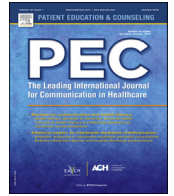




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Emotional communication in home care: A comparison between Norway and Sweden



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ABSTRACT

Objective: Given the free movement of workers across countries, knowledge regarding communication differences between countries is imperative. In this study, we explored and compared the supportive responses of nursing staff to older persons' emotions in home care in Norway and Sweden.

Methods: The study had an observational, cross-sectional, comparative design, which included 383 audio-recorded home-care visits. Communication was coded using Verona Coding Definitions of Emotional Sequences. Worries and responses were categorised with regard to reference, communicative function and level of person-centredness. Standard statistical tests were used to analyse the data.

Results: The Swedish nursing staff provided space for further disclosure of worry more frequently than the Norwegian nursing staff (75.0 % versus 60.2 %, $\chi^2 = 20.758$, $p < 0.01$). In all, 65 % of the responses were supportive. Multiple logistic regression analyses showed that highly person-centred responses were independently associated with worries phrasing an emotion, OR (95 % CI) 3.282 (1.524–7.067).

Conclusion: The level of person-centredness was associated with the way in which older persons expressed their distress. The Swedish nursing staff provided opportunities for further disclosure of worries more frequently than the Norwegian nursing staff.

Practice implications: Findings of intercultural differences should be incorporated into the training of nursing staff.

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1. Introduction

The population is currently growing older and aging in place. 'The ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level' [1] is an important principle in numerous countries. Older individuals want to choose where and how they age in place [2]. Even when health declines, it is imperative to remain living in one's own home [3]. In this respect, home care is essential both for care and for companionship [4]. Home care differs within and

between countries, and the approaches to national home care reforms differ [5,6]. Moreover, nursing staff members have different levels of education and competency [7]. Nonetheless, communication is a common competency and it is essential to ensuring person-centred, high quality care [8,9].

The goal of care is to support a meaningful and functional life [10], which is essential for aging in place. Person-centred care involves treating the patient as a person by noticing and responding to his or her perspective, focusing on his or her needs with respect and understanding, sharing decisions, providing holistic care, comfort and empathy and fostering resilience and positive health [11–13].

With in-home care, the key is to both recognise the care needs of older individuals and to offer emotional support. Emotional

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wellbeing is strongly associated with health, and it is facilitated by social support [14–16]. Older individuals experience high levels of stress when they are unable to handle their emotions [15], and they rely on nursing staff for support [17]. Since older people most often express worries as hints [18,19], these worries can be difficult for nursing staff to detect and manage [20]. Nursing staff also confront challenges with respect to conflicting views on care and unforeseen turns in the communication with the patients [20]. During home care visits, older individuals' emotions and existential feelings most frequently relate to ageing and bodily impairment [21]. It may adversely affect the patients' well-being and sense of security when the nursing staff fails to notice and respond to their perspectives and needs [22,23].

Providing comfort within a caring perspective involves both the nursing staff member's spontaneous response to distress and his or her professionally learned strategies [24]. Empathic communication encourages patient trust, mutual understanding, social support, medication adherence and self-efficacy [25]. A nursing staff's empathic accuracy, 'ability to infer the specific content of another person's thoughts and feelings' [26], is essential to providing supportive communication. Supportive communication can reduce emotional distress, enhance coping, protect health and improve personal relationships [27].

The Hierarchical Coding System for Sensitivity of Comforting Strategies, which was developed to describe person-centred responses [28], has been adapted and used to classify nurses' empathic responses [29,30]. The coding system has three levels: 1) denial of the person's perspective, 2) implicit recognition or approval of the person's perspective and 3) explicit recognition and elaboration of the person's perspective. Highly person-centred responses have high empathic accuracy and explicitly recognise, acknowledge and legitimise feelings and perspective. They encourage elaboration and exploration of feelings to understand and place them in a meaningful and broader context as well. Medium accuracy and moderately person-centred responses implicitly recognise the feelings of others by diverting the attention away from the worry, by acknowledging the feeling, albeit without helping to understand or cope or providing non-emotional centred explanations of the situation in an attempt to alleviate distress. In comparison, responses that deny the feelings of others by criticising or challenging their legitimacy, telling the other how to act and feel or ignoring their feelings, are low person-centred and lack an empathic response.

Knowledge regarding supportive communication and the potential differences between countries may have an impact on nursing staff training and the provision of care. Knowledge is additionally important given both the free movement of workers within the European countries and the large number of Swedish nursing staff working in Norway. In this study, we aim to explore and compare the supportive responses of nursing staff to older persons' emotions and existential feelings in home care in Norway and Sweden and to identify the associations with highly person-centred responses.

2. Methods

2.1. Design

The study had an observational cross-sectional, comparative design. It used data from audio-recorded home care visits in Norway and Sweden. The two neighbouring European countries have similar health care systems and nursing staff education.

2.2. Sample and setting

The study participants included older persons (> 65 years) who were receiving home care and nursing staff who were providing

home care in 12 home care units: four in Norway and eight in Sweden, see Table 1. The inclusion criteria for the home care receivers were that they were 65 years or older and Norwegian/Swedish speaking. Older persons' with speech or language difficulties (Sweden only), or cognitive decline, or who were too frail or unable to provide informed consent were excluded from participation. The inclusion criteria for the nursing staff included being a Norwegian or Swedish speaking registered nurse (RN) or nurse assistant (NA), holding a permanent position and providing care in older persons' homes. The samples in each country only included patients and nursing staff who were national citizens.

2.3. Data collection

The unit managers recruited the nursing staff study participants. The unit managers and the nursing staff both recruited participant care receivers. The nursing staff and the care receivers were both given oral and written information about the study, and they provided their written consent to participate. The data (audio-recordings) was collected in Norway from December 2013 to April 2014 and in Sweden from August 2014 to November 2015. A digital audio recorder (H1 Zoom), worn on the nursing staff member's upper arm, recorded the communication between the older person and the nursing staff during the entire home care visit. The recording started when the nursing staff entered the older persons' home, and it ended when they left. In total, 383 encounters were recorded: 195 in Norway and 188 in Sweden, 144 and 95 of these, respectively, included cues and concerns. The RN or NA could meet with the same older person in subsequent visits, the median (range) was 1 (1–4) and 3 (1–8) times for Norwegian and Swedish nursing staff, respectively. The older person could encounter different nursing staff in each visit, the median (range) number of nursing staff encountered was 1 (1–4) and 1 (1–4) for older Norwegian and Swedish persons, respectively.

2.4. Coding and categorisation

The study analysed the sequences of emotional communication during the home care visits, corresponding to the first phases of supportive communication, specifically, the recipient's expression of distress or support seeking efforts and the supportive response from the helper [27]. The segments of emotional communication were identified using VR-CoDES [31,32]. The VR-CoDES system has high ecological validity, capturing patients' real experienced worries [33]. The units of analysis were the older persons'

Table 1

Characteristics of the older persons and nursing staff in home care in Norway and Sweden.

	Norway	Sweden
Older persons, n	48	81
Men, n (%)	11 (23)	23 (28)
Women n (%)	37 (77)	58 (72)
Age, mean (sd) years	84 (±8)	86
Age, range years	65–94	65–103
Nursing staff, n	33	31
Men, n (%)	6 (18)	11 (35)
Women n (%)	27 (82)	20 (65)
Age, mean (sd) years	42 (±11)	45
Age, range years	23–59	22–63
Registered nurse, n (%)	16 (48)	11 (35)
Nurse assistant, n (%)	17 (52)	20 (65)
Work experience, mean (sd) years	17 (±11)	20.5
Work experience, range years	<1–45	<1–41

In Norway and Sweden, registered nurses have a Bachelor's degree in nursing or equivalent, and nurse assistants have secondary education and vocational training in caring.

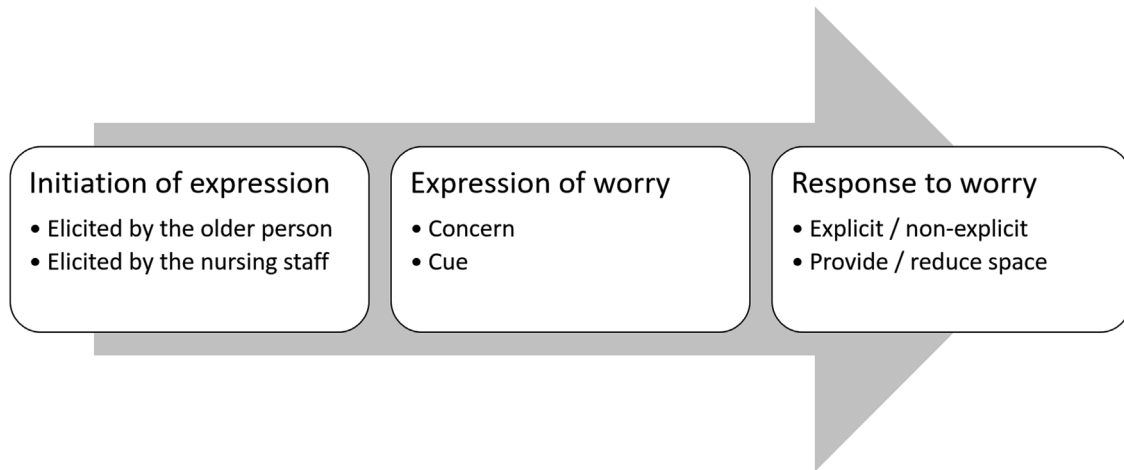


Fig. 1. Sequential analysis of emotional communication using VR-CoDES.

Concern, a clear and unambiguous expression, the emotion is explicitly verbalized. *Cue*, a verbal or non-verbal hint of an underlying unpleasant emotion. *Provide / reduce space*, response opens/closes further talk about the expressed worry *Explicit/non-explicit*, the response include/do not include phrasing or key elements of the expression.

emotional distress expressed as cues or concerns [31] and the nursing staffs' immediate response to the emotional distress [32], Fig. 1.

The VR-CoDES – Cues and Concern define a 'concern' as 'a clear and explicit expression of current or recent emotion'. They define a 'cue' as 'a verbal or non-verbal hint to an underlying unpleasant emotion'. The cues and concerns are organised in seven mutually exclusive categories and further defined by whether the patient or the health care provider prompted the expression [31]. The VR-CoDES – Provider Response codes the immediate response to the concern or cue. Two dimensions define the response: 1) whether the response refers explicitly to the concern/cue by holding the wording or key elements of the patients' expression and 2) whether the response provides space for/by allowing the patient to talk more about their worries [32]. Pairs of investigators coded the material to reach acceptable interrater reliability (Cohen's kappa > 0.6). After consensus coding, two single investigators coded the remaining material [18,19,34]. During the coding process, the research teams in Norway and Sweden had regular meetings to ensure comparable coding between the countries. However,

expressions of momentary pain were only coded for the Norwegian sample.

The older persons' worries and the nursing staffs' responses were then categorised. First, the older persons' concerns and cues were grouped in three sum-categories of emotional distress depending on whether the expression phrased an emotion, an unpleasant state or circumstance or a contextual hint of an emotion [19], Fig. 2. Second, the nursing staffs' responses were grouped in three sum-categories based on the function of the response, whether the response focused on the emotion, the content or ignored/blocked the expression [19], Fig. 3a. Third, the responses were grouped with regard to the level of person-centredness, by adapting Burleson's description of supportive communication (Burleson 1994, [29,30]. Three levels of supportive communications were defined: 1) low person-centred responses that ignore or deny elaboration of the emotion, 2) moderately person-centred responses that implicitly recognise the emotion by focusing on the content and 3) highly person-centred responses that explicitly recognise the emotional distress and allow further disclosure, Fig. 3b. Highly person-centred responses were defined as advanced supportive communication.

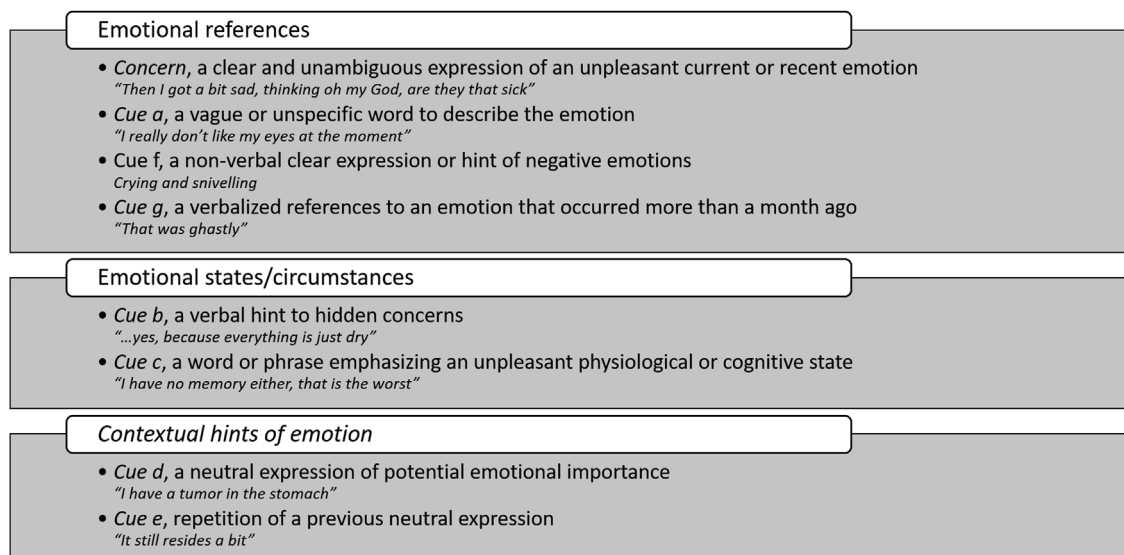


Fig. 2. Reference of worries derived from VR-CoDES cues and concern.

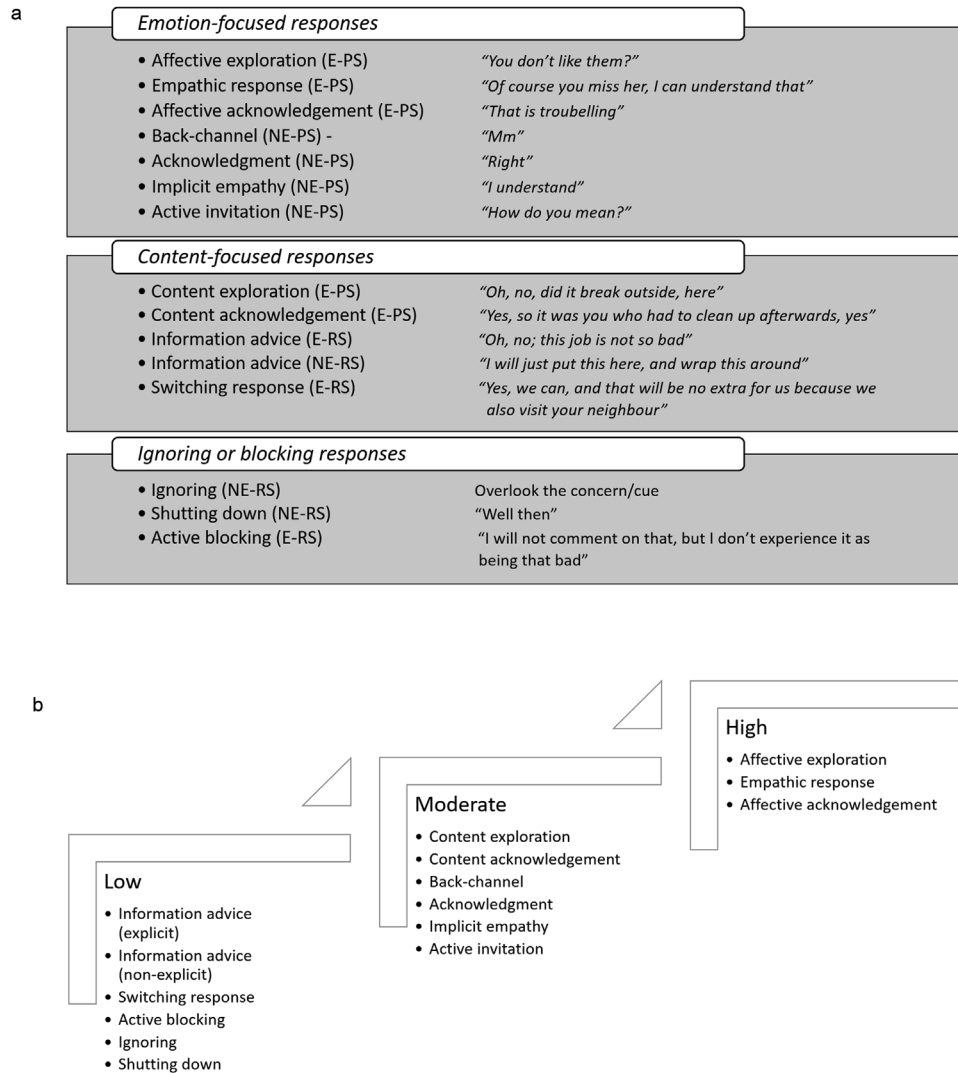


Fig. 3. a) Communicative function of the responses as derived by sum categories of VR-CoDES responses. b) Supportive communication - VR-CoDES responses categorised according to Burlinson's levels of person-centred response. E-PS; explicit – provide space, NE-PS; non-explicit – provide space, E-RS; explicit – reduce space, NE-RS; non-explicit – reduce space.

2.5. Data analysis

We used IBM SPSS Statistics, version 25.0 (IBM Corp, New York, USA) for the statistical analyses. The data were analysed in

summation and frequency tables. Group differences and associations were analysed using standard statistical tests: chi-square and bivariate and multivariate logistic regression. The significance level was set at < 5%. Variables with a significance level of < 25% in

Table 2
Older persons' expressions of worries in home care in Norway and Sweden by cues and concerns* and focus of phrasing.**.

Older persons' worry, n (%)	Norway (n = 638)		Sweden (n = 316)	
<i>Worries phrasing an emotion</i>	225	(35.3)	77	(24.4)
Concern, clear and unambiguous expression of an unpleasant emotion	63	(9.9)	24	(7.6)
Cue a, vague or unspecific word describing emotion	109	(17.1)	50	(15.8)
Cue f, non-verbal clear expression or hint of negative emotions***	35	(5.5)	1	(0.3)
Cue g, verbalized references to emotions in the past	18	(2.8)	2	(0.6)
<i>Worries phrasing a state/circumstance</i>	398	(62.4)	222	(70.3)
Cue b, verbal hint to hidden concerns***	390	(61.1)	202	(63.9)
Cue c, word/phrase emphasizing an unpleasant state	8	(1.3)	2	(6.3)
<i>Worries phrasing a contextual hint</i>	15	(2.4)	17	(5.4)
Cue d, neutral expression of potential emotional importance	4	(0.6)	6	(1.9)
Cue e, repetition of a previous neutral expression	11	(1.7)	11	(3.5)

Statistically significant difference between Norwegian and Swedish older persons' expressions; * $\chi^2(7) = 46.435, p < 0.001$ for cues and concerns, ** $\chi^2(7) = 46.435, p < 0.001$ for phrasing an emotion, a state/circumstance or a contextual hint, ***Including 130 expressions of momentary pain in the Norwegian sample, 1 concern, 4 cue a, 27 cue f and 98 cue b.

the bivariate logistic regression were included in the analysis for the multivariate logistic regression [35].

2.6. Ethical considerations

The study followed the ethical principles for medical research involving human subjects [36]. The Norwegian Social Science Data Services ID 36017 and the Swedish Regional Ethics Committee Dnr 2014/018 approved the study method. All of the study participants gave written informed consent to participate. The older persons and the nursing staff could both withdraw from the study at any time without consequence to home care. We de-identified the data material before the analyses.

3. Results

3.1. Older persons' worries

The material included 954 expressions of worries, from 144 and 95 home care visits in Norway and Sweden, respectively, Table 2. There was a significant difference between how older persons in Norway and Sweden expressed worries ($\chi^2(7) = 46.435, p < 0.001$). This difference was particularly evident when the expressions were grouped according to the phrasing of the distress ($\chi^2(2) = 16.359, p < 0.001$). In Norway, older persons expressed their emotional distress more frequently with a reference to an emotion, whereas older persons in Sweden expressed emotional distress more frequently with reference to a state or by contextual hints.

3.2. Nursing staffs' response to the older persons' worries

In all, 622 (65 %) of the responses recognised the patients' emotional perspective, implicitly by 492 (51.4 %) and explicitly by 130 (13.6 %) addressing the worry, Table 3. There was a significant difference in the responses between the Norwegian and the Swedish nursing staff. The Swedish nursing staff more frequently provided space for further disclosure of the worry than the Norwegian nursing staff did (75.0 % versus 60.2 %, $\chi^2 = 20.758, p < 0.01$). When addressing the patient's emotional distress, the Swedish nursing staff more frequently did so by implicit recognition of the distress than the Norwegian nursing staff did (90.3 % versus 72.3 %, $\chi^2 = 20.03, p < 0.01$). When grouping responses with respect to the function of the response, the Swedish nursing staff responded to the emotional aspect of the distress more frequently (68.7 % versus 47.6 %), whereas the Norwegian nursing staff responded more frequently to the content of the

Table 3
Nursing staff's responses to older persons' expressions of worries in home care in Norway and Sweden by characteristics* and function** of the response.

Nursing staff response, n (%)	Norway (n = 641)	Sweden (n = 316)
<i>Responses addressing emotion***</i>	304 (47.4)	217 (68.7)
Explicit, provide space	26 (4.1)	3 (0.9)
Non-explicit, provide space	278 (43.4)	214 (67.7)
<i>Responses addressing content***</i>	205 (32.0)	70 (22.2)
Explicit, provide space	81 (12.6)	20 (6.3)
Explicit, reduce space	48 (7.5)	2 (0.6)
Non-explicit, reduce space	76 (11.9)	48 (15.2)
<i>Responses ignoring/blocking</i>	132 (20.6)	29 (9.2)
Explicit, reduce space	1 (0.2)	0 (0.0)
Non-explicit, reduce space	131 (20.4)	20 (9.2)

Statistically significant difference between Norwegian and Swedish nursing staff's responses that *provide space and reduce space for further talk ($\chi^2(1) = 20.758, p < 0.01$), *explicit and non-explicit address the worry ($\chi^2(1) = 37.236, p < 0.01$) and **address emotion, content, or ignore the worry ($\chi^2(2) = 41.059, p < 0.01$). ***Including 130 responses to expressions of momentary pain in the Norwegian sample, 24 responses addressing emotion and 106 addressing content.

distress (31.8 % versus 22.2 %) or blocked/ignored the expression (20.5 % versus 9.2 %) ($\chi^2(2) = 41.059, p < 0.01$).

3.3. Level of supportive communication

In terms of the level of supportive communication, 3% of the responses were highly person-centred, 62 % were moderately person-centred and 35 % were low person-centred. The Swedish nursing staff used moderately person-centred responses more frequently than the Norwegian nursing staff (74 % versus 56 %), whereas the Norwegian nursing staff used the low (40 % versus 25 %) or highly (4% versus 1%) person-centred responses more frequently ($\chi^2(2) = 31.335, p < 0.01$). Highly person-centred responses were associated with how the worry was expressed (type of cue/concern), Fig. 4. The multiple logistic regression analysis showed that expressions phrasing an emotion were independently associated with highly person-centred responses, OR (95 % CI) 3.282 (1.524–7.067) when adjusted for the care recipient and the nursing staff at an individual level, Table 4. There was no significant difference in the level of supportive communication between male and female nursing staff or between Swedish nurses and nurse assistants. However, there was a significant difference between the nursing staff in Norway and Sweden as well as between the nurses and nurse assistants in Norway. In Norway, the nurse assistants showed a higher proportion of highly or low person-centred responses than the nurses did (6 and 42 % versus 1 and 38 %, respectively). In total, the nurse assistants provided 24 of the 29 highly person-centred responses (83 %) in the sample.

4. Discussion and conclusion

4.1. Discussion

To the best of our knowledge, this study is the first to explore and compare the supportive responses of nursing staff to older persons' expression of emotions and existential feelings in home care in different countries. Two thirds of the nursing staff responses disclosed some degree of supportive communication by an explicit or non-explicit response providing space for further disclosure of the older person's emotional distress. Most of these responses were moderately person-centred, and only one in twenty responses demonstrated the characteristics of advanced supportive communication [27]. Expressions with an emotional reference were more likely to receive a highly person-centred response.

In all, the Swedish nursing staff provided supportive communication more frequently than the Norwegian nursing staff did. These findings are noteworthy, and they raise questions. Why do Norwegian and Swedish nursing staff respond differently to worries? What is efficient supportive communication in a home care setting? What implications may these findings have for nursing staff education and home care organisation?

The older individuals most frequently expressed their worries as verbal hints to emotions, unpleasant situations, or unpleasant cognitive or physical states, and they rarely addressed the emotion verbally or nonverbally. The nature of the expressions may reflect that different approaches and levels of supportive communication are necessary in home care. Entwistle and Watt (2013) proposed a guiding idea that 'treating patients as persons involves recognising and cultivating their personal capabilities' by promoting respect and compassion, ensuring that services work well for the individual and supporting persons to develop and use their autonomous capabilities [11]. A person's experience of relational issues or threats to personal health and well-being may cause a need to share, discuss and seek advice and comfort in others [27]. In cases where the older individual calls attention to an emotion, a

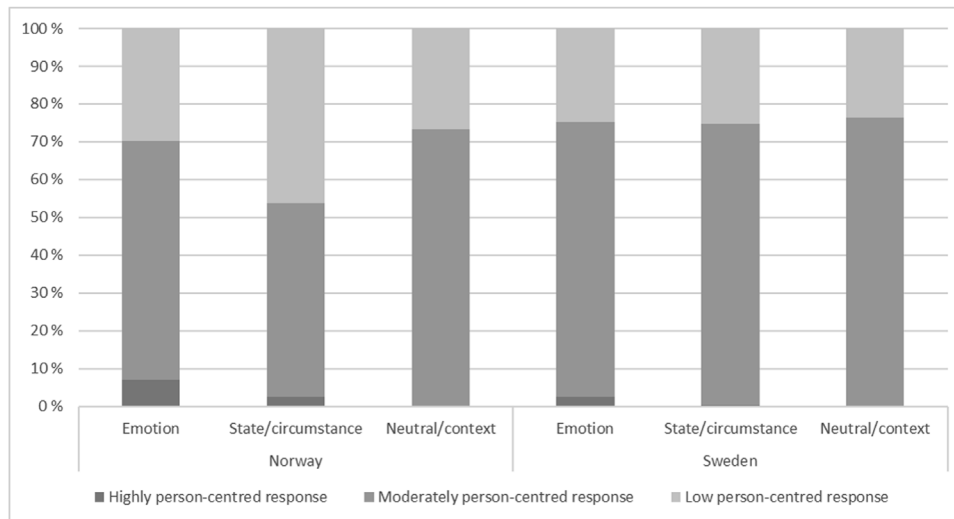


Fig. 4. Level of supportive communication by reference to the expression of emotional distress in Norwegian and Swedish home care visits.
* Statistically significant difference between Norwegian and Swedish home care ($\chi^2(2) = 31.335$, $p < 0.01$).

Table 4

Factors associated with highly person-centred nursing staff responses.

	Crude odds ratio		Adjusted odds ratio*	
	OR (95 % CI)	p-value	OR (95 % CI)	p-value
Type of cue/concern (Emotional)	3.655 (1.704–7.838)	0.001	3.282 (1.524–7.067)	0.002
The patient	0.998 (0.997 to 0.999)	<0.001	1.002 (0.999–1.005)	0.311
The nursing staff	0.999 (0.999–1.000)	<0.001	0.998 (0.997–1.000)	0.021

* Adjusted for individual older person and individual nursing staff.

highly person-centred response that explicitly recognises, acknowledges and legitimises the feeling and encourages that person to elaborate and explore the feelings could be appropriate. In comparison, when the emotional distress has a reference to a circumstance or state, a moderately person-centred response, which provides explanations in an attempt to alleviate distress and develop and use autonomous capabilities, may be more efficient. A nursing staff member's ability to focus his or her response accurately to emotion or content is essential to providing optimal supportive communication [16,25,37]. Older individuals' experience of well-being and life satisfaction correlates with perceived good health, absence of worry and self-esteem [38]. Further research is needed regarding what older persons in home care prefer and perceive as supportive communication.

The Swedish nursing staff provided supportive communication more frequently than the Norwegian nursing staff did. However, the Norwegian nursing staff displayed a higher proportion of highly person-centred responses. This could reflect the cultural differences between Norway and Sweden; since older Norwegians express their distress more frequently with an emotional reference, whereas older Swedes tend to express their worries with a reference to a state or circumstance, the response strategies are consequently tailored to how the worry is expressed. From a socio-dynamic perspective, culture forms the emotional experiences and emotional interaction establishes the culture [39]: 'Culture is not only at the heart of emotions; emotions may also be at the heart of culture.' Culture matters in medical communication; in wealthier countries, more psychosocial issues are discussed and the communication style is more flexible than in countries with a low power distance [40]. Business research has noted that there are cultural differences between the Nordic countries. In Norway, the power distance is lower and the humane orientation is higher

than in Sweden [41], which may explain both why older people in Norway more frequently express distress with an emotional reference and the higher proportion of person-centred responses by Norwegian nursing staff. Therefore, the lower number of expressions in the Swedish sample may reflect cultural differences in communication as well as the fact that expressions of momentary pain were not coded for the Swedish data.

The higher number of low person-centred responses among the Norwegian nursing staff could be explained by a higher proportion of expressions of momentary pain and emotions in the past (cue f and g), among the older persons in Norway as compared to those in Sweden. Since there is a risk of adverse effects on patients' well-being and sense of security when the nursing staff ignores older persons' distress or denies them the possibility to share their feelings, the low person-centred responses could be of concern [8,15]. A thematic exploration of the content of the worries in the Norwegian sample [21] demonstrated that existential issues were the most common topic of older persons' worries in home care; these worries were equally initiated by the older persons and the nursing staff. Worries related to relationships with others, health care issues, value issues and life narratives were triggered more frequently by the nursing staff. The nursing staff provided supportive communication when addressing coping with existential issues, fears of losing social relations and being a burden, but tended to ignore patients' expressions of momentary pain, reflecting differences in sensitivity to existential challenges and expressions of pain, but also a lack of competency and confidence in managing challenging communications [20]. This supports the need for nursing staff to have strategies to manage existential issues and pain [42,43]. Although the psychosocial aspects of living with chronic pain are significant, they are frequently overlooked by health care providers, which may adversely affect physical and

psychological patient outcomes [44,45]. Increased sensitivity towards the patient's experience of pain and efficient pain management may prevent or reduce functional decline [46]. This may indicate a need for education and specific communication skills training to improve sensitivity and confidence to interpret and respond to older individuals' needs in home care.

There is a relationship between the structure, the process and the effects of home care. Donabedian maintains, 'good structure increases the likelihood of good process, and good process increases the likelihood of good outcome.' [47]. Moreover, McCormack and McCance's framework of person-centred nursing suggests that, 'to deliver person-centred outcomes, account must be taken of the prerequisites and the care environment that are necessary for providing effective care through the care processes' [48]. Therefore, the nursing staffs' effort and capacity to provide supportive communication may not only be related to their competency, but also to how home care is structured, specifically, the organisation of care, the workplace culture and the care environment, including such factors as time constraints. However, it was beyond the scope of this study to explore the effect of home care structure on supportive communication.

The strength of this study is in the relatively large study sample in two neighbouring countries with similar health care systems and nursing staff education. Audio-recorded data are a valid source to use in observational studies of communication between patients and health care providers [49,50], and the VR-CoDES system has high ecological validity [33]. The coding teams in Norway and Sweden had consensus meetings during the coding process to enhance reliability. However, the interpretation of the coding manual can induce systematic bias between study sites. Since expressions of pain were not included in the data, the number of low person-centred responses in the Swedish material could be underestimated. In the future, bilingual observers should code both Norwegian and Swedish recordings to prevent bias. Moreover, the difference in the distribution of nurse and nurse assistants in the Norwegian and the Swedish samples may have overestimated the difference in the level of supportive communication between Norway and Sweden. Future studies should explore patient preferences for supportive communication, the effect of home care structure on supportive communication, ways to provide nursing staff with efficient skills and strategies to manage challenging communication in home care and approaches to implement specific knowledge, skills and competency in nursing staff education.

4.2. Conclusion

The majority of the nursing staff responses in this current study were supportive. The level of person-centred response was associated with the way distress was expressed by older persons; distress expressed with a reference to an emotion received highly person-centred responses more frequently than distress expressed with reference to a state or by repetition. Swedish nursing staff showed more supportive communication than Norwegian nursing staff did, which could relate to cultural, interprofessional and/or educational differences. Further research should explore these differences.

4.3. Practice implications

The findings regarding intercultural differences should be incorporated in the training of nursing staff, such as with cross-cultural residencies. Future research should explore both the intercultural and the interprofessional differences to increase the understanding of communication in home care and what patients experience as supportive communication.

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The Research Council of Norway had no involvement in the study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the paper for publication.

Declaration of Competing Interest

The authors declare that they have no competing interests.

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Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.pec.2020.03.002>.

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