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ORIGINAL ARTICLE

Developing person-centred practice: nursing outcomes arising from changes to the care environment in residential settings for older people

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Aim. To present the nursing outcomes from the evaluation of developments in the care environment in residential settings for older people.

Design. The evaluation data reported here is derived from a larger national programme of work that focused on the development of person-centred practice in residential services for older people using an emancipatory practice development framework. A multi-method evaluation framework was utilised. Outcome data were collected at three time points between December 2007 and September 2009. The data reported here were collected using an instrument called the 'Person-Centred Nursing Index'.

Findings. Heavy workload was the main cause of stress among nurses. Personal and professional satisfaction with the job was scored highest by the total sample of nurses. Nineteen factors were examined using the Person-Centred Nursing Index. Statistically significant changes were observed in 12 of these. In addition, there were statistically significant changes in nurses' perceptions of caring, indicating a shift from a dominant focus on 'technical' aspects of care, to one where 'intimate' aspects of care were more highly valued.

Relevance to clinical practice. The findings highlight the importance of the development of effective teamwork, workload management, time management and staff relationships in order to create a culture where there is a more democratic and inclusive approach to practice and space for the formation of person-centred relationships.

Keywords: environment, older people, outcomes, person-centred practice, residential care

Introduction

The evaluation of nursing-specific outcomes arising from the adoption of a person-centred approach to practice is underdeveloped with a dearth in the published literature of person-centred outcome evaluation. While the principles and values of person-centred care are enshrined in contemporary nursing and healthcare policy and strategy, other empirical evidence available to support this approach as an operational framework for nursing and healthcare delivery is as yet unconvincing, in part this is because the literature is relatively new and thus underdeveloped. In addition, the evaluation of nursing outcomes in general and person-centred outcomes in particular is complex (Conway, 2004; Dewing *et al.*, 2006; Nolan *et al.*, 2006; McCormack *et al.*, 2008). Descriptive accounts of person-centred nursing leave little doubt that it does impact on patients' experience of care and nurses' and the healthcare teams' experiences of caring (Parley, 2001; Webster and Dewing, 2007; Edvardsson *et al.*, 2008). However, there is a need to develop multiple and creative strategies for evaluating the outcomes arising from the implementation of person-centred nursing in practice.

In this paper, we present the findings from one part of a complex evaluation of a national programme of practice development undertaken in residential care settings for older people with a focus on developing person-centred practice cultures. We present a background to the programme and the underpinning methodology, including an overview of the person-centred practice framework used to shape the programme of work and the evaluation framework. While the evaluation of the programme focused on both resident/family and multidisciplinary staff outcomes using a variety of methods, in this paper, we focus on outcomes associated with the 'care environment' as perceived by Registered Nurses only. The data reported here is derived from one instrument used in the evaluation framework – The Person-Centred Nursing Index (PCNI). While the programme was multidisciplinary in focus, we have only focused on this data in this paper because of its particular focus on and relevance to nursing and nurses.

Background

The 'Older Persons Services National Practice Development Programme' was a 2-year programme involving older people, families and multidisciplinary staff (including, for example, Registered Nurses, care support workers, catering, domestic, gardening, maintenance, administration, volunteer and medical staff). The programme was facilitated in 18 residential sites where older people live across the four Health Service

Executive (HSE) Administrative Areas in the Republic of Ireland (ROI). This was a collaborative programme between the University of Ulster and the Republic of Ireland HSE. The programme was lead and facilitated by nurse researchers from the University of Ulster and six nurses from the HSE Nursing and Midwifery Planning and Development Units (NMPDU).[1] Funding for the 2-year period was obtained from the National Council for the Professional Development of Nursing and Midwifery[2] and the HSE.

Like many countries internationally, the ROI has a mixed economy of residential care provision. Residential services are provided through a network of local community hospitals and publicly, voluntary and privately funded nursing homes. In the residential care sector, newly established 'National Quality Standards for Residential Care Settings for Older People' (HIQA, 2009) have been introduced and these have person-centred practice as a central strategic direction of service delivery. The significance of the standards and the benefits of the implementation of the standards include primarily the empowerment of older people in residential settings. Therefore, this person-centred practice development programme was consistent with the national priorities for the development of residential services and enabled the preparation for and implementation of the national quality standards.

Methodology

Theoretical frameworks

The programme incorporated two frameworks – the person-centred practice theoretical framework and the emancipatory practice development methodological framework. The person-centred practice theoretical framework provided a focus for decision-making about practice changes, whereas the practice development framework informed and guided a systematic approach for the facilitation and evaluation of changes.

The 'Person-centred Practice Framework' that formed the theoretical framework of the programme of work was adapted from the original 'Person-Centred Nursing Framework' developed by McCormack and McCance (2006) for use in the intervention stage of a large quasi-experimental project that focused on evaluating the effectiveness of the implementation of person-centred nursing in a tertiary hospital setting (McCance *et al.*, 2008; McCormack *et al.*, 2008). Recently, McCormack and McCance (2010) have made minor adjustments to the framework in order to deemphasize the focus on 'nursing' and locate each construct of the framework in a multidisciplinary context. The person-centred practice framework has four constructs (Table 1).

Table 1 Person-centred practice framework constructs (McCormack & McCance, 2010)

1. *Prerequisites* focus on the attributes of the care worker and include: being professionally competent; having developed interpersonal skills; being committed to the job; being able to demonstrate clarity of beliefs and values; and knowing self.
2. *The care environment* focuses on the context in which care is delivered and includes: appropriate skill mix; systems that facilitate shared decision making; effective staff relationships; organizational systems that are supportive; the sharing of power; the potential for innovation and risk taking; and the physical environment.
3. *Person-centred processes* focus on delivering care through a range of activities and include: working with patient's beliefs and values; engagement; having sympathetic presence; sharing decision making; and providing holistic care.
4. *Outcomes*, the central component of the framework, are the results of effective person-centred practice and include: satisfaction with care; involvement in care; feeling of well-being; and creating a therapeutic environment.

In previous research, McCormack *et al.* (2008) suggested that in order to deliver positive outcomes for patients, families and staff, account must be taken of the prerequisites and the care environment, which are necessary for providing effective care through person-centred processes. The framework has been used previously to analyse underpinning barriers to change, to focus particular developments and to evaluate practice change (Masterson, 2007; McCormack *et al.*, 2008; Dewing *et al.*, 2010).

To facilitate the development of a person-centred culture, an emancipatory practice development framework was used (Manley & McCormack, 2004; Hoogwerf *et al.*, 2009). The central purpose of emancipatory practice development is the development of person-centred care. Practice development differs from traditional notions of implementing evidence-based practice and bringing about change in that the emphasis is not just on changing a particular practice (e.g. pain management or wound care), but also on transforming the culture(s) and context of care settings (McCormack *et al.*, 2008). Thus, the key foci of practice development are:

[1]There are eight Nursing and Midwifery Planning and Development Units [NMPDU] in the Republic of Ireland. The NMPDU is an integral component of the Health Service Executive, coordinating continuing professional development, practice development, quality improvement and workforce developments in the Health Service Executive areas.

[2]The purpose of the Council is to promote and develop the professional roles of nurses and midwives in partnership with stakeholders in order to support the delivery of quality nursing and midwifery care to patients/clients in a changing healthcare environment.

- Increasing effectiveness in person-centred care,
- Transforming practice cultures to enable and sustain person-centred ways of working and relating,
- Adopting systematic, rigorous and continuous approaches to developing practice,
- Engaging in collaborative, inclusive and participatory facilitation relationships.

Emancipatory practice development suggests that in order to bring about sustained development of practice, healthcare teams need to be enabled to transform the culture and context of practice. Thus, the emancipatory approach is a broad view of practice development and it focuses on both getting research into practice and creating a culture of sustained innovation and clinical effectiveness. Facilitating these processes involves cycles of reflective learning and action, so that nurses develop awareness of the need for change by identifying contradictions between what is espoused vs. the realities of practice. The process, therefore, focuses on changing practice and refinining action through reflection.

These facilitated processes help teams to remove barriers to being effective and enable person-centred cultures to be developed. This type of practice development is usually enabled by a facilitator (can be someone external to the team, a member of the team itself or a combination of the two). The facilitator creates the conditions whereby reflection, critique, collaboration, high challenge with high support and active learning (Dewing, 2008, 2009) can be sustained as integrated components of practice and which collectively bring about changes in the practice culture (Shaw *et al.*, 2008, p. 152). A facilitator uses a range of skills including:

- Working with values, beliefs and assumptions,
- Challenging contradictions,
- Developing moral awareness (of persons),
- Focusing on the impact of the context on practice, as well as practice itself,
- Using self-reflection and fostering reflection in others,
- Enabling others to 'see the possibilities',
- Fostering widening participation and collaboration by all involved,
- Changing practices.

Person-centred cultures are characterized by their qualities that enable human thriving (Spreitzer *et al.*, 2005) and ultimately flourishing. Such cultures maximize the potential of individuals for thriving as they change the way they engage and relate with others at individual, team/group, community and societal levels. Facilitators are encouraged to be creative and imaginative in their work and to enable the flourishing of others through releasing their creativity and imagination also (McCormack & Titchen, 2006; Titchen & McCormack, 2008). Flourishing is experienced when people continuously thrive and achieve growth that expands their boundaries in a range of directions, for example, practical (growth in expertise), emotional, social or artistic. The ways in which this emancipatory practice development framework was translated into daily activities that were facilitated by the NMPDU and internal facilitators is discussed in the 'programme of work' section of this paper.

Programme aims

The aims of the programme were to:

1 Develop person-centred practice cultures in residential settings for older people in Ireland through an emancipatory practice development methodology,
2 Evaluate the outcomes of (i) the creation of person-centred cultures of practice; and (ii) improvements in the residents' and families experiences of care. Two of the programme objectives relevant to this paper were:

Objectives

1 Coordinate a programme of work that can replicate effective practice development processes in care of older peoples settings across Ireland,
2 Utilise a participant generated data-set to inform the development and outcomes of person-centred practice.

Ethics

Ethical approval for the programme of work was received from six individual regional ethics committees. The university facilitators developed a 'core protocol' and supporting letters, information sheets and guidance notes. They then worked with each NMPDU facilitator to contextualize the core materials to each regional ethics committee as they all had different requirements. The protocol took account of development activities, individual site evaluation activities and the overall programme evaluation framework.

Programme of work

An awareness campaign was initially held in each participating site. An open invitation to attend these awareness raising sessions was extended to all staff, older people and their families. Following on from these sessions, internal facilitators were selected and practice development programme groups were established. The groups represented staff from different areas within the units and different grades i.e. Clinical Nurse Mangers, Staff Nurses, Health Care Assistants, Housekeeping, Catering and Administration staff. The

participants from the sites met with the internal facilitator from within their unit and the external facilitator from the NMPDU for a formal programme and skills development day every 6 weeks. A range of interim meetings, project working groups and discussion groups were also established. Working within the emancipatory framework and processes as set out in the methodology section of this paper, the university facilitators (B. McCormack and J. Dewing) provided direct facilitation support to the NMPDU facilitators (L. Breslin, A. Coyne-Nevin, K. Kennedy, M. Manning, L. Peelo-Kilroe, C. Tobin). In addition, the university facilitators lead the design of the programme days and other facilitation activities in the different settings, coordinated the programme of work across all sites to ensure consistency and managed the evaluation of the programme.

The NMPDU facilitators were supported in gaining knowledge and skill in emancipatory practice development facilitation by the university facilitators prior to the programme commencing. In addition, ongoing monthly support and development, facilitated by the university facilitators was provided. The internal facilitators had a 2-day introduction to the programme methodology and ways of working. They also had ongoing work-based facilitation by the NMPDU facilitators and the university facilitators in the development of their facilitation knowledge and skills. The rate of engagement by participants with workplace active learning activities designed to enable learning and model changes in practice was consistently high. Some sites recruited new programme members as the programme progressed. Across all sites, participants engaged in a number of key activities to develop person-centred practice and these are included in Table 2. These represent the main activities that participants and facilitators engaged in, in order to develop person-centred practice and develop the practice environment to one that would support person-centred practice.

Evaluation

Nursing outcomes were evaluated using the PCNI (Slater & McCormack, 2006): This tool measures the processes and outcomes of person-centred nursing from nursing and patient perspectives. It consists of three parts – *the Nursing Context Index (NCI)*, which is comprised of 89 items covering 19 factors (Table 3). Its relevance to nurses practice environment has been demonstrated (Slater *et al.*, 2009). It has been used in countries such as the UK, Ireland and Australia. The second part, *the Caring Dimensions Inventory (CDI)*, is an instrument designed to measure perceptions of caring in the nurse–patient relationship (Watson & Lea, 1997). It comprises of 35 items rated on a 5-point Likert scale ranging from strongly agree to strongly disagree. Participants are asked to indicate whether they feel the item is caring. The 35 items are categorized into five labels: technical, intimacy, psychosocial, unnecessary and inappropriate. The third part, *the Nursing Dimensions Inventory (NDI)*, was developed by Watson *et al.* (1999) as a tool for non-nurses (including patients) to assess non-nursing views of what constitutes caring. It is based on the CDI and replicates the items from a non-nursing perspective.

Data collection and analysis

Data were collected at three time-points: December 2007–March 2008; January–March 2009 and August–September 2009. A PCNI instrument pack was developed, including questionnaires, distribution instructions, consent process and instructions for storage of completed questionnaires. The PCNI questionnaires were distributed by the NMPDU facilitators and returned to the university-based facilitators at the end of the data collection period.

The PCNI data were analysed after each round of data collection using SPSS. The items that comprised each factor were summed and a mean score calculated for each factor. The identity of each participant was anonymous at each time point and this limited comparison across times to an organizational level. Descriptive statistics were calculated for each of the 19 factors at each time point. A one-way ANOVA was used to compare the mean scores on each construct for the total sample across the three time points. Independent *t*-tests were used on the sites where two sources of data were collected.

Each NMPDU facilitator received a summarized report of findings for their participating sites and these reports were shared with programme participants and the findings used to further inform ongoing action planning at a local level. In addition, the data across all sites were collated into single reports at each data collection period in order to inform the overall evaluation of the programme and inform progress with achieving the outcome of developing person-centred culture in the participating sites.

Response rate

A detailed breakdown of the response rate by each site is presented in Table 4. The overall response rate decreased across the three time points. There was considerable variability in the response rate in each site. Examination of the data was restricted on two sites (site 7 and 17) because of a poor response rate or missing data collection points.

Table 2 Development activities used in the programme

Developments facilitated	Facilitation processes
Developing an understanding of what the work/ practice development involves and the processes used.	Becoming familiar with the person centred framework (McCormack & McCance, 2006) and practice development model (Garbett & McCormack, 2004; McCormack, Manley & Walsh, 2008) which are the central frameworks used in the programme.
Developing a shared vision using Values Clarification Exercises involving the residents/ patients families/carers and all staff within their work place.	Clarifying values and beliefs and agreeing common or shared values and beliefs is the first step in collaborative practice development work. In order for this exercise to have meaning everyone had the opportunity to become involved and forward opinions and suggestions that may be helpful in identifying a common vision for their service. Using values clarification exercises helped give a sense of direction and a common vision for the future. Vision statements were completed and were used on a daily basis in various ways.
Active learning on language and discourse.	At the beginning of year 1, participants were asked to reflect on how person centred the language used every day was. This not only applied to the language used when speaking to older people but also to each other and language used in documentation. Participants developed posters to generate group discussion amongst their colleagues. The posters were displayed throughout the units, which again promoted wide scale discussion about person-centredness and workplace cultures. Staff became more aware of the language they were using and how language can impact on how they behave and view older people. It became more acceptable for staff to challenge each other if language was not person-centred.
Active learning with observations of practice.	Participants were all involved in carrying out several short observations of the care setting, team relationships and care practices. This helped the participants get a greater understanding of how person centred the care was for the older person within their units. Seeing practice, raising consciousness about taken-for-granted practices and assumptions and reflecting on them are key components of the observation activities. Observations were then formalized into one of the evaluation methods. Providing feedback to the staff in the form of a 'critical dialogue' was essential to challenging practice by highlighting the differences between values espoused and those observed in practice. These activities highlighted the need to see things from a different perspective and to facilitate therapeutic/relationship based care that can be sustained and thus transform healthcare delivery. It enabled participants to reflect on how they practice and the things they take for granted. It became a powerful tool and one which the participants continue to engage in with other staff to facilitate them carrying out observations of care to inform practice. Participants have also facilitated other team members to undertake these activities for themselves.
Active learning with environmental walkabouts by the participants.	The purpose of these was for participants to look at how person-centred or not the environment was for older people. The basis for this is that unless we offer older people an environment that compensates for impairments and disabilities, as far as is possible, they are being made to be more disabled and dependent than is needed. The data collected was used to inform the development of action plans. In some sites older people and family members were also involved in this activity.
Structured reflection.	Participants were introduced to a model of reflection and the use of reflective questioning. Participating in structured reflection assisted participants in both their personal and professional learning. It helped them to value practice: identifying and building on what they do well, exposing contradictions, identifying and addressing what they could do better, managing conflict and stressful situations.
Facilitation skills development.	Asking questions, high challenge, high support, giving and receiving feedback are all components of facilitation that were explored and developed in the programme. Participants were introduced to these skills and were encouraged to further develop their confidence in using these skills in their every day work and across their workplaces to help develop a more person-centred culture.
Introduction to the evaluation methodology used for the programme and involvement in the collection of the evaluation data.	A range of evaluation tools and processes were used in this programme. Wherever possible programme participants were involved in collecting and analysing this data and informing the identification of outcomes.

Table 3 NCI factor structure

Factor number	Factor title and items
1	Workload
	I feel that I am under too much pressure at work
	It is always a rush to get my work done
	I am too busy to be able to provide the level of care I would like
	I sometimes feel that I am asked to take on too much work
	I often find my job stressful
2	Inadequate preparation
	Feeling inadequately prepared to help with the emotional needs of a patient's family
	Being asked a question by a patient for which I do not have a satisfactory answer
	Feeling inadequately prepared to help with the emotional needs of a patient
3	Lack of staff support
	Lack of opportunity to share experiences and feelings with other personnel on the unit
	Lack of opportunity to express to other personnel on the unit my negative feelings towards patients
4	Conflict with other nurses
	Floating to other wards that are short staffed
	Difficulty in working with a particular nurse(s) outside the unit
5	Uncertainty regarding treatment
	A doctor not being present in a medical emergency
	Uncertainty regarding the operation and functioning of specialist equipment
	Not knowing what a patient or a patient's family ought to be told about a patients medical condition and treatment
	A doctor ordering what appears to be an inappropriate treatment for a patient
6	Work – social life balance
	Demands of the job on social life
	Lack of support at home
	Demands of the job on family life
	Having too much work to do
7	Working environment
	No appreciation of your work by people at work
	To do the work of other people
	Lack of support by people at work
8	Lack of communication and support
	Keeping up with changes in the HSE
	Factors not under your control
	Dealing with problem patients
	Lack of communication and consultation with doctors
9	Career development
	Too much (or too little) variety in your job
	Achieving your own goals
	Communication with patients
	Opportunity for career development

Table 3 (Continued)

Factor number	Factor title and items
10	Satisfactions with pay and prospects
	The amount of pay that I receive
	My clinical grade
	The degree to which I am fairly paid for what I contribute to this organization
	My prospects of promotion
	The opportunities I have to advance my career
11	Satisfaction with training
	The opportunity to attend courses
	Time off to attend courses
	Being funded for courses
12	Personal satisfaction
	The feeling of worthwhile accomplishment I get from my work
	The extent to which I can use my skills
	The contribution I make to patient care
	The amount of challenge in my job
	The extent to which my job is varied and interesting
13	Professional satisfaction
	The way that I am able to care for patients
	The amount of time I spend on administration
	The amount of support and guidance I receive in my work
	The degree of respect and fair treatment I receive from my boss
	The degree to which I feel part of the team
14	Adequate staffing and resources
	Adequate support services allow me to spend time with my patients
	Enough Registered Nurses on staff to provide quality patient care
	Enough staff to get the work done
	Enough time and opportunity to discuss patient care problems with other nurses
15	Nurse–doctor relationship
	Doctors and nurses have good working relations
	Much teamwork between doctors and nurses
	Collaboration (joint practice) between nurses and doctors
16	Nurse management
	Managerial staff that are supportive of nurses
	Freedom to make important patient care and work decisions
	Not being placed in a position of having to do things that are against my nursing judgment
	A nurse manager backs up the nursing staff in decision-making, even if the conflict is with a doctor
	A nurse manager who is a good manager and leader
	Nursing controls its own practice
	Patient assignments foster continuity of care

Table 3 (Continued)

Factor number	Factor title and items
17	Empowerment
	Management places a great deal of confidence in my judgement
	My impact on what happens at work is very large
18	Organizational commitment
	If the values of the organization were different I would not be attached to this organization
	I feel a sense of ownership for this organization rather than being just an employee
19	Intent to leave
	I often think about quitting
	I will actively look for a new job in the next year.

Table 4 Response rate for each site for each time point

Site	Time 1	Time 2	Time 3
1	5 (0.8)	16 (3.2)	15 (3.4)
2	11 (1.8)	12 (2.4)	15 (3.4)
3	24 (3.9)	24 (4.8)	22 (5.0)
4	15 (2.4)	13 (2.6)	9 (2.1)
5	45 (7.3)	25 (5.0)	25 (5.7)
6	14 (2.3)	22 (4.4)	22 (5.0)
7	13 (2.1)	–	–
8	37 (6.0)	61 (12.2)	21 (4.8)
9	10 (1.6)	10 (2.0)	12 (2.7)
10	43 (7.0)	43 (8.6)	34 (7.7)
11	94 (15.3)	55 (11.0)	83 (18.9)
12	78 (12.7)	43 (8.6)	31 (7.1)
13	42 (6.8)	14 (2.8)	17 (3.9)
14	50 (8.1)	35 (7.0)	37 (8.4)
15	54 (8.8)	63 (12.7)	62 (14.1)
16	18 (2.9)	13 (2.6)	11 (2.5)
17	35 (5.7)	26 (5.2)	–
18	26 (4.2)	23 (4.6)	23 (5.2)
Total	614 (100%)	498 (100%)	439 (100%)

Findings

Nursing Context Index

The 'care environment' is a key consideration in the development of a person-centred culture (McCormack & McCance, 2006). The NCI determines the impact of an intervention on creating a person-centred care environment. The intervention in this case was the programme of activities illustrated in Table 2 and set within the person-centred nursing theoretical framework. A person-centred culture can be summarized as one that achieves a decrease in nursing stress, an increase in nursing satisfaction and organizational commitment, and a decrease in intention to leave the job in the following year. Using these criteria of change, the practice environment of each care setting was examined.

Nine factors measure aspects related to nurse stress levels (see Table 5, factors 1–9). Scoring ranged from 1 to 7 and a decrease in scoring indicates a decrease in stress levels. The overall stress levels were low among the sample of nurses' at all three time points. A heavy workload was deemed to be the main cause of stress among nurses on all three occasions and equally the scores decreased over the three time points but not at a statistically significant level. Conflict with other nurses was scored as causing the least amount of stress. Stress levels decreased at a statistically significant level on five of the nine constructs (inadequate preparation; lack of staff support; and uncertainty regarding treatment; lack of communication and support and career development). All statistically significant changes reflected a positive change in the practice environment.

Nurses' level of satisfaction with their job was assessed using a 7-point scale that ranged from '*Very dissatisfied*' *to* '*Very satisfied*', with '*Neither Satisfied nor dissatisfied*' as the mid-point (a score of 4). Four constructs (18 statements) helped to measure specific areas of satisfaction (factors 10–13). Personal and professional satisfaction with the job was scored highest by the total sample. Both constructs increased by a small but statistically significant amount by the third time point.

There were four key indicators of positive change towards a more person-centred practice environment – adequate staffing and support; empowerment; professional staff relationships; and, nurse management (factors 14–17). Scores above 4 or more indicate a positive growth in the practice environment. All four factors indicated a movement towards a more positive environment. The largest increase was recorded on the construct that was most negatively scored (adequate staffing and support). Further, this increase was at a statistically significant level. The professional relationship between staff also increased and at a statistically significant level. While the remaining two constructs also increased this was not at a statistically significant level.

Two factors were directly related to turnover of staff; intention to leave and organizational commitment (factors 18 and 19). Slater *et al.* (2009) reported the two factors to have an inverse relationship. A positive change in each is represented by an increase in organizational commitment and a corresponding decrease in intent to turnover. The findings for the total sample reported here show similar findings, and a positive change across all three time points. Organizational commitment increased and intention to leave the job

Table 5 Mean scores of each of the 19 constructs

Factors	Data collection points			Significant change
	Time 1	Time 2	Time 3	
(1) Workload	4.37	4.27	4.24	ns
(2) Inadequate preparation	3.03	2.91	2.86	0.01; Positive
(3) Lack of staff support	3.43	3.37	3.25	0.05; Positive
(4) Conflict with other nurses	2.3	2.24	2.30	ns
(5) Uncertainty regarding treatment	2.48	2.34	2.44	0.03; Positive
(6) Work – social life balance	2.72	2.63	2.62	ns
(7) Working environment	2.63	2.61	2.57	ns
(8) Lack of communication and support	3.11	2.94	2.96	0.08; Positive
(9) Career development	2.61	2.45	2.46	0.01; Positive
(10) Satisfaction with pay and prospects	4.25	4.68	4.37	0.00; Positive
(11) Satisfaction with training	3.83	3.75	3.82	ns
(12) Personal satisfaction	4.92	5.1	5.17	0.00; Positive
(13) Professional satisfaction	4.91	5.04	5.06	0.02; Positive
(14) Adequate staffing and resources	3.02	3.3	3.45	0.00; Positive
(15) Doctor–nurse relationship	4.45	4.58	4.69	0.02; Positive
(16) Nurse management	4.98	5.02	5.07	ns
(17) Empowerment	4.72	4.76	4.78	ns
(18) Organizational commitment	4.7	4.94	4.92	0.00; Positive
(19) Intention to leave	3.34	2.96	2.91	0.00; Positive

decreased with the changes at a statistically significant level. A summary of the total mean scores for each of the 19 constructs at each time point is presented in Table 5.

Overall, statically significant changes were observed on 12 of the 19 factors, all indicating the change to be in a positive direction. In the seven factors that changed but at a non-significant level, the modest change was in a positive direction with stress levels decreasing, job satisfaction levels increasing and the practice environment being stronger and a better environment to work in. While statistical analysis across the sites is limited to those sites where data were collected on all three time points, examination of the impact of the intervention indicates variability in findings. The number of significant changes in factors across each of the sites ranged from a maximum of 12 and a minimum of none (see Table 6). The average number of construct changes were 3. All sites reported at least one significant change. The largest impact was reported at site 10 with 12 constructs being changed. Examination of the impact of the programme on factors shows that significant changes were reported on each of the factors but the biggest impact occurred on the factors 'satisfaction with pay and prospects', 'satisfaction with training' and 'intention to leave'.

Perceptions of caring

The CDI evaluates nurses' perceptions of caring over time. It comprises 35 operationalized statements of nursing actions designed to elicit the degree to which participants perceive these actions as representative of caring. The items included in the instrument have been categorized as, 'technical' 'intimacy' 'supporting' 'inappropriate' and unnecessary activities. A description of each category is provided below:

1 Technical nursing – items that indicate technical and professional aspects of nursing (14 items),
2 Intimacy – getting to know a patient and becoming involved with them (10 items),
3 Supporting – items which indicate helping the patients with spiritual matters (two items),
4 Unnecessary nursing – aspects of nursing that are not inappropriate or unprofessional but would not normally be expected of nurses (four items),
5 Inappropriate aspects of nursing – nursing actions, which, in addition to being unnecessary, are certainly not, recommended aspects of nursing (five items).

Table 7 shows the classification of each item according to the five headings.

The analysis of the CDI is completed using Mokken Scaling Procedure (Mokken, 1997). This helps to identify a hierarchy of statements that have all been rated positively. The hierarchy of responses to items in the Mokken scale indicates a cumulative scale whereby the level of endorsement of any particular item in the scales indicates the level of endorsement of all the other items in the scale. For example, an individual who endorses 'Consulting with a doctor about a patient' in the CDI at time 1 should also endorse all the other items in

Table 6 Statistically significant differences in factor scores in each of the sites (sites 7 and 17 did not provide data at all three time points and are not included in the analysis)

	Sites															
Constructs	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	18
Workload	ns	ns	**	ns	ns	ns	ns	ns	**	ns	ns	ns	ns	ns	ns	ns
Inadequate preparation	ns	ns	ns	ns	ns	ns	ns	ns	**	ns	ns	ns	ns	ns	ns	ns
Lack of staff support	ns	ns	ns	ns	ns	ns	ns	ns	**	ns	ns	ns	ns	ns	*	ns
Conflict with other nurses	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Uncertainty regarding treatment	ns	ns	ns	ns	ns	ns	ns	ns	ns	*	ns	ns	ns	ns	ns	*
Work – social life balance	ns	*	ns	ns	ns	ns	ns	ns	*	*	ns	ns	ns	ns	ns	ns
Working environment	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Lack of communication and support	ns	ns	ns	ns	ns	*	ns	ns	**	ns	ns	ns	ns	*	ns	ns
Career development	ns	ns	ns	ns	ns	ns	**	ns	**	ns	ns	ns	ns	ns	ns	ns
Satisfaction with pay and prospects	ns	ns	*	ns	**	*	**	ns		ns	ns	ns	ns	ns	*	ns
Satisfaction with training	ns	ns	ns	**	ns	*	ns	ns	**	*	ns	ns	ns	ns	**	ns
Personal satisfaction	*	ns	ns	ns	ns	ns	ns	ns	**	ns	ns	ns	ns	ns	**	ns
Professional satisfaction	ns	ns	ns	ns	ns	ns	ns	ns	**	ns	ns	ns	ns	ns	*	ns
Adequate staffing and resources	ns	ns	ns	ns	ns	ns	**	ns	**	*	ns	ns	ns	ns	**	ns
Doctor–nurse relationship	ns	ns	ns	ns	ns	*	*	ns	*	ns	ns	ns	ns	ns	ns	*
Nurse management	ns	ns	ns	*	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Empowerment	ns	ns	ns	ns	ns	ns	ns	*	ns	ns	ns	ns	ns	ns	ns	ns
Organizational commitment	ns	ns	ns	ns	**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Intention to leave	ns	**	ns	ns	**	ns	ns	ns	**	ns	*	ns	ns	ns	ns	**

ns = non-significant.
*Statistical significance at $P > 0.05$; **significance at $P > 0.01$.

the scale which are more strongly endorsed such as 'Being with a patient during a clinical procedure' and 'Providing privacy for a patient'.

Time 1 (Table 8)
The majority (8) of the 17 items are related to 'technical' aspects of nursing. 'Intimacy' aspects of care such as 'listening to a patient' or 'sitting with a patient' are included in the ranking and comprise the three highest ranked items. A total of 7 of a possible 10 items were identified as caring. Two spiritual items form the highest rank ordering indicating that 'supporting' aspects of nursing were considered caring but below that of the 'technical' and 'intimacy' aspects of nursing.

Time 2 (Table 8)
Nineteen items were identified at time 2 with 16 items shared with the findings reported at time 1. Nine items were categorized as reflecting 'intimacy' in the nursing relationship; nine referred to the 'technical' aspects of nursing and one item was seen as being 'supporting'. Three new items emerged from the data as pertaining to nursing at time 2. Watson *et al.* (1999) reported that this was not uncommon in a changing work environment when opinions and values fluctuate as new ideas of nursing emerge. This fluctuation in supported by the changes in rank ordering of items at time 2 from time 1.

Time 3 (Table 8)
The participants identified 13 items of the CDI as caring at time 3. Four of the items were related to aspects that were concerned with 'intimacy' in the caring relationship; eight items address 'technical' aspects of nursing and one item was 'supporting'. The number of items identified was considerably lower than that of the previous two occasions indicating a much more focused perspective of the role of nursing and the four top ranked items were all related to providing 'intimacy'. There was considerable and constant change in the ranking of item 9 'Involving a patient in his/her care' that moved from a ranking of 9th to 2nd.

Discussion

Given the complexity of person-centred practice, it is important that any evaluation of it takes account of each of its different attributes. For example, in this research, we worked with the attributes of person-centred practice described by McCormack and McCance (2006). The PCNI focuses on many of those attributes that comprise the 'care environment' construct within the framework described by

Table 7 Thirty-five items of the CDI and category classification

Statement	Statement classification
Being technically competent with a clinical procedure	Technical*
Observing the effects of a medication on a patient	Technical
Giving reassurance about a clinical procedure	Technical
Assisting a patient with an activity of daily living	Technical*
Making a nursing record about a patient	Technical*
Explaining a clinical procedure to a patient	Technical
Being neatly dressed when working with a patient	Technical*
Reporting a patient's condition to a senior nurse	Technical
Organising the work of others for a patient	Technical*
Consulting with the doctor about a patient	Technical
Instructing a patient about aspects of self-care	Technical
Keeping relatives informed about a patient	Technical
Measuring the vital signs of a patient	Technical
Putting the needs of a patient before her/his own	Technical*
Providing privacy for a patient	Intimacy
Involving a patient with his or her care	Intimacy
Being cheerful with a patient	Intimacy
Feeling sorry for a patient	Intimacy*
Getting to know the patient as a person	Intimacy
Sitting with a patient	Intimacy
Being with a patient during a clinical procedure	Intimacy
Being honest with a patient	Intimacy*
Exploring the patient's lifestyle	Intimacy*
Listening to a patient	Intimacy
Arranging for a patient to see his or her chaplain	Supporting
Attending to the spiritual needs of patients	Supporting
Praying for a patient	Unnecessary*
Staying at work after there shift has finished to complete a job	Unnecessary*
Keeping in contact with a patient after discharge	Unnecessary*
Appearing to be busy at all times	Unnecessary*
Coming to work if they are not feeling well	Inappropriate*
Assuring a terminally ill patient who he or she is not going to die	Inappropriate*
Dealing with everyone's problems at once	Inappropriate*
Making a patient do something, even if he or she does not want to	Inappropriate*
Sharing one's own personal problems with a patient	Inappropriate*

*Statistical significance at $P > 0.05$.

McCormack and McCance and how these attributes affect organizational factors such as job satisfaction, job stress, and outcome variables like nurses' job commitment and intention to leave the job because of the absence of the factors that enable person-centred practice to happen. While this paper does not attempt to demonstrate outcomes related to each of the constructs of the person-centred practice framework, it does provide some insights into the importance of the care environment in the development of person-centred cultures. In other words, the work environment and the quality of working relationships have a lot to do with the ability to thrive at work.

A heavy workload was deemed to be the main cause of stress among nurses on all three occasions, with the scores decreasing over the three time points. Dissatisfaction and stress associated with workload is consistently shown to be a key indicator of satisfaction among nurses (Wheeler, 1997; Sheward *et al.*, 2005; Abrahamson *et al.*, 2009; Stanley, 2009). Having enough time to spend with patients and to engage in practice without a constant feeling of being 'rushed' is important to effective nurse–patient/family relationships (McGilton & Boscart, 2007; Abrahamson *et al.*, 2009). Engaging in activities such as structured reflection and observations of practice enabled teams in this programme to explore the effectiveness of teamwork, workload management, time management and staff relationships and make changes that enabled more effective management of workload. The engagement in such activities contributed to a change in culture where there was a greater sense of 'helpfulness' in teamwork. Data collected in reflective journals maintained by participants and observation of practice records reinforced this finding:

We have been overly obsessed by tasks in my unit and I am developing a greater awareness of how this gets in the way of being person-centred. However, it is only when we all develop a similar awareness can we become truly person-centred in the way we work (Participant's reflective note)

Team members started the day by reviewing how they would schedule the different activities that needed to be done with residents and identified who needed to be involved. The plan included those activities (such as showering) that could be undertaken in the afternoon as a more 'therapeutic activity' as opposed to a 'morning task' … it was good to see team members check with each other what help they needed with their work … (Time 2 observation note)

The overall stress levels of nurses show it to be scored low on the PCNI scale, among the sample of nurses' at all three time points. All three constructs were rated as causing little – some stress. This finding is different to other studies that have evaluated nursing stress and this may be due to the practice setting itself. Other studies of nursing stress have largely focused on acute care environments where stress is often

Table 8 The Ranking of the Caring Dimensions Index items at time 1 and time 2

Rank	Statement	Mean	Mean time II	Mean time III	Statement classification
1	Providing privacy for a patient	6.67	6.64 (2)	6.65 (1)	Intimacy
2	Listening to a patient	6.63	6.65 (1)	6.57 (2)	Intimacy
3	Being with a patient during a clinical procedure	6.55	6.56 (3)	6.42 (4)	Intimacy
4	Reporting a patients condition to a doctor	6.55	6.47 (5)	6.39 (5)	Technical
5	Explaining a clinical procedure to a patient	6.54	6.34 (10)	6.30 (10)	Technical
6	Giving reassurance about clinical procedures	6.53	6.46 (6)	6.35 (6)	Technical
7	Observing the effects of medicine	6.50	6.42 (8)	6.33 (7)	Technical
8	Getting to know a patient as a person	6.50	6.37 (9)	–	Intimacy
9	Involving a patient with his/her care	6.46	6.48 (4)	6.55 (2)	Intimacy
10	Consulting with a doctor about a patient	6.45	6.43 (7)	6.33 (8)	Technical
11	Sitting with a patient	6.41	6.31 (12)	–	Intimacy
12	Instructing a patient about self-care	6.40	6.31 (11)	6.30 (10)	Technical
13	Being cheerful with a patient	6.35	6.23 (17)	–	Intimacy
14	Measuring the vital signs of a patient	6.34	6.27 (15)	6.24 (12)	Technical
15	Arranging for a patient to see a chaplain	6.32	6.27 (14)	6.31 (9)	Supporting
16	Keeping relatives informed about a patient	6.31	–	6.23 (13)	Technical
17	Attending to the spiritual needs of a patient	6.29	6.18 (18)	–	Supporting
18	Being neatly dressed	–	6.30 (13)	–	Technical
19	Being honest with a patient	–	6.26 (16)	–	Intimacy
20	Exploring the lifestyle of a patient	–	6.12 (19)	–	Intimacy

associated with high workload demands associated with a poor support infrastructure (for example Wheeler, 1997; Chang *et al.*, 2005; Sveinsdóttir *et al.*, 2006). Few studies have evaluated nursing stress associated with residential care settings and it could be argued that the less 'acute' focus of nursing in these settings means that there is more opportunity to engage in person-centred relationships with residents and families and, therefore, it is this aspect of culture that enables or hinders this rather than workload stress. Murphy *et al.* (2006) suggested that adequate staffing levels in residential settings for older people were strongly related to job stress, job satisfaction and intention to leave. Additionally, Nolan *et al.* (2006) and Brown *et al.* (2008) suggest that exposure to what they term 'impoverished' environments of care in which poor standards of care and negative attitudes towards older people predominate, encourage negative predispositions towards older people. However, if 'enriched' environments are experienced, this is likely to encourage positive attitudes towards older people and their nursing. Thus, it is important that programmes such as the one reported here that focus on changing workplace culture in residential care environments, maximize the opportunities available for nurses and other care staff to engage in person-centred relationships with colleagues, residents/families and communities.

Personal and professional satisfaction with the job was scored highest by the total sample. Both constructs increased by a small but significant amount by the third time point. The largest increase was shown in perceptions of there being adequate staff to do the job. This increase was at a statistically significant level. The professional relationship between staff also increased and at a statistically significant level. Interestingly, the three factors where there was the greatest impact were satisfaction with pay and prospects, satisfaction with training and intention to leave. At the time of this programme (2007–2009), the Irish Health Service was undergoing significant change and reorganization in a climate of major financial pressure and resource rationalization. Throughout the time-period of this programme, an 'embargo' was in place that restricted access to all external education and no travel to external venues for learning and development purposes was allowed. The fact that dissatisfaction did not rise suggests that the programme continued to enable learning to happen in the practice settings and indeed that participants continued to be satisfied. Additionally, the programme did not have an overt intention to impact on staff pay and prospects, yet satisfaction with pay and prospects increased and nurses expressed a greater intention to stay in the work setting. This finding reinforces that of the international literature that demonstrates the importance placed on access to education and learning and that this access combined with available opportunities for career advancement are more important than 'pay' in itself (Spreitzer *et al.*, 2010). These authors found that learning and vitality contribute to thriving in the workplace. In addition, they argue thriving also promotes related constructs such as resilience, flourishing, and more positive self-evaluations.

Willingness to think of new ideas, explore new possibilities and behave creatively may require a number of facilitated conditions including 'Active Learning' about day to day work within the workplace (Dewing, 2009).

The developments in the workplace culture taking place in the care settings started to enable staff to make better use of the staff complement (no staff increases took place in this time and there was a freeze on recruitment because of the embargo) and to develop more effective ways of working together. This suggests a shift in the practice culture to one where staff supported each other better, made better use of their resources and engaged in more effective collaborative working. The observations of practice data at times 2 and 3 reinforced the occurrence of these changes and showed a more effective approach to planning and delivering care to residents:

Some evidence that some staff find it difficult to work with other staff. But staff on duty today are very happy and enjoying work. Some hierarchy but no overt distinction. Staff seem to be clear about what they are doing, asking for help from colleagues easily but discretely. The leadership evident today is transformational – it feels like an organised team. Staff look relaxed and are interacting with residents at a slow pace … good evidence of resident involvement in [named] assessments and personal profiles (NMPDU Facilitator, observation notes/Time 3)

In particular settings where less improvement was made in the way that staff supported each other, there was evidence of poor support from managers of the developments that were taking place. In one site, there was such opposition from peers and unions to the PD work that it caused great pressure and distress at times for the group members. Coupled with this was also the lack of support at senior management so that there was no public affirmation or recognition of the work and achievements was ever made. One site had the issue of lack of support and appreciation for the work that the internal facilitator, was trying to achieve. The work was so unsupported and undermined at times it was difficult to know how to continue. The challenges she faced from her manager were so un-person-centred and critical that it fuelled the staff who were resistant to change and who did not engage. This meant that every little development was hugely challenging and was continually undermined.

In summary, adequate staffing levels, good inter-professional relationships and effective nurse management at a unit level, (requisites of person-centred practice) have causal links with higher job satisfaction (Manojlovich & Laschinger, 2007) and nurse burnout (Gunnarsdottir *et al.*, 2007).

Overall, 19 factors were examined using the NCI component of the PCNI. Statistically significant changes were observed in 12 of the 19 factors, all indicating the change to be in a positive direction (Table 5). Of the seven factors that changed but at a non-significant level, the modest change was in a positive direction with stress levels decreasing, job satisfaction levels increasing and the practice environment being stronger and a better environment to work in.

There was significant change in nurses 'perceptions of caring' as assessed using the CDI. The data analysis shows that staff had shifted their views from one of seeing 'technical' aspects of nursing as caring, to a view that the 'non-technical' aspects of caring were more important and this shift was reinforced by the observation data. For example, the move from standing over and assisting several people to eat at the same time to sitting down and assisting one person at a time and spending more time on providing meaningful activities and occupation for residents. This is an important finding as it suggests a greater orientation towards person-centredness and a change in attitude towards how staff engaged with residents and their families. Nurses in this programme were seen to shift their orientation of caring from one where technical tasks were given greater priority to one where relationships with patients and families were more highly valued. This finding supports other international research, which suggests that there is a direct relationship between the attributes of an effective workplace culture and patient outcomes (for example, Gunnarsdottir *et al.*, 2007; Manojlovich & Laschinger, 2007).

The CDI has been used to ascertain perceptions on caring from the perspective of a range of groups, including Registered Nurses, nursing students and non-nursing students (Watson *et al.*, 1999, 2003a), between different clinical areas and specialities (Lea & Watson, 1995, 1999; Walsh & Dolan, 1999), and from an international perspective (Watson *et al.*, 2003b). An evaluation of the use of the CDI and NDI by McCance *et al.* (2008) identified consistent scoring of 12 core statements over five time points, suggesting it provides a strong indicator of nurses' perception of caring. The findings presented here and those of McCance *et al.* (2008) reinforce a strong correlation between caring and person-centred practice as perceived by nurses.

Conclusions

The available evidence suggests that developing person-centred practice is not a one-off or linear change event. Because the concept of person-centred practice is complex and multidimensional, it means that sustained programmes of culture change are required to embed the principles in everyday practices. The care environment is a key influencing

factor on the way that person-centredness is experienced by both patients/residents, families and care teams. For person-centred care to be experienced in a consistent and continuous way by patients/residents and families, the culture of practice has to support ways of practising that enable care teams to flourish. The findings reported in this paper highlight the importance of the development of effective teamwork, workload management, time management and staff relationships in order to create a culture where there is a more democratic and inclusive approach to practice and space for the formation of person-centred relationships. We acknowledge that the individual site data should be treated with caution because of variability in response rates and decreasing response rates over the three time points. Further, the data presented in this paper is that from the perspectives of Registered Nurses only and, therefore, limits the extent to which the findings represent a holistic perspective of workplace cultures. Nevertheless, the overall findings provide useful indications of the need for developments in the care environment in order to develop person-centred cultures that can sustain person-centred care.

Implications for practice

- The 'care environment' is a critical factor in the development of person-centred relationships,
- Engaging in learning activities such as structured reflection and observations of practice enables teams to explore the effectiveness of teamwork, workload management, time management and staff relationships and make changes that enable more effective management of workload,
- The engagement in systematic practice development activities contributes to a change in culture where there is a greater sense of 'helpfulness' among team members,
- Learning and vitality are necessary for thriving teams and workplaces, and can lead to flourishing in the workplace.

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