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Multidisciplinary Training on Spiritual Care for Patients in Palliative Care Trajectories Improves the Attitudes and Competencies of Hospital Medical Staff: Results of a Quasi-Experimental Study: — [Source link](#)

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Abstract

Objectives: Patients value health-care professionals' attention to their spiritual needs. However, this is undervalued in health-care professionals' education. Additional training is essential for implementation of a national multidisciplinary guideline on spiritual care (SC) in palliative care (PC). Aim of this study is to measure effects of a training program on SC in PC based on the guideline. **Methods:** A pragmatic multicenter trial using a quasi-experimental pretest–posttest design as part of an action research study. Eight multidisciplinary teams in regular wards and 1 team of PC consultants, in 8 Dutch teaching hospitals, received questionnaires before training about perceived barriers for SC, spiritual attitudes and involvement, and SC competencies. The effect on the barriers on SC and SC competencies were measured both 1 and 6 months after the training. **Results:** For nurses (n = 214), 7 of 8 barriers to SC were decreased after 1 month, but only 2 were still after 6 months. For physicians (n = 41), the training had no effect on the barriers to SC. Nurses improved in 4 of 6 competencies after both 1 and 6 months. Physicians improved in 3 of 6 competencies after 1 month but in only 1 competency after 6 months. **Significance of Results:** Concise SC training programs for clinical teams can effect quality of care, by improving hospital staff competencies and decreasing the barriers they perceive. Differences in the effects of the SC training on nurses and physicians show the need for further research on physicians' educational needs on SC.

Keywords

palliative care, spiritual care, multidisciplinary team, health-care professionals, competencies, health-care chaplaincy

Introduction

In many Western countries, the role of spirituality and religion became less important in health care during the second half of the 20th century. In the Netherlands, the role of spirituality and religion became almost marginal in the national health-care system. However, the development of palliative care (PC) provided a strong impulse to reintroduce attention to this dimension in the Dutch health-care system.¹ Concomitantly, a new definition of health was developed by Huber et al²; she illustrated in her operationalization study that patients value the spiritual dimension equally as high as the other dimensions of health.³ The gap between patients' expectations concerning health-care professionals' attention to their spiritual needs and what they experience was reported by nurses in the Royal College of Nursing Spirituality survey of 2010⁴ and by doctors in the systematic review of Best et al.⁵ Recently, initiatives to develop measurable spiritual care (SC) competencies⁶ or good practices to integrate spirituality and SC in education⁷ have

been implemented, and national^{8,9} and international consensus¹⁰ documents have been published.

In the Netherlands, the sense of urgency to integrate SC in medical practice was prompted by the publication of a national consensus-based guideline on multidisciplinary SC¹¹ in PC

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(further: the SC guideline). English, German, and Spanish translations of this multidisciplinary guideline can be downloaded from the Web site of the taskforce on SC of the European Association for Palliative Care (EAPC).¹²

For this study, we trained health-care chaplains and developed requirements, targets, and core teaching methods for an SC training program for multidisciplinary teams of regular medical wards where they were treated in curative and palliative trajectories.¹³ This training was based on the EAPC consensus definition of spirituality¹⁴ and aimed at the implementation of the methods presented in the SC guideline. Our main research question was: is it possible to achieve and measure effects on quality of care, and on health-care professionals' competencies and perceived barriers for SC, with a concise training program for multidisciplinary teams in hospitals? The effect of the training on the quality of care in patient-reported outcomes is described elsewhere.¹⁵ In this article, we present the results on physicians' and nurses' attitudes and SC competencies.

Methods

Study Design

This pragmatic multicenter trial¹⁶ on patient-reported and health-care professional-reported outcomes used a quasi-experimental pretest–posttest design and was part of an exploratory action research study. We used quantitative methods to assess the effects of the intervention, SC training in PC, on the patients and health-care professionals. This study, designed and conducted in accordance with the World Health Organization Good Clinical Practice Guidelines, was admitted by the medical ethical committee for the Medical Centre Leeuwarden on July 4, 2013 (nWMO22), subsequently by the research committees at each site, and registered in the Dutch Trial Register: NTR4559.¹⁷

Participants

Hospitals and wards. The included hospitals were nonacademic teaching hospitals, members of the Association of Tertiary Medical Teaching Hospitals, actively involved in developing PC using a specialist consultation team or actively implementing PC quality improvement programs.¹³ Within the hospitals, local coinvestigators being health-care chaplains trained to perform the intervention, self-identified wards of various clinical departments, which were motivated to improve SC in PC by means of a pilot training program in SC. The chaplains approached one of the wards to which they were already personally assigned to as the responsible chaplain. All wards that were approached appeared to be willing to participate in the study.

Health-care professionals. These local coinvestigators trained and accredited to train the multidisciplinary teams of primary caregivers, deliberated with the nursing and medical management of the wards, on how to implement this training in the

local context. The target was to train the multidisciplinary team, which included all nurses and physicians responsible for the treatment of the main group of patients on that ward. Teams were informed about the study by the medical and nursing managers, using the study protocol and/or inviting the (local co-) investigator for team meeting to raise support for participation. When the decision was made, all participants were instructed to participate in the training as a team wise chosen form of improving the quality of SC in PC on their ward. Their data were coded according to hospital, ward, and numerical order of inclusion.

Intervention

The SC training intervention (hereafter the training) was delivered 9 times in 7 hospitals from February 2014 to February 2015; health-care professionals were scheduled in groups for the training, during working hours for 1 or 2 lessons, given by the health-care chaplains using standard slides for presentation and selected teaching methods. In accordance with the action research approach,¹⁸ the training varied locally within the preliminary set of requirements of the study protocol (Appendix A). A publication with detailed information about the experiences of the coinvestigators performing the intervention is submitted.

The core skills to train were screening/assessing spiritual needs, counseling patients (matching their own professional role), and referring patients to specialists when the patients are in a crisis. Multidisciplinary education was mandatory.

Objectives

The objective of this study was to explore training methods for SC for health-care professionals in hospitals, measure the effects of the training on health-care professionals' barriers to SC and SC competencies, and generate hypotheses for further research.

Outcome Measurements

Based on the validated methods used by Wasner et al,¹⁹ van Leeuwen's Spiritual Care Competence Scale (SCCS) to assess the nurses' SC competencies and the effect of training on SC⁶, and the Spiritual Attitude and Involvement List (SAIL),²⁰ an online questionnaire was used. We also included questions concerning work attitude and perceived barriers to providing SC, developed by Put.²¹ The SCCS was adapted, and approved by the original author, for assessing both nursing and medical SC competencies (Appendix B). At test 1 (T1) 1 month before the training, the baseline questionnaire contained items on demographic data, items on work experience and attitude, items of the SAIL, items on perceived barriers to providing SC, and items of the SCCS.

After the training, at T2 (1 month) and T3 (6 months), questionnaires contained items on perceived barriers to

providing SC and items of the SCCS, to measure the effects of the training.

We formulated the primary outcomes for this study as follows—(1) decrease in the perceived barriers to SC compared to baseline: lack of knowledge, maintaining too much or too little distance, difficulties in communication with patients, family, team, and community clergy; (2) higher competencies compared to baseline on the subscales of the SCCS: assessment and implementation of SC, professionalization and improving quality of care, personal support and counseling, referral to professionals, and attitude toward patients' spirituality and communication.

Statistical Methods

For this exploratory study, the targets were not based on a formal sample size calculation. Frequencies were calculated to describe the health-care professionals, and the characteristics were tested for group differences or calculated as group means to test for group differences, using Fisher exact, *t* test, χ^2 , and Mann-Whitney *U* tests. In this study, hypothesis testing (*P* value) is interpreted as explorative, rather than confirmative. Bonferroni correction for multiple comparisons was not performed. We conducted a 2-step group analysis for the primary outcomes on the effect of the training: an analysis of the short-term effects after 1 month and an analysis of the long-term effects after 6 months. The data were processed and analyzed using the Statistical Analysis System Software for Windows 9.4 (SAS Institute Inc, Cary, North Carolina).

Results

Study Population

Hospitals and wards. In August 2013, chaplaincy teams of 27 included hospitals were invited to participate in this trial; 11 hospitals responded, 9 hospitals met the inclusion criteria, 1 chaplaincy team had methodological objections, and 1 team could not implement the intervention because of the limited capacity of their local PC and chaplaincy teams (Figure 1). At 1 of the 7 sites, we were not able to train a specific ward. Instead, we included a multidisciplinary team of physicians and nurses, working as PC consultants and ambassadors.²² In the other 6 of 7 hospitals, 8 multidisciplinary teams were included (4 pulmonology, 2 oncology, 1 internal medicine, and 1 renal ward).

Health-care professionals. Although 374 health-care professionals were scheduled for training, we collected baseline data from 270 individuals. As the intervention was targeted at nurses and physicians, we excluded the other health-care professionals from the analysis of the effects of the intervention. At T2, we received questionnaires of 124 individuals with data concerning the effects on the barriers to SC, and on their SC competencies, and at T3, we collected data from 65 health-care professionals (Figure 1).

The analysis was performed for 2 groups—nursing (*n* = 214) and medical (*n* = 41; Table 1). The sample of nurses is

considered representative; in the sample of physicians, we see a higher number of male participants. The highest scores for no religion and affiliation to the Humanist tradition were found among physicians. Compared to the sample of Wasner et al,¹⁹ our sample showed a higher quality of life; involvement with oneself, patients, and family; a lower fear of death and dying; equal scores for work satisfaction and meaningfulness of work; better relationships with colleagues; and lower scores for work-related stress.

Both groups scored high mean values on the same subscales of the SAIL and reported that the following themes were important—meaningfulness, trust, acceptance, caring for others, and connectedness with nature. No relevant differences were found in the items referring to work attitudes and personal quality of life. Personal quality of life and involvement with patients, families, and oneself scored high in both groups. The fear of dying and death were low in both groups, and working stress was almost equal in both groups and reflected a relatively high level of stress. Personal problems, such as sickness in the private sphere, personal mourning, personal questions, or spiritual pain, scored low and were considered not to be barriers to their functioning at work for both groups. Although we observed 1 statistical significant difference between nurses and physicians for personal mourning, considering the low scores the relevance of this difference is debatable. Absenteeism scores were low; therefore, we concluded they did not influence the outcomes. In Appendix C Table C1. *Participants' Evaluation of the Spiritual Care Training After 1 Month*, we present the evaluation of the chaplains' intervention. Although the number of physicians is very small for a comparison, we saw no differences between the two groups in the overall evaluations of the training.

Outcomes

Regarding the physicians' data, at T1, 27 participants reported having ≤ 7 years of work experience, and 14 reported having more work experience, reaching up to 39 years. At T2, only 1 participant and at T3 not 1 participant with ≥ 7 years of work experience responded, indicating that the effects of the training on physicians (Tables 2 and 3) reflect the effects on "young doctors." We analyzed the differences between "young" and "older" physician groups at T1 and concluded that there were no significant differences on the SCCS. Regarding the barriers to SC, we found 3 differences before the training; the group of young doctors experienced more problems in communicating with patients, family, and community clergy.

Regarding barriers to SC for nurses, we observed a decrease in 7 items at T2—lack of knowledge, insecurity, maintaining too much or not enough distance, and difficulties in communicating with patients, families, team, and community clergy. Of these barriers, only 2 were maintained, and 1 showed a trend toward maintenance at T3—lack of knowledge, maintaining too much distance, and difficulties in communicating with family.

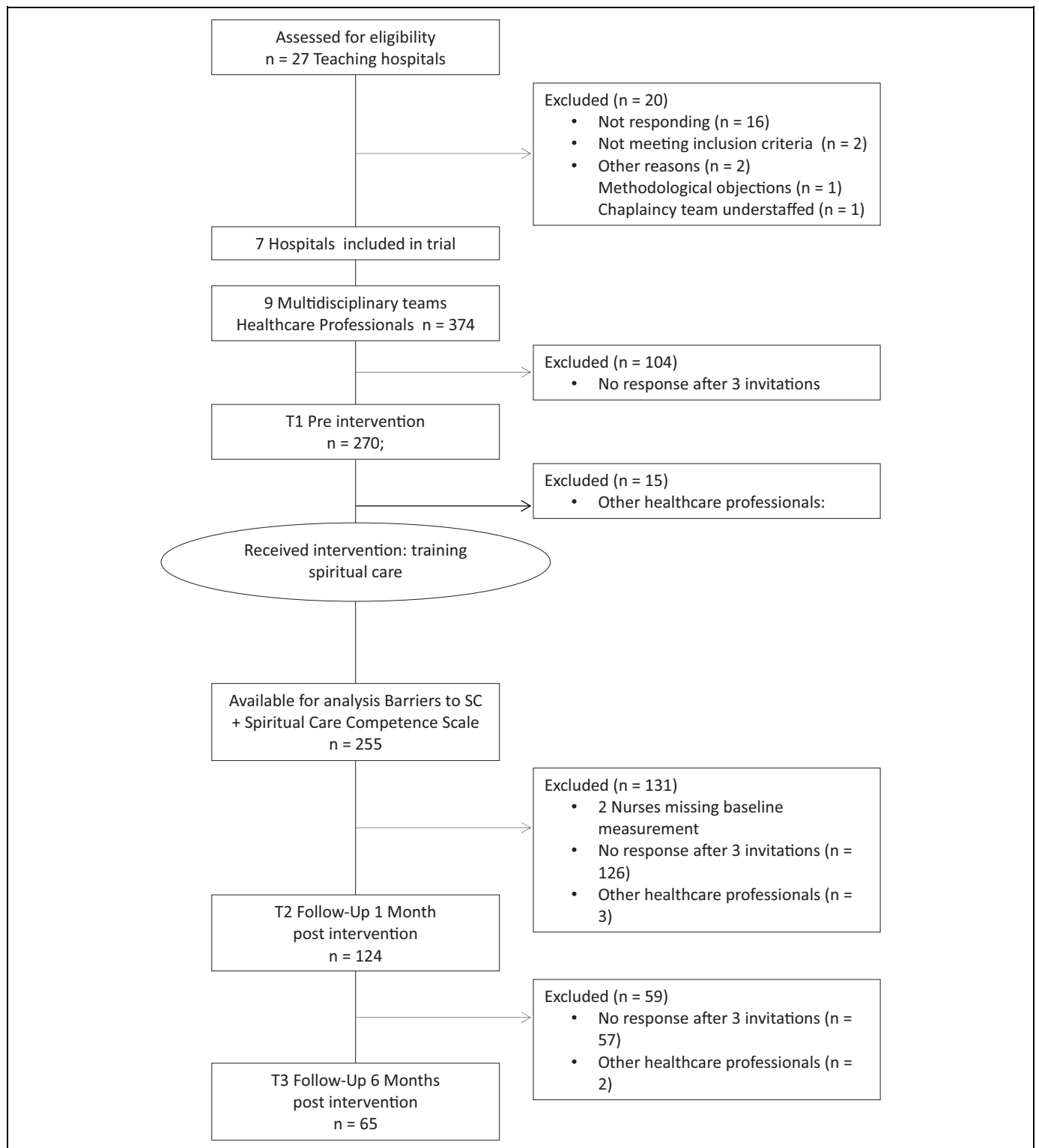


Figure 1. Flow diagram.

For physicians, barriers to SC on all 8 items had decreased after 1 month as well, but only 1 showed a trend toward significance—keeping too much distance. At 6 months, no item showed decrease.

Regarding nurses’ scores on the SCCS, we saw an increase in 4 of 6 competencies at T2—assessment and implementation of

SC, professionalization and improving quality of care, personal support and counseling of patients, and referral to professionals. At T3, the increases in these competencies were maintained.

For the young physicians, we observed an increase in 3 of 6 competencies—professionalization and improving quality of

Table 1. Sample Description Health-Care Professionals (HCPS) at T1.^a

	Nurses, n = 214	Physicians, n = 41	P Value
Gender: female, n (%)	193 (90.2)	24 (85.5)	.001 ^b
Age in years, mean (SD)	39.6 (11.6)	40.3 (10.7)	.700 ^c
No. of years working in health care, mean (SD)	18.5 (11.9)	14.6 (10.2)	.056 ^b
Departments, n (%)			
Lung diseases	92 (49.5)	27 (65.9)	
Oncology	69 (37.1)	12 (29.3)	
Internal diseases	18 (9.7)	2 (4.9)	
Renal unit	7 (3.8)	0	
Religion, n (%)			total
None	87 (40.1)	20 (48.8)	107 (42.0)
Protestant	77 (36.0)	9 (22.0)	86 (33.7)
Roman Catholic	31 (14.5)	4 (9.8)	35 (13.7)
Humanist	4 (1.9)	2 (4.8)	6 (2.4)
Buddhist	2 (0.9)	1 (2.4)	3 (1.2)
Hindu	1 (0.5)	0	1 (0.4)
Muslim	1 (0.5)	0	1 (0.4)
Jewish	1 (0.5)	0	1 (0.4)
Other	10 (4.7)	5 (12.2)	15 (5.9)
SAIL, mean (SD)			P Value
Meaningfulness	4.5 (0.6)	4.6 (0.6)	.30 ^c
Trust	4.4 (0.6)	4.6 (0.5)	.13 ^c
Acceptance	4.4 (0.7)	4.4 (0.7)	.94 ^c
Caring for others	4.8 (0.5)	4.8 (0.4)	.96 ^c
Connectedness with nature	4.3 (1.1)	4.4 (0.9)	.57 ^c
Transcendent experiences	2.4 (0.9)	2.3 (0.6)	.36 ^c
Spiritual activities	2.6 (1.1)	2.2 (0.9)	.07 ^c
Received previous training SC, n (%)			
No	194 (90.7)	39 (95.1)	.61 ^d
Short training (1 day or less)	16 (7.5)	2 (4.9)	
Training (more than 1 day)	4 (1.9)	0	
Work attitude (scale 1: not at all to scale 10: a lot), mean (SD)			
Personal quality of life	8.4 (0.9)	8.4 (1.0)	.70 ^e
Involvement with the patient	8.3 (1.0)	8.2 (0.8)	.86 ^e
Involvement with the family	8.1 (1.1)	7.9 (0.9)	.29 ^e
Involvement with myself	7.9 (1.3)	8.0 (1.0)	.56 ^e
Fear of dying phase	3.8 (2.4)	3.3 (1.8)	.23 ^e
Fear of death	3.9 (2.5)	3.7 (2.2)	.66 ^e
Work satisfaction	7.6 (1.4)	7.9 (0.9)	.14 ^e
Work meaningful	8.5 (1.1)	8.6 (0.9)	.62 ^e
Good relationship with colleagues	8.2 (1.0)	8.1 (0.9)	.52 ^e
Work-related stress	5.2 (2.4)	5.3 (2.1)	.71 ^e
Sickness around me interferes my engagement on this domain	2.0 (1.6)	1.5 (0.9)	.55 ^e
Personal mourning interferes my engagement on this domain	2.0 (1.6)	1.5 (1.0)	.04 ^e
Personal questions or spiritual pain interferes my engagement on this domain	2.0 (1.6)	1.5 (1.1)	.08 ^e
Absenteeism during last 6 months, n (%)			.41 ^d
0-5 days	197 (92.1)	41 (100)	
10-15 days	5 (2.3)	0	
15-20 days	2 (0.9)	0	
5-10 days	7 (3.3)	0	
> 25 days	3 (1.4)	0	

Abbreviations: SAIL, Spiritual Attitude and Involvement List; SC, spiritual care; SD, standard deviation; T1, test 1.

^aN = 255.^bFisher exact test.^cMann-Whitney U test.^dχ² test.^eT test.

Table 2. Health-Care Professionals' Barriers to SC and Spiritual Care Competencies at T1, T2, and T3.^a

	Nurses			Physicians		
	T1, n = 212	T2, n = 105	T3, n = 57	T1, n = 41	T2, n = 19	T3, n = 8
Barriers to SC (scale 1: not at all to scale 10: a lot)						
Lack of knowledge of this domain, mean (SD)	4.7 (1.9)	3.9 (1.8)	4.0 (2.0)	4.5 (2.1)	4.3 (1.7)	4.3 (1.3)
Insecurity on this domain, mean (SD)	4.2 (2.2)	3.4 (1.8)	4.0 (2.1)	4.0 (1.7)	3.8 (1.7)	3.8 (1.3)
Keeping too much distance, mean (SD)	3.9 (2.0)	3.3 (1.8)	3.5 (2.0)	4.1 (1.7)	3.1 (1.6)	3.4 (0.9)
Keeping not enough distance, mean (SD)	3.5 (1.8)	3.3 (1.8)	3.5 (2.0)	3.7 (1.7)	3.4 (2.0)	3.8 (2.3)
Difficult domain in patient communication, mean (SD)	3.8 (2.1)	3.1 (1.6)	3.4 (2.0)	3.7 (1.8)	3.7 (1.7)	4.5 (1.5)
Difficult domain in family communication, mean (SD)	3.9 (2.1)	3.2 (1.7)	3.3 (1.9)	3.8 (1.8)	3.6 (1.6)	5.3 (1.9)
Difficult domain in team communication, mean (SD)	3.4 (2.1)	2.6 (1.4)	2.9 (2.0)	3.5 (2.2)	3.1 (1.8)	3.1 (2.3)
Difficult domain in communication with community clergy, mean (SD)	3.2 (2.1)	2.4 (1.5)	3.0 (2.1)	3.2 (1.8)	2.7 (1.3)	2.8 (1.9)
SC Competence Scale (scale 1-5^b)						
Assessment and implementation of SC	3.6 (0.7)	3.9 (0.5)	3.9 (0.7)	3.0 (0.8)	3.5 (0.9)	3.6 (0.6)
Professionalization and improving quality of care	2.6 (0.7)	3.3 (0.7)	3.2 (0.7)	2.3 (0.8)	3.1 (1.0)	2.5 (1.0)
Personal support and counseling of patients	3.6 (0.6)	4.0 (0.4)	3.9 (0.5)	2.8 (0.8)	3.5 (0.9)	3.2 (1.0)
Referral to other professionals	3.9 (0.6)	4.1 (0.4)	4.1 (0.5)	3.6 (0.6)	4.0 (0.9)	4.0 (0.7)
Attitude toward patients' spirituality	4.4 (0.5)	4.4 (0.4)	4.5 (0.5)	4.5 (0.5)	4.5 (0.4)	4.5 (0.4)
Communication	4.3 (0.5)	4.4 (0.5)	4.5 (0.6)	4.2 (0.5)	4.2 (0.4)	4.5 (0.4)

Abbreviations: SC, spiritual care; SD, standard deviation; T1, T2, T3, test 1, 2, 3.

^aN = 253.

^b1 = totally disagree, 2 = disagree, 3 = not disagree, not agree, 4 = agree, 5 = totally agree.

Table 3. Shorter and Longer Effect on Health-Care Professionals' Barriers to SC and SC Competencies.^a

	Nurses				Physicians			
	1-Month Effect		6-Month Effect		1-Month Effect		6-Month Effect	
	Δ (T1-T2), n = 105	P Value ^b	Δ (T1-T3), n = 57	P Value ^b	Δ (T1-T2), n = 19	P Value ^b	Δ (T1-T3), n = 8	P Value ^b
Barriers to SC (scale 1: not at all to scale 10: a lot)								
Lack of knowledge of this domain, mean (SD)	-0.60 (2.5)	.0157	-0.84 (2.6)	.0178	-0.16 (2.8)	.8055	0.38 (1.4)	.4758
Insecurity on this domain, mean (SD)	-0.69 (2.5)	.0060	-0.28 (2.4)	.3832	-0.05 (2.1)	.9150	0.63 (1.4)	.2495
Keeping too much distance, mean (SD)	-0.51 (2.1)	.0158	-0.54 (2.1)	.0561	-0.89 (1.9)	.0529	-0.75 (2.1)	.3506
Keeping not enough distance, mean (SD)	-0.13 (2.3)	.5842	-0.26 (2.4)	.4145	0.21 (2.4)	.7086	1.5 (1.9)	.0636
Difficult domain in patient communication, mean (SD)	-0.67 (2.1)	.0013	-0.60 (2.8)	.1088	-0.53 (1.6)	.1716	-0.13 (1.5)	.8153
Difficult domain in family communication, mean (SD)	-0.58 (2.1)	.0052	-0.77 (2.7)	.0334	-0.68 (1.6)	.0847	0.38 (2.3)	.6622
Difficult domain in team communication, mean (SD)	-0.67 (2.2)	.0031	-0.62 (2.7)	.1002	-0.47 (1.4)	.1656	-1.63 (3.1)	.1834
Difficult domain in communication with community clergy, mean (SD)	-0.52 (2.2)	.0178	-0.47 (2.8)	.2084	-0.63 (1.7)	.1173	-0.38 (3.0)	.7358
SC Competence Scale (scale 1-5^c)								
Assessment and implementation of SC	0.29 (0.7)	.0001	0.30 (0.9)	.0164	0.44 (1.1)	.0889	1 (0.9)	.0139
Professionalization and improving quality of care	0.59 (0.8)	.0001	0.49 (0.7)	.0001	0.67 (0.8)	.0020	0.10 (0.6)	.6293
Personal support and counseling of patients	0.41 (0.5)	.0001	0.42 (0.7)	.0001	0.55 (0.8)	.0104	0.29 (0.6)	.2430
Referral to other professionals	0.22 (0.5)	.0001	0.27 (0.6)	.0007	0.46 (0.9)	.0481	0.38 (0.7)	.1484
Attitude toward patients' spirituality	0.03 (0.5)	.5560	0.12 (0.5)	.0836	0.05 (0.4)	.5695	-0.19 (0.6)	.4015
Communication	0.04 (0.5)	.4080	0.09 (0.6)	.2732	0 (0.5)	1.0000	0 (0.4)	1.0000

Abbreviations: SC, spiritual care; SD, standard deviation; T1, T2, T3, tests 1, 2, and 3.

^aN = 253.

^bT test.

^c1 = totally disagree, 2 = disagree, 3 = not disagree, not agree, 4 = agree, 5 = totally agree. Attachment 1. Requirements for the Pilot Training Spiritual Care in Palliative Care (SCPC).

care, personal support and counseling of patients, and referral to other professionals; we also observed a trend toward significance in assessment and implementation of SC. At T3, we still observed assessment and implementation of SC improved, from a trend toward significance to a significant level.

Discussion

Strengths and Limitations

Measuring effects, based on self-assessment tools, does not give a clear picture of health-care professionals' SC performance toward patients; however, we consider these data in the context of explorative research, strong enough to identify trends for generating hypotheses for further research about SC training, and training effects.

Another limitation is our sample size, as we did not reach our target, but we believe we have sufficient data to perform subgroup analyses. The decrease in responses can be explained by high scores of working stress, combined with feedback that questionnaires were too time consuming, considering there was no compensation in time or other as in the study by Vlasblom et al, where extra hours were paid as overtime.²³ It is possible that smaller samples at T2 and T3 reflect the characteristics of more interested and motivated health-care professionals. The sample size for physicians was small, and results must be considered as indicative. Concerning that physicians' results are based on responses of younger doctors, who might be more interested and motivated, it is relevant that we were not able to measure competence improvement. For successful implementation of the SC guideline, training has to be improved specifically for this group, otherwise quality improvement will show to be unsustainable. The different results for nurses and physicians might be explained by the fact that nurses spend more time with patients; therefore, the impact of the training might be stronger. Another explanation could be that the chaplains were less familiar with the practice of physicians.

Hospital setting could be potential confounder in our evaluation due to a different approach to palliative services and variation in the pilot training. However, all participating centers were selected based on their ability and willingness to participate in our study. In the Netherlands, specific religiosity currents no longer define medical guidelines around the patient. All hospitals have a common state supervised national format structure. In this respect, palliative services were to some extent comparable and similar from structure (composition of teams), and process (all apply the national guidelines including the guideline on SC published in 2010). Generalizability of our results to hospitals without limited palliative services might be hampered; in this explorative study, we primarily focused on identifying trends in effects (hypothesis generating) rather than performing a confirmatory analysis with results that are applicable in all hospital settings.

We consider the fact that this training was performed with health-care professionals on regular wards, to be a strength of this study. In other studies about effects of SC training, students, volunteers, or professionals who display a more than average spiritual commitment and are prepared to invest their own time in additional training are often included, as in the study of Wasner et al.¹⁹ As to our knowledge, this study is the first to assess the effects of a training SC on health-care professionals based on a consensus-based multidisciplinary guideline.

In this study, we demonstrated that it is possible to achieve direct and important effects on quality of care, using a practical and concise training within reasonable time limits (90-180) for hospital staff, and identify effects on both patient- and health-care professional-reported outcomes. The study design included training of multidisciplinary teams, which may have contributed to breaking through stereotyping between nurses and physicians.

The fact that results based on the SCCS in the nursing group were maintained after 6 months indicates that new knowledge might be internalized in their attitudes and competences. However, we believe it is necessary to monitor and secure these effects in the working process on these wards for sustainable improvement of quality of care, otherwise these effects will decrease. The results for nurses did not deviate from results of other studies based on the SCCS by van Leeuwen et al^{24,25} which showed good results on the first 4 competencies of assessment and implementation, professionalization and improving quality of care, personal support and counseling and referral, and minor results for attitude toward patients' spirituality and communication. The last 2 competencies were at such a high level that significant improvement is not likely, and these competencies can be observed as basic competencies for health-care professionals. For follow-up studies, we consider using a 10-point scale for the SCCS instead of the 5-point Likert scale, for more nuanced results. The results for physicians cannot be compared because the SCCS was not previously used with physicians. We consider the effects on both groups encouraging and have used the results as input for a project on implementation of the SC guideline within the Dutch National Program on Palliative Care.⁹

Conclusion

In this study, we found that a practical and concise training program on SC in PC for health-care professionals in teaching hospitals can have a positive effect on staff attitudes and competencies, improved attention to the spiritual dimension, and temporarily can decrease barriers to SC for nurses. Training hospital had positive effects on both nurses and physicians. Stabilizing effects were shown in 4 of 6 competencies for nurses and 1 of 6 competencies for young physicians. Training and questionnaires on barriers to SC require further adaption to medical practice.

We collected data from 124 health-care professionals on their evaluation of the training. Although the number of

physicians is very small for a comparison, we did see a few minor differences between the evaluations by physicians and nurses. As preparation for the training nurses seem to favor reading literature, physicians preferred to check the project Web site containing additional material and videos. The trainers were evaluated positively by both nurses and physicians, scoring 3.7-4.1 on a scale from 1 to 5, on different aspects, such as knowledge, presentation, and inter-

action with participants and handling questions. Physicians had prepared a case presentation less often. Nurses were more satisfied with the interaction between the participants during the first lesson. A small number of participants received coaching on the job by the chaplain, among whom more nurses than physicians. We saw no differences between the 2 groups in the overall evaluations of the training.

Appendix A

Table A1. Requirements for the Pilot Training Spiritual Care in Palliative Care (SCPC).

Target group	Multidisciplinary clinical teams of physicians, nurses, and other health-care professionals of departments in teaching hospitals (not being: specialized palliative care teams or units).
Competencies	Aim is to develop basic competencies for multidisciplinary spiritual care: recognizing, referring, self-reflectiveness, and open attitude toward patient spirituality, as formulated by Kuin (19) based on the work of Van Leeuwen (6) ²⁶ .
Preparation	A Dutch e-learning module on SCPC based on the guideline is considered to be ideal as preparation for a local training. An electronic learning environment with a selection of reading material and video fragments on SC considered to be compatible with the guideline will be made available to participants who want to prepare themselves before the pilot training SCPC (Available on https://www.mcl.nl/patient/specialismen-en-centra/geestelijke-verzorging/spirituele-zorg).
Planning	Implementation of the training is considered ideal when planned as 2 lessons of 90'-120' with an interval of at least 3 weeks. Minimum is 1 lesson of 90' with follow-up teaching methods (coaching on the job, bedside teaching).
Structure	The local format of the training has to be designed with the aim to (1) sensitize participants for the spiritual dimension of palliative care, (2) make participants realize the importance of their own spiritual and existential dimensions, and in order to (3) integrate it into professional practice.
Tools	No screening tools for spiritual care or spiritual care models proposed by Pennaertz are admitted to the pilot training SCPC. Because of lack of validated translations, the choice is limited to those already mentioned and translated in the NL Guideline: symbolic listening according to Weiher (21), the translation of the 3 screening questions developed by the Mount Vernon Cancer Network (22), and the Dutch spiritual care model <i>Ars Moriendi</i> (23).
Practice-based learning	Teaching has to be practice oriented, and practice-based participants should be stimulated to deliver case descriptions and receive feedback on these descriptions from the teacher/chaplain.
Freedom for local adjustments	Given the local diversity in teaching hospitals and the nature of teaching spiritual care, the pilot training SCPC is not possible without any diversity in tone, language, and methods. The local teachers/chaplains receive a relative freedom in methodology and planning. Educational aims and goals as mentioned above are to be considered. Teaching to only 1 discipline of the multidisciplinary clinical team is not an option.
Teaching methods	No mandatory teaching methods. Selected core concepts and definitions of the guideline will be delivered on slides. Basic knowledge of Kolb's experiential learning model will be taught to the group of teachers/chaplains, preferred methods of teaching spiritual care will be exchanged in the group during the study.
Accreditation	The intervention needs approval by professional organizations of physicians and nurses, so participants can score the training to meet their professional registration requirements.

Appendix B

Table B1. Spiritual Care Competence Scale for Multidisciplinary Use.^{a,b}

Assessment and implementation of spiritual care				
1	I can report orally and/or in writing on a patient's spiritual needs	1	2	3 4 5
2	I can tailor care to a patient's spiritual needs/problems in consultation with the patient	1	2	3 4 5
3	I can tailor care to a patient's spiritual needs/problems through multidisciplinary consultation	1	2	3 4 5
4	I can record the <i>medical, nursing, or other</i> components of a patient's spiritual care in the <i>medical records</i> or nursing plan	1	2	3 4 5
5	I can report in writing on a patient's spiritual functioning	1	2	3 4 5
6	I can report orally on a patient's spiritual functioning	1	2	3 4 5
Professionalization and improving the quality of spiritual care				
7	Within the <i>outpatient clinic or clinical</i> department, I can contribute to quality assurance in the area of spiritual care	1	2	3 4 5
8	Within the <i>outpatient clinic or clinical</i> department, I can contribute to professional development in the area of spiritual care	1	2	3 4 5
9	Within the <i>outpatient clinic or clinical</i> department, I can identify problems relating to spiritual care in peer discussions session	1	2	3 4 5
10	I can coach other care workers in the area of spiritual care delivery to patients	1	2	3 4 5
11	I can make policy recommendations on aspects of spiritual care to the management of the nursing ward	1	2	3 4 5
12	I can implement a spiritual care improvement project in the <i>outpatient clinic or clinical</i> ward	1	2	3 4 5
Personal support and patient counseling				
13	I can provide a patient with spiritual care	1	2	3 4 5
14	I can evaluate the spiritual care that I have provided in consultation with the patient and in the disciplinary/multidisciplinary team	1	2	3 4 5
15	I can give a patient information about spiritual facilities within the care institution (including spiritual care, meditation center, religious services)	1	2	3 4 5
16	I can help a patient continue his or her daily spiritual practices (including <i>asking how he is used to do</i> or providing opportunities for rituals, prayer, meditation, reading the Bible/Koran, listening to music)	1	2	3 4 5
17	I can attend to a patient's spirituality during <i>treatment or</i> the daily care (eg, physical care)	1	2	3 4 5
18	I can refer members of a patient's family (eg, to a <i>health-care chaplain/spiritual advisor/pastor/imam</i> , etc) if they ask me and/or if they express spiritual needs	1	2	3 4 5
Referral				
19	I can effectively assign care for a patient's spiritual needs to another care provider/care worker/care discipline	1	2	3 4 5
20	At the request of a patient with spiritual needs, I can in a timely and effective manner refer him or her to another care worker (eg, a chaplain/the patient's own priest/imam)	1	2	3 4 5
21	I know when I should consult a spiritual advisor concerning a patient's spiritual care	1	2	3 4 5
Attitude toward patient spirituality				
22	I show unprejudiced respect for a patient's spiritual/religious beliefs regardless of his or her spiritual/religious background	1	2	3 4 5
23	I am open to a patient's spiritual/religious beliefs, even if they differ from my own	1	2	3 4 5
24	I do not try to impose my own spiritual/religious beliefs on a patient	1	2	3 4 5
25	I am aware of my personal limitations when dealing with a patient's spiritual/religious beliefs	1	2	3 4 5
Communication				
26	I can listen actively to a patient's "life story" in relation to his or her illness/handicap	1	2	3 4 5
27	I have an accepting attitude in my dealings with a patient (concerned, sympathetic, inspiring trust and confidence, empathetic, genuine, sensitive, sincere and personal)	1	2	3 4 5

^aChanges in the SCCS made to include physician practice are shown in italics.

^b1 = completely disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = fully agree.

Appendix C

Table C1. Participants' Evaluation of the Spiritual Care Training After 1 Month.

1 lesson: n = 124 2 lessons: n = 100	Nursing n = 105	Medical n = 19	P Value
Participant's preparation (n, %)			
Yes (n = 111)	56 (59.0)	7 (43.8)	.29 ^a
Read the suggested literature	39 (61.9)	2 (25)	
Used extra suggested material at project Web site	14 (22.2)	3 (37.5)	
Otherwise	10 (15.9)	3 (37.5)	
Evaluation of the trainer (Scale 1-5; Mean, SD), n = 124			
Knowledge	3.9 (0.7)	4.1 (0.6)	.37 ^b
Presentation	3.8 (0.70)	3.7 (0.7)	.65 ^b
Interaction with participants	4.0 (0.6)	4.0 (0.7)	.74 ^b
Handling questions	3.9 (0.7)	3.7 (0.6)	.49 ^b
Evaluation of the first meeting SC training (Scale 1-5; Mean, SD), n = 124			
Content	3.7 (0.7)	3.7 (0.6)	.62 ^b
Presentation	3.8 (0.6)	3.6 (0.6)	.44 ^b
Interaction between participants	3.9 (0.7)	3.5 (0.8)	.04 ^b
Handling questions	3.8 (0.6)	3.6 (0.6)	.13 ^b
Case submitted (n, %), n = 124	70 (66.7)	6 (31.6)	.002 ^c
Evaluation of the second meeting SC training (scale 1-5; mean, SD), n = 100	n = 92	n = 8	
Content	3.8 (0.7)	3.9 (0.4)	.78 ^b
Presentation	3.9 (0.6)	3.9 (0.4)	.97 ^b
Interaction between participants	4.0 (0.7)	3.8 (0.5)	.22 ^b
Handling questions	3.9 (0.6)	4.0 (0.5)	.60 ^b
SC coaching on the job (n, %), n = 124	19 (18.1)	1 (5.3)	.02 ^a
Evaluation of the total SC training (scale 1-10; mean, SD), n = 124	7.4 (1.0)	7.2 (1.2)	.60 ^b

^aFisher exact test.

^b2-tailed t test.

^c χ^2 test.

Authors' Note

JvdG, KV, HZ, CL, and JP contributed to concept and design; LdV and JvdG contributed to collection and assembly of data; and NV and JvdG contributed to statistical analysis. All authors contributed to data interpretation, manuscript writing, and final approval of this article. Ethical approval was provided by the Medical Ethical Committee in Leeuwarden, the Netherlands on July 4, 2013 (nWMO22). This study is registered in the Dutch Trial Register: NTR4559.

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