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Implementing the PIE (Person, Interaction and Environment) programme to improve person-centred care for people with dementia admitted to hospital wards: a qualitative evaluation

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ABSTRACT

Background

Improving person-centred care for people with dementia in hospitals is a UK policy priority. The PIE (Person, Interaction, Environment) programme comprises cycles of observations of care by staff, identification of areas for improvement and plans for practice change and evaluation. The aim of the research reported here was to describe and evaluate PIE implementation in three UK NHS regions.

Methods

A qualitative design was adopted in ten case study sites (wards). Site selection was based on readiness for change criteria. Following a training workshop, PIE cycles were introduced into each ward. Data collection comprised observation, interviews, documentary analysis and an events log. Normalisation Process Theory provided a guiding framework for analysis.

Results

PIE was fully adopted in two study wards over 18 months, which resulted in sustained practice change and increased awareness of person-centredness. Partial implementation of PIE took place in a further two wards but progress stalled before significant action. The remaining six wards failed to implement PIE. Factors influencing implementation were: salience of PIE, collective team involvement, fit with strategic priorities, adequate resources, - effective clinical leadership, good facilitation and organisational stability.

Conclusions

PIE has the potential to help staff improve person-centred care for people with dementia admitted to hospital wards. However, the evidence is limited to ten wards of which only two fully implemented the programme.

Implications for practice

- A programme for improving person-centred care for people with dementia in acute hospital wards requires sustained commitment from both the organisation and the ward.
- Successful practice change depends on multiple key factors, including effective clinical leadership and good facilitation.
- Contextual factors at various levels of an organisation need to be considered.
- Use of the PIE tool has the potential to enable staff's attention to focus on person centred care for older people with dementia in acute settings.

KEYWORDS

Dementia; person-centred care; hospital wards; service improvement; Normalisation Process Theory

BACKGROUND

The ageing population has brought challenges for care services internationally (Amalberti et al, 2016; Hung et al, 2018). In the UK up to two thirds of hospital beds are occupied by older people (Royal College of Psychiatrists, 2005) and some 50% of admissions of people over 70 have some degree of cognitive impairment (Goldberg et al, 2012). Successive research reports have found that, despite pockets of excellent practice, there exists unacceptable variation in the quality of care experienced by people with dementia in acute settings (Alzheimer's Society, 2009; Digby et al, 2016). This often results in a worsening of health, long hospital stays, and high numbers of patients being admitted to long term care. The Alzheimer's Society report concluded that improving the experience of people with dementia in general hospitals is a key to improving the NHS overall.

In the light of these trends, improving care for people with dementia in general hospitals has become a policy priority in the UK. The National Dementia Strategy, (Department of Health, 2009) covered 17 key objectives, including a need to improve the quality of care in general hospitals (in terms of person-centredness, addressing coordination of dementia care, training and leadership), the provision of an informed and effective workforce and the availability of research evidence to guide change. Since then, the Prime Minister's Dementia Challenge, (Department of Health, 2012; 2015) while highlighting progress, also identified what still needs to be done in terms of driving up standards of care, better research and awareness of dementia and its impact in society in general.

Although there is a lack of consensus around the concept of person-centred care (Kogan et al, 2016), particularly with regard to people with dementia, the work of Kitwood (1997) has been influential in addressing this. Kitwood proposed that wellbeing for people with dementia can be realized if psychological and relational needs and 'personhood' can be maintained. One initiative, developed and based on this concept, with a potential to improve the quality of person-centred care for people admitted to hospital with co-incidental dementia, is the 'PIE' (Person, Interactions and Environment) observation method.

PIE was developed as an audit tool for use in the first national audit of dementia in NHS hospital wards (Royal College of Psychiatrists, 2011) during a three-year research study (2008-2010). Now in its fourth iteration (Royal College of Psychiatrists, 2019), the national audit has consistently found that aspects of dementia care, although improving, fail to reach acceptable standards.

PIE takes the form of a programme which guides staff to undertake real-time observations of small numbers of patients with an emphasis on three main areas: the extent to which staff are considering what is known about the individual patient as a **P**erson to personalise their care; the quality of patient **I**nteractions with staff; and the impact of the immediate modifiable physical **E**nvironment or organisation of care. Observation notes are then discussed within the staff team and areas of both good practice and areas where care could be improved are identified collaboratively.

The PIE audit tool has subsequently been developed into an improvement programme which further extends its remit to enable the formulation of goals and achievable action plans which are then implemented and reviewed. Further guidance was produced by the research team in collaboration with key hospital staff to describe the steps to be taken for action plans to be operationalised. Steps identified include the formation of a PIE implementation team for each ward, agreeing which actions will be taken forward and communicated to staff, use of a revised workbook and a preparatory workshop and guidelines for reviewing progress and identifying barriers to success. The PIE tool has therefore been developed into a practice improvement process (authors, 2018) comprising cycles of observation, reflection, planning, action and review (Figure 1).

Since the use of PIE in the National Dementia Audit was limited to one-off use for audit, the extent to which it can be implemented as a programme in general hospital wards, and its effect on care delivery is unclear. We therefore developed a research study to address these issues.

METHODS

Design

A longitudinal, mixed method design was adopted, incorporating multiple case studies. A case study investigates contemporary phenomena in depth and within a real-life context which is taken into consideration. It also deals with a multitude of variables, relies on multiple sources of evidence and often benefits from a theoretical underpinning (Yin, 2009). Each case, or unit of analysis, consisted of a ward within an acute NHS hospital trust. The qualitative component of the mixed methods is reported here.

Sample and setting

Ten wards which had a substantial proportion of older people with dementia among their patient intake were purposely selected in five NHS hospital trusts, located in three English regions. Trusts varied in size and populations served. Criteria of 'readiness' to engage in a change process were identified prior to recruitment, informed by previous research on delirium prevention (authors, 2013):

- Expressed interest among senior acute hospital staff in participating in the research to improve person-centred care for people with dementia.
- Agreement of senior ward staff to engage in a practice improvement programme over a prolonged period.
- Commitment from a clinical lead external to the ward with responsibility for practice development to assume a leadership role in initiating and facilitating PIE.

Data collection

The process of PIE implementation, following a workshop delivery by the research team, was documented through the methods outlined in Box 1.

Data analysis

Qualitative data drawn from interviews, notes of workshops, observation of action planning and review meetings, and examination of completed documentation, were drawn together to provide a descriptive account of the engagement of staff with each step in the PIE cycle for each ward. Individual wards (cases) were then compared in a cross-case analysis (Yin, 2009) using Normalisation Process Theory (NPT) (May and Finch, 2009) as a sensitising framework. NPT proposes that complex interventions become routinely embedded (implemented and integrated) in their organization and professional contexts as the result of people working, individually and collectively, to implement them. Four generative mechanisms are put forward to explain how this is operationalised within routine care: coherence, cognitive participation, collective action and reflexive monitoring. New practices, the theory contends, become embedded when:

- The work that defines and organises a practice/intervention is understood as meaningful and invested in, in respect of the knowledge, skills, behaviours and actions required to implement it at an individual and collective level (coherence);
- The work is perceived as something worthwhile and appropriate to commit individual time and effort to bring about the intended outcome (cognitive participation);
- Work practices and the division of labour through which these are carried out are modified or adapted to incorporate the change/intervention into the social system of the host organisation (collective action);
- Those engaged appraise the effects as attributable to the intervention and congruent with valued goals (reflexive monitoring).

Analysis drew on May et al's (2015) suggestion that the theory can be used as a sensitizing device, to direct thinking in a structured way. It also drew on the review by Fixsen et al. (2005) of implementation research which identifies distinct implementation stages: exploration and adoption; programme installation; initial implementation; full adoption; innovation; sustainability (Box 2).

To minimise bias, analysis of qualitative data was conducted manually, separately and collectively by members of the research team (XXXXXX). This was done at regular time intervals to compare emerging findings across cases (wards).

Ethics

Ethical approval for the study was obtained from National Research Ethics Committee Yorkshire & The Humber Bradford (reference 12/YH/0442). Written, informed consent was sought from health care staff who were interviewed, or who took part in the observed PIE meetings. Data were pseudonymised and personal data deleted from trust and ward documentation where appropriate.

FINDINGS

All sites participated in *exploration* (Fixsen et al's first stage) and met the 'readiness' criteria, achieved through meetings, a willingness to invest resources, and providing signed agreement. However, not all wards subsequently proceeded to full PIE adoption. A distinction was made between 'full implementers'; 'partial implementers' and 'non-implementers'. 'Full implementer' wards pursued implementation over 18 months broadly as intended (two wards within a single trust). 'Partial implementers' made some progress but did not persist to full adoption (two wards in two different trusts). 'Non-implementers' were either lost early on following programme installation (three wards in one trust) or did not begin installation (three wards in two trusts). Trusts and wards were given pseudonyms to maintain confidentiality (Table 1).

On most wards the prevalence of dementia was between one third and a half. For the dementia-orientated wards (Netherton and Denton) this figure was close to 100%.

This paper firstly describes the progress of each site in the light of the stages of implementation (Box 2). It then compares implementation processes across settings to discern generalisable features that may account for variation and identify factors conducive to full implementation (cross-case analysis).

Full implementers

Exploration to Programme Installation

The last trust to be recruited into the research, Seaford Trust engaged encouragingly with the idea of PIE with good attendance at each of the two sites' workshops. The PIE implementation team on Poplar ward comprised nursing and care staff (practice development facilitator, dementia nurse specialist, ward sister (senior ward nurse), staff nurses, health care assistants (HCAs) and therapy assistant). Joint leadership was assumed by the practice development facilitator and dementia nurse. Both were external to the routine ward work and had a developmental role in relation to staff on it. Although the ward manager was not a formal team member, she provided active support, facilitation and encouragement.

On Crane Ward, membership of the PIE team included the lead dementia nurse specialist, senior occupational therapist (Senior OT), occupational therapist (OT) (all external to the ward team), two therapy assistants, ward manager (on assuming the post and for part of the project) and ward sister. At the outset, direct involvement of front-line nursing and care staff was absent, although senior staff actively encouraged their participation.

Programme Installation to initial implementation

The first PIE cycle on Poplar began after the introductory workshop. Five team members, working in pairs conducted a total of five hours observation over different times of the day, including a weekend, in time spans of around an hour. Researcher's notes from staff feedback showed that for both observers and observed it was perceived as 'out of their comfort zone' at the beginning. 'Observers' found it difficult to look without acting, and the objects of observation, the staff 'observed', were wary. PIE observation notes showed both positive and suboptimal care practices:

10.50am: GT has a visitor. Interacting, smiling and looking at pictures.

11.20am: Student nurse tidies room, places drink within reach. However, no interaction with patient.

Initial implementation on Crane followed behind Poplar by two months. PIE was slower in getting off the ground on this ward. Partly this reflected situational factors at ward level. A new ward manager with a practice development background had recently been appointed. A well-attended second workshop was held which generated renewed enthusiasm. Leadership and responsibility were assumed by the lead specialist dementia nurse. Other team members included a senior OT and her staff (OT and therapy assistant). For the first cycle, there were four sets of observations, typically conducted in pairs, each an hour long, undertaken at different times and in different spaces. As in Poplar, observations revealed variation in care quality:

2.35pm: Student returns: 'Martha [not real name] *would you like more tea?' Assists patient to drink. 'You're doing really well' (encouraging). Wipes mouth. 'You're struggling, aren't you?' Then 'fantastic, well done'.*

09.25: Patient asleep in bed, radio on loudly next to him….. a lot of noise coming from resource room. Ward as a whole is noisy – feeling quite stressful.

Initial implementation to full adoption

Moving forward from conducting observations on Poplar was not without challenges, since the team found it difficult to identify convenient meeting times. Further hindrances came with a temporary ward move due to refurbishment, which occurred soon after moving to what was intended to be its permanent home. In addition, an imminent Care Quality Commission (CQC) site visit absorbed staff energy.

The first action plan on Poplar established several areas to work on: communication, nutrition and activities. In response to observations indicating inconsistency in nurse-patient interaction and little interaction between patients, an initial action plan focused around mealtimes as a social event. Starting in a single bay, patients were encouraged to sit around a table for lunch. This set in train work addressing several

goals, beginning with small steps, subsequently expanded to all bays through the process of appraisal and review (including new observations). This initiative also contributed to the goal of patient mobilisation, getting people up and moving between bed and tables. Interview data revealed staff viewed this positively:

We found that sitting them up at the table, a patient that maybe didn't talk, didn't eat, all of a sudden, with other patients that maybe haven't got delirium or dementia, they've actually sat there, they've spoke, and they've actually eaten. We have found that's really a big, big thing. Interview with HCA

Implementation on Crane began in earnest following the workshop. Observation about noise from the radio resulted in a plan to elicit patient preferences about music on the ward. This moved on to establishing music as a collective and purposeful activity at lunchtime and then extended to plans for a regular monthly singing session, as patients appeared to derive pleasure from joining in. Like Poplar, a small step at one level, led to a significant change in how things were usually done, with space and momentum created through the action planning and review process. Again, impressions were positive:

… the environment is better I think, they certainly have looked at the radios because they did used to put the radios on and it was just going, but that's not happening as much now. Interview with OT

Full Adoption toward Sustainability

PIE observations on Poplar continued periodically throughout the research. The experience of doing observation reinforced its value to 'see' action and interaction in a different way:

It's allowed us to step back and look at what we're doing. 'Cos when we're right in the middle of it, it's all quite difficult, seeing what's going on and what you should be doing. Interview with Staff nurse.

New issues identified resulted in new action plans, including ensuring that patients did not feel isolated or ignored (e.g., leaving curtains closed around patients post-care delivery, not excluding patients within earshot from discussions, and regular checking that clocks in the bays were accurate).

A focus of action planning was providing stimulating activities for patients who were well enough to take part, including newspapers, games, and reminiscence resources (RemPods™). By the end of the third improvement cycle, observations indicated positive change: staff sitting with, and encouraging patients to read and using pictures as conversation prompts. These action plans were evaluated as 'partially met'. Engagement was constrained by staff availability which waxed and waned depending on demand, patient flow and unpredictable levels of patient acuity.

Over time, the composition of the PIE ward team changed. Although never a formal team member, the ward manager played a crucial enabling role in supporting staff to get involved in PIE and in facilitating communication of action plans to the wider staff group.

On Crane, alongside 'music as stimulating activity' which expanded over time, new action plans were pursued. These included encouraging patients who were well enough and near to discharge to dress in their own clothes during the day, not usual on this ward. This was viewed as supporting the transition from hospital to home. It was also aimed at nursing, care and therapy staff to increase person-focused interaction while they helped the person choose their clothes and get dressed. Making this happen involved negotiating with relatives to bring in clothing and ensuring staff did the work.

Four PIE cycles were completed on Crane, though in practice (as with Poplar), the interplay of observation-planning-action-review represented a spiral more than a cycle, since learning and practice were continually being built on. Subsequent observations were shorter (30 minutes) – to make the process manageable. As on Poplar, Investment of staff time was an ongoing issue, particularly during 'winter pressures' when the team covered an additional six beds. The cramped nature of

the environment and lack of patient space, outside of the bays, was a constraint. Engagement in activities was assessed as being 'partially' implemented. Again, as on Poplar ward the composition of the PIE team changed as therapist posts rotated and there was less engagement than Poplar by frontline staff.

A significant collaborative event, a cross-site workshop for Poplar and Crane, was held a year after PIE introduction, instigated by Poplar. Ten staff across both wards took part, including the Trust's dementia specialist nurse and the researcher. The meeting allowed both teams to clarify how person-centred care was conceived. A statement of purpose was agreed:

both staff and patients feeling valued and treated as individuals, while promoting independence, holistic and effective care, choice and high-quality experience.

The meeting provided opportunity for reflection on what was needed. There was considerable enthusiasm about being part of a process that actively involved staff on the front line to effect change, and which encouraged them to use their initiative to try out ideas. They perceived a change in practice: increased use of the patient biographical tool, This is me® booklet (Alzheimer's Society, 2017); greater involvement with patients' families; and heightened awareness of patient experience as the centre of what they did. Concerns centred on time constraints; how to sustain PIE after the research ended and how to embed changes in routine practice. Issues to pursue included incorporating PIE information into routine staff induction and involving all new ward staff in undertaking a short PIE observation with a link PIE team member.

Explicit links were made between the PIE objective of enhancing person centred care and the trust's Shared Purpose Framework (authors, 2014). The role played by the dementia specialist team in championing PIE, which was critical, was also perceived as a vehicle through which aspects of the dementia strategy could be pursued. Both operated in synergy with one another.

Partial implementers

Exploration to Programme Installation

On Netherton ward, the introductory meeting revealed a passionate commitment to improvement in care delivery for their patients, directorate level support to the research, and interest among the training and practice development team to assist with PIE. The PIE workshop was attended by seven staff, at different levels of seniority and roles (manager and charge nurse, staff nurses, HCAs and an occupational therapist attached to the ward) who formed the PIE team. Training and practice development staff also took part, to support the ward in implementing PIE. Feedback on the workshop was very positive and ward staff indicated willingness and enthusiasm to get going.

Rivermead was also a long established and cohesive team. The ward manager was very supportive of improving care of people with dementia on her ward and had worked closely with the practice development lead; both had a particular interest in dementia care. A total of nine staff attended the PIE workshop (two sisters, two staff nurses, three HCAs, a housekeeper and therapy assistant). Their composition reflected engagement and interest across the staff group working in a diversity of roles. At the conclusion of the workshops, both wards had plans underway for PIE installation, PIE teams and identified support out with the wards.

Initial implementation

Following the initiating workshop on Netherton, the first PIE cycle began with observations by PIE ward team. Observations were conducted over a two-hour period in pairs on two occasions, at different times of the day (mid- morning and afternoon). The observers initially felt inhibited and anxious, concerned that staff might act differently knowing that they were being observed.

Observations indicated positive features of practice (responsive and reassuring with anxious patients; encouraging interaction between patients; offering food and drink choices and getting it straight away; ward clean and warm; patients in bed appearing content; others up and about in the day room and corridor). Immediate feedback

was provided to staff on shift and welcomed by them as acknowledging the strength of team working. The value of observation in 'seeing' things in a different way was emphasised by observers. Further observations were planned for different times of the day and night to see whether care was consistent across different shifts.

Immediate action was initiated from these observations. One of these was introduction of staggered staff breaks in the morning (no more than two at a time) to ensure responsiveness during a period when staff were relatively invisible in the bays (observed as buzzers going unanswered, and patients being left longer than usual for assistance). Another action point was addressing temperature of the ward for patients who were inactive by offering blankets (staff constantly in motion did not experience this).

Over the following three months, further sets of observations occurred involving all seven PIE team members and the practice development co-ordinator. Additional support anticipated from staff at directorate level did not transpire. Apart from individual examples (e.g. a dozing patient not being offered a drink), observation elicited a picture of responsive practice.

A meeting was held to discuss action plans. However, a number of factors resulted in lack of follow-through. Senior staff were preoccupied with changes at ward level in response to a trust directive to speed patient flow at a time when patient acuity was rising, and the staff complement deemed inadequate. Four months on progress had stalled. The researcher observed that staff appeared stressed simply trying to maintain responsive care, amid 'winter pressures' and staffing shortages, leaving little headroom for initiating practice change.

On Rivermead three months elapsed between the introductory workshop and the first set of observations. Three pairs of staff (three HCAs, a housekeeper, nurse and ward manager) carried these out at different times of the day. Reflections on observations occurred informally afterwards. Despite the number, range and length of observations, documentation revealed a relatively superficial portrayal of practice and goals for improvement, largely related to professional 'visitors' to the ward

(pharmacists, phlebotomists, porters and medical staff). Feedback with the researcher revealed that observers had 'seen' and noted little interaction between staff and patients for long periods in the evening, but this was interpreted as requiring additional staff to resolve and therefore it did not feature as a goal for change. 'Knowledge' of the problem was uncontested; their judgement that they were powerless to act on it impacted its utility as a focus of action planning.

Initial implementation coincided with a period of organisational turbulence including a negative CQC report which led to major trust reorganisation. This absorbed the energy of the key facilitator (now matron) at a time when the ward manager was off sick. Ward staff were working day to day, still coping with extra patients as 'winter pressure' beds remained open. The offer of an extra workshop was not taken up, since staff could not be spared to attend. It was several months later that the key facilitator was able to hold an action planning meeting, but the time lapse since observations, together with work pressures, staff sickness and vacancies meant that further PIE work was unrealistic.

Non-implementers

In contrast with 'partial implementers', these six wards did not proceed far with PIE installation and fell at the hurdle of initial implementation. Rose, Beech and Denton wards in Central Trust are more accurately characterised as betwixt 'partial' and 'non' implementers and are considered together as the same factors operate for all three. Ambridge and Oak wards (in Valley Trust) and Cedar ward (City Trust) were unambiguous non-implementers and did not engage with PIE at any meaningful level.

Exploration

The three wards in Central Trust worked closely together, with the Denton ward manager strongly supportive of PIE, organising and facilitating joint workshops and encouraging Rose and Beech wards. At the time of the research the trust was, however, undergoing organisational turbulence as services were reconfigured, which

proved inimical to practice change and development. While practice observations took place on Beech and Rose wards, there was no further activity as staff coped with changes which finally resulted in the transition of Beech from an acute to a step-down ward, and the eventual closures of both Rose and Denton wards.

In the two Valley Trust wards, the departure of the practice development lead in the course of baseline fieldwork who was to act as 'external' facilitator coupled with staffing pressures on both, evident during fieldwork, meant that on neither ward was engagement in PIE viewed as feasible. Of several workshops planned to introduce PIE only one took place; two others were cancelled when it became clear that staff would be unable to attend. Attempts to re-ignite interest in engaging with PIE over several months were unsuccessful.

Cedar ward similarly did not take part in PIE. Demand pressures and organisational change at City Trust (which impacted on Rivermead) affected Cedar ward directly; additionally, the ward manager was focused on creating a team ethos in context of a new ward model and staff group. Reflecting back, she considered that the decision to take part in the research had underestimated the level of work involved in forging a new team, coupled with demand pressures; the 'timing' was not right.

CROSS-CASE ANALYSIS AND DISCUSSION

The PIE programme was fully adopted in only two of ten study wards (both based in the same trust) and proceeded to innovation and sustainability. A cross-case analysis, undertaken to explore why some wards adopted PIE and others only partially or not at all, highlighted a number of factors which appeared to influence the process of implementation to varying degrees: salience of PIE, collective team involvement, fit with strategic priorities, resources, leadership, facilitation and organisational stability. These factors are here discussed in turn using Normalisation Process Theory (NPT) to assist analysis.

Salience of PIE

It is accepted that in order to effect practice change, education and awareness-raising alone is not enough (Handley et al., 2017). Rather a change has to be seen as meaningful and engendering *coherence* in terms of NPT. In both wards in Seaford, the process of PIE implementation engendered confidence, collaboration, a sense of empowerment and agency among the staff group, including among HCAs in trying out new ways of working. Positive change was visible and in turn acted as a spur to keep going.

Among 'partial' implementers PIE was embraced enthusiastically at the outset. On Netherton, observation reinforced pride among the staff team of the general quality of care provided. But translating observations into action plans that addressed valued goals proved more difficult. Although not articulated in the beginning, observations reinforced and solidified the primary goal of senior staff to improve patient care through reduction in the size of the ward and more staff time to provide stimulating activities. However, neither were seen as actions which could be pursued through PIE, since they required significant resource commitment. This poses the question as to whether there exists a quality 'ceiling' effect in terms of a 'person-focused' approach within the constraints of acute care delivery. Additionally, within this ward, there existed a team culture and routine systems and mechanisms to engage in deliberative practice reflection to secure quality improvement; apart from observation, the additional work of PIE seemed superfluous.

Enthusiasm and interest in improving practice also required supportive environments to sustain belief in staff agency to effect change so that investment of time and resources was seen as worthwhile. Demand pressures and organisational uncertainty dampened both, evident not only in Rivermead but in all three Central Trust wards.

Collective team involvement

The degree of success of any group initiative depends on teamwork (Dixon-Woods et al. 2014), which for PIE very much depended on the implementation teams created within the wards involved. Attending the workshop, then undertaking the

cycles of observation, planning, action and review required the teams in Seaford Trust to identify themselves with the project aims and commit time to them, which necessitated agreed ways of communicating and working together (*cognitive participation*). A good example of the outworking of this phase of NPT in Seaford was the joint meeting between the two participating wards which allowed for time to clarify values and aims. Netherton ward, too, demonstrated a collective enthusiasm for PIE, moving in a timely manner, like Seaford wards, to planning soon after the workshop and devoting an away-day to reflecting on these. Conversely, Rivermead ward experienced long delays between workshops and observations, suggesting less cohesive participation.

Fit with strategic priorities

PIE was not the only initiative aimed at improving the care of people with dementia underway in participating trusts. The challenge lay in introducing these at a time when numerous directives were simultaneously being handed down. In Seaford the team of three dementia nurse specialists worked directly with ward staff to model good practice in dementia care and provide support and education, but also engaged in high level organisational changes at trust level, for example developing dementia pathways. From the outset the specialists embraced PIE as one vehicle through which to develop practice change and drive the *collective action* that NPT identifies. In this way PIE and the trust's dementia strategy worked synergistically and were a good fit with the trust's new Shared Purpose Framework.

In other trusts (City and Ironbridge) the creation of Dementia Champions aimed to raise awareness and set up training for staff at all levels around dementia. However, how the recruitment of 'champions' would translate into a means of changing practice at ward level was not clear. In City, the matron who had championed PIE envisioned that the initiative would feed into use of PIE at ward level; a vision that was not necessarily shared among those involved in developing the dementia strategy. For staff on Netherton, the Champions initiative appeared diffuse and lacking depth and impact. Further, as the initial focus of the initiative was in raising general awareness of dementia, this was not seen to address staff perception of the

problem, namely how ward staff were to be provided with the skills necessary to work with challenging patients and also with the participative approaches required to enable sustained implementation of PIE.

Resources

Implementing quality improvement initiatives in the NHS requires adequate resources (Dixon-Woods et al., 2014; Handley et al., 2017) in terms of staffing, time and space to reflect, plan and engage in *reflexive monitoring*, the final stage of NPT. Apart from Netherton and Denton (dementia wards), on most wards there was limited or no collective space for activities or interaction and finding time and space for action-planning and review meetings was problematical. When this did occur, notably with Seaford's cross-site meeting and Netherton's away days, this allowed for discussions around person-centred care and what that means in their own context. Similarly, for both these wards, staff expressed that time spent undertaking PIE observations allowed them to stand back and see things differently. A further issue was staffing levels; three of ten wards did not attain the Royal College of Nursing staff/patient ratio for safe working on older people's wards (Hayes and Ball, 2012), namely eight staff for 28 beds, a ratio of 1/3.5. Most did not meet the recommended ratio of registered nurse to health care assistant of 65:35. Although most wards were subject to staff being removed to cover other wards due to staff absence, Seaford Trust wards' staffing levels were comparatively better able to cater for the needs of patients with dementia than others were.

Leadership

Leadership had been identified as a 'readiness criterion' for practice change and this is also supported in existing literature (Ferlie and Shortell, 2001; Dixon-Woods et al., 2014). This applies to workplace culture as well as organisational culture (authors, 2019). In implementation wards this took the form of key individuals beyond the ward whose professional authority and vertical networks legitimated the priority attached to the work of improvement in face of competing priorities. In Seaford Trust this role was adopted by the dementia specialist nurses, (jointly with the practice

development lead on Poplar). This did not happen in other wards; although external practice development leads were also originally involved in partial implementing wards this did not continue. On Netherton, the ward manager assumed the PIE leadership role but only partially enacted it, and participation of the 'external' facilitator, who had helped with observations, was not called upon to assist in driving subsequent action-planning processes. On Rivermead the external facilitator became involved in the trust turbulence secondary to major restructuring, with no time to devote to the PIE programme. There was a similar lack of an external driver on non-implementing wards; in Valley Trust, for example, the senior nurse for older people, initially designated for this role, moved to another post early on in the research and no replacement could be found.

Facilitation

On implementation wards there was involvement of senior ward staff, in the person of the ward managers, facilitating and encouraging direct involvement in the change process and in ensuring planned changes were communicated to the wider staff team. However, the conception of 'facilitation' in this study differs from that projected in some frameworks for implementing change, for example PARiHS (Rycroft-Malone et al., 2002) and practice development (McCance et al., 2013), both of which place emphasis on skilled, holistic facilitation in effecting change. In this research the ward manager, integrating leadership with facilitation, did not 'drive' implementation but played a critical role in enabling the ward team. The need for this integration of facilitation and leadership for practice development is echoed in the Venus Model of workplace transformation (authors, 2020).

On both Poplar and Crane wards, the ward manager was fully supportive of PIE, by encouraging observations and allowing time for reflection and action-planning and, where time permitted, joining the meetings themselves. On the partial-implementing wards this involvement did not happen; the Rivermead manager was off sick during the project period while the Netherton manager had attempted to be the facilitator but found this to be too much to take on. Denton ward (non-implementer) had a similar experience with a supportive ward manager who had no external facilitator to

work with. On Cedar ward, a late entrant to the project, the ward manager was fully absorbed in creating a new team within a newly created model of care.

Organisational stability

Collective action is also dependent upon the larger system in which individuals and teams function (Ferlie and Shortell, 2001). Although all participating wards experienced change at multiple contextual levels, the degree of turbulence varied over trusts. While Seaford Trust experienced changes as a result of a negative CQC inspection report (albeit praising dementia care), these did not appear to percolate down to ward level or adversely impact on PIE. Other sites encountered greater turbulence; Central Trust was particularly affected by reorganizational changes such that the two participating wards closed during the course of the research and a third underwent remodelling. Rivermead ward, a partial implementer, also closed as part of a major restructuring in City Trust over this time.

CONCLUSIONS AND CRITIQUE OF THE METHOD

Seven factors have been suggested as influential in the implementation of the PIE programme, which can be partially aligned with the four stages of NPT. However, NPT as a theory, while acknowledging contextual factors, is located within a sociological context which assumes individual and collective agency in any given situation. Three further factors (leadership, facilitation and organisational stability) were also found to be crucial to success, suggesting NPT may be viewed as providing necessary, but not sufficient conditions to explain outcomes. Further, the notion that practices become ‘routine’ may be critiqued, as in the dominant nursing discourse of the 1970s and 1980s, when ‘routine care’ was thought to imply ritualised and mechanical practices, anathema to individualised care (Hutchinson and Jackson, 2015).

Findings from this research suggest that the PIE programme has the potential to help staff improve person-centred care for people with dementia admitted to hospital wards. Though evidence is drawn from ten wards, only two fully implemented the

programme due largely to external organisational factors found to be necessary to success. Conclusions must therefore remain tentative but the absence of these factors in partial and non-implementing wards may add weight to the findings. A further limiting factor is the time limit over which PIE was studied, and evidence suggests that sustainability was challenging even for the full implementer wards (authors, 2018). This and other dimensions of PIE, such as patient -related outcome measures, may be the focus of future research.

IMPLICATIONS FOR PRACTICE

- Developing person-centred care practices for people with dementia in acute hospital wards via a practice improvement process such as PIE requires meaningful commitment and participation from both the organisation and the ward.
- Successful practice change depends on several key factors, including effective clinical leadership and good facilitation inside and outside of the ward. External facilitation is necessary to help prioritise the programme and place it in allegiance with wider trust objectives.
- Readiness criteria for implementing a PIE programme should consider, in addition to these key factors, contextual factors, including institutional stability and no planned major change for wards.
- Observations of practice using the PIE tool has the potential to enable staff's attention to focus on person centred care for older people with dementia in acute settings.

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