1. Background

Nursing homes are providing increasingly complex care and support to residents with life limiting conditions. Care provided within nursing homes is also under increasing public scrutiny in regard to how they provide care which supports those living with incurable illness to live as well as they can during the last phase of their life and to have their personal wishes considered regarding disease management and place of death. To provide a holistic and palliative approach to the management of chronic life limiting conditions, all nursing home staff require appropriate mentoring and development. At a time when health care providers are under pressure to do more and spend less, it is often difficult for staff to access high quality education during their working day and to develop their skills as a multidisciplinary care team. ECHO provides an affordable solution to address the growing need to provide palliative care training and support to whole systems of care. Project ECHO AIIHPC: Nursing Homes aims to support knowledge, skills and attitudes towards delivery of palliative care, as detailed in the Palliative Care Competence Framework (HSE, 2014). The Domains of Competence are:

1. Principles of palliative care
2. Communication
3. Optimising comfort and quality of life
4. Care planning and collaborative practice
5. Loss, grief and bereavement
6. Professional and ethical practice in the context of palliative care

Project ECHO™ (Extension for Community Healthcare Outcomes) is an internationally recognised collaborative model of health education and care management that empowers health professionals everywhere to provide better care to more people, right where they live. The ECHO model™ provides front-line services with the knowledge and support they need to better manage patients with complex conditions through online education seminars. In contrast to many traditional forms of teaching, ECHO training is able to adapt and respond to the learning needs of participants. Through teaching sessions and case presentations, participants have the opportunity to discuss cases which they have found challenging and determine the best course of treatment with experts in the field. Participants are able to review material from live sessions at a time of convenience to them through recordings shared on an online portal. By de-monopolising specialist knowledge, ECHO programmes can be a useful initiative to target specialist clinical areas with lengthy waiting lists. Adequate IT support and skilled facilitation are essential to the smooth running of sessions.
The programme includes an initial face to face half day workshop at which the focus for education sessions is determined and participant’s learning needs assessed. Ten 90 minute videoconferencing sessions are then arranged at a time and frequency of most convenience to the participants (~ every two weeks) using video/ teleconferencing facilities in the hub (specialist palliative care provider teaching room) and spokes (nursing homes). This innovative alternative to classroom training provides a bespoke programme for nursing home staff who are caring for residents’ with palliative care needs and supporting their families. The sessions include specialist led training followed by case presentations from the nursing homes. The ECHO facilitator promotes Just-in-Time Teaching (JiTT) through collaborative discussion and feedback during each session. Videoconferencing enables staff to attend without having to leave their place of work. To complement the live training sessions a zone within The Palliative Hub – Learning Platform provides participant access to recorded sessions, handouts and further reading.

1.1 Phase 1

In the first phase of this project the palliative care multidisciplinary team from Our Lady’s Hospice & Care Services and other invited subject experts (the hub) came together with nursing home staff in the South Dublin area (the spokes) in a community of learning. Ten 90 minute video/ teleconferencing sessions took place twice a month between April and September 2017 using videoconferencing facilities in the hub (hospice/AIIHPC) and spokes (nursing homes). The topics chosen by participants for the ten ECHO sessions are listed in Table 1.

Table 1 Number of Nursing Home attendees per session

<table>
<thead>
<tr>
<th>Session</th>
<th>Number of attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Advance care planning</td>
<td>121</td>
</tr>
<tr>
<td>2. Nutrition and hydration at end of life</td>
<td>119</td>
</tr>
<tr>
<td>3. Medication management older person’s pain</td>
<td>97</td>
</tr>
<tr>
<td>4. Specialist Palliative Care Needs Assessment</td>
<td>85</td>
</tr>
<tr>
<td>5. Managing difficult behaviour and refusal of treatment</td>
<td>88</td>
</tr>
<tr>
<td>6. Recognising dying</td>
<td>65</td>
</tr>
<tr>
<td>7. Anticipatory prescribing</td>
<td>71</td>
</tr>
<tr>
<td>8. Management of restlessness and agitation in end stage dementia</td>
<td>57</td>
</tr>
<tr>
<td>9. Breathlessness management</td>
<td>56</td>
</tr>
<tr>
<td>10. Managing conflict at end of life</td>
<td>68</td>
</tr>
</tbody>
</table>

A total of 20 nursing homes and 353 nursing home staff participated in the ECHO sessions (2 nursing homes amalgamated and 1 nursing home withdrew due to IT difficulties from an initial registration of 22). There was on average 83 participants per session (see Table 1), predominantly from a registered nursing background.
Unfortunately, it proved impossible to assess direct clinical impact upon nursing homes residents due to limitations in accessing relevant documentation. Phase 1 of Project ECHO AllHPC: Nursing Homes was therefore evaluated in three ways:

i. The All nursing home staff, topic experts and palliative care professionals who had attended Project ECHO AllHPC: Nursing Homes where invited to complete an online evaluation using SurveyMonkey (see Appendix I). (see section 2.1)

ii. Six homes were randomly selected to assess changes in staff confidence related to the topics discussed in the ECHO sessions. A nominated contact person in each home provided staff with Likert-style questionnaires at ECHO sessions 1 to 4 and 10, before, directly after and six weeks after completion of each session. (see Appendix II). This was independently conducted by researchers with an expertise in statistical analysis. (see section 2.2)

iii. Three months following the tenth and final session of phase 1 of Project ECHO AllHPC: Nursing Homes, a focus group was held with hub members regarding their perceptions of the impact of the project on service delivery (see Appendix III). This was independently facilitated by an expert in focus group methodology. (see section 2.3)

2. Evaluation

2.1 SurveyMonkey Responses

SurveyMonkey responses were very low with a 6% response from nursing home staff (n=21) and a 27% response rate from topic experts and palliative care professionals. This low response rate was likely due in part to delays in ethics and governance approval leading to a substantial delay between participation in the programme and its evaluation.

100% of nursing home staff who responded indicated that participating in ECHO improved the care that their nursing home provided to residents and families and all participants who evaluated the programme said that they would recommend it to others.

2.1.1 SurveyMonkey Qualitative Feedback from Nursing Home Staff (spoke members)

“Really well delivered, excellent course”

“A lot of knowledge gained. Case histories were a good learning platform”

“Anything of an educational nature that is provided free of charge and bringing together a group of skilled practitioners is to be encouraged.”

“I would like to say a very Big Thank You for providing such an exceptional educational programme ... It was truly a wonderful experience and we have been ‘raving’ about it to all of our local doctors and inspectors that come to visit us.... we hope that you receive funding now for this to continue as the benefits of this type of education are just amazing and ongoing. Thank you, Thank You, Thank you”

2.1.2 SurveyMonkey Qualitative Feedback from Palliative Care Experts (hub members)

“I think it has improved the confidence and knowledge base of those who were able to attend.”

“I believe it has given me a better understanding of some of the knowledge gaps for nursing home staff even when it comes to issues which I consider as basic care issues in end of life care and therefore I have adapted my approach to be more supportive.”
“I think it is a useful project and whilst there are considerable resource issues from both the hub and spoke perspective I do believe there was learning on both sides & if ultimately it improves patient end of life care in nursing homes it will be very worthwhile.”

2.2 Changes in staff confidence through ECHO Participation

Of the six nursing homes randomly selected, an average of 42 questionnaires per session were returned by nursing home staff. Pre- and post- session questionnaires were returned for 86% of the nursing home participants and six-week follow-up phone call derived data acquired on 79% of the nursing home participants.

Pre-lecture to post-session confidence scores increased significantly over the sessions (p <0.005) and this confidence was sustained over a 6 week period (See figure 1).

All staff groups (nursing vs. non-nursing) exhibited equal confidence gains and years spent in the role was not a predictor of confidence change (see figure 2).
2.3 Palliative Care Specialists Focus Group

A total of 5 staff who were involved in the delivery of Project ECHO AllHPC: Nursing Homes (1 doctor, 3 nurses, 1 AHP) participated in the focus group. There was broad agreement that the project did support nursing home staff learning.

“There was a recognition that the learning experience was enhanced through having topic specific expertise to frame the discussion for each session.

“I think the success of the ECHO sessions were the calibre of the prime presenters” (Nurse, focus group)

Impact on the confidence of nursing home staff to refer appropriately to specialist palliative care services in a timely manner was also noted, though the sustainability of such changes was recognised to be a challenge.

“I think it definitely helped the people involved … I don’t have numbers of referrals that were possibility prevented but you could see the confidence and comfort level in the [nursing homes] that were involved in the ECHO Project verses those who weren’t.” (Doctor, focus group)

“one of the things [the CNS’s] noted earlier on [was] the reductions in inappropriate referrals in community palliative care which was very good. That has stopped unfortunately, so we need somehow to keep … it sustained … maybe running another tranche of ECHO sessions will help that.” (Nurse, focus group)

In this regard the importance of the palliative care team in reinforcing learning and supporting change in practice was noted.

“we need to connect the project with our community palliative care team … That we in some way reinforce the learning, “Did you use the palliative care needs assessment guide?” “Just wondering why you made that decision?” … I think some bit of connectivity, I don’t know what that looks like but I think it is worth us having”. (Nurse, focus group)

A limitation of the project was felt to be the self-selection of nursing homes who opted to take part in the project.

“I think a lot of the nursing homes that were in it from our point of view where those that were very willing to learn … a lot of the nursing homes that could probably do with a lot of education didn’t come on board and one or two that did, dropped off early… there is an inherent risk that it we only have the best in class” (Nurse, focus group)
Conclusions

Although participation in the evaluation of Phase 1 of Project ECHO AllHPC: Nursing Homes was low and this is a recognised limitation of the findings, there was a broad welcoming of the project and a recognition of its potential to positively influence nursing home practice and support staff to deliver a palliative approach to residents needs. Additionally, the project had a demonstratable and statistically significant sustainable effect of nursing home staff’s confidence in supporting the palliative care needs of residents. Nursing home staff and palliative care professionals worked together to foster a spirit of peer-learning and reflection in determining best care and treatment for residents and their families. This model was recognised to have strong transferability beyond palliative care.

The next phase, which commenced in February 2018, extended invitations out to the remaining homes within Dublin and is jointly supported by the multidisciplinary palliative care teams at St Francis Hospice and Our Lady’s Hospice & Care Services. Evaluation of this phase will focus on the clinical impacts of participation, including referral patterns to specialist palliative care, out of hour’s emergency contacts and unplanned acute care transitions.
Appendix I Example Evaluation Questionnaire

SurveyMonkey Questions

1. What is your staff role?

1. Which of the ECHO sessions did you * attend/not attend

2. How did you find the following aspects of ECHO?
   • The frequency of training sessions (twice per month)
   • The length of ECHO sessions (90 minutes)
   • The number of cases presented (two cases per session)

4. Overall how satisfied were you with the following aspects of the ECHO project:
   • The ability for staff to attend the ECHO training sessions from within their nursing home
   • The level of information received during ECHO sessions from topic experts
   • Ability to interact with staff from nursing homes (the Spokes)
   • Ability to interact with other staff with palliative care expertise (the Hub)
   • Resources on the Palliative Hub Learning Platform ECHO section

5. Do you think that participating in ECHO has improved the care nursing homes provide to residents and families?

6. Do you think that participating in ECHO has improved the care your nursing home provides to residents and families?

7. Would you recommend the project ECHO AIIHPC to other nursing homes?
Participant Questionnaire Week 4 ECHO

Please complete this questionnaire *after* attending the “Specialist Palliative Care Needs Assessment” talk.

Using a score between 0 and 10, how confident are you that you:

1. I feel confident in assessing the current and future palliative care needs of patients with life-limiting conditions

   - [ ] 0 1 2 3 4 5 6 7 8 9 10
   - Not at all confident   to   Yes definitely

2. I feel confident in deciding when it is appropriate to refer to the specialist palliative care

   - [ ] 0 1 2 3 4 5 6 7 8 9 10
   - Not at all confident   to   Yes definitely

Date AND TIME completed form: __________________________

Staff role: __________________________

Years in current profession: __________________________

We would like to contact you in 6-8 weeks and ask you the same questions, by phone. Please can you provide your phone number for this purpose? The contact details will only be used for the follow-up call and will be destroyed after the call which should only take a few minutes of your time. If you do not wish to provide your contact number you do not have to do so. Thank you again for your efforts in helping to make this project better.

**Mobile phone number** __________________________ or

**Nursing home number and your first name** __________________________

Please place in the return envelope held by your Project ECHO contact person.

Dr. Cathy Payne, AllHPC Programme Manager and Project ECHO AllHPC: Nursing Homes lead. Dr. Dan Ryan, Consultant Geriatrician, Tallaght Hospital. Prof. Philip Larkin, Professor of Clin. Nursing, UCD School of Nursing and Our Lady’s Hospice. Dr. Michael Dowling, Senior House Officer, Tallaght Hospital
Appendix III Palliative Care Expert Focus Group

Introduction

Dear participant,

Hello

My name is Dr Michael Connolly and with the support of Dr Cathy Payne I am going to manage this focus group interview about Project ECHO AIIHPC.

Thank you for agreeing to take part in this Focus Group.

The purpose of this focus group is to gather information on Project ECHO AIIHPC and to see what you consider to be helpful in terms of the education and training provided, its impact on clinical practice in the nursing homes and how we could improve the programme for future learning.

We are recording this focus group as it will help us to analyse the data and ensure that your views and opinions are clearly captured. Can I please confirm that no-one has an objection to the focus group being recorded.

We estimate that this focus group will take approximately 30-40 minutes depending on how the conversation develops. I will lead the group and Cathy Payne will take notes and manage the recording. She may also seek some clarifications if necessary and I will check in with her from time to time to make sure there is nothing else she needs to clarify or confirm.

So, if you are all happy, we can begin...

Questions and prompts

Can you tell me how Project ECHO AIIHPC has addressed nursing homes palliative care educational and support needs? Can you give me some examples of how or in what ways?

From your past experience, can you talk to me how Project ECHO AIIHPC compared with other training courses you have undertaken or delivered? Are there particular benefits to learning in this style? Are there any particular challenges you can tell me about?

We are interested to know your thoughts on how Project ECHO AIIHPC has impacted palliative care delivery within the participating nursing homes?

Prompts:

- Changes in practice
- Planned/emergency hospital admissions
Appendix III Palliative Care Expert Focus Group

- Communication with specialist palliative care
- Communication with families
- Communication within the team
- Patient/family/team satisfaction with care

Do you have specific examples to share?

One of the purposes of Project ECHO AllHPC was to share learning and knowledge across the nursing home sector. Do you think it is beneficial to maintain links with the nursing homes who took part in Project ECHO AllHPC and how would you see this best facilitated?

We hope you enjoyed the ECHO sessions but we would value your feedback on what could be improved or amended. May I ask what would have made the ECHO training sessions better?

What recommendations would you make for the future use of Project ECHO AllHPC?

Are there any other final points that you would like to make about Project ECHO AllHPC that you have not already had opportunity to discuss?

Thank you for your time. We will listen to your responses from the digital recordings and if we have any questions, may we come back to you for clarification?

A copy of the transcript can be made available to you if you wish. The transcript will not show the detail of the conversation today but rather, the main themes coming out of the conversation as a one page overview.

May I ask if anyone has any final questions or comments?

Thank you for your participation today. We really appreciate your time and support to Project ECHO AllHPC and hope we have the opportunity to engage again in the future.