighing up the pros and cons and identifying beliefs about non-pharmacological treatment increased slightly. Negotiating reasons for and where to begin behavioural change was used half as often after the training. Expansive questions, provocative questions and identifying goals or setting goals for behavioural change were used sparsely both before and after the training. No disregard of patient's questions was found after the training.

Counselling in hypertension care is a complex task, as there are various risk factors that have to be dealt with (18). To our knowledge, patient-centredness in nurses' counselling after counselling training has not previously been studied using qualitative methods. In many cases, different instruments to quantify the degree of special features of the counselling have been used in studies evaluating education in patient centredness and counselling (19), but, to obtain as much

information as possible, we used both a quantitative and qualitative analysis method on the data (20). It was of interest to study both how the nurses changed their way of counselling and to what extent. To define reliability, the coding was checked for inconsistencies, discussions were held between researchers about the coding strategy and the validity was defined by the categorisation of patient centredness with reference to a definition and the results of the analyses are described with excerpts (17).

In this study, we wanted to investigate the first meeting between nurse and patient where non-pharmacological treatment is introduced. The nurses recorded their consultations in daily practice with different patients with very varied risk factors, situations at home, personalities and ways of dealing with life, which makes every consultation unique (21, 22). It is this complex situation the nurses have to deal with in their daily practice. Another way to design the study could have been to use simulated patients, which would have made it easier to control different variables. The pro with our design is that it is possible prospectively to follow up the result of the intervention. The patients will be followed up for two years with laboratory and lifestyle variables.

Most of the nurses had been working for several years and had a well-established, agenda-driven strategy, which does not appear to be easy to change (23). Some nurses did change some strategies and there were instances in which even a satisfactory patient-centred approach was disrupted and affected in a negative way. To prevent inferior ways of counselling being established, counselling training could take place in undergraduate education, followed by recurrent training sessions later in working life (24). Another aspect of consultation training is that it takes time to get acquainted with the learning situation and to feel comfortable with feedback from teachers and group members. It might therefore be necessary to have series of training sessions to achieve a patient-centred counselling style (25, 26). Furthermore, not all of the nurses had the special education (public health) for working at health centres, which might have an effect on their approach in the consultations.

In a review of evaluations of communication training programmes in nursing care (27), a limited effect on the nurses' counselling was found, a finding that is similar to our findings. There is a problem in interpreting data from before and after intervention, as simple maturation could also explain some of the differences. We encouraged the nurses

to put the patient in the centre and assess the patient's personal risk profile on the first visit. Some nurses, who had a very open-minded attitude to how much and about what the patient talked, assimilated a new structure, where they sensitively kept the counselling more condensed and focused, and this resulted in fewer words in overall terms and less long turns of several hundred words both for themselves and the patients. As a result of this, the longest lectures containing a great deal of information delivered by the nurse decreased and turned into a more individually adapted way of giving information. These findings are in accordance with Burnard and Morrison's findings (28) relating to what nurses attending counselling skills workshops described themselves as being: mostly informative, supportive and good at offering advice. It would be interesting to assess whether consultation training during undergraduate education, followed by recurrent training sessions later in working life, is a better way of achieving patient centredness in consultations.

CONCLUSIONS

As a result of the training in patient centredness the nurses acquired an individually adapted way of giving information and increased negotiations about the reasons for and where to begin behavioural change.

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