

Communication in home care—A feasibility study of an educational intervention in self-efficacy and job satisfaction

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Abstract

Aim: To explore the feasibility of evaluating a novel educational intervention on person-centered communication for nursing assistants (NAs) in home care.

Design: A feasibility study with pre- and post-assessments.

Methods: Feasibility was assessed pre- and post-intervention, including evaluation of data collection procedures, completion rates and missing data in two questionnaires: *Self-efficacy Questionnaire* measuring communication skills and *Measure of Job Satisfaction*, analysed descriptively and statistically.

Results: The questionnaires were feasible and acceptable for the NAs to complete and understand. The pre- and post-assessments showed 83% and 61% completion rates, respectively, and a low proportion of missing data. Barriers for not participating in data collection were stress caused by staff shortages and high workload. Preliminary analysis of the questionnaires showed no significant difference pre- and post-intervention, even though an overall tendency of increased communication self-efficacy was observed. The NAs' self-efficacy ratings also revealed a ceiling effect.

KEYWORDS

communication, evaluation, feasibility, home care, intervention, job satisfaction, self-efficacy

1 | INTRODUCTION

Despite extensive and growing research on the benefits of person-centered approaches in the care of older persons, the understanding of how to successfully implement and evaluate interventions in home care is limited. To support and strengthen nursing assistants' (NAs) communicative skills, the ACTION (A person-centered CommunicatiON) program was developed as a web-based self-directed educational intervention focusing on person-centered communication (Gustafsson et al., 2021). Similar to other health services, the home-care context offers challenges for intervention developers, as multiple components interact and affect each other (Craig et al., 2008). Before implementing a full-scale intervention, a

feasibility study can be conducted to help identify potential problems and obstacles preventing the intervention from being successful (Giangregorio & Thabane, 2015). Reports that include lessons learned from the mistakes and successes of research teams may be useful for intervention development and provide insights on interactions between participants and research procedures in dynamic contexts, similar to the home-care context of this study.

2 | BACKGROUND

To notice and respond to older persons' emotional and existential concerns, communication skills of healthcare professionals are

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essential (Sundler et al., 2016). Person-centered communication can be assumed as a prerequisite for person-centered care (PCC), and as one of the essential components in PCC of older persons (American Geriatrics Society Expert Panel on Person-Centered, 2016; Hafskjold et al., 2015). Studies have shown that person-centered approaches also positively affect healthcare professionals by increasing job satisfaction (McCormack & McCance, 2016; van den Pol-Grevelink et al., 2012), and are associated with lower levels of stress of conscience (Sjögren et al., 2015). Educational interventions aiming at improving healthcare professionals' communicative skills in different settings are promising (e.g. Caris-Verhallen et al., 2000; Wolderslund et al., 2021). Communication training courses in hospital departments improve the communicative skills of clinicians, nurses, NAs and other healthcare professionals (Ammentorp et al., 2007; Hvidt et al., 2018); however, research on NAs in home care is scarce. Therefore, an educational intervention on person-centered communication for NAs in home care was developed, the ACTION program, which was implemented in 2018. The program consisted of eight modules with pre-recorded lectures, short movie clips, reflection assignments or quizzes and on-site group supervision; and lasted for 10 weeks. The program content focused on empathy and respect, presence and active listening, verbal and non-verbal communication, existential and emotional conversations, and sensitive and flexible communication, grounded in the philosophy of person-centeredness. It was designed to stimulate reflection and provide useful knowledge on various aspects of communication with older people. The modules were short and focused, aiming to be feasible with respect to the expected effort, time consumption and the home-care work context. The program details and evaluation of the implementation process are earlier reported (Gustafsson et al., 2021).

When developing interventions in healthcare services, researchers face practical and methodological challenges regarding successful evaluation (Craig et al., 2008). The design needs to be refined progressively before conducting full-scale interventions (ibid.), and feasibility studies can be the first step in assessing the research and intervention process (Orsmond & Cohn, 2015). There is limited research on how to successfully conduct evaluations of person-centered intervention studies in home care, including NAs. Researchers need to consider the suitability of a chosen study design with respect to questions and circumstances (Craig et al., 2008). Studies that report on study design and interactions between participants and data collection procedures in different healthcare contexts are needed. Feasibility studies focusing on acceptability and appropriateness of recruitment procedures, data procedures, outcome measures, intervention and study procedures, available resources or participant responses to intervention (Orsmond & Cohn, 2015) aim to decrease threats to the validity of outcomes and can help ensure that the implementation is practical (Tickle-Degnen, 2013). Accordingly, this feasibility study was conducted to assess the suitability of the design and methods used. The overall aim was to explore the feasibility of evaluating a novel educational

intervention on person-centered communication for NAs in home care. The specific aims were to assess data collection procedures, identify completion and follow-up rates throughout the study, and explore the acceptability and appropriateness of the proposed outcome measures, including early outcomes. The evaluation measures included NAs' self-efficacy (SE) in communication skills and self-reported job satisfaction.

3 | METHODS

3.1 | Design

A feasibility study with pre- and post-assessments.

3.2 | Participants and setting

Data were collected as part of the ACTION project (Gustafsson et al., 2021). Two home-care units were recruited from a medium-sized municipality in western Sweden. To enhance the completion and evaluation of the program, NAs with permanent employment were included, resulting in 23 eligible participants. Program attendance was mandatory; however, participation in data collection was voluntary. Demographic characteristics of all participants were collected.

3.3 | Intervention outcome measures

The pre- and post-intervention assessments included two questionnaires as outcome measures: Self-efficacy Questionnaire (SE-12) measuring communication skills of healthcare professionals, and Measure of Job Satisfaction (MJS).

3.3.1 | Self-efficacy questionnaire (SE-12)

The SE-12 is a validated instrument to measure clinical communication skills of healthcare professionals (Axboe et al., 2016) and has been used in different settings, primarily in hospitals and by different healthcare staff (Ammentorp et al., 2007; Hvidt et al., 2018; Wolderslund et al., 2021). Psychologist Albert Bandura (1997) defined SE as a person's belief and confidence in one's own ability to achieve a specific task or succeed in specific situations. SE of communication skills is suggested to relate to and agree positively with observed communication (Ammentorp et al., 2013; Gulbrandsen et al., 2013). SE-12 consists of 12 questions, all starting with "How certain are you that you are able to successfully ..." followed by a specific communication skill. The questions were answered on a 10-point response scale, ranging from 1 (very uncertain) to 10 (very

certain), and a "not relevant" check box. The total sum of a participant's scores ranged from 12 to 120.

3.3.2 | Measure of job satisfaction (MJS)

MJS was originally developed for community nurses (Traynor & Wade, 1993). It consists of 38 questions divided into five sub-groups: personal satisfaction, satisfaction with workload, satisfaction with professional support, satisfaction with training and satisfaction with pay and prospects. The exclusion of one question regarding clinical grading not relevant to home-care staff resulted in 37 questions. Responses were recorded on a five-point Likert scale, ranging from one (very dissatisfied) to five (very satisfied). The total sum of scores ranged from 37 to 185. The questions were translated to Swedish in a two-stage process, using forward-backward translation (Chen & Boore, 2010). The first translation was validated by a researcher with English as the native language, who translated it back to Swedish, and the translation was then discussed and revised until consensus was reached.

As part of the evaluation, additional data were collected on audio-recorded communication from the NAs' home-care visits before and after the intervention. This will be reported in a subsequent publication.

3.4 | Feasibility measures

The feasibility of the proposed intervention outcome measures was assessed descriptively, including the evaluation of data collection procedures, completion rates of assessment measures and amount of missing data. During the process, field notes were used to capture and identify barriers and enablers for data collection completion. These included observations of participants completing questionnaires; observations from visits at the units; informal conversations with NAs, team leaders and managers; own reflections; e-mail communications and discussions among research team members.

3.5 | Statistical analysis

Descriptive statistics were used for assessing demographic characteristics and self-reported levels at pre-intervention (T1) and post-intervention (T2). To measure central tendency and dispersion, the median and range were calculated, which are suitable measures for small samples of ordinal data. For the purposes of presentation and comparison with previous research, we also calculated the mean and standard deviation. To explore whether there were any differences pre- and post-intervention with regard to the NAs' SE in communication skills and job satisfaction, Wilcoxon Signed Rank Test was used. The alpha value was set to 0.05, two-sided. The data were tested for

TABLE 1 Demographic characteristics of the participants ($n = 23$)

Characteristics	
Age in years, median (range)	39 (24–61)
Gender, n	
Females	20
Males	3
Employment, n	
Full-time (100%)	5
Part-time (60%–90%)	13
Unknown	5
Home care work experience in years, median (range)	7 (1–40)
Native language, n	
Swedish	16
Other	7

the ceiling effect, which occurs in over-ratings. According to Axboe et al. (2016), ceiling effect is present if >15% of the respondents rate the highest possible score. Statistical analyses were performed using IBM SPSS Statistics 27.

3.6 | Ethical considerations

This study was approved by the Regional Ethical Review Board of Gothenburg (Dnr. 260/17) and complied with the ethical principles of the Declaration of Helsinki. Written consent was obtained from all participants.

4 | RESULTS

4.1 | Demographic characteristics

Twenty-three NAs were offered the ACTION program. The median age of the participants was 39 years (range 24–61), and 20 were women. Their work experience in home care varied from 1 to 40 years, with a median of 7 years. Sixteen NAs had Swedish as their native language. Demographic characteristics are presented in Table 1. For details on participation levels in the program, see Gustafsson et al. (2021).

4.2 | Data collection and response rates

The questionnaires were distributed to 23 NAs during workplace meetings or by team leaders prior to the start of the program (T1). Reminders were sent out by e-mail on two occasions. Two NAs declined participation, resulting in 21 NAs responding to the

questionnaire at baseline. Of these, two questionnaires were excluded due to termination of employment during the program, resulting in a pre-assessment (T1) completion rate of 83% (19/23). Post-assessment (T2) started 3 weeks after the program, during a meeting in which 11 NAs participated. For the rest, the questionnaire was distributed via team leaders to the participants' mailboxes at work. The NAs were asked to complete the questionnaire regardless of the number of educational modules they had completed. There were three occasions for reminders during facilitator visits and through e-mail sent to all NAs at the units. After 2 months, 15 post-questionnaires were collected, of which one was excluded due to lack of pre-assessment, resulting in 61% (14/23) post-assessment (T2) completion rate.

Fourteen NAs responded to both the pre- and post-questionnaires, a 33% (7/21) loss to the overall follow-up rate. There were no differences in response rates related to demographic characteristics, although differences in the NAs' program adherence were revealed. NAs ($n = 7$) responding only at T1 had completed less than 50% of the program, while those ($n = 14$) responding at both T1 and T2 had completed more than 50% of the program.

No indications of problems with filling in or understanding the questionnaires were reported to or observed by the program facilitator during meetings or visits to the unit. The questionnaires took about 15–20 min to complete and were assessed as feasible. The proportion of missing items in the completed questionnaires (SE-12 and MJS) was less than 2% for T1 (1.4%) and T2 (0.8%). The “not relevant” check box was filled in once in the pre-assessment of SE-12. At the end of the questionnaire, there were open-ended questions in which the NAs had the option to describe any reasons for work-related stress. There were no indications in these statements that the educational program or data collection was the reason for causing stress. The main reasons for work-related stress were reported as staff shortages, time constraints and high workload, both at T1 and T2. The statements contained similar descriptions at T1 and T2. During the project, several changes occurred regarding the staff situation, such as experienced NAs terminating their employment. This led to staff shortages, which, in addition to a high workload, resulted in the NAs perceiving their workdays as stressful. The NAs reported these as the main reasons for not participating in the data collection, rather than a lack of interest in the intervention.

4.3 | Preliminary evaluation of intervention outcomes

4.3.1 | Self-efficacy questionnaire (SE-12)

There was no significant difference ($p > .05$) in SE between baseline (T1) and after program (T2), neither regarding mean sum score ($Z = -1.446$, $p = 0.148$, two-tailed) nor at the item level (see [Table 2](#)). However, there was an overall tendency for a score increase between T1 and T2: the mean scores increased in 11 of 12 items (see [Figure 1](#)), and the responses became more homogenous at the group

level. The NAs' SE increased the most for aspects emphasized in the program content, including checking if care recipients had understood given information (Q10), listening attentively (Q4) and encouraging care recipients to express thoughts and feelings (Q5). Communicative skills rated as highest both at T1 and T2 were the ability to show empathy (Q8), listen attentively (Q4) and identify issues the care recipient wishes to address (Q1).

Overall, the SE-12 responses indicated a ceiling effect. The maximum score (10 points) was given in 10 of 12 questions by one or more participants at T1 (26/168 occasions = 15.4%), and in 11 of 12 questions at T2 (27/168 occasions = 16%). Questions related to the ability to listen attentively (Q4) and show empathy (Q8) obtained the maximum scores at both T1 and T2.

4.3.2 | Measure of job satisfaction (MJS)

There were no differences ($p > .05$) in job satisfaction between T1 (mean 3.67, SD .467) and T2 (mean 3.63, SD .464). Of the five job satisfaction dimensions in the MJS questionnaire, the NAs rated personal satisfaction as highest both at T1 and T2 (see [Table 3](#)). These questions referred to their perceived contribution to care, feeling of worthwhile accomplishment from work, and quality and standard of work. They were the least satisfied with the dimension of pay and prospects, which included salary and fair pay.

5 | DISCUSSION

The present study explores the feasibility of the proposed methods for the evaluation of an educational intervention for NAs in home care. The results revealed several practical and methodological challenges, including the completion of data collection, loss to follow-up, burden of assessment, and ceiling effects on participant responses. Moreover, successful strategies emerged, such as on-site distribution of questionnaires and low levels of missing data. Some of the identified barriers and enablers are well-known in intervention research, and will be discussed in the light of previous research, including suggestions for future scale-up interventions.

The SE-12 and MJS questionnaires were assessed to be feasible. Observations of the NAs filling in the questionnaires indicated that they were understandable and took a reasonable amount of time to complete. Further, there was a low proportion of missing data and only one case of using the “not relevant” check box. Nonetheless, the procedure for collecting the questionnaires requires refinements. To facilitate participation, these were distributed during on-site meetings, which was a successful strategy. The NAs received the allocated time to complete, and the facilitator could observe the participants. Low follow-up rates occurred when questionnaires were distributed through mailboxes at the units. This implies a loss of motivation to engage, especially during post-assessment. In addition, NAs who completed less than half of the educational program were underrepresented in post-assessment, even though

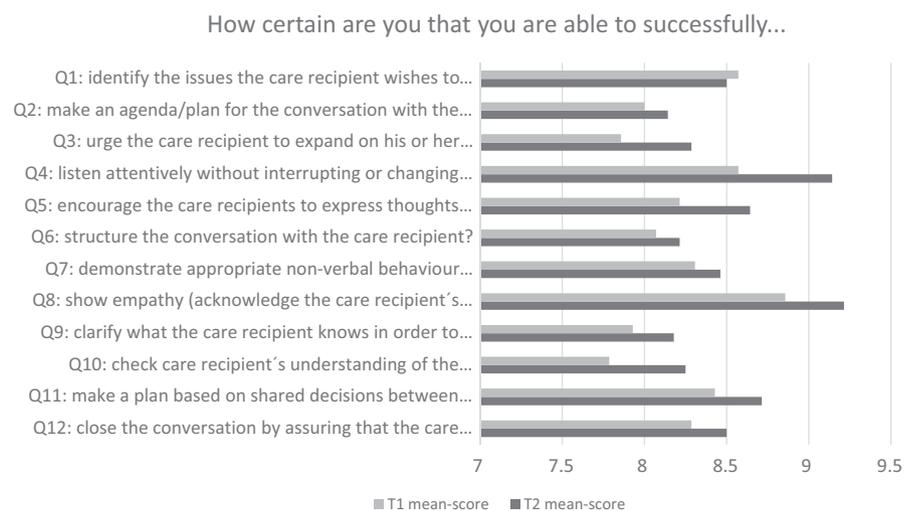
TABLE 2 Nurse assistants' ($n = 14$) reported self-efficacy (SE-12) on communication before and after the intervention program

Item	Baseline (T1)		After program (T2)		T1-T2 ^a	
	Md (IQR)	M (SD)	Md (IQR)	M (SD)	Z	p-value
... identify the issues the care recipient wishes to address during the conversation? (Q1)	9.0 (3.0)	8.57 (1.22)	9.0 (1.0)	8.50 (1.16)	-1.44	0.885
... make an agenda/plan for the conversation with the care recipient? (Q2)	8.0 (2.0)	8.00 (1.52)	8.5 (1.0)	8.14 (1.23)	-5.35	0.593
... urge the care recipient to expand on his or her problems/worries? (Q3)	8.5 (2.0)	7.86 (1.56)	8.5 (1.0)	8.29 (1.20)	-8.44	0.399
... listen attentively without interrupting or changing of focus? (Q4)	9.0 (1.0)	8.57 (1.16)	9.0 (1.0)	9.14 (.95)	-1.61	0.107
... encourage the care recipients to express thoughts and feelings? (Q5)	8.0 (1.0)	8.21 (1.31)	9.0 (1.0)	8.64 (1.08)	-1.38	0.166
... structure the conversation with the care recipient? (Q6)	8.0 (2.0)	8.07 (1.38)	8.0 (1.0)	8.21 (1.19)	-5.77	0.564
... demonstrate appropriate non-verbal behaviour (eye-contact, facial expression, placement, posture and voicing)? (Q7)	8.0 (1.0)	8.31 (1.31)	9.0 (1.0)	8.46 (.97)	-5.51	0.582
... show empathy (acknowledge the care recipient's views and feelings)? (Q8)	9.0 (1.0)	8.86 (1.10)	9.0 (1.0)	9.21 (1.05)	-1.28	0.197
... clarify what the care recipient knows in order to communicate the right amount of information? (Q9)	8.0 (2.0)	7.93 (1.07)	8.0 (1.0)	8.18 (1.26)	-1.04	0.298
... check care recipient's understanding of the information given? (Q10)	8.0 (2.0)	7.79 (1.19)	8.0 (1.0)	8.25 (1.09)	-1.75	0.079
... make a plan based on shared decisions between you and the care recipient? (Q11)	9.0 (2.0)	8.46 (1.33)	9.0 (1.0)	8.71 (1.27)	-8.63	0.388
... close the conversation by assuring that the care recipient's questions have been answered? (Q12)	8.0 (1.0)	8.29 (.99)	9.0 (1.0)	8.50 (1.09)	-1.13	0.257
Median/mean sum score for all items	115 (7.5)	97.7 (12.66)	119 (6.0)	101.6 (11.24)	-1.446	0.148

^aWilcoxon signed ranks test, two-tailed.

Abbreviation: IQR, Interquartile range.

FIGURE 1 Changes in the NAs' self-efficacy (SE-12) of communicative skills before (T1) and after (T2) the educational intervention ($n = 14$)



the importance of responding to the questionnaires, regardless of the number of educational modules completed, was highlighted. Despite several reminders, responses were still missing at the end of the intervention. This indicates the need for a better strategy. We

suggest the nomination of an internal facilitator at the intervention site who displays a positive attitude, is engaged, and works closely with the participants and researchers. This could support and motivate the participants to adhere to data collection and complete

TABLE 3 NAs' job satisfaction as reported by the MJS questionnaire (n = 14)

Dimension	Baseline (T1)		After program (T2)		T1-T2 ^a	
	Md (IQR)	M (SD)	Md (IQR)	M (SD)	Z	p-value
Personal satisfaction	4 (0.0)	4.11 (.53)	4 (0.0)	4.05 (.52)	-.102	0.919
Satisfaction with workload	3 (1.0)	3.28 (.83)	3 (1.0)	3.35 (.70)	-.737	0.461
Satisfaction with prof. Support	4 (0.0)	3.93 (.37)	4 (0.0)	3.78 (.37)	-1.418	0.156
Satisfaction with pay/prospects	3 (1.0)	3.23 (.54)	4 (1.0)	3.27 (.57)	-.351	0.726
Satisfaction with training	3.5 (1.5)	3.51 (.69)	3 (1.0)	3.37 (.71)	-.791	0.429
Median/mean score for all dimensions	3.5 (1.0)	3.67 (.47)	4 (1.0)	3.63 (.46)	-.094	0.925

^aWilcoxon signed rank test, two-tailed.

their response. In addition to supporting and enabling participants' progression toward change (i.e. implementing the intervention), the facilitator can play an important role in the evaluation process (Dogherly et al., 2010).

When deciding which outcome measures to use when evaluating the effects of an intervention, it is central to consider what is most appropriate, acceptable and feasible for both the researchers and participants. Treweek (2015) described that "the more the intervention requires health professionals and patients to do, the more difficult it will be to recruit and retain participants" (p. 159). Prescott et al. (1999) identified the following as barriers for participation in research: lack of time (due to demands from clinical practice and researchers), lack of perceived importance of the intervention, lack of staff and research experience, and incompatibility with normal work practice. To explore if the educational intervention and study procedures created a burden for participants, we decided to use the MJS questionnaire. This study showed that the NAs' job satisfaction remained unchanged pre- and post-intervention, although the results should be interpreted with caution due to the low number of participants. This indicates that the intervention did not contribute to increased workload or stress; however, it should be clarified that the questionnaire did not include specific questions on the burden of the intervention. The responses to the open-ended questions in the questionnaire did not include any statements indicating that the intervention contributed to stress; however, low follow-up rates may imply participant exhaustion irrespective of the reason. One rationale for using MJS was to assess whether the intervention affected job satisfaction, because previous research reported that person-centered approaches might positively impact job satisfaction (McCormack & McCance, 2016; van den Pol-Grevelink et al., 2012). This was not found in the present study, which agrees with a recent study conducted by Vassbø et al. (2020). However, the results showed a variation in the distribution of how the NAs rated their job satisfaction, implying heterogeneity within the group.

Despite the small sample size of this study, we conducted an analysis of the responses to the SE-12 questionnaire. In feasibility studies, preliminary evaluation of participant responses can help researchers determine whether outcome measures are suitable, and if proceeding using the instrument is advisable (Orsmond & Cohn, 2015). The preliminary results showed tendencies that

communication SE increases in aspects central to person-centered communication, such as active listening and eliciting emotional communication (Sundler et al., 2020). Although we cannot draw clear conclusions about the impact of the program on NAs' communication skills, we believe that the results are promising. However, the high baseline ratings on the NAs' communication SE left little room for improvement. Studies conducted in hospital departments have shown that communication skills training can improve NAs' communication skills (Ammentorp et al., 2007; Axboe et al., 2016; Nørgaard et al., 2012). Interestingly, the NAs' SE ratings in our study were considerably higher than those in these previous studies. To our knowledge, SE-12 has not been used in any research on NAs in home care. Hence, our results indicate that the setting might influence the role of communication or perceptions of communication skills and, thus, the usefulness of the SE-12 instrument. In addition, previous studies have criticized self-reported assessment of SE (Davis et al., 2006; Eva & Regehr, 2005), because of its lack of accuracy compared to objective assessments. This implies a need for exploration and modification of the instruments in a larger sample in future studies conducted specifically in home-care settings, preferably combined with observed communication. A forthcoming qualitative study within this research project (Gustafsson et al., 2022) describes that these NAs perceived their communication skills overall as good, but limited in challenging situations, such as when communicating with persons with mental illnesses, dementia, aggressiveness and end-of-life care.

The limitations of this study need to be acknowledged. First, this small sample study limits generalizability and reduces the possibility to show statistically significant associations. However, the objective of this study was on feasibility rather than effect as feasibility studies often are not sufficiently powered to detect such significant associations (Thabane et al., 2010). Thus, the effects of the intervention are limited to the presentation of tendencies and their possible interpretations. As recommended by the Medical Research Council's guidelines (Craig et al., 2008), we conducted a small-scale intervention to gain insights on the pit-falls and successful strategies in study procedures before up-scaling. The sample size in the study was determined by available resources in this piloting phase of the intervention. Second, there is a selection bias considering the risk of over-representation of NAs with confidence in communication skills. This may explain the high ratings

and lack of increase in SE communication in the findings. Due to the practical and methodological limitations of this study, the NAs' observed (instead of self-assessed) communication skills and potential behaviour change are unknown. An observational study on audio-recorded communication before and after the intervention as a supplement to the evaluation is underway. Third, informal conversations with NAs, team leaders, and managers during facilitator visits revealed a lack of motivation and time constraints. In retrospect, it would have been useful to better understand the NAs' reasons for retention or unwillingness to participate through in-depth interviews, but we decided not to further burden the participants considering the indications of exhaustion and work-related stress.

6 | CONCLUSION

The present study highlighted the practical and methodological issues in evaluating the outcome measures of an educational intervention for NAs in home care. The questionnaires used were feasible for participants to complete; however, loss to follow-up implies a need for refinement of data collection strategies, especially during post-assessment. Ceiling effects suggest that further considerations and studies with larger samples, specifically conducted in home-care settings, are needed to understand the appropriateness of using SE-12 to evaluate interventions in home care.

AUTHOR CONTRIBUTIONS

AJS and EL carried out design of the intervention. TG also carried out data collection. TG, HMS and LH carried out analysis. TG, HMS, LH, AJS and EL were involved in manuscript preparation.

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (<http://www.icmje.org/recommendations/>)]:

- substantial contributions to conception and design, acquisition of data or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

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CONFLICT OF INTERESTS

No conflict of interest to declare.

DATA AVAILABILITY STATEMENT

Data available on request due to privacy/ethical restrictions

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REFERENCES

- American Geriatrics Society Expert Panel on Person-Centered Care. (2016). Person-centered care: A definition and essential elements. *Journal of the American Geriatrics Society*, 64(1), 15–18. <https://doi.org/10.1111/jgs.13866>
- Ammentorp, J., Sabroe, S., Kofoed, P. E., & Mainz, J. (2007). The effect of training in communication skills on medical doctors' and nurses' self-efficacy: A randomized controlled trial. *Patient Education and Counseling*, 66(3), 270–277. <https://doi.org/10.1016/j.pec.2006.12.012>
- Ammentorp, J., Thomsen, J. L., Jarbøl, D. E., Holst, R., Øvrehus, A. L., & Kofoed, P. E. (2013). Comparison of the medical students' perceived self-efficacy and the evaluation of the observers and patients. *BMC Medical Education*, 13, 49. <https://doi.org/10.1186/1472-6920-13-49>
- Axboe, M. K., Christensen, K. S., Kofoed, P. E., & Ammentorp, J. (2016). Development and validation of a self-efficacy questionnaire (SE-12) measuring the clinical communication skills of health care professionals. *BMC Medical Education*, 16(1), 272. <https://doi.org/10.1186/s12909-016-0798-7>
- Bandura, A. (1997). *Self-efficacy in changing societies*. Cambridge University Press.
- Caris-Verhallen, W. M., Kerkstra, A., Bensing, J. M., & Grypdonck, M. H. (2000). Effects of video interaction analysis training on nurse-patient communication in the care of the elderly. *Patient Education and Counseling*, 39(1), 91–103. [https://doi.org/10.1016/s0738-3991\(99\)00094-4](https://doi.org/10.1016/s0738-3991(99)00094-4)
- Chen, H. Y., & Boore, J. R. (2010). Translation and back-translation in qualitative nursing research: Methodological review. *Journal of Clinical Nursing*, 19(1–2), 234–239. <https://doi.org/10.1111/j.1365-2702.2009.02896.x>
- Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I., Petticrew, M., & Medical Research Council Guidance. (2008). Developing and evaluating complex interventions: The new medical research council guidance. *The BMJ*, 337, a1655. <https://doi.org/10.1136/bmj.a1655>
- Davis, D. A., Mazmanian, P. E., Fordis, M., Van Harrison, R., Thorpe, K. E., & Perrier, L. (2006). Accuracy of physician self-assessment compared with observed measures of competence: A systematic review. *JAMA*, 296(9), 1094–1102. <https://doi.org/10.1001/jama.296.9.1094>
- Dogherty, E. J., Harrison, M. B., & Graham, I. D. (2010). Facilitation as a role and process in achieving evidence-based practice in nursing: A focused review of concept and meaning. *Worldviews on Evidence-Based Nursing*, 7(2), 76–89. <https://doi.org/10.1111/j.1741-6787.2010.00186.x>
- Eva, K. W., & Regehr, G. (2005). Self-assessment in the health professions: a reformulation and research agenda. *Academic Medicine*, 80(10 Suppl), S46–S54. <https://doi.org/10.1097/00001888-200510001-00015>
- Giangregorio, L. M., & Thabane, L. (2015). Pilot studies and feasibility studies for complex interventions: an introduction. In D. A.

- Richards & I. Rahm Hallberg (Eds.), *Complex interventions in health: an overview of research methods* (pp. 127–135). Routledge.
- Gulbrandsen, P., Jensen, B. F., Finset, A., & Blanch-Hartigan, D. (2013). Long-term effect of communication training on the relationship between physicians' self-efficacy and performance. *Patient Education and Counseling*, 91(2), 180–185. <https://doi.org/10.1016/j.pec.2012.11.015>
- Gustafsson, T., Sundler, A. J., Lindberg, E., Karlsson, P., & Maurin Söderholm, H. (2021). Process evaluation of the ACTION programme: A strategy for implementing person-centred communication in home care. *BMC Nursing*, 20(1), 1–13. <https://doi.org/10.1186/s12912-021-00565-8>
- Gustafsson, T., Maurin Söderholm, H., Sundler, A. J., Karlsson, P., & Lindberg, E. (2022). "Sometimes you need an eye-opener": A qualitative study on nursing assistants' experiences of developing communication skills following an educational intervention on person-centred communication. [Manuscript submitted for publication].
- Hafskjold, L., Sundler, A. J., Holmström, I. K., Sundling, V., van Dulmen, S., & Eide, H. (2015). A cross-sectional study on person-centred communication in the care of older people: the COMHOME study protocol. *BMJ Open*, 5(4), e007864. <https://doi.org/10.1136/bmjopen-2015-007864>
- Hvidt, E. A., Ammentorp, J., Søndergaard, J., Timmermann, C., Hansen, D. G., & Hvidt, N. C. (2018). Developing and evaluating a course programme to enhance existential communication with cancer patients in general practice. *Scandinavian Journal of Primary Health Care*, 36(2), 142–151. <https://doi.org/10.1080/02813432.2018.1459235>
- McCormack, B., & McCance, T. (2016). *Person-centred practice in nursing and healthcare: theory and practice*. John Wiley & Sons, Incorporated.
- Nørgaard, B., Ammentorp, J., Ohm Kyvik, K., & Kofoed, P. E. (2012). Communication skills training increases self-efficacy of health care professionals. *Journal of Continuing Education in the Health Professions*, 32(2), 90–97. <https://doi.org/10.1002/chp.21131>
- Orsmond, G. I., & Cohn, E. S. (2015). The distinctive features of a feasibility study: Objectives and guiding questions. *OTJR: Occupation, Participation and Health*, 35(3), 169–177. <https://doi.org/10.1177/1539449215578649>
- Prescott, R. J., et al. (1999). Factors that limit the quality, number and progress of randomised controlled trials. *Health Technology Assessment*, 3(20), 1–143. <https://doi.org/10.3310/hta3200>
- Sjögren, K., Lindkvist, M., Sandman, P. O., Zingmark, K., & Edvardsson, D. (2015). To what extent is the work environment of staff related to person-centred care? A cross-sectional study of residential aged care. *Journal of Clinical Nursing*, 24(9–10), 1310–1319. <https://doi.org/10.1111/jocn.12734>
- Sundler, A. J., Eide, H., van Dulmen, S., & Holmström, I. K. (2016). Communicative challenges in the home care of older persons – a qualitative exploration. *Journal of Advanced Nursing*, 72(10), 2435–2444. <https://doi.org/10.1111/jan.12996>
- Sundler, A. J., Hjertberg, F., Keri, H., & Holmström, I. K. (2020). Attributes of person-centred communication: a qualitative exploration of communication with older persons in home health care. *International Journal of Older People Nursing*, 15(1), e12284. <https://doi.org/10.1111/opn.12284>
- Thabane, L., Ma, J., Chu, R., Cheng, J., Ismaila, A., Rios, L. P., Robson, R., Thabane, M., Giangregorio, L., & Goldsmith, C. H. (2010). A tutorial on pilot studies: The what, why and how. *BMC Medical Research Methodology*, 10(1), 1–10. <https://doi.org/10.1186/1471-2288-10-1>
- Tickle-Degnen, L. (2013). Nuts and bolts of conducting feasibility studies. *American Journal of Occupational Therapy*, 67(2), 171–176. <https://doi.org/10.5014/ajot.2013.006270>
- Traynor, M., & Wade, B. (1993). The development of a measure of job satisfaction for use in monitoring the morale of community nurses in four trusts. *Journal of Advanced Nursing*, 18(1), 127–136. <https://doi.org/10.1046/j.1365-2648.1993.18010127.x>
- Treweek, S. (2015). Addressing issues in recruitment and retention using feasibility and pilot trials. In D. A. Richards & I. Rahm Hallberg (Eds.), *Complex interventions in health – an overview of research methods* (pp. 155–165). Routledge.
- Vassbø, T. K., Bergland, Å., Kirkevold, M., Lindkvist, M., Lood, Q., Sandman, P. O., Sjögren, K., & Edvardsson, D. (2020). Effects of a person-centred and thriving-promoting intervention on nursing home staff job satisfaction: A multicentre, non-equivalent controlled before–after study. *Nursing Open*, 7(6), 1787–1797. <https://www.ncbi.nlm.nih.gov/pubmed/33072363>
- van den Pol-Grevelink, A., Jukema, J. S., & Smits, C. H. (2012). Person-centred care and job satisfaction of caregivers in nursing homes: a systematic review of the impact of different forms of person-centred care on various dimensions of job satisfaction. *International Journal of Geriatric Psychiatry*, 27(3), 219–229. <https://doi.org/10.1002/gps.2719>
- Wolderslund, M., Kofoed, P. E., & Ammentorp, J. (2021). The effectiveness of a person-centred communication skills training programme for the health care professionals of a large hospital in Denmark. *Patient Education and Counseling*, 104(6), 1423–1430. <https://doi.org/10.1016/j.pec.2020.11.018>

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