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Improving confidence and competence of healthcare professionals in end-of-life care: an evaluation of the 'Transforming End of Life Care' course at an acute hospital trust

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ABSTRACT

Background UK policymakers, clinicians and public wish to see improvements in end-of-life care (EoLC). However, healthcare professionals' skills and knowledge to deliver high-quality care are often lacking. Since May 2012, palliative care staff in an inner-city tertiary hospital have run a 2-day Transforming End of Life Care (TEoLC) course to improve EoLC confidence, and competence among hospital and community staff.

Aim To evaluate course participants' self-rated confidence, competence and knowledge of EoLC topics.

Evaluation design A before-and-after design using self-completion questionnaires, precourse and postcourse. 14 self-assessment questions examined confidence, understanding and knowledge of EoLC topics. Mean change scores and paired t tests were calculated and free-text responses analysed thematically.

Participants 236 staff members completed the course between May 2012 and April 2014. 42% worked in hospitals and 55% in the community; the most frequent staff roles were qualified nurses (49%), senior nurses (16%) and general practitioners (15%).

Results All 14 self-assessment topics improved significantly (p<0.001); most improved was 'understanding and implementing Fast Track discharge'. Qualitative data showed increased knowledge and confidence in EoLC, particularly in communication, commitment to team work and holistic care. Overall, 217 (92%) participants would recommend the course and 215 (98%) indicated it would influence their practice.

Conclusions The TEoLC course improved participants' self-rated confidence, competence and knowledge in EoLC. Findings have utility beyond the UK in light of the international policy recommendations to improve the palliative care skills of generalist healthcare providers.

BACKGROUND

Skilled, compassionate care should be at the heart of a healthcare service, and never more so than when caring for those who are vulnerable, such as those at the end of their lives. Aside from sound clinical skills in assessment and practical tasks, the ability of healthcare professionals to communicate and respond to patient and family distress sensitively and competently is critical.[1] The patient and family experience of care is influenced not just by what clinicians do, but how they relate to and communicate with those receiving care.[2 3] Among healthcare staff, a lack of expertise in addressing patients' needs for humanity and connection results in feelings of frustration, inadequacy and helplessness, which, if unaddressed over time, can lead to compassion fatigue, stress and burn-out.[4–6] In turn, this is associated with staff absenteeism, higher staff turnover and increased healthcare costs.[7]

To avoid the failings in care uncovered by Francis[8] and Neuberger,[9] evidence-based, effective training in end-of-life care (EoLC) and communication must underpin staff education, staff support

and clinical practice.[10] Since 2012, an inner-city tertiary hospital in the UK has been running the Transforming End of Life Care (TEoLC) course, a free course directed at non-specialist palliative care providers. We aimed to examine participants' views of the course and self-rated confidence, competence and knowledge in specific topics related to EoLC.

The course

The 2-day course aims to provide multiprofessional, non-specialist palliative care staff working in local hospitals and the community with essential knowledge and communication skills to provide effective and compassionate EoLC. The course covers specific aspects of EoLC (understanding the last days of life and healthcare professionals' duties; managing uncertainty and the AMBER Care Bundle;[11] helping people achieve preferred place of care and managing Fast Track discharges; symptom assessment and management; medication issues in palliative care including ethics and the law; advance care planning and the final days of life; difficult conversations and addressing uncertainty; spiritual and cultural aspects of dying; and family support and bereavement), and aims to improve confidence and competence in these areas. The course teaching involves lectures, group work related to case studies and clinical scenarios (eg, discharge planning), interactive workshops, and question and answer sessions.

Course content was developed by the palliative care team at the hospital based on national and local policy imperatives[12][13] and staff's informally expressed needs, integrating knowledge of organisational and local community clinical practice. The course is dynamic, responding to participants' needs,[14] and taught by nurses, consultants and social workers on the palliative care team and a hospital chaplain. Participants choose to come on the course themselves.

EVALUATION DESIGN AND DATA COLLECTION

The evaluation comprised a before-and-after design using mixed quantitative and qualitative methods. Course participants completed questionnaires immediately before and after attending the course, comprising:

1. *Quantitative data collection*: 14 self-assessment items measured participants' self-perceived confidence, understanding and knowledge of relevant topics. Postcourse, participants were asked whether they would recommend the course to a colleague, and the extent to which the course would influence their practice (rated from 1 (not at all) to 10 (very much)).
2. *Qualitative data collection*: Precourse, participants were asked their reasons for attending. Precourse and postcourse, participants were asked to name three common symptoms that often occur in the last days/hours of life, and describe different conversations they might have to

have with patients about treatment. Postcourse, participants were asked to name three principles of caring for patients in the last hours/days of life in their own practice, and to state what they were (1) more likely to do and (2) less likely to do as a result of their learning.

There were some modifications in the self-assessment questions as the course developed and this is reflected in the numbers of participants asked each assessment question.

This service evaluation study did not require ethical approval as per King's College London Research Ethics Committee guidance. Approval to publish was granted by the Clinical Director of the Palliative Care Service.

Analysis

1. Quantitative data were analysed descriptively in SPSS.[15] For self-assessment items, mean scores by topic and time point, mean change scores and paired t tests were calculated for each matched pair. Bonferroni's adjustment was applied to correct for multiple testing: rather than consider a two-tailed $p<0.05$ to be statistically significant, as 14 tests were conducted, we considered a p value of <0.0036 (0.05/14) to be significant. A matched pair was defined as a set of valid (not missing/illegible) responses from the same participant to the same question on both the pre and post questionnaires.
2. Free-text responses were analysed using thematic content analysis.[16] Initial coding frames for themes and subthemes were generated inductively for each question (LK) and discussed with LS to agree on the final coding frames. These were applied to all data from each question (LS and LK). Following standard practice in thematic analysis, a single participant's response to a specific question could be coded at multiple themes/subthemes, as deemed appropriate. Finally, occurrences of themes and subthemes were counted to present the frequency of specific opinions/statements. All qualitative responses were analysed, regardless of whether matched pairs (where relevant) were available.

RESULTS

Participant characteristics

Two hundred and thirty-six participants completed the pre and post questionnaires between May 2012 and April 2014, in 10 different training courses. Of these, 49.2% were qualified nurses, 16.1% senior nurses/nurse managers, 15.3% general practitioners, 5.5% health and social care assistants/nursing students, 5.1% medical training graduates, and 9% other care personnel (eg, allied health professional, medical student); 41.9% of participants worked in hospitals and 54.7% in the community, while the other settings included research and student placements.

Quantitative findings

Two hundred and seventeen participants (92%) reported that they would recommend the course,

1 (0.4%) responded 'maybe' and none responded 'no' (n=18 (7.6%) missing). Two hundred and fifteen participants (98.1%) indicated that the course would influence their practice (scores 6–10), and 4 (1.9%) said that it would not (score 1–5). The mean score for influencing practice was 9 (SD=1.3). Significant improvement (p<0.001) was identified in all self-assessment topics, with the highest improvement seen in items related to Fast Track discharge (mean improvement 3.26–3.34) (table 1).

Qualitative findings

The most common reasons for undertaking the training were to learn about, or gain confidence in, EoLC generally, or to learn about specific aspects of EoLC (eg, symptom management; EoLC policies, guidelines and procedures; supporting families) (total participants asked: n=162, missing n=9). Other reasons related to participants' current role or career aspirations, and training/supporting colleagues.

Before and after undertaking the training, participants were asked to state three common symptoms that occur when someone is in the last days/hours of life. The eight most common responses did not change: pain, airway mucus secretion/chest rattle, restlessness/agitation, dyspnoea, change in cognition/consciousness, fatigue, and reduced oral intake (cachexia, dehydration). The former five symptoms were reported more frequently after the course and the latter three less frequently. The most frequently reported symptom at both time points was pain, which also increased the most in frequency (rising from 59 instances precourse to 103 postcourse) (total participants asked: n=162, missing (PRE) n=30, missing (POST) n=16).

Participants stated before and after the training what different types of conversations about treatment they may have to have with patients (total participants asked: n=58, missing (PRE) n=16, missing (POST) n=13). The five most common conversation topics reported did not vary precourse and postcourse, with 'preferences regarding future care', 'location of care/death' and 'withdrawing or withholding treatment/nutrition/fluid' most frequently cited.

After the training, participants were asked to specify principles of caring for patients for their own practice (total participants asked: n=30, missing n=8). Apart from general principles of care (eg, compassion, do no harm), the most frequently reported principles were 'communication' (eg, "Ensuring carers/family have support"—Allied health professional) and 'family care' ("To be more confident to have open conversations with patients"—GP).

Participants were asked to state what they were more likely to do as a result of the training. The most frequent themes were 'Provide better EoLC generally' (occurring 94 times), 'Communicate better with patients and families' (57 times) and 'Use AMBER/

Liverpool Care Pathway properly' (52 times). Participants also stated what they were less likely to do as a result of the training; the most frequent themes were 'Communicate poorly with patients and families' (48 times), 'Provide poor EoLC' (43 times) and 'Feel confused/distressed/overwhelmed in EoLC' (27 times) (total participants asked: n=236, missing ('more likely to do') n=25, missing ('less likely to do') n=82).

DISCUSSION

Findings demonstrate the perceived value of the TEoLC course, highlighting improvements in participants' self-rated confidence, competence and knowledge in EoLC, particularly communicating with patients, families and colleagues, after course completion. Almost all participants reported that they would recommend the course and none said they would not. Almost all indicated that the course would influence their practice, with the high mean score[9] indicating that staff see the course as highly efficacious. Significant improvement was seen in all self-assessment topics, with most improvement in items related to understanding and implementing Fast Track discharge. Qualitative data suggested an increased commitment to good team work and holistic care as a result of the training.

The increased knowledge and confidence, and the highly rated satisfaction detected in this evaluation are in accordance with the results of studies of other EoLC training interventions;[17–19] however, not all training results in such improvements.[20] These findings suggest that the combination of methods used in the training was acceptable and appropriate to participants. This concurs with Thomson et al's[21] Cochrane review on continuing education for health professionals, which found that combined approaches and interactive workshops can result in moderately large changes in professional practice. Participative and interactive learning strategies may be particularly important in EoLC training.[22] It is of note that the TEoLC course is multiprofessional by design and we believe that this feature of the course is central to its success in increasing staff confidence and knowledge (eg, regarding local services, resources and processes), as found by Hales and Hawryluck.[23]

There are several limitations to this study. The sample size for 3 of the 14 items was relatively low (between 45 and 50), reducing the power and hence, the reliability of the t test for these items. The use of self-assessment items measuring confidence, understanding and knowledge of relevant topics is subject to bias, with participants perhaps more likely to report favourably on the course's impact. The self-selection of course by participants means that they may be more responsive to the course content then staff members not as motivated by the subject matter. While the qualitative items tested some elements of knowledge gained from the training, a

Table 1 Mean scores by topic and time, with change scores and paired t tests

Question/topic	Participants responding to this question both precourse and post course (n)	Participants asked this question (n)	Mean precourse score (SD)	Mean postcourse score (SD)	t	p Value	Mean change score (95% CI)
Possession of successful strategies for overcoming the challenges posed by a Fast Track discharge	49	63	5.41 (2.42)	8.74 (1.53)	9.3	<0.001	3.34 (2.6 to 4.1)
Understanding Fast Track discharge process	184	217	5.33 (2.39)	8.58 (1.16)	19.37	<0.001	3.26 (2.9 to 3.6)
Recognition of challenges to Fast Track discharge	194	207	5.53 (2.37)	8.73 (1.27)	19.93	<0.001	3.26 (2.9 to 3.6)
Knowledge of criteria for starting AMBER care bundle	211	236	5.81 (2.42)	8.89 (1.19)	18.58	<0.001	3.07 (2.7 to 3.4)
Confidence using AMBER care bundle	184	236	5.51 (2.45)	8.36 (1.52)	16.35	<0.001	2.85 (2.5 to 3.2)
Knowledge of how to access symptom guidelines	203	236	6.61 (2.04)	9.01 (1.08)	16.41	<0.001	2.40 (2.1 to 2.7)
Awareness of Department of Health's Strategy on end of life care	197	208	6.24 (1.86)	8.35 (1.26)	17.33	<0.001	2.11 (1.9 to 2.3)
Knowledge of how to access resources to support grief	208	236	6.54 (1.94)	8.59 (1.26)	14.41	<0.001	2.05 (1.8 to 2.3)
Understanding different types of conversations I may have to have about treatment	45	59	6.52 (1.82)	8.56 (1.31)	6.61	<0.001	2.03 (1.4 to 2.7)
Confidence managing patients at the end of life	195	217	6.56 (1.99)	8.57 (1.16)	15.91	<0.001	2.01 (1.8 to 2.3)
Knowledge of 3 common symptoms	185	236	7.35 (2.03)	9.23 (1.12)	12.24	<0.001	1.89 (1.6 to 2.2)
Confidence starting difficult conversations with patients and families about end of life issues	50	59	6.43 (2.00)	8.32 (1.39)	6.2	<0.001	1.89 (1.3 to 2.5)
Understanding of grief and bereavement	206	236	7.03 (1.90)	8.68 (1.09)	12.74	<0.001	1.66 (1.4 to 1.9)
Recognition of difficulties of managing patient whose recovery is uncertain	211	236	7.45 (1.66)	8.92 (1.05)	12.78	<0.001	1.47 (1.2 to 1.7)

more objective method of assessing the effect of training is to assess changes to patient, family and/or staff outcomes. Similarly, the pre–post study design, although providing useful guidance for course development and an indicator of whether further evaluation is warranted, is methodologically weak in terms of assessing effectiveness, for which the randomised controlled trial is the gold standard. It would also be interesting to assess the impact of the training over time; for example, confidence, competence and effect on clinical outcomes at 3 and 6 months of post-training. These points should be taken into consideration when interpreting our findings.

In conclusion, the TEoLC shows promise and warrants further development based on the findings of this evaluation. Future research is needed to optimise the intervention and determine the optimum trial methodology to evaluate its impact on patient, family carer and staff outcomes and cost-effectiveness. Indepth qualitative exploration of participant experiences and views, and cognitive testing of patient, family and staff outcome measurement tools would provide valuable evidence to inform a future trial. Findings have utility beyond the UK in light of international policy recommendations to improve the palliative care skills of generalist healthcare providers.

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