

Research Article

Organisational support for evidence-based practice: occupational therapists perceptions

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Background: Barriers to the use of evidence-based practice extend beyond the individual clinician and often include organisational barriers. Adoption of systematic organisational support for evidence-based practice in health care is integral to its use. This study aimed to explore the perceptions of occupational therapy staff regarding the influence of organisational initiatives to support evidence-based practice on workplace culture and clinical practice.

Methods: This study used semi-structured interviews with 30 occupational therapists working in a major metropolitan hospital in Brisbane, Australia regarding their perceptions of organisational initiatives designed to support evidence-based practice. **Results:** Four themes emerged from the data: (i) firmly embedding a culture valuing research and EBP, (ii) aligning professional identity with the Research and Evidence in Practice model, (iii) experiences of change: pride, confidence and pressure and (iv) making evidence-based changes to clinical practices.

Conclusion: Organisational initiatives for evidence-based practice were perceived as influencing the culture of the workplace, therapists' sense of identity as clinicians, and as contributing to changes in clinical practice. It is there-

fore important to consider organisational factors when attempting to increase the use of evidence in practice.

KEY WORDS knowledge translation, organisational culture, research.

Introduction

The use of evidence-based practice (EBP) by health-care workers is vital for the provision of quality care and improved health outcomes for consumers (Cane, O'Connor & Michie, 2012; Wilkinson, Hinchliffe, Hough & Chang, 2012). Evidence-based practices are supported by rigorous research, allow for clinical expertise in their application and consider consumer preference (Aarons & Sommerfield, 2012). Despite the benefits, the majority of health-care providers are not consistently implementing evidence in practice (Flodgren, Rojas-Reyes, Cole & Foxcroft, 2012; Henderson & Winch, 2008; Wilkinson *et al.*, 2012).

The translation of research evidence into clinical practice is a complex process involving change in attitudes, systems and behaviours. Barriers that hamper health-care workers ability to use evidence in practice can be attributed to individual clinicians, such as knowledge and attitudes, as well as to client expectations about treatment. However, clinicians do not work in isolation and other barriers can be organisational in nature (National Institute for Health and Clinical Excellence (2007); National Institute of Clinical Studies (2006). Adoption of a systematic organisational approach to EBP in health care is integral to the sustained success of EBP efforts (Stetler, 2003). Such an approach has been proposed to increase the efficiency and effectiveness of services; assist practitioners to be more reflective and analytical; provide justification for allied health interventions and enhance credibility of the professions (Tse, Lloyd, Penman, King & Bassett, 2004).

Key elements proposed as needed to support EBP at an organisational level include: having leadership that

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promotes an EBP culture, building capacity to engage in a practice that is informed by evidence, and having an effective implementation framework and the infrastructure to support and maintain a culture of EBP (Stetler, 2003).

Despite the perceived importance of organisational supports and leadership to the implementation of EBP, there has been little high quality research examining these enablers of EBP. Consequently, there is a need among health-care providers and policy-makers to explore how best to support EBP at an organisational level. Furthermore, it is important to understand how clinicians experience such organisational initiatives as they may or may not be welcomed or acted on. This research presents a case study of an occupational therapy department with a 10 year history of using organisational initiatives to embed EBP into the workplace culture. The research aimed to explore the perceptions of occupational therapy staff regarding the influence of these EBP organisational initiatives on workplace culture and clinical practice.

Methods

This research was conducted in the qualitative research tradition in which data are collected from the participants' usual social world and an interpretative approach is used to analyse the meaning which participants attach to their experiences (Snape & Spencer, 2003). Qualitative research is an accepted way to explore programmes in health-care settings (Patton, 2002). This research sought to understand how participants perceived and experienced the EBP organisational initiatives undertaken in the department. Prior to conducting the research, the project was approved by university and hospital Human Research Ethics committees.

Setting

The Occupational Therapy Department (PAHOT) of the Princess Alexandra Hospital, a large tertiary hospital, has been active in developing its capacity for EBP through organisational initiatives since 2001. By 2006, it was apparent that additional organisational structures and supports were required if the department was to bring about the behaviours required for sustained culture change relating to EBP (Caldwell, Whitehead, Fleming & Moes, 2008). Consequently, a model for research generation and translation, the Research and Evidence in Practice (REP) model, was developed. The programme has been published (Caldwell, Fleming, Purcell, Whitehead & Cox, 2011; Caldwell *et al.*, 2008), and the structural and behavioural enablers for its implementation are summarised in Table 1. The programme is coordinated by the department's director, an EBP coordinator and a research fellow who are recognised as the leaders of evidence-based practice (LEP) in the department.

The REP model draws on a research strategy (Eakin *et al.*, 1997) that recommended supporting occupational therapists at three levels: as research consumers, as participants in research, and as proactive researchers (called research generators in the REP model). Clinical teams use a visual template of the REP model with an associated mission statement, to map priority areas of practice and highlight their involvement at the three levels that has been previously published (Caldwell *et al.*, 2011). Therapists' activities vary within each level. Research generators and participators undertake and contribute to research. Research consumers seek, appraise and apply evidence in answer to clinical questions that arise during practice or more formally participate in journal clubs or undertake 'evidence reviews' which involve comprehensive literature searches around specific clinical questions, critical appraisal of the research and translation of high quality evidence into practice.

The Director of Occupational Therapy provides overall leadership for the programme. An EBP coordinator position is funded for 8 hours per week. This position provides leadership and mentors all occupational therapy staff in consuming and translating evidence into practice. The research fellow also provides leadership and guides staff in generating or participating in research. This 19 hour per week position is jointly funded by the hospital (50%) and the University of Queensland (50%). These positions enable identified practice gaps to be researched through the department and/or the university's research programmes. Each occupational therapy clinical team has a REP champion, who is responsible for coordinating area-specific initiatives, including the prioritisation, coordination and documentation of REP activity, as well as providing practical support and encouragement to team members. The REP champion also, with the clinical team leader, drives the programme at an operational level.

Participants

Participants were recruited at a hospital staff meeting at which the purpose of the research was explained and participation invited. Participants received a written participant information sheet and signed a consent form that indicated that their anonymity would be preserved. Of 55 occupational therapy staff, 34 volunteered to participate and 30 occupational therapists were interviewed (three staff did not respond to follow-up emails and one withdrew citing a busy new caseload). Most of those who did not participate were not able to fit the interview into their work schedules. Those participating comprised 27 clinicians and three leaders in evidence-based practice leaders (LEPs) (the department's director, an EBP coordinator, and a research fellow).

Participants represented the diversity of acute and adult physical rehabilitation areas serviced by the department. (See Table 2 for numbers of participants

TABLE 1: *Structural and behavioural enablers for the research and evidence in practice (REP) model*

Structural and personnel enablers	
Type of enabler	Description
EBP coordinator	Permanently appointed position (8 hours/ week) to provide mentoring and support for all EBP activities for all staff
REP champions	Early adopters of the research agenda interested in undertaking leadership roles. Coordinate and support research and EBP activities/initiatives in their clinical area, and provide encouragement to team members.
Team leaders	Formal team leadership role of small clinical teams. Provided with EBP training and leading organisational change training
Journal club	Rostered meeting to share and appraise articles
Occupational Therapy team learning and development committee	Whole of department training programme with a focus on organisational training for culture setting, communication of organisational agenda and core professional skill development
Research fellow	Conjoint university position. Provides leadership and guides staff in generating or participating in research, and encourages use of research in practice
Occupational Therapy research leaders group	Small group of clinical staff generating or commencing generation of research. May hold post-graduate academic qualification or be working towards this
Library access	Co-located university library with librarian support of literature searches. Departmental online access to library services from all computers available to clinicians
Off line time	Off line (away from clinical duties with backfill) time provided through relievers or additional funding as able
Behavioural enablers	
Type of enabler	Description
Performance plans	Organisational performance plans incorporating team REP activity
REP champion activity reports	Quarterly reports to department director on team activity
Training/mentoring	Whole of department training on core EBP skills Team-based mentoring on specific projects,
Mentoring alone	One-on-one mentoring from research supervisors/research conjoint position
Leadership communication strategy	Staff in leadership positions communicating the importance of EBP, and supporting above enablers

from nine clinical teams). Participant demographics, including work status, are detailed in Table 3.

Table 3 indicates that just over half ($n = 16$, 53%) of the participants were between 20 and 29 years of age. A small majority ($n = 18$, 60%) had in excess of five years of experience as an occupational therapist. Participants' experience ranged from 1–2 years to more than 20 years in a specialised area. Two participants identified that they had gained between two and ten years of specialised experience in each of two areas. Over two-thirds ($n = 23$, 77%) had a Bachelor's degree as their highest qualification, with a similar number ($n = 22$, 73%) identifying that their primary work role was that of a clinician. A small majority ($n = 18$, 60%) were employed full-time. Two-thirds ($n = 20$, 67%) had not

worked in another occupational therapy department with an EBP programme.

Data collection

Data were collected through semi-structured qualitative interviews undertaken by researcher not affiliated with the hospital, which were audio-taped and transcribed verbatim. The interview guide can be seen in Table 4. Twenty-seven of the interviews were conducted face to face in quiet rooms in the hospital and three were conducted by telephone, as no other mutually suitable arrangement could be made. When the interview was confirmed, the interview guide outlining the main topics for discussion was forwarded. On average, interviews lasted 45 minutes, (range ½–1 hour).

TABLE 2: Participants from each of nine teams

Numbers of occupational therapists from each team or grouping	
Evidence-based practice leader	3
Hands and/or plastics	3
Brain injury rehabilitation service	4
Cardiology	2
Spinal cord injury services	3
Geriatric assessment and rehabilitation unit	6
Acute care	4
Cancer and/or lymphoedema	4
Home modification services	1
Total	30

Data analysis

Transcripts were initially analysed for repeated patterns of experience, meaning and sentiment by one researcher and subsequently by two other researchers. The three researchers held regular meetings to discuss emerging findings and any differences in interpretation were discussed until consensus was reached. All data relating to participants' evaluation of the organisational initiatives were coded and grouped into inductively developed thematic categories and subcategories. The range of participants' opinions was included in the thematic analysis and differing opinions were actively sought.

Rigour

A number of strategies were used to ensure rigour throughout the research. The research interviewer kept memos of ideas that contributed to data analysis and the transparency of interpretations. Triangulation was achieved by recruiting from three groups (EBP leaders, senior clinicians and rotating clinicians) and nine areas of practice, and by three researchers discussing possible interpretations and methodology. A paper trail included coded transcripts and six drafts of findings which progressively synthesised the data. The interviewer demonstrated reflexivity by being aware of potentially being perceived as an authority on EBP. Therefore, she clarified her role as an independent qualitative researcher who did not to presume to know each participant's experiences. Member checking was undertaken with the whole department through a feedback session and written report of findings, with a request for participant feedback. Analysis was refined in response to feedback, for example, how evidence reviews had changed.

Findings

Four themes emerged from the data: (i) firmly embedding a culture valuing research and EBP, (ii) aligning

TABLE 3: Participant demographics (n = 30)

Characteristic	n	%
Age group		
20–29	16	53.3
30–39	8	26.7
40–49	3	10
50–59	3	10
Years of practice since graduation		
1–2	8	26.7
2–3	1	3.3
3–4	2	6.7
4–5	1	3.3
5–10	7	23.3
10–20	6	20
20+	5	16.7
Years working in specialised area		
1–2	7	23.3
2–3	1	3.3
3–4	1	3.3
4–5	1	3.3
5–10	7	23.3
10–20	4	13.3
20+	2	6.7
2 areas	2	6.7
No specialised area	5	16.7
Highest occupational therapy qualification		
Bachelor	23	76.7
Honours	3	10
Graduate entry masters	1	3.3
Bachelor degree with graduate certificate	1	3.3
Masters	1	3.3
Bachelor enrolled in PhD	1	3.3
Primary work role		
Clinician	22	73.3
Clinician and supervisor	5	16.7
Manager/supervisor	3	10
Employment status		
Full-time	18	60
Part-time	12	40

professional identity with the REP model, (iii) experiences of change: pride, confidence and pressure and (iv) making evidence-based changes to clinical practices. Participant quotes are presented using pseudonyms.

Firmly embedding a culture valuing research and EBP

Participants perceived that the department had a culture which values research and EBP. As Jane stated, 'EBP is pretty embedded now, [but] we need to really continue to consolidate.' Participants described how this culture had changed over time, supported by a

leadership team. These changes meant overcoming initial resistance, as Louise explained:

[At first, there was] a lot of resistance to change and people felt very strongly that the caseloads were already busy enough and a lot of people were kind of struggling ... But now ... it is very much just an everyday part of our clinical work here and everybody is motivated and happy to be involved.

Chris 'liked' that the organisational initiatives supporting EBP continue to evolve, and said:

'It's certainly not static at all, it has this sense of constant change ... When it first started it was very much a project, individual and finite, whereas it's grown now to being recognised as important at all levels.'

Participants commented on changes that had occurred. Amber said that occupational therapists working there now routinely asked, 'Well, what does the literature say?' and now sought literature more systematically. Frances perceived that staff reviewed journal articles less 'haphazardly' than some other allied health departments. Maree stated: 'I'm more accountable for what I'm doing. I ask myself: is that really the right thing to be doing? ... I'm more aware of what I'm doing and why I'm doing it.'

Six participants appreciated the contribution of journal club to EBP. Andrea stated that 'the calibre of the journal club has made a big difference to this department.' It increased Matilda's 'awareness of how to critique different articles [and] ... of levels of evidence.' In her first year after graduation, Kirsty's weekly attendance at journal club acquainted her with relevant research evidence.

Other initiatives perceived as contributing to cultural change included: (i) providing a block of time to complete a research project or to benchmark (Lynette, Nancy, Chris, Anna, Ruby); (ii) showing a positive attitude to staff undertaking research and applying it (Clare, Anna, Ruby); (iii) expecting that staff would present and attend research sessions during an annual hospital conference (Louise); (iv) having 'plenty of support' to overcome 'the biggest thing I feared at the time ... statistics' (Grace); and (v) having 'reasonable' time to learn about EBP (Lucy). Grace summed up by stating: 'I can't see how much more you could facilitate involvement in EBP, other than giving us unlimited resources for employing unlimited number of [laughing] OTs.'

Leading cultural change

A sub-theme within the first theme related to leadership. Participants largely attributed cultural change to the support and direction of the occupational therapy directors, EBP coordinator, the research fellow and REP champions. Charlotte said, '[The directors] very strongly support EBP. And they do that at staff meetings, where it's

relevant, so [you] get the feeling it's a very important part of the culture at [hospital] from when you first start.' Directors were praised as they had 'been phenomenal with instilling the EBP culture in the department' (Lenore) and encouraging 'people to get back on board with EBP' (Betty).

Sixteen of the participants commented positively about the EBP coordinator's role. Ruby said that, when she started at the hospital, the EBP coordinator 'went through an overview of EBP ... and talked about it in the context of my job here.' Cathy said that EBP is 'a still a little bit overwhelming for some people so [the EBP co-ordinator is] there to give that support and dispel any rumours or negative feelings towards it. They're definitely a good resource.'

Anita differentiated the roles of the EBP coordinator and the research fellow. The EBP coordinator would help with clinical questions and locating the best evidence. However, 'if you've exhausted all options and you can't find what you want, or you've got a burning desire to do a project yourself, [the research fellow's] there to help you facilitate that.'

Twelve participants outlined the contribution of the REP champions to the EBP culture. Kirsty perceived that REP champions were in a unique position to encourage team participation in EBP, saying:

[The REP champion's role] really changed the culture. ... [with] lots of people having the opportunity of being a REP champion, which gives you that little bit of extra motivation and extra drive to be on track and on top of the EBP. ... it just brings in really fresh ideas as to how to complete different projects.

Aligning identity with the REP programme

The REP programme provided a structure in which clinicians aligned their research with EBP activities and that facilitated participants' sense of identity. Julie said that, when the REP programme was introduced, 'it was the first time where people thought about themselves and 'Where do I sit?' ' Participants readily identified with one or more REP programme roles, with nine self-identifying as 'generators', ten as 'participators', and all encouraged to view themselves as 'consumers.' Lucy stated: 'I think it's good that there is support for you to fit in at any level'.

According to five participants, research generators were experienced senior therapists who undertook research higher degrees or research projects attracting funding. Their competencies included: (i) 'a very sound knowledge of the appraisal ... and methodology' (Julie) and the gaps in the research (Matilda, Rose-Anne); (ii) a 'high level of clinical skills' (Elisha) and (iii) clinical experience (Amber, Rose-Anne, Anna). Anna felt generators needed three years' experience to manage both research and clinical caseloads '[as it] is quite a big undertaking, which I don't think someone with lesser experience can actually do.' As a research generator, Maree was recognised as an expert in the field, consulted about EBP, and felt

TABLE 4: *Interview Guide*

1. I'm interested in your views on EBP. Tell me about them.

Cues:

- Understanding of EBP, own description
- Importance, place in occupational therapy practice
- Types of information you use to inform practice (with specific examples)

2. What are your experiences of the organisational initiatives aimed at creating an EBP culture in your department?

Cues:

- Resources used, familiar with
- To what extent are they compatible your practice, helpful, not helpful?
- Adequacy of resources/strengths/benefits/limitations/difficulties
- What else is needed to assist you implement EBP in this department?
- Any changes in your practice since initiatives introduced?
- Any changes in EBP culture/work practices in department?
- With reference to the model, where do you see yourself? Implications?
- With reference to the model, what are other roles have you perceived in the department? Implications?

3. Your use of research evidence in practice (with examples)

Cues:

- Describe 1–2 common treatments/interventions you use (e.g., yesterday, last week)
- What research, if any, exists to support the use of these treatments?
- How easy or difficult have you found it to apply known research in practice?
- How do you go about integrating this research evidence with other sources of information (e.g., client's wishes, context, practical aspects and your own clinical experience)?
- How do you go about making treatment decisions when little or no research is available?

4. Any other comments you would like to make about the EBP initiative in your department?

she gave a best service to her patients. She enjoyed being *'right at the heart of the research and ... [finding] something significant or something different or something that's opposing the common view.'*

Research participators helped identify, recruit and assess/treat participants for studies (Anita, Amber, Clare, Grace, Rose-Anne, Frances). In this role, Maree said that contributing to other people's research and bringing *'about a change or finding out about something new, it's very exciting. And you can't help but get caught up*

in everybody else's enthusiasm for their projects and I really enjoy that.'

Research consumers described themselves variously as: (i) an *'active,' 'proactive' or 'motivated'* consumer (Julie, Rose-Anne, Ruby, Lynette, Andrea, Sharon, Lucy); (ii) *'a needs based' or 'here and now'* consumer (Amber, Anita, Matilda); (iii) a *'frequent user'* and a *'strong advocate'* for using evidence (Anna); (iv) *'a learning consumer'* (Matilda); (v) a *'passive'* consumer of evidence found by others (Clare); (vi) a *'really good discerning, but infrequent user'* of research *'because of time [laughing]'* (Maree).

Staff experiences: pride, confidence and pressure

Throughout the discussion of organisational initiatives, pride and confidence were regularly expressed along with feeling pressure. A feeling of pride pervaded participants' discussion of the focus on EBP in the department. Louise stated: *'I think people are quite proud that they are producing ... a lot of research and that their practices [are] evidence based where there is that sort of quality research to support it.'* This pride was not just about what they were doing individually but extended to pride in being part of the department.

We've certainly got a good culture in this hospital about promoting EBP and making sure we have got the best evidence. So I'm quite proud to be part of the [hospital] crew in terms that we do that. (Nancy)

Participants also indicated that positive culture of EBP was motivating and gave them greater sense of confidence in clinical decisions. As Lenore explained, *'everything based in fact and evidence just gives us a lot more power and a lot more credibility'* in the interdisciplinary teams.

Competing demands creating pressure

While the departmental initiatives to support EBP were perceived positively, many participants felt the activities added to the demands of their workloads, creating pressures. At the time of the interviews, evidence reviews were being undertaken and submitted to state-wide and departmental committees for approval.

The time devoted to staying up to date with the literature was a major contributor to the pressure that people felt. Those who felt they were familiar with the literature (Julie and Anna) consulted the literature approximately once a month and once every 6 months respectively. However, Amber said that her area of practice *'is so complex and everyone presents so differently that I would continuously need [to search the literature] 1 hour a week.'* Preparing for journal club presentations could also be time consuming.

Frances, Ruby, Charlotte, and Andrea said that staff routinely used unpaid time to complete activities such

as EBP reviews and preparing for journal club. Andrea, who experienced difficulty managing EBP activities and a heavy clinical caseload, said, *'we simply do not have time to, unless we do out-of-hours, maintain currency with literature and current practice in the rest of the world. ... it's taken a good deal of our own [unpaid] time.'*

Lenore wanted *'Time! More time!'* In particular she wanted a half-day off-line to consolidate the evidence base for practice in her area. Rebecca wanted dedicated time or back fill to complete a project or review, stating *'there's no way you could pull out two hours a week out of a caseload.'* However, Kathleen stated that the majority of staff *'[didn't] get time off line'* as *'we weren't asking them to do one more thing ... but we were asking them to do it in a more structured, more critical way.'*

Two-thirds of the participants expressed that initiatives such as comprehensive review of literature competed for their clinical time. Comments included: *'I worry it takes over a little bit, and does detract sometimes from the time you can spend just actually seeing patients'* (Lynette); *'While we want to make sure what we are doing is based on evidence as well ... in the end ... we've got this pressure to treat these patients and get them home, so that does become the priority'* (Rose-Anne).

Some participants found that it was difficult to take allocated time for EBP activities when client issues and reports were pressing (Louise, Cathy, Heidi). Julie felt that caseload demands could contribute to a resistant attitude to EBP. She said, *'when they've got twenty patients, [EBP's] not their priority then, and then they feel like it's something extra that they have to do and that's when I think they are doing it because they have to.'*

Sixteen participants wanted increased time for EBP activities. Rose-Anne perceived that the solution was to increase staff-patient ratios. In contrast, Charlotte perceived that the solution was the appointment of a contracted research officer or company to critically appraise research because *'first and foremost, we're employed as clinicians.'* Three participants (Jane, Lynette, Rose-Anne) proposed that the solution was to balance the competing demands of clinical and EBP activities. As Lynette said:

It's really quite stimulating working in a department where EBP is such a big focus. ... because it is such a big focus, sometimes I worry it takes over a little bit, and does detract sometimes from the time that you can just spending just actually seeing patients ... I think it's just good to be conscious of the balance.

Making evidence-based changes to clinical practices

Several participants perceived that organisational initiatives had led to discernible improvements to clinical practices. Lucy said that there was now *'an expectation*

in the department that you will use the results of an evidence-based practice review to influence your practice.' Louise commented: *'where there has been strong evidence ... and the rest of the department has adopted those sorts of practices, I have certainly changed my practice to bring it into line.'* Leigh stated that she routinely applied the clinical guidelines on a case by case basis.

Participants perceived that the policy that a department be evidence-based as far as possible had benefited patients. Several participants cited practice changes based on research evidence including: (i) improved perceptual screening, (ii) increased time *'practising [memory] strategies in functional situations'* with aged patients; (iii) *'reasonably widespread changes'* in the use of cognitive screening assessments; (iv) more relevant questions for patients with post-traumatic amnesia; (v) the use of soft elbow splints in the Intensive Care Unit; (vi) increased rate of assessment and interventions in Emergency Department and (vii) improved oedema management post-stroke.

Anna, Lucy and Maree explained that brochures and hand-outs had been a focussed outcome of the EBP reviews. Whereas previously a handout or brochure was based *'on what we know'* they now used the literature to *'back that up.'* Examples of using evidence to inform handouts were in the areas of splinting or stretching and ranging, fatigue management, and for cognitive impairments.

Handouts that we give to our clients, they have been reviewed as per evidence so that the statements and the strategies that we are suggesting for attention or for memory has actually been supported by evidence. ... alterations [are] made in the handouts, ... we date [the alteration] with a list of references as to what was used in formulating that particular handout. (Maree)

Changes in practice were beginning to be evaluated. Heidi said: *'we've done audits to verify the practice has actually changed and it has, yeah.'* One audit found that there had been an increased percentage of stroke patients who had comprehensive upper limb assessments and treatment programmes including evidence-based activities. Andrea and Matilda suggested the main change was a more formalised approach to EBP through such tools as the REP model and use of critical appraisal tools. Matilda said that, through *'a more active look on EBP, ... a lot of the policies and procedures [now] incorporated evidence.'*

In contrast, nine participants perceived that the organisational initiatives had not changed clinical practices, which they had learnt at university or practiced consistently during their professional career. Julie referred to changes to using the REP model and said: *'the culture has remained relatively the same ... I don't think the changing of the REP Model had a direct influence.'* And Ruby said that, rather than change her

practices, the initiatives had *'maybe reinforced what I'm doing.'*

Discussion

This study sought the views of occupational therapists working in a department with a sustained history of supporting therapists, through changing workplace culture, to use EBP to improve clinical practice. Participants were able to describe easily the range of organisational initiatives that had been undertaken in their department to support EBP.

Results suggested that these organisational initiatives had resulted in a change in departmental culture. Four types of innovation in service delivery have been identified: *'diffusion* (passive spread), *dissemination* (active and planned efforts to persuade target groups to adopt an innovation), *implementation* (active and planned efforts to mainstream an innovation within an organisation), and *sustainability* (making an innovation routine until it reaches obsolescence [as an innovation])' (Greenhalgh, Robert, Macfarlane, Bate & Kyriakidou, 2004). Using this typology, participant responses indicate that the initiatives that had been implemented in this department had resulted in sustainable changes. While some participants identified initial resistance and an early focus on a set of discrete projects and initiatives such as training in EBP skills, results provided evidence of the development of a culture of EBP, in that, it became part of everyday clinical work. Stetler, Ritchie, Rycroft-Malone, Schultz and Charns (2009) argued that a culture that has developed expectations of and values related to EBP over time, in part, determines routine use of EBP.

Cultural change requires gradual shifts in cultural norms, and involvement of many stakeholders in refining and evolving how things are done at multiple levels (Stetler, McQueen, Demakis & Mittman, 2008). Use of the REP model, within which all staff could locate themselves, seems to have enabled the changes to occur at multiple levels.

Participants largely attributed cultural change to the leadership within the department. Leaders set the tone and expectations for EBP, provided support and assistance when required, and dispelled negative feelings about EBP. Strong leadership has been proposed as essential for the uptake of evidence into clinical practice (McCluskey & Cusick, 2002). Transformative leadership styles that are inspiring and motivating, and/or transactional (based more on the use of reinforcement) have been associated with more positive attitudes towards adoption of evidence-based practice (Aarons, 2006). In this study, it appeared that transformational leadership was particularly powerful with participants reflecting on the positive and motivating nature of leadership for driving EBP.

Leadership for EBP in this department occurred at multiple levels. While it involved the departmental

manager, EBP coordinator and research fellow, shared or horizontal leadership was evident through 'REP champions' across each clinical team. The opportunity for all staff to be involved as a REP Champion was highly motivating. Utilising a shared leadership model means many different people can be involved in decisions (Yukl, 2006) and stimulates a sense partnership, equity, joint accountability and ownership (Jackson, 2000). A local sense of ownership can be an important driver for organisational change (Pfeffer & Sutton, 2006).

The cultural shift in the department influenced the way participants thought about themselves as clinicians and their clinical practice. Participants were proud to be part of the department that they perceived as being so proactive in research and EBP. The REP model enabled them to identify their role and contribution to the overall organisational effort. This increased a feeling of being valued and served as a motivator for their involvement, which, according to Jackson (2000), enhances people's dedication and energy for work.

Evidence-based practice requires that clinicians use judgement when integrating information from research, clients and the practice context with their own clinical expertise. This integration can improve confidence in decision making (Hoffmann, Bennett & Del Mar, 2010). Participants felt that the sustained emphasis on EBP had improved their confidence as clinicians and had increased their sense of responsibility and accountability.

Organisational initiatives and culture of EBP influenced clinical practice. Changes or improvements were made to: screening practices; amount of time spent in some treatments; timeliness of assessment and treatment in some specific clinical areas; and existing practices. In addition, new interventions were introduced. These changes in practice are an example of knowledge translation, whereby knowledge is exchanged and synthesised between researchers and users to accelerate the use of research by professionals, to improve health outcomes (Davis *et al.*, 2003). Many of the changes made were based on evidence reviews or syntheses that had been purposefully undertaken in response to commonly occurring clinical issues.

Because of the time required to undertake evidence reviews, participants felt these activities competed with 'clinical time'. Therefore, EBP was still spoken of as separate to clinical tasks and reference was made to the need to prioritise clinical time over time for EBP activities. In response to feedback from staff, and in line with current thinking regarding knowledge translation processes, this approach alone was deemed unsustainable. Consequently, therapists are now encouraged to select the approach which, taking into account available evidence, will best meet their knowledge requirements and there is a greater emphasis on research translation.

Implications and future research

This study was undertaken within a hospital department that had an active and sustained emphasis on EBP using both structural and behavioural enablers involving the whole department. Whether this approach is transferable to other settings needs to be considered. It would seem possible for elements of the approaches used to be used in community-based settings for example, delivered across single or multiple sites and across single or multiple professional groups, however substantial knowledge, financial and time resources would be required. Potential for the use of organisational supports in other settings can be seen from a qualitative study focusing on organisational supports for knowledge translation in primary care practices (PCPs), regional health authorities (RHAs), and hospitals in Canada (Ellen *et al.*, 2013). Findings from interviews with 57 staff across 25 organisations (RHAs, hospitals and PCPs) highlighted the importance of having specific positions in place that can support the use of evidence, the benefits of pooling resources, establishing formal and informal ties to researchers and brokers outside the organisation, having practical resources such as library access and organisations that value research use as part of their mission or and strategic plan. The authors noted that although some of the organisational strategies could be costly, that they were also potentially transferable or able to be shared.

There are also implications for education of health professionals, beyond providing training in skills for EBP for undergraduate or postgraduate students. Attention should also be given to training future (and current) health professionals about the nature, process and drivers of organisational culture change, and understanding what transformative leadership looks like.

Finally, while there are a number of studies investigating which organisational factors might support or hinder evidence-based practice (Gerrish *et al.*, 2012; Jackson, 2015), there is little evaluation of the effect of organisational initiatives on EBP. It is relatively easy to measure the impact of organisational initiatives on knowledge, skills and self-reported confidence in evidence-based practice, but research that goes further and investigates its impact on EBP behaviours is needed. Types of organisations, their contexts and effects on EBP need to be better understood. For instance, a survey of 107 mental health service providers from 17 communities in 16 states in the United States found private sector agencies provided more support for EBP than public sector agencies (Aarons, Sommerfield & Walrath-Greene, 2009), yet this may well differ by country and associated structure of its health system. Ellen *et al.* (2013) similarly suggest that cross-organisational or cross-system research may be beneficial for better understanding how to match particular supports to different contexts.

Limitations

The dynamic nature of organisations makes it difficult to research organisational initiatives for evidence-based practice (Gerrish & Clayton, 2004). Nevertheless, this study provided a snap shot of therapists' perspectives of one department's organisational initiatives to support EBP. As such, it offers their accounts of changes that had occurred over a specific time, rather than using methods to determine factual information about the events of that time. Efforts were made to triangulate information between participants who were managers and those in other positions, however, credibility of data could have been enhanced by reviewing documents such as departmental policies. It may be that participants provided socially desirable responses. It is also acknowledged that lack of discrete categories for participant's demographic data in Table 3 mean that these categorisations could be unclear. Although the interviewer was independent from the organisation, her interest in research would be known to some participants and may have influenced participants' responses. Finally, this research studied just one department which had taken a multifaceted, sustained approach to supporting EBP and therefore transferability of findings to other contexts must be carefully considered.

Conclusion

EBP is challenging and carried out within a complex organisational context. Adoption of a systematic organisational approach to EBP in health care is integral to the long-term success of EBP efforts. The views of occupational therapists working in a department with a sustained history of supporting therapists in their use of EBP revealed that organisational initiatives for EBP were perceived as influencing the culture of the workplace, therapists' sense of identity as clinicians, and as contributing to changes in clinical practice. Monitoring therapists' perspectives and barriers to the use of EBP has enabled the organisation to refine and evolve the model of organisational support provided.

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