

Older persons' worries expressed during home care visits: Exploring the content of cues and concerns identified by the Verona coding definitions of emotional sequences

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ABSTRACT

Objective: Little is known about how older persons in home care express their concerns.

Emotional cues and concerns can be identified by the Verona coding definitions of emotional sequences (VR-CoDES), but the method gives no insight into what causes the distress and the emotions involved. The aims of this study are to explore 1) older persons' worries and 2) the content of these expressions.

Methods: An observational exploratory two-step approach was used to investigate audiotaped recordings from 38 Norwegian home care visits with older persons and nurse assistants. First, 206 cues and concerns were identified using VR-CoDES. Second, the content and context of these expressions were analysed inductively.

Results: Four main categories emerged: worries about relationships with others, worries about health care-related issues, worries about aging and bodily impairment, and life narratives and value issues, with several subcategories showing the causes of worry and emotions involved.

Conclusion: The two-step approach provides an in-depth knowledge of older persons' worries, causes of worries, and their related emotions.

Practice implications: The subcategories described in a language close to the experience can be useful in practice development and communication training for students and health care providers.

Keywords:

Home care services

Communication

Older adult

Cues

Emotions

VR-CoDES

Qualitative research/content analysis

FINAL DRAFT

1. Introduction

1.1. Background

Home care constitutes an increasingly important part of European health care services for older persons [1-4]. The patient-provider communication in this setting is important to ensure high-quality health care provided in homes [5].

There are few observational communication studies in this field. Interviews are the most frequently used approach [5, 6]. One observational study, focussed on the nurses' communication and not the older persons' experiences, found that home care nurses more often used socio-emotional communication than was reported in previous studies [7]. Another study found that communication between nurses and home care recipients included negotiating autonomy and solidarity for both parties [8]. However, the older person seldom disputes the provider's assessment and avoids evaluative language about the provider's performance [9]. Communication that acknowledges the patient's emotional experiences and addresses issues raised by the patient is considered a pathway to improving psychosocial and health outcomes [10, 11]. A recent observational study shows that communicative challenges in home care include the older person's existential issues, fragility, worries and concerns [12]. However, we know relatively little about what is worrying older persons, and how they communicate worries and distress during home care visits.

The Verona coding definitions of emotional sequences – cues and concerns (VR-CoDES) is a validated method for identifying patients' expressions of unpleasant emotions in their communications with health personnel [13, 14]. The definitions of cues or concerns focus on verbal and non-verbal expressions of emotional talk, e.g. both clear expressions of unpleasant emotions (concerns) as well as hints that suggest underlying negative feelings (cues), such as vague or unusual words, profanities, exclamations, metaphors, repetitions, sighing or silence [15]. Arguments for developing VR-CoDES were that patients' unpleasant

emotions are seldom expressed directly, and that utterances carrying such emotions are often overlooked by care providers, even though they might represent important issues for the patient that require a response [16]. Patients' concerns and cues to emotional issues can be seen as a window of opportunity to capture the person's perspective and experience of a situation [16].

A common method for reporting results of VR-CoDES analyses is to present the frequency of each code, supplemented with examples of patient expressions [17-19]. However, such examples provide limited insight into the diversity of emotional content, issues represented and situations in which unpleasant feelings may arise. The system provides no codes for specific emotions or contextual factors. Some studies have tried to combine VR-CoDES with additional approaches. Mellblom et al. [20] used a thematic analysis to categorize emotional concerns expressed by adolescent cancer survivors, and disclosed new areas that were troublesome for this patient group. Eide et al. [21] identified content areas from literature, and categorized the cues and concerns accordingly. Kale et al. [22] compared VR-CoDES and discourse analysis (DA), and found a high degree of agreement between the two approaches on identified emotional talk, but that DA identified more of the understated emotional expressions. These three studies suggest that combining VR-CoDES and other methods can provide new knowledge and methodological insights.

The aims of this study are to apply a two-step approach to 1) identify older persons' concerns and cues to unpleasant emotions expressed during home care visits and 2) explore what is causing their worries and distress, and identify the expressed emotions.

2. Methods

2.1. Setting and sample

The study used an explorative qualitative observational design [23]. The material was

collected as part of an international research project including communication with older persons, nurses and nurse assistants [24].

The sample consisted of 38 of 99 audiotaped health care visits in older persons' homes in Norway, selected based on a maximum variation sampling strategy (units of home care, care provider, patient, assignment and length of visit). The selection included 24 patients (20 women) and 13 nurse assistants (11 women). Patient demographics were extracted from the patient records. Tables 1 and 2 give a complete overview of participants and home care visits.

2.2. Procedure for data analysis

The data analysis had a two-step approach. First, patients' expressed cues and concerns were identified deductively according to VR-CoDES [15]. Second, the identified expressions of cues and concerns including the verbal and non-verbal context were analysed inductively using a content analysis approach [25] (Fig. 1).

2.3. Data analysis methodology

2.3.1. Deductive identification of cues and concerns

The first author (LH) and a research assistant coded all visits according to the VR-CoDES definitions, which resulted in 206 patient expressions coded as cues or concerns (Table 3). Doubts or disagreements on assigning VR-CoDES were resolved by discussion with the last author (HE), who is an expert coder and participated in the system development [13]. All expressions containing cues and concerns were transcribed .

2.3.2. Inductive exploration of cues and concerns

The content analysis was performed in three phases following an inductive approach (Table 4) [25, 26]. 1) The preparation phase consisted of giving a tentative description of the situation, including a preliminary interpretation of the unpleasant emotions involved, in most cases indirectly expressed verbally or non-verbally. 2) The organizing phase consisted of

identifying emotional issues, patterns and regularities, and a preliminary organizing of themes in groups under higher order headings. In this phase, the first author re-listened to the context of each expression of cues and concerns to check and adjust the descriptions and interpretation of the emotions involved. 3) The abstraction phase consisted of a close re-reading of the whole text (the transcribed utterance, the situation descriptions and the preliminary interpretation of emotions) to formulate the final general categories and create a chart of older persons' worries and emotions expressed during home care visits (Fig. 2). Ekman's theory of basic emotions was consulted during the final categorization of emotions [27].

2.4. Research ethics

All data were handled according to Norwegian legislation. The study was approved by Data Protection Official for Research [24] and undertaken in accordance with the Declaration of Helsinki [28].

3. Results

Older persons' emotional expressions were grouped under four main categories in which a variety of emotions were expressed indirectly or directly: 1) worries about relationship with others, 2) worries about health care-related issues, 3) worries about aging and bodily impairment and 4) life narratives and value issues. A series of subcategories were identified, as well as the underlying unpleasant emotions. When presenting verbatim quotes from the material, '...' signifies omitted text and [] signify explanatory text.

3.1. Worries about relationships with others

Relationship-related issues included being a burden to others, losing self-government

and losing social ties.

3.1.1. Being a burden to others

These worries frequently included feelings of uncertainty, guilt or fear of being a burden to other people. Both practical and personal issues were addressed as the cause of worry.

Some older persons worried about being a burden to their family because of practical matters like taking up their time and resources in caring for them. One patient felt guilty about receiving help from her son by letting him drive her to her general practitioner: *“I find it awful to bother them, I really do”* (117, P11, NA6). Another felt helpless and bad about causing inconvenience to her children who were helping her, even if this was the only way for her to overcome her anxiety or fear of leaving her apartment: *“Oh, I cannot get out otherwise, I dare not go out”* (116, P16, NA6). In other situations, the worry of being a burden could be caused by a fear of embarrassing or shaming others. A patient who had lost a front tooth, expressed her uncertainty and reluctance to take part in an upcoming family event because she feared that her appearance might lessen the joy of the event, or perhaps even bring shame on her family, *“I think it [the lost front tooth] is a bit visible.... There will be some people there who I have not met before.... And I don’t know, I cannot smile, I think ... I find this really degrading”* (1, P1, NA1).

Similar emotions and worries of being a burden to others could also appear in relation to the care provider. Some patients worried about practical matters like adding to the workload of the care provider, causing inconvenience or wasting the other person’s time. Others worried about more personal, bodily matters, which produced unpleasant emotions such as irritation, guilt and shame. One elderly woman felt very uncomfortable, and perhaps even felt disgust or nausea, about the nurse assistant helping her with putting on her compression stockings: *“Oh, those stockings! ... Oh, that is hard [work]! They are so tight and so stupid! Oh my! ... Wretch, I pity you having to deal with these legs.... Yuck, it is a shitty job”* (107,

P11, NA5).

3.1.2. *Losing self-government*

Another worry in relationships with others was connected to losing self-government, related to both family and care personnel providing practical assistance. The way in which help was provided seemed to trigger emotions such as irritation and resentment, and sometimes perhaps contempt. One patient described family members cleaning her house, and was annoyed by how they worked: “*They removed all the carpets, oh no, oh dear, oh dear! ... I get irritated, I must say, and then they want to get rid of things, dispose of things, and that it [the flat] really was a mess and ... I have to laugh at them too*” (16, P9, NA3).

Another person talked about how irritated she felt because of a taxi driver who refused to bring her walker in the car. This made her prefer to stay at home, which caused her to miss social gatherings when this driver provided transportation (109, P16, NA5).

3.1.3. *Losing social ties*

Many older persons expressed sadness, fear or anxiety due to the risk of losing their social ties to neighbours, friends or family. Staying connected and attached seemed to be of major significance to most patients. One person was sad about a good neighbour being unable to visit because of her increasing health problems, “*I miss her, you know*” (102, P12, NA4). Another was troubled and sad after she experienced fewer people showing up at a planned gathering, “*Then I got a bit sad, actually, I thought, oh God, have they become so sick?*” (107, P11, NA5). A third person was anxious about losing her whole family and went into a spiral of catastrophic thinking about a plane crash because of a bad weather report (10, P7, NA2).

3.2. *Worries about health care-related issues*

A set of worries revolved around health care-related issues, including the experience that the health care delivery also might exacerbate the problem and sometimes be unhelpful.

3.2.1. Exacerbating the problem

Worries that health care itself might exacerbate a problem were rooted in the experience of either the treatment, including medication received, the use of medical technology or management of care.

In one visit, a woman expressed a mix of anger and frustration towards complications caused by a prescribed skin cream: “*Yes, and it [the skin] becomes as dry as hay, you know ... it’s nasty.... I don’t know what the heck this is; it’s such shitty stuff.... What is causing this?*” (107, P11, NA5).

Practical problems from handling medical technology could also exacerbate problems. In one patient, who was not able to handle her medical device independently, numerous thoughts and emotions were triggered. She felt anger towards the technology (“*Sometimes this makes me swear*”), but also insecure and alone (“*It is not that my foot is too big you see, but I struggle so much when I’m alone*”). She also felt sad, resigned and perhaps powerless in being unable to cope with the situation (“*And this I’m supposed to do several times a day.... I struggle so much with this stuff here*” (130, P13, NA7).

3.2.2. Unhelpful help

Worries could also relate to the experience of the health care services as not being helpful and triggering negative emotions such as disappointment, frustration, sadness, irritation and aggression. When asked if she perceived the visits as supportive and relieving anxiety, a patient answered in a hostile, almost resentful tone of voice, “*No, you [the home care service] cannot help.... What help have you provided today?*” (181, P18, NA9).

Health care services could also be experienced as too demanding or badly organized. A woman, having visited an outpatient clinic at the hospital, felt that she was left with more than she was able to cope with, which caused discouragement and frustration: “*It’s so unfair because now it’s so much [to organize] so I cannot manage it all*” (164, P17, NA8). A man in

need of medication expressed his disappointment, resignation and lack of trust in the care management and medication regimen. The help provided was not experienced as being helpful because the timing was not right: “*Yes, but today I probably should have a little [laxative] today as well, but I won’t get that.... It’s stupid not to be given it earlier*” (209, P24, NA13).

3.3. Worries about aging and bodily impairment

The expression of worries about aging and bodily impairment was the most frequent issue raised by different persons and in different visits. These worries related to existential issues of coping with life, pondering over death or lack of hope for the future.

3.3.1. Inability to cope

For many patients, their experience of their own body gave rise to worries about being able to cope or not, which triggered emotions such as resignation, anxiety and anger. One older woman talked about peeling potatoes while having back pain. She became discouraged or resigned because this easy task had become increasingly difficult: “*Just stand there, over by that, eh, there, there [kitchen sink], I notice it well*” (106, P13, NA4). In another visit, the same person complained about her legs and expressed sadness or grief caused by bodily impairment: “*No, there’s no strength in the legs, then all get worse, it ends up with me becoming like a fine lady, just sitting here*” (130, P13, NA7). Another patient expressed discouragement or resignation while moving from the toilet over to a wheelchair “[sighing and groaning] *It is just as nasty every morning.... I’m trying to be self-reliant, but it isn’t always easy*” (2, P2, NA1). Other patients expressed pain, agony, anxiety or anger: “*Oh, my God, my leg’s hurting so bad*” (102, P12, NA4) and “*My leg’s so painful*” (110, P12, NA5). Some patients even expressed self-contempt or disgust for their physical impairments: “*I don’t like my eyes these days*” (108, P15, NA5).

3.3.2. Pondering about death and the future

Other worries concerned aspects of death. Some expressed a longing for death and end of suffering. One patient having received critical care at the hospital responded with sadness to a remark about her seeming well: “*I don’t understand why they just didn’t let me stay dead, when I already had died*” [nurse assistant responds that it is better to live] “*no, I don’t think so, because I’m sick and tired of always being a bit sick*” (177, P19, NA9).

For others, having severe symptoms, worsening or further deterioration of health led to anxiety and fear. At night, one woman experienced her symptoms (the shaking of an arm) as stronger and scarier, which set off a fear of death: “[I’m] *scared of dying ... no, it’s not easy [to think of dying]*” (181, P18, NA9). The nurse assistant tried to shift the focus on to an upcoming family event, but the patient showed little hope for the future: “*I don’t know if I will live that long,*” and further refuted this event as being something to look forward to with a tone of emptiness or hopelessness in her voice.

3.4. *Life narratives and value issues*

This last category contains emotional narratives or reflections on value issues, which are often not easily identifiable as expressions of distress or worries about something concrete, but are definitively expressions of emotional talk.

When listening to these narratives, one often might get a sense that the underlying unpleasant emotion is loneliness, and that a need for attachment and fear of loss may play a central role. There are several reasons for this. First, the act of telling is demanding attention and may make it hard for the care provider to end the visit. Second, sharing stories often implies a shift of focus from instrumental tasks to personal issues. Third, it may create a friendly atmosphere, which in itself implies connectedness, and may serve as relief from feelings of loss and loneliness.

One example of this is a patient expressing her fondness of the nurse assistant as she was about to leave. The patient reminisced about how the nurse assistant also used to care for

other family members and moved on to tell about her sister who had passed away: *“I miss her. I miss her; you know ... I really do”* (115, P11, NA6). Another patient, after the nurse assistant had completed the instrumental tasks, suddenly started to tell about a trip to town where she had hurt her back, explaining this event as controlled by destiny (130, P13, NA9). She continued telling about other life situations; that she once had supported a friend in need, that she felt let down by a family member in her youth, and finally a story about how she lost her youth to the war (World War II). Her voice conveyed sadness when telling about her past losses and experienced terror. There were no actual worries in these situations, except in the situation when the nurse assistants were ready to leave, and a possible underlying feeling of loneliness and need for staying connected and attached.

Some patients also raised value issues, sometimes voicing strong opinions in societal and moral matters. This could relate to local politics, like how to organize health and community services (*“There is one thing I’m sorry about, and that is that the public dentist office is closing down”* (192, P22, NA11). It could also relate to questions of moral or social responsibility, like a patient living in a housing complex with other older persons who criticised her neighbours of being moral indifferent (*“Then no one comes to assist people just lying in the hallway here, dying”* (107, P11, NA5). Even if such value statements do not necessarily relate to the patient’s situation directly, such value statements may be understood as expressions of political or ethical worries, as a way of confirming one’s continued role as a member of the community or as vicarious expressions of emotions.

3.5 Summing up

The results of the analysis are summed up in Fig. 2. Under the tree structure of categories of worries and value issues, the different identified emotions are listed. In the figure, the complexity of underlying unpleasant emotions is visualized as a layer or layers pointing upwards, representing our finding that many different emotions may arise and be or become a

part of the expressed worries, dependent on the person and the situation. For instance, worries about health care-related issues may be accompanied by one single emotion or a mix of emotions like frustration, insecurity, loneliness, disappointment, sadness, irritation and anger.

4. Discussion

This is the first study to use VR-CoDES as a point of departure to explore the content of emotional talk by older persons in a home care setting. We will first discuss the empirical findings from this study and then the benefit of using the two-step approach.

4.1. Empirical findings

Our analysis disclosed a broad set of issues causing worries and distress. Expressed worries relate to issues concerning relationships with others, health care services, and aging and bodily impairment. The impact of the care provider and caregiving relationship on positive and negative emotions is supported by previous research [29], as well as the importance of having social support for older persons [30]. We also found that many older patients were afraid of being a burden to others, breaking social ties and losing control over their own life. The complexity of these relational issues should be addressed in future research.

Maintaining independence is an important task in home care [4]. Our study indicates that many older persons receiving home care worry about health care-related issues, and may communicate directly or indirectly that they experience that the help is not always helpful, that care is not always supportive, and that maintaining independence and control is crucial. Emphasis has been put on how failing to acknowledge emotions and the patient perspective reduces patient satisfaction about the provided services [31-33]. As shown in other studies, the care provider and the older person must negotiate their common understanding of care needs and helpful help [34, 35]. However, the critique of the home care or the provider's

performance is seldom clearly stated, which is in line with the findings of Lindström and Heinemann [9].

Meeting older persons' needs when facing existential distress is important [36]. The current study has added to the study performed by Sundler et al. [12] by exploring the patients' experiences and creating categories and subcategories of patients' emotional talk in a language close to the patients' expressed experience. In our analysis, we found that existential issues were embedded in worries about aging and physical impairment, which can negatively affect quality of life [3].

Life narratives may play a great part of the dialogues between the older person and the nurse assistant, and a way for the older person to address loneliness. Loneliness is clearly associated with depression and hopelessness [37]. If telling narratives can support the experience of social companionship and decrease social isolation, this may be a hard argument for allowing home care services to include time for psychosocial talk and not just instrumental assistance [38].

4.2. The two-step approach

To our knowledge, this is the first study to combine the deductive approach of VR-CoDES with an inductive exploration of the content of cues and concerns. This two-step approach provided insight into a broad spectrum of unpleasant emotions expressed verbally and non-verbally as well as knowledge of the issues described as causing these emotions. To our judgment, this two-step approach proved to be methodologically useful; the first step used a validated method for identifying expressions containing unpleasant emotions, and the second step used a qualitative method to explore the situational and emotional content in depth.

A question is whether the first step is needed or not. Why not skip the first step and start analysing the whole material inductively? We see three arguments for applying a two-step

approach. The first is pragmatic. In step one, an enormous amount of data (in this case 38 audiotaped visits) is reduced to the key expressions and their contexts according to the aim of the study. The second and third arguments relate to validation. Using a validated method to extract key expressions and sequences might be seen as adding rigor to the choice of material included in the inductive analysis. Starting inductively, with an open, explorative approach might imply a higher risk of making less clear and explicit choices of key expressions. The third reason is that applying a two-step approach implies the possibility of triangulation, of seeing the results through the looking glass of two different methods to check its validity [39].

4.3. Strength and limitations of the study

The strength of the study is the relatively large sample used to explore how an older person expresses worries when cared for by nurse assistants and what may cause the worries. Future research needs to investigate whether this also is consistent in communication with other providers. A limitation is that the material is audiotaped, which thereby loses the visual contingent elements accompanying the expressions of worries, and perhaps missing those only expressed through face expressions or gestures. However, communication ratings using audio and video are found to be highly correlated [40]. Using an audio-recorder is easy to manage for the participants, and may have had less impact on the interactions and communication compared with a video recording [41].

The main categories of the inductive content analysis might seem expected and could have been deduced theoretically. However, from the authors' point of view, this can be viewed as evidence of our findings being plausible and valid [26].

4.4. Implications for practice

The topical overview of emotionally salient worries provided in this study as well as the way of listening to emotions that VR-CoDES imply can be used in communication training of providers working with older persons in home care. This could enable home care providers to

react in ways that promote health and wellbeing by acknowledging older persons' emotional experience and addressing the issues can support quality of life and wellbeing [11].

This study supports dialogue as a feasible tool to elicit the individuals' perspective on issues triggering unpleasant emotions for older persons living at home [38]. In-depth knowledge of characteristics of older persons' emotional talk in real-life situations, as well as triggering mechanisms or factors, can help raise care providers' awareness of important aspects of communication when working with persons in home care.

Conflicts of interest: none

I confirm all patient/personal identifiers have been removed or disguised so patient/person(s) cannot be identified.

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Table 1

Characteristics of patients and nurse assistants.

<i>ID: Patients</i>	<i>Age</i>	<i>Gender</i>	<i>ADL*</i>	<i>Hours of home health care per week</i>
<i>P1</i>	86	F	2.12	3.5
<i>P2</i>	93	M	2.88	17.7
<i>P3</i>	85	K	2.6	8.2
<i>P4</i>	84	K	3.7	18
<i>P5</i>	87	K	2.29	2.37
<i>P6</i>	74	K	1.59	0.5
<i>P7</i>	85	K	1.65	3.1
<i>P8</i>	90	K	2.88	7.3
<i>P9</i>	91	K	1.59	2.4
<i>P10</i>	66	M	3.29	7.3
<i>P11</i>	86	K	1.29	3.3

<i>P12</i>	91	K	2.29	21.46
<i>P13</i>	89	K	1.47	2.55
<i>P14</i>	89	M	1.53	0.45
<i>P15</i>	93	K	2.29	8.38
<i>P16</i>	86	K	1.65	1.35
<i>P17</i>	67	K	2.35	7
<i>P18</i>	65	K	2.47	1.1
<i>P19</i>	68	K	0	0.4
<i>P20</i>	88	K	3.53	15.45
<i>P21</i>	86	K	2.59	0.3
<i>P22</i>	71	M	2.94	13
<i>P23</i>	82	K	2.53	7.13
<i>P24</i>	93	M	1.97	4

<i>ID: NA</i>	Age	Gender	Experience (years in the municipality)	Full-time equivalent
<i>NA1</i>	**	M	30	1

<i>NA2</i>	39	F	18	0.8
<i>NA3</i>	51	F	31	1
<i>NA4</i>	49	F	17	0.5
<i>NA5</i>	47	M	26	1
<i>NA6</i>	**	F	28	0.75
<i>NA7</i>	23	F	4	0.5
<i>NA8</i>	24	F	7	1
<i>NA9</i>	44	F	26	0.7
<i>NA10</i>	39	F	7	1
<i>NA11</i>	**	F	14	0.8
<i>NA12</i>	52	F	7	0.5
<i>NA13</i>	34	F	1	1

Notes: ADL, activities of daily living; f, female; m, male; NA, nurse assistant; P, patient. *ADL, range 0–5, measurement of the ability to perform routine activities (0, needs no assistance; 3, needs moderate assistance; 5, unable to perform). **Did not provide information

Table 2

Characteristics of the visits identifying the nurse assistant (NA), patient, length of visit and care assignments.

ID of Visit	ID NA	ID Patient	Length of visits (min)	Care assignments
1	NA1	P1	44	Shower and medication
2	NA1	P2	44	Morning care, skin care, prepare breakfast
5	NA1	P3	9	Provide medication and meal
6	NA2	P4	6	Measure blood sugar levels, prepare dinner
7	NA2	P5	2	Prepare medications. prepare breakfast
9	NA2	P6	2	Change pain-relieving bandage, prepare medication
10	NA2	P7	4	Put on compression stockings, getting dressed
12	NA3	P8	10	Put on compression stockings, remind person to take medication
16	NA3	P9	5	Measure blood sugar levels, provide insulin
17	NA3	P10	16	Provide medication, evening care, needs help with mobility (patient handling)
101	NA4	P11	9	Put on compression stockings, moisturize legs, place bandage on toes

102	NA4	P12	33	Put on compression stockings, morning care, provide medication and Ventolin inhaler, empty bedpan, prepare meal, tidy up
103	NA4	P13	15	Provide eye drops and medication
104	NA4	P14	8	Help with positioning hearing aid
105	NA4	P12	37	Morning care, put on compression stockings, provide medication
106	NA4	P13	10	Psychosocial support, needs help with mobility (patient handling)
107	NA5	P11	18	Take off compression stockings, moisturize legs
108	NA5	P15	12	Take off compression stockings, provide eye drops and medication
109	NA5	P16	10	Take off compression stockings
110	NA5	P12	17	Take off compression stockings, provide dental care and medication, empty bedpan, needs help with going to bed (patient handling)
114	NA6	P12	24	Change stoma bag, provide medication, heat dinner
115	NA6	P11	15	Take off compression stockings, moisturize legs
116	NA6	P16	7	Take off compression stockings
117	NA6	P11	7	Take off compression stockings, moisturise legs
119	NA6	P15	11	Prepare meal, provide eye drops and medication

130	NA7	P13	43	Psychosocial support, help with medical device
131	NA7	P11	15	Put on compression stockings, moisturize legs
164	NA8	P17	35	Assist with shower and medication, attend to stoma
176	NA9	P18	5	Perform weighing, provide medication
177	NA9	P19	16	Shower
181	NA9	P18	14	Provide medication, psychosocial support
189	NA10	P20	45	Morning care, shower, put on compression stockings, prepare meal
191	NA11	P21	16	Assist with going to the toilet
192	NA11	P22	10	Take off compression stockings, provide eye drops and medication, evening care, assist with going to bed
193	NA11	P23	15	Perform wound care, provide eye drops, put on compression stockings
194	NA11	P23	18	Perform wound care, provide eye drops, put on compression stockings
202	NA12	P24	21	Put on compression stocking, provide medication and skin care
209	NA13	P24	15	Put on compression stocking, help with getting dressed, help with positioning hearing aid

Table 3

VR-CoDES and examples of patient utterances included in the sample.

Definition – VR-CoDES [15]	Patient utterances: selected examples from sample
Concern: Clear and unambiguous expression of an unpleasant current or recent emotion explicitly verbalized	“My legs are so sore that I’m afraid of even getting near them myself”
Cue a: Vague or unspecified words to describe his/her emotions	“It’s just as bad ” (Nurse assistant has asked about trembling of hand)
Cue b: Verbal hints to hidden concerns: unusual words, unusual description of symptoms, exclamations, profanities, metaphors	“Oh dear, now the bedroom is, yes, I will not say anything else” (Nurse assistant is collecting equipment stored in the bedroom)
Collapsed categories c–g for this analysis because of few examples, referred to as “other cues”	Includes verbal or non-verbal cues: sigh or cry, repetitions, reference to life events

Table 4

Example of the inductive analysis process showing two different patient utterances.

Meaning unit (MU)	Condensed transcription	Code	Subcategory	Main category
VR-code: “I think it’s horrible to bother them, then, I think that” (cue a: provider-elicited, shame + sadness)	“I think it’s horrible to bother them.”	Being a burden to family	Being a burden to others	Worries about relationships with others
Description: Nursing assistant helps patients with compression stockings. Patient says that her son is visiting and that they should enjoy themselves afterward, but the day after he will drive her to the doctor. Talking about how she thinks it is horrible to bother her son by running to the doctor and other things that she needs help to manage	About how the patient is dependent on her family to drive her to the doctor appointment.			

VR-code: “When I keep on fiddling with the one there to get it on the foot and it in there, sometimes I say something nasty” + “I get so grumpy” (Concern, provider elicited, anger + irritation + frustration)

“When I keep on fiddling + say something nasty + I get so grumpy.”

What should be treating me, makes me struggle

Exacerbating the problem

Worries about health care-related issues

Description: Patient raises this topic about the medical device and the need for assistance managing this. It is obvious that this is difficult for patient because of voice, wording, emphasis and repetitions

About managing equipment for treatment by herself