Evaluating the Impact of Train-the-Trainer Dementia Care Training on Senior Carers’ Confidence and Resident Outcomes in Residential Care Homes

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# 1.0. INTRODUCTION

## 1.1. Background and Rationale of the Study

Crosbie et al. (2019) state that in the UK, there are over 850,000 people living with dementia, and roughly 70% of them live in residential care homes. According to the Office for National Statistics (2023), this will result in support for the elderly being demanded from an even larger range of frontline workers by 2025. Most of the time, senior carers handle daily situations involving agitation, wandering away from the unit, and sundowning, which can happen to as many as eight out of every ten residents (Faraday et al., 2025). Brazil et al. (2024) found that in 2021, 36% of employees in senior care were leaving their jobs, which hindered the soothing process of care. These figures suggest that varying training and many staff resignations reduce both employees’ confidence and the well-being of those who live there. For this reason, including sustainable dementia practices is essential for approvals and better lives for seniors.

Furthermore, Carter et al. (2024) found that traditional one-off dementia workshops yield only transient gains in carer knowledge, with skill decay evident within eight weeks. Williams and Jones (2025) emphasise that carers revert to pre-training behaviours without ongoing reinforcement, compromising non-pharmacological interventions. Brown and Patel (2022) further identify resource constraints and a lack of peer-led coaching as common barriers to effective training uptake. These findings demonstrate the insufficiency of lecture-based models and underscore the need for approaches that promote durable behaviour change and peer support within care teams.

Train-the-Trainer (TTT) models offer a promising remedy to solve this problem. NHS England (2019) recommends TTT frameworks for their usefulness in making training relevant for each area and teaching by example. Steele (2019) reports that the effect size for carer self-efficacy scores is 0.65 after TTT, compared to 0.30 after ordinary workshops. TTT programmes are shown by Skills for Care (2022) to decrease skill loss by half within three months, compared to traditional ways of learning. Allowing senior carers to train others in the company seems to help them stay competent, encourage ongoing education, and manage the challenges caused by many staff changes.

It is unclear how much the use of TTT in training has improved outcomes for people with dementia. Chen et al. (2023) advocate for better audits to prove that carer training results in reduced instances of agitation and the use of antipsychotic drugs among the 25% of nursing home residents affected by them. According to the NICE (2018) guidelines, non-pharmacological methods should be followed, but they offer little information on implementing them. This study will fill a critical evidence gap by evaluating both carer confidence and resident metrics before and after TTT implementation. Demonstrating measurable improvements will justify broader adoption of peer-led training, enhance resident quality of life, and inform policy on sustainable workforce development.

## 1.2. Research Aim

To evaluate the effect of a Train-the-Trainer dementia care training programme on senior carers’ confidence and resident outcomes, including agitation levels and antipsychotic medication use, in residential UK care homes.

## 1.3. Research Objectives

1. Assess changes in senior carers’ confidence and self-efficacy before and after Train-the-Trainer dementia care training using the Dementia Care Confidence Scale.
2. Compare resident outcomes (agitation episode counts and antipsychotic prescribing rates) in the month before and the month following training.
3. Identify barriers and facilitators to implementing the Train-the-Trainer model through focus-group interviews with senior carers.

## 1.4. Scope and Significance of Study

This study concentrates on UK residential care homes and assesses the Train-the-Trainer programme used in caring for patients with dementia. It uses a systematic approach by reviewing studies about TTT approaches, career confidence, and results linked to agitation and drugs in people with an older relative’s dementia from 2018 to 2025 (Carter et al., 2020). An audit of care-home files will highlight any changes in confidence over the month since the training, measured by the Dementia Care Confidence Scale. Focus-group interviews with senior carers will explore implementation barriers and facilitators. Primary data collection beyond existing records is excluded in this study to ensure feasibility and timely completion.

According to Smith et al. (2023), senior carers became more confident (indicated by an effect size of 0.65), and the level of resident agitation and use of antipsychotics decreased by as much as 30 percent. Skills for Care (2021) reported that a shortage of qualified staff and difficulties with training are principal issues, and NICE (2018) stated that non-pharmacological techniques should be the primary focus. The findings from the study will enable the organisation to introduce peer-led care training in care homes, leading to better living conditions for residents, improved use of medicine, and the maintenance of a strong, healthy staff. They will also inform policies and practices, so that dementia care education remains sustainable in all UK care homes.

# 2.0. LITERATURE REVIEW

## 2.1. Train-the-Trainer Dementia Care Models

Train-the-Trainer (TTT) models are a promising way to ensure that care workers in residences are equipped with dementia knowledge. Conway et al. (2025) noted that a TTT intervention significantly increased healthcare professionals’ ability to recall knowledge and self-report improvements for at least three months. After studying existing policies and evidence, adopting TTT programs in the context of a country increases the quality of dementia care (Saskia Delray et al., 2024). It helps apply the Dementia Core Skills Education and Training Framework (Brooker et al., 2016). Conway et al. (2025) stated that the training programs showed that self-efficacy in caregivers improved by 0.5 points, which is considered significant. However, issues such as time, necessary resources, and the trainer’s ability to change still hinder the complete implementation of remote learning (Surr et al., 2020).

TTT approaches have been shown to improve the behaviours of residents. Bruce et al. (2025) showed that TTT dementia care programmes were linked to a 40 % cut in giving antipsychotic drugs, with no impact on resident welfare. In addition, evaluations before and after the intervention showed a 30% drop in upsetting episodes for the residents (Merrilees et al., 2020). Additionally, Surr et al. (2020) highlight difficulties, lack of required staff, and inconsistent trainers' backgrounds as reasons the method is not used equally. This shows that TTT models offer hope and confirms that well-structured, ongoing research is needed in the UK to prove that care home residents continue to gain lasting benefits.

## 2.2. Senior Carers’ Confidence and Self-Efficacy Measures

Experienced carers need confidence to provide good care for individuals with dementia (Brooker, 2020). According to Bruce et al. (2025), dementia education rarely results in ongoing changes to caregivers’ approaches, and they tend to focus on the job rather than the person. Saskia Delray et al. (2024) further argue that peer-led mentoring and self-reflection can increase nurses' self-assurance to use more non-drug treatments. Rivett, Hammond and West (2019) note that Train-the-Trainer processes allow teams to focus on relevant skills needed on the job and build an environment where everyone learns continuously. They also state that when such models are applied in regular company systems, staff can maintain their skills for longer and withstand difficulties. It is also claimed by Skills for Care (2022) that when training and education go on for a long time, it benefits residents by decreasing turnover. The results show that Train-the-Trainer models with senior carers are important for their self-confidence and continuous care improvement for people with dementia.

## 2.3. Resident Outcomes: Agitation and Antipsychotic Use

According to Carrarini et al. (2021), agitation is reported in up to 80% of residents with dementia who live in care homes. When these episodes occur, they also cause problems for residents and put additional stress on staff. High levels of agitation in elderly residents encourage prescribing more antipsychotic drugs, which leads to more falls, strokes, and deaths (Jones et al., 2021). Ringman and Schneider (2019) reported that different non-drug therapies, such as music therapy and sensory treatments, resulted in people using less than 40% of medication without affecting their behaviour. In addition, Brazil et al. (2024) found that when training staff and making minor environmental adjustments, such as improving lighting and lowering noise, over four weeks, episodes of agitation dropped by 25%. All in all, although evidence-based interventions help a lot, the well-being of residents improves most when the training for these methods is done by peers, with the organisation’s backing (Surr et al., 2020). Therefore, it becomes important to check the effectiveness of TTT models for people with dementia.

## 2.4. Barriers & Facilitators to TTT Implementation

According to Brown et al. (2021), in their report from highlight that short staff makes it too difficult for senior carers to train staff members which affects the delivery of dementia care. Skills for Care (2022) point out that heavy staff turnover and not having enough time for dedicated training are barriers to a programme’s sustainability. Roulston et al. (2021) mention that if trainers’ skills in teaching differ, that reduces how faithfully and sincerely the sessions are conducted. They claim that when teachers are affirmed by their leaders and schooling is carefully designed, TTT can be used effectively by trainer teachers. Carter et al. (2020) explain that peer collaboration and well-organized mentoring help trainers become more competent and assures them. These findings show that managing resource challenges, raising trainer skills and securing top-level support are key to effective and lasting TTT dementia care training in residential care homes. Strategies used should routinely involve evaluation and feedback to help improve the program all the time.

## 2.5. Identified Gaps

While considerable literature evaluates the benefits seen in TTT dementia care programmes, there are still some important gaps. Studies are often short-term, with little or no data on skill retention after three months (Carter et al., 2024; Heward et al., 2021). Also, a few studies directly investigate the Direct links between how well trainers perform and the outcomes for residents, such as agitation or antipsychotic use (Bruce et al., 2025). Additionally, qualitative insights on the experiences of senior carers as trainers are limited. This reduces the understanding of contextual barriers (Kuske et al., 2019). Therefore, addressing these gaps requires longitudinal outcome audits and in-depth focus group exploration.

## 2.6. Conceptual Framework

Kirkpatrick and Kirkpatrick (2006) developed a four-level model to link training evaluation to reaction, learning, behaviour, and results. Bandura’s (1977) self-efficacy theory explains confidence as what mediates learning and change in practice. Skills for Care (2022) points out that having leaders show support and setting aside protected learning time helps with using training. Preparing trainers and setting up peer groups is the foundation that leads to senior carers feeling confident and improves the results for residents (fewer cases of agitation and less use of antipsychotics). Following NICE (2018), improving the well-being of residents involves mainly non-medication approaches. This model guides data collection, which combines audits to analyse mechanisms sustaining dementia care improvements and inform scalable implementation strategies.

# 3.0. RESEARCH METHODOLOGY

## 3.1 Study Design

This study adopts systematic reviews as the main research approach. The systematic review involves synthesizing and evaluating findings from primary research-based literature on Train-the-Trainer (TTT) dementia care programmes in residential care homes. Searches were conducted in PubMed, CINAHL, and PsycINFO through the PRISMA guideline, following Moher et al. (2009). Keywords such as “train the trainer,” “dementia care,” “residential care,” and” care home” were used as the search strings. Only publications from 2015 – 2025 were included, with quantitative or mixed methods evaluation reporting both senior-care confidence and resident outcome metrics are eligible. Reviews, commentaries, protocols, and studies outside care-home settings are excluded.

## 3.2 Data Sources and Inclusion Criteria

Electronic database searches will retrieve English-language articles from 2015 to 2025 to obtain the relevant literature for this systematic review. Inclusion criteria include primary empirical evaluations of TTT dementia training in residential settings, measurement of senior-carer self-efficacy using validated scales, resident outcomes, agitation episode counts, and antipsychotic prescribing rates. Exclusion criteria include non-TTT interventions, descriptive studies that lack outcome data, and non-peer-reviewed sources. Reference lists of studies were hand-searched through additional trials, and all retrieved records were imported into reference management tools, where duplicates were identified before screening of contents (Wang, Stone and Kim, 2023).

## 3.3 Ethical Considerations

Since the study involves only secondary analysis of primary research, no approval was required from the NHS Research Ethics Committee (Gelling, 2016). Nevertheless, Ethical rigor was upheld by strictly adhering to copyright rules, proper citation of original authors, and ensuring that no data manipulation was done that could misinterpret findings (Wu et al., 2019). Also, confidentiality and consent are inherent in the primary studies reviewed and handled in the original publications. Hence, this review relies solely on aggregate, anonymised data, which presents no new risks to individuals. Finally, to ensure ethical standards in study selection, data extraction, and synthesis, the review process followed the PRISMA guidelines.

## 3.4 Data Extraction and Analysis

Two independent reviews were conducted to screen titles, abstracts, and full texts. A calibrated data-extraction form was generated to capture study design, country, sample size, training components, intervention duration, follow-up period, confidence scale properties, agitation measurement methods, and antipsychotic use data. Inter-rater reliability (Cohen’s κ) was calculated, targeting ≥0.80. Quality appraisal was employed using the CASP quantitative checklist (CASP, 2018). Extracted quantitative outcomes (e.g., Cohen’s d, mean differences) were recorded in cross-tabulations. Given the anticipated heterogeneity, findings were synthesised narratively, highlighting effect magnitudes, implementation factors, and barriers. For example, if≥5 studies report comparable outcomes, a random-effects meta-analysis was conducted in RevMan, presenting poo led effect sizes with 95% confidence intervals.

# 4.0. DATA FINDINGS AND PRESENTATIONS

## 4.1. Career Confidence: Synthesised Effect Sizes

Across the reviewed studies, it is established that the Train-the-Trainer (TTT) programmes consistently deliver moderate to large self-efficacy gains among senior carers. Clifton et al. (2018) reported a Cohen’s d of 0.50 on the Dementia Care Confidence Scale, while King et al. (2017) observed a 30% increase after initial workshops. Mayrhofer et al. (2016) and Pivodic et al. (2022) documented 25% and 35% improvements, respectively, indicating reliable benefits from cascade models. Simulation-based formats yielded even larger effects: Goodman et al. (2015) found d = 0.80 for end-of-life care competence, and Tropea et al. (2022) noted a 40% boost in instructional self-efficacy.

Table 4.1: Carer Confidence Outcomes:

|  |  |  |
| --- | --- | --- |
| **Study** | **Effect Size**  **Cohen d)** | **% Increase in Confidence** |
| Clifton et al. (2018) | 0.5 | - |
| King et al. (2017) | - | 30 |
| Mayrhofer et al. (2016) | - | 25 |
| Goodman et al. (2015) | 0.8 | - |
| Tropea et al. (2022) | - | 40 |
| Pivodic et al. (2022) | - | 35 |
| Surr et al. (2016) | - | - |
| Carrier, Toulouse and Rochefort (2023) | - | - |
| Faraday et al. (2025) | - | 20 |
| Brazil et al. (2024) | - | - |
| Brooker et al. (2016) | - | 45 |

Domain-specific TTT, such as Faraday et al. (2025)’s mealtime care, still produced a 20% confidence rise. Brooker et al. (2016) FITS into Practice added a 45% uplift, and Brazil et al. (2024) confirmed statistically significant trainer readiness gains (p < 0.05). Additionally, the collected data after four weeks to six months confirms the durability of these confidence gains across multiple settings. These quantitative trends demonstrate that TTT interventions strongly enhance senior-carer self-efficacy, with simulation and peer-led formats delivering the greatest improvements.

## 4.2. Resident Agitation and Medication Trends

The quantitative data reviewed reveals a link between TTT-driven confidence and measurable resident benefits. According to Brooker et al.’s (2016) report, there was a 40% reduction in antipsychotic prescribing following FITS into Practice. Carrier, Toulouse and Rochefort (2023) documented a 35% decrease in behavioural and psychological symptoms of dementia incidents. In another phase, Pivodic et al.’s (2022) findings showed a 25% drop in agitation episodes over six months, and Faraday et al.’s (2025) measure of mealtime-related agitations scores shows a 20% decline.

Table 4.2: Resident Outcomes

|  |  |  |
| --- | --- | --- |
| **Study** | **% Reduction in Agitation** | **% Reduction in Antipsychotic Use** |
| Clifton et al. (2018) | - | - |
| King et al. (2017) | - | - |
| Mayrhofer et al. (2016) | 30 | - |
| Goodman et al. (2015) | - | - |
| Tropea et al. (2022) | - | - |
| Pivodic et al. (2022) | 25 | - |
| Surr et al. (2016) | 15 | - |
| Carrier, Toulouse and Rochefort (2023) | 35 | - |
| Faraday et al. (2025) | 20 | - |
| Brazil et al. (2024) | 28 | - |
| Brooker et al. (2016) | - | 40 |

Mayrhofer et al. (2016) found a 30% reduction in distress behaviours, and Clifton et al. (2018) recorded 22% fewer aggression incidents. Despite setting differences, Surr et al. (2016) noted a 15% decrease in acute-care agitation triggers in hospital wards, suggesting broader applicability of TTT approaches. These consistent outcomes across varied durations and settings show that the TTT methods are robust in translating carer competence into tangible resident improvements. Overall, the evidence indicates that enhanced senior-carer confidence through TTT models reliably reduces resident agitation and antipsychotic use. This validates the claim that TTT is an effective strategy for improving dementia care quality.

## 4.3. Interpretation of Key Patterns

The collective evidence shows that TTT programmes are substantial. The program has undergone consistent improvements in senior-carer confidence and resident outcomes. Confidence effect sizes range from moderate (d = 0.50) to large (d = 0.80). This reflects robust learning gains across diverse curricula (Clifton et al., 2018; Goodman et al., 2015). Also, quantitative reductions in agitation (15–35%) and antipsychotic use (up to 40%) show that enhanced carer competence translates into safer, more effective resident care (Brooker et al., 2016; Carrier et al., 2023). Studies emphasising reflective practice and structured mentorship (Goodman et al., 2014; Brazil et al., 2024) tend to report stronger sustained effects, suggesting that ongoing peer support mitigates skill decay.

Conversely, the variability in follow-up duration and measurement tools contributes to the heterogeneity in reported outcomes. Hospital-based interventions produce smaller behavioural improvements, which reflect context-specific factors such as staffing ratios and organisational culture (Surr et al., 2016). Qualitative insights also proved the prevalence of persistent barriers such as time constraints, trainer readiness and resource limitations that moderate implementation fidelity (Carrier et al., 2023). Economically, few studies provide cost-effectiveness analyses, representing a notable gap. Future research should standardise outcome metrics, incorporate longitudinal tracking beyond six months, and evaluate return on investment to support scalable, context-sensitive TTT roll-out in residential care settings to maximize this impact.

# 5.0. CONCLUSION AND RECOMMENDATIONS

## 5.1. Summary of Main Findings

The Train-the-Trainer programmes have shown consistent advantages in improving senior carers’ confidence in both simulated and real-world learning environments. On average, staff report self-efficacy gains of 20 to 80% in managing complex dementia-related behaviours. Interventions that incorporate simulation exercises and hands-on practice sessions produced the most pronounced increases, as learners rehearse and refine skills in realistic scenarios. These improvements translate into measurable benefits for residents, with declines in agitation incidents ranging from 15 to 35% and reductions in reliance on antipsychotic medications by as much as 40%. Importantly, these positive outcomes have persisted over follow-up intervals of one to six months, and they have been observed in both long-term care homes and hospital-based settings, proving they are adaptable and have a lasting impact of the Train-the-Trainer approach.

## 5.2. Implications for Care Home Practice

Embedding Train-the-Trainer programmes into daily care workflows ensures that dementia training becomes a permanent, practice-based fixture rather than a one-off event. Allocating protected learning time demonstrates organisational commitment, allowing senior carers to engage deeply in skills rehearsal without competing clinical pressures. Active leadership support creates a culture where experiential learning through realistic simulation exercises can thrive, emphasising the practical application of techniques. Cascade-training structures extend expertise beyond initial participants by empowering trained carers to mentor peers, fostering widespread knowledge diffusion and reinforcing consistency of approach. Tailored, domain-specific modules, covering areas such as mealtime support, advance-care planning and end-of-life care, illustrate the model’s adaptability to diverse clinical challenges. Regular evaluation of training outcomes, including self-efficacy assessments and resident wellbeing metrics, sustains momentum and informs iterative refinements, ultimately standardising high-quality, non-pharmacological dementia care and reducing reliance on medication interventions.

## 5.3 Recommendation for TTT Programme Roll-out

1. **Cascade Framework**: Training senior carers as facilitators fosters peer-led knowledge diffusion, local adaptation and ongoing dementia care improvements.
2. **Simulation & Reflection**: Integrating hands-on simulation scenarios with debrief sessions reinforces practical skills, enhances reflection and embeds dementia care learning.
3. **Domain-Specific Tracks**: Offering tailored modules for mealtime support, advance care planning, and end-of-life care meets resident needs and enhances contextual relevance.
4. **Organisational Support**: Securing leadership endorsement, dedicated training time, and mentor networks fosters organizational commitment, maximises participation, and sustains programme delivery.
5. **Ongoing** **Evaluation**: Using validated confidence scales plus resident outcome metrics for continuous audit drives data-based refinements, ensuring sustained programme impact.

## 5.4. Study Limitations and Future Directions

Most of the reviewed studies feature short-term follow-ups and varied outcome measures. This limits cross-study comparisons. Also, the study settings range from care homes to hospitals, which introduces contextual differences. Economic impacts are also not examined in these studies. Therefore, future research should employ standardised metrics, provide longer follow-ups of at least one year, incorporate cost-benefit analyses, and explore trainer and organisational factors through mixed-methods designs to ensure TTT scalability and sustainability.

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# APPENDIX

## A – Data Extraction Table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study & Citation** | **Aim** | **Methodology** | **Setting** | **Intervention** | **Carer Confidence Outcome** | **Resident Outcome** |
| Clifton et al. (2018). | Evaluate TTT dementia care effects on care quality | Mixed-methods quasi-experimental pre-post (n = 80) | UK nursing homes | Six-week TTT dementia care workshop | d = 0.50 on Dementia Care Confidence Scale | 22% reduction in aggression incidents |
| King et al. (2017) | Assess the role of the trainer in the person-centred care essentials programme | Pre-post survey (n = 60) | UK nursing homes | Initial TTT conference + cascade sessions | +30% self-rated trainer confidence | Not reported |
| Mayrhofer et al. (2016) | Test the feasibility of TTT end-of-life care training | Pilot mixed-methods pre-post (n = 45) | UK care homes | TTT end-of-life care programme | +25% confidence increase | 30% reduction in distress behaviours |
| Goodman et al. (2015). | Evaluate the TTT end-of-life education model | Mixed-methods evaluation (n = 70) | Multiple care homes | TTT EOL care education | d = 0.80 in competence | Not reported |
| Tropea et al. (2022) | Assess simulation-based TTT IMPETUS-D palliative dementia training | Cluster RCT (n = 100) | UK nursing homes | Simulation-based TTT palliative dementia care | +40% instructional self-efficacy | Not reported |
| Pivodic et al. (2022) | Evaluate theory-based ACP+ TTT on ACP delivery | Cluster RCT  (n = 120) | Nursing homes | TTT advance care planning (ACP+) | +35% facilitation confidence | 25% reduction in agitation episodes |
| Surr et al. (2016). | Measure the impact of dementia education for hospital staff | Repeated-measures study  (n = 50) | Acute hospital wards | TTT dementia care workshop | Not reported | 15% decrease in acute-care agitation triggers |
| Carrier, Toulouse and Rochefort (2023) | Prevent/reduce BPSD via TTT staff training | Mixed-methods primary evaluation (n = 90) | UK care homes | TTT behavioural care training | Not reported | 35% reduction in BPSD incidents |
| Faraday et al. (2025) | Co-develop TTT mealtime care training | Co-development pilot  (n = 30) | UK care homes | TTT mealtime care programme | +20% mealtime-care confidence | 20% decline in mealtime-related agitation |
| Brazil et al. (2024). | Implement TTT ACP intervention across multiple care-home contexts | International multiple-case study (n = 85) | UK & international homes | TTT advance care planning (case study) | Statistically significant readiness (p<.05) | 28% fewer crisis interventions |
| Brooker et al. (2016). | Translate FITS research to practice to reduce antipsychotic use | Cluster pre-post  (n = 75) | UK care homes | FITS into Practice TTT dementia care | +45% self-efficacy uplift | 40% reduction in antipsychotic prescribing |