Reflections on Participating in an Action Research Study

Pui Ling (Iris) Li, Leanne Bashford, Greg Schwager, Rhonda Spain, Helen Ryan, Melissa Oakman, Joanne Firth, Matthew Lockyer, Debbie Harper
John Hunter Hospital, Hunter New England Area Health Service
Isabel Higgins
School of Nursing and Midwifery, University of Newcastle, Hunter New England Area Health Service

Abstract
Objective: The objective of this paper is to share our reflections of participating in an action research project designed to improve the care of older people at risk of delirium.
Context: The setting for the study and the subject of this paper was a busy medical ward at the John Hunter Hospital, Newcastle Australia.
Participants: The participants in this project and the authors of this paper include clinical nursing and allied health staff based on the ward at the time of the study.
Primary Argument: In the discussion that follows we outline details of the study, participatory action research (PAR), what participation involved, reasons for agreeing to participate, expectations of the project, the group process, the PAR cycles: look, think and act, and the benefits and challenges of participating in the project.
Conclusion: In conclusion we highlight the gains of participating in PAR and we make recommendations for the future.
Key Words: action research, delirium, older people

INTRODUCTION

> *I used to think nursing research was something abstract that I would never be able to do as a clinical nurse, or that was too academic for me. However, my thoughts have changed after being involved in this study.*
>
> *PAR group participant*

In the following we discuss our experiences of participating in an action research study which was conducted on our ward in conjunction with academic staff from the School of Nursing and Midwifery at the University of Newcastle. In order to contextualize our experiences we provide a brief outline of the study, known as the "J3 delirium pilot study" followed by a description of the action research process and our experiences as the process unfolded. Whilst discussing our experiences we also share some of our learnings about delirium.

THE J3 DELIRIUM PILOT STUDY

In January 2007 we were approached by academic staff from the School of Nursing and Midwifery who sought our interest in participating in a research project about the management of delirium. A copy of the research proposal was provided along with an information letter which described the study as follows:

> *This study will use a partnership approach, through the use of participatory action research (PAR) processes to work with clinicians to redesign the implementation and evaluation of best practice guidelines for early detection and management of delirium in older people in an acute care setting. If you are a nurse working in J3 and interested in improving practice and quality of care for older people with delirium, we invite you to work with the research team from January to July, 2007.*

One of our first thoughts was "what is participatory action research and what does 'participation' really mean"?

PARTICIPATORY ACTION RESEARCH (PAR)

> *PAR is a strategy designed to include representatives of the community under study as members of the research team. It allows members of the community to have a voice in the way the study is conducted and the results that are disseminated.*
> *(Burns & Grove, 2005, p. 376)*

It is a process in which the participants work together in a cyclic manner involving problem identification, planning, taking action, evaluating that action and further planning and so on. It involves discussing and "exploring concerns, claims and issues that impact upon or disrupt people's lives [and exploring]… ways to change situations and build capacity" (Koch & Kralik, 2006, p. 27).

What we were asked to do to participate

The information letter said:

If you agree to participate, you will be asked to join the participatory action research (PAR) and commit to attending weekly to fortnightly meetings from mid January until the end of April and then monthly meetings from then until the end of June. During these meetings the group's objectives will be to:

- Adapt the current Management of Delirium in Older Person NSW Dementia Clinical Nurse Consultant Network Guidelines for use in J3
- Establish quality monitoring, measurement tools and tracking indicators for evaluation
- Implement and evaluate these guidelines in practice in J3, and
- Make decisions about the ways in which the guidelines will be further modified, implemented and evaluated.

OUR MOTIVATION FOR PARTICIPATION

We were motivated by the idea of being an active participant

in developing and implementing improved patient care that reduced the risk of delirium in older people. The idea of "action" was appealing. We also wanted to experience doing research. Initially, we were unsure what the project could offer or how it could give practical assistance to caring for our patients, however we were willing to join in and keep our options open. It was important to all of us that our participation was relevant and worthwhile. We had to trust the academic staff and the process.

One of the ongoing challenges for us on a busy and noisy ward was managing patients with fluctuating confusion and hyperactive delirium. Confusion in older patients may be secondary to illness. Infection, for example, may be a precipitating factor for delirium as is treatment such as an indwelling catheter. There are many risk factors for delirium during hospitalisation. A significant number of patients admitted to J3 are very old and frail with many chronic and complex illnesses which are all risk factors for delirium. When patients are confused, loud and aggressive (hyperactive delirium), we find caring for them both challenging and distressing. Their behaviour also distresses and unsettles other patients and family members.

It was exciting to think that we had the opportunity to improve our practice and impact on the patient's journey in a positive way.

THE GROUP PROCESS

At the first meeting, we talked about expectations, group process and rules for participation. We were guided by the academic staff to develop a list of values to consider and agree upon. We discussed the need for all participants to extend respect to others by listening to their contributions without interruption. We agreed that we should "go with people where they are at now and not where we think they should be". All contributions were of equal value. The group agreed to use of non judgmental language and that conversation within the group meetings be strictly confidential. We used pseudonyms or false names in relation to patients. During the process, we acknowledged the need to make decisions for improvement and act upon these in our daily practice and care. Lastly, we agreed that all our conversations were recorded as part of the research process for analysis and evaluation later.

We had 13 weekly PAR group meetings over six months. It was not easy for us to attend all of the meetings as we were rostered on duty at the time with a patient load. In off duty time we had commitments, such as child and family care. When on duty, with the support of our senior managers, we negotiated with colleagues to allow our attendance at the meeting. The meetings were always informative and inspiring, and once we started, it was difficult to finish on time! Whilst discussions were interesting we had to set time boundaries. It was important to meet regularly to keep the interest and energy of the group up. With this in mind, academic staff provided us with summary notes of weekly discussions. This was invaluable as it helped us to reflect on discussions and it ignited new thoughts and deliberations. It kept us moving forward.

PAR - LOOK, THINK, ACT CYCLES

Looking

The research team used the 'look, think, act' cycles characteristic of PAR. In the 'looking' phase, we were invited to share a story about caring for a patient with delirium. We then reflected on these stories and the evidence based literature and set about considering issues and exploring possibilities for action through discussion and reflection and finally planning for action. The story telling approach was an excellent approach that encouraged us to interact with each other by sharing ideas and stimulating insight into the topic.

> *It was a great non-threatening way of generating discussion and themes as all of us, even those of us with less experience, had stories to share.*
>
> *PAR group participant*

Twelve patients' stories were discussed. These stories were of people in a range of settings. The stories were of loud and aggressive behavior, clinical problems, family roles, and the influence and impact of the environment in an acute care ward. As we examined selected stories we considered how to identify patients at high risk of developing delirium as well as management strategies for decreasing the physical and sensory environmental impact. The discussions also focused on the difficulties and strategies required to manage people with hyperactive delirium especially when patients are at risk to themselves and others. In the meetings we were given some wonderful and thought provoking material to read in anticipation of the next meeting. For example, the readings from the Tiger's Eye by Clendinnen (2000) gave us insight into the experiences of a person suffering delirium.

Thinking

In the thinking phase the academics introduced us to Inouye's Hospital Elder Life Program which focuses on delirium prevention (Inouye, Bogardus, Baker, Leo-Summers, & Cooney, 2000). From this we learnt about delirium, the history of onset, the risk factors and who is at risk of developing delirium and the importance of the need for prevention.

Often the 'thinking' part of the meetings involved us being able to express our thoughts and concerns about the day to day management of patients with delirium. We noted there was a need to understand and identify the signs and symptoms of patients with delirium. From Clendinnen's (2000) story we learnt that patients might recall what is happening to them and that they may hallucinate and experience a great deal of fear and apprehension.

At this time, the focus of our meetings changed from how do we manage these patients to how can we prevent delirium? In our discussions, phrases such as 'heading it [delirium] off at the pass' or 'getting on top of it' were often used. All of us felt the need to start identifying patients at risk of delirium as soon as possible from admission.

From the evidence based readings we noted the importance of early comprehensive individual assessment for delirium, rather than just a focus on the management of patients with delirium (Inouye, 2006). The priority is to reduce the number of patients developing delirium during admission. For this to be achieved staff needed to be alerted to those most vulnerable and have an understanding of the risk factors for delirium.

Together it was decided that a focus on prevention may best be served through a care plan. Being practical, as nurses often are, it was important for all of us to work towards possible solutions. We realised the vital and important role nurses

played in the prevention of delirium. It was no use waiting for doctors to say that a patient has delirium because by then it was often too late. It was up to the nursing staff to identify those at risk and to put measures in place to prevent or reduce delirium. In addition, we recognised the importance of the relatives as sources of information about the patients' histories. Ultimately,

> *PAR was a useful tool allowing us to look 'outside the square'. Because we have 'managed' a situation one way for a long time does not mean that is the only way to 'manage' the situation.*
>
> *PAR group participant*

Action - the Outcome of the Research

Our main 'action' was the development and implementation of a Delirium Alert Protocol (DAP) (Figures 1 and 2). The DAP aims to increase awareness of delirium risk factors and to identify the possible interventions for all patients admitted to our general medical ward, J3.

We inserted the DAP into all patients' bedside charts on our ward and shared this knowledge with our ward colleagues.

BENEFITS OF PARTICIPATING IN THE PROJECT

Demystifying Delirium

Our understanding of delirium, including sub-types and etiology has improved as a result of participating in the PAR project. Before the pilot study, some of us did not know about the sub-types of delirium. Many staff were aware of hyperactive delirium, because it is characterized by increased agitation, hallucinations and inappropriate behaviour (British Geriatric Society and Royal College of Physicians, 2006). However, none of us were aware of hypoactive and mixed delirium. Hypoactive delirium is the most common form of delirium in older people and has a poorer prognosis than the other sub types. In hypoactive delirium the patient is quiet, cooperative, may need strong verbal or physical stimuli to arouse them and arousal is often transient (Milisen, Steeman, & Foreman, 2004). Mixed delirium is characterized by alternation between agitated and quiet forms of delirium (Casarett & Inouye, 2001).

Delirium is characterized by a disturbance of consciousness and a change in cognition over a short period of time, usually hours to days, and tends to fluctuate during the course of the day. Ability to focus, sustain or shift attention is impaired. Delirium is a direct physiological consequence of a general medical condition, substances withdrawal or intoxication, use of medication or a combination of these factors (American Psychiatric Association, 2000). It may last for a few days, weeks or even months.

Of concern is that 10 to 15% of older patients have delirium on admission to hospital and up to 40% develop delirium during their hospital stay (Clinical Epidemiology and Health Service Evaluation Unit, 2006). Though delirium can be prevented during hospitalization with assessment of the risk factors (Inouye, 2006; Inouye et al., 1999), delirium is often overlooked and so the underlying illness can be undertreated (Schuurmans, Duursma, & Shortridge-Baggett, 2001).

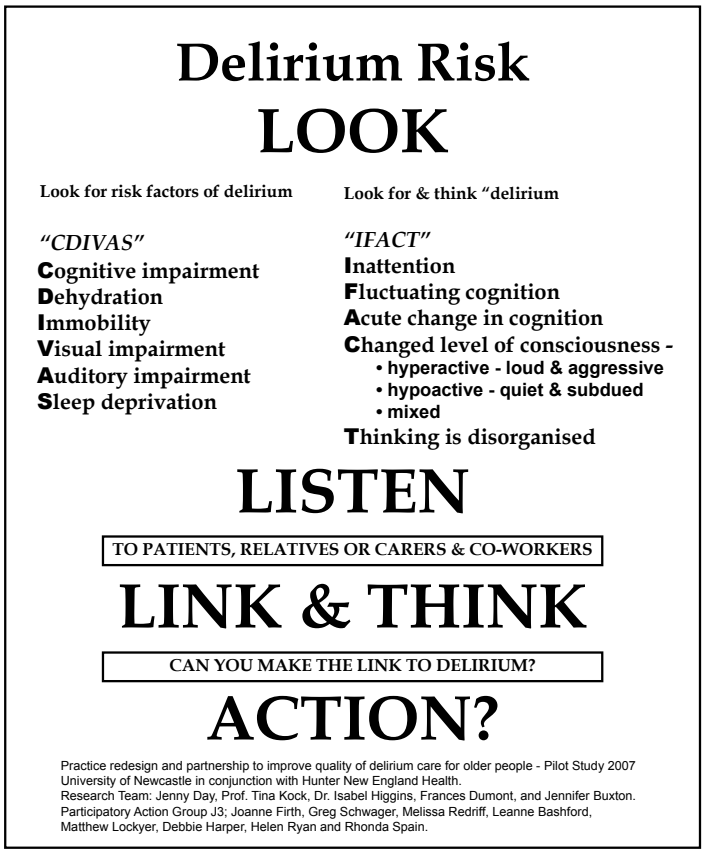
Best Practice Guidelines

We learnt that there are many best practice guidelines for delirium. For example, the British Geriatric Society has developed best practice guidelines for the prevention, diagnosis and management of delirium in older people in hospital (British Geriatric Society and Royal College of Physicians, 2006) and there are guidelines that focus on the treatment of patients with delirium (American Psychiatric Association, 1999; Cook, 2004; Cook IA, 2004). The Australian Society for Geriatric Medicine has published a position statement for 'Delirium in Older People', which suggested that attention should shift to the prevention of delirium due to its effectiveness and benefits to patients' outcome (Australian Society for Geriatric Medicine, 2005).

Learning about Research and How it can be Applied

Often research can be seen by clinical nurses as something apart from the ward. By participating in the project we have been able to understand and value the practical ways that a research project can better develop patient care and nursing practice. It has demystified the academic process of research and made some of us want to be more involved in research projects. It also highlighted the need for clinical nurses to get involved in research as a way to define disciplinary knowledge and best practice. Without guidance from the academic staff, this or any other similar project, in our view, simply cannot happen. As one of the PAR group members said:

> *It was a good opportunity to understand and to learn about research and implement best practice guidelines on the ward. The PAR research provided a very interesting way to be involved in research. The opportunity was about being able to be involved, react and impact as an individual as well as part of a team. The approach saw that all of us were equally valued and opinions could be shared without judgment. The process was easily led by the academic staff so we were able to be involved at all levels.*
>
> *PAR group participant*



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Delirium Awareness – Risk Factors & Interventions
All patients admitted to J3

On admission: Assess normal for all risk factors & how the patient currently presents.
Document ongoing reviews & strategies used.

Risk Factor Assessment	Standardised Intervention Protocols	Targeted Outcome
Cognition / Orientation If possible Mini Mental Test (MMSE) & Confusion Assessment Measure (CAM). Record inattention, language disturbance.	*Orientation*: reorient to surroundings (call bell, bed, room, clock, ward, other pts). Provide the day's schedule. Consider orientating to daily news / TV. Attempt continuity of care. Involve carers & family.	Early identification of cognitive changes. Improved orientation. Pt knows way around room & ward.
Hydration Dehydration identified by electrolyte imbalance (UECs), dry tongue/mouth, poor skin tone. Routine UA, O^2 saturation, JVP. Monitor fluid intake & loss. Observe for oedema.	*Dehydration*: continuous assessment for early recognition of dehydration & volume reception. Regularly offer drinks (except pts on fluid restriction). Ensure drinks are accessible – provide aids as needed. Address volume depletion with IV/SC fluids as ordered. Complete fluid balance.	Adequate hydration. UECs within normal limits. Satisfactorily fluid balance. Improved skin integrity. Tongue moist. Urinalysis within norms.
Mobility Physio & nursing mobility assessment. Document sudden decrease in mobility.	*Early safe mobilisation:* either bed exercises or walk. Walker/stick, glasses, slippers at hand. Mobilise to toilet/shower with commode, then walking. Encourage pt to call for assistance/supervision when needed. Consider differing needs for day & night. Minimise physical restraint.	Improved mobility. Improved potential changes in enablement & activities of daily living skills.
Vision Pts with glasses/poor vision identified. Identified level of impairment.	*Pts who wear glasses:* ensure glasses are present, clean & on/encourage use. Tape or tactile aid on nursing alert bell - ensure accessibility. Clutter removed from environment. Assist with menu & eating/drinking. Ensure adequate lighting. Introduce other pts	Decreased risk of injury. Sense of enablement. Pt actively takes part in daily activities on ward.
Hearing Pts with aids/poor hearing identified. Identified level of impairment. New hearing loss identified.	*Pts with hearing aids*: ensure aids are present, clean, fitted, turned on, working battery & in/encourage use. Face pt & speak clearly toward good ear. Use picture boards, written messages etc or portable amplifying devices where necessary. MOs check for wax build up.	Improved / maintained hearing, communication, participation. & orientation. De-impaction of ear wax.
Sleep Assess sleep daily. Record changes to sleep pattern from home & during admission.	*Non pharmacologic:* at bedtime offer warm drink (milk & honey or herbal tea), make comfortable (warm or cool), toilet, decrease stimulation, minimise noise, lights off at 2000-2100. Plan admissions before dark. *Pharmacologic:* Check medication time & reschedule drug administration to 1800 as able. Ensure effective analgesia.	Normal sleep pattern maintained. Change in use of medication to achieve sleep.
Elimination Documented daily elimination patterns - voiding & bowels – evaluate against normal pattern.	*Voiding*: U/A on admission. Document colour, volume, odour & voiding S&S. Monitor temperature. Time & volume chart. Avoid catheterisation. *Bowel regimen*: check regularly for constipation / consider constipation with overflow. Document if bowels have not been open. Implement aperients as needed. Mobilise to toilet. Encourage commode overnight.	Decreased risk of Urinary Tract Infection. Decreased risk of constipation
Medication Medication review against pre-admission regime.	*Pharmacologic*: monitor for additions & interactions between routine & prn meds. Watch for side effects from adding medications/sudden withdrawal. *Non pharmacologic:* consider interventions other than medications	Decrease use of medications. Minimised medication side effects.
Prevent Iatrogenic Risk of individual iatrogenic events – falls, pressure areas, medication error.	*Falls Prevention assessment & protocols*: minimise physical & chemical restraint, safe environment. *Pressure Area assessment & protocols* *Medications error prevention protocols*	No iatrogenic events. Safe & independent movement maximised.
Nutrition Functional & motivational barriers.	*Function:* glasses on, teeth in/working/fitting/comfortable, sit up/sit out of bed, open packages, one item at a time, assist with feeding, FBC, speech pathology/dietician consult. *Other:* encourage/praise, evaluate taste.	Adequate nutrition & fluid intake.

Source: Inouye, S.K., Bogardus, S.T., Charpentier, P.A., Leo-Summers, L., Acampora, D., Holford, T.R. and Cooney, L.M.(1999) A multicomponent intervention to prevent delirium in hospitalized older adults. *New England Journal of Medicine,* 340:9 Table 1 p671

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The Process was Empowering

In hindsight, perhaps we did not always take the time to think about why someone was 'confused'. With the PAR process of 'looking, thinking and acting' our eyes and minds were opened to the 'delirium topic' and this was beneficial to all of us.

Participating in this project gave us greater confidence in identifying those at risk and those already in delirium. With the knowledge gained during the project, the nursing care we give to older patients has changed. For example, the nursing assessment and care we give to our patients are different. We are more tuned to the importance of minor physiological changes, which can lead to changes in the patients' cognition and behaviour and we readily take action. For example, we seek clarification regarding a patient's confusion and we monitor sleep and elimination patterns more closely. Further, we have a more professional and cohesive working partnership with our nursing, allied health and medical colleagues.

While the initial aim of the pilot study was to explore ways staff could enhance their clinical practice to include prevention through early detection of delirium, a far greater evolution occurred on J3. We became empowered to redesign and create a relevant practical clinical protocol tool that would be of benefit to patients in the acute care environment. Because the staff saw value in this research project they were able to engage other staff to also come on board and follow through with the implementation of the DAP.

> *Now I feel that we can do more than just carry a bed pan and I see my value. I see that we can make a difference and improve the outcomes for patients.*
>
> *PAR group participant*

Getting to Know Staff

It was an opportunity for new staff to participate in the life of the ward, share ideas and listen to the perspective of others. It was also an opportunity for all staff to impact on the project including those who characteristically leave decisions to more experienced staff. The project gave staff members a platform for demonstrating their skills and knowledge so that we learned a lot from each other and this is ongoing.

THE CHALLENGES

There were several challenges throughout the project.

The process of PAR was completely new to us and although the steps were explained, we were uncertain about the project and what we would be doing. We seemed to spend a long time in the looking phase and discussing and planning a way forward. At times, it felt like we were going nowhere. In hindsight, the time spent on setting up and formulating the structure of the research group assisted in helping to maintain the momentum of the project.

Meeting our commitments to patients and other staff on the ward was also a challenge. Since many of us were off the ward to attend the PAR group, we were acutely aware of our patients' needs and the burden on our colleagues. This was particularly so when the meetings went over time and that we had committed to meeting every second Tuesday for six months.

CONCLUSION

Overall the gains from the project exceeded our expectations:

- We reflected on our practice and made a positive contribution to improving care for older people.
- We gained new insight into what we could do to change our practice and how easy it is to do this. For example, we now consider the important role of family in relation to the patient's history; we now use the delirium word more often.
- We demonstrated how best practice guidelines can be applied to practice.
- We understand what PAR is and how it works. Research has been demystified for us.
- We are excited. We feel good about ourselves and what we have achieved.
- The group values we agreed upon for working together during PAR have been sustained long after the completion of the project.
- We continue to use the DAP to guide us and new staff to the ward.
- We learned more about delirium than we previously knew: the risk factors, sub-types and how common it is. We are now more aware of hypoactive delirium. An evaluation of the uptake and utility of the DAP shows that staff members have better knowledge about the prevention of delirium (Higgins, Li, Giles, Day, & Dumont, 2008).

Recommendations for the future

Based on our experiences, there are two aspects that need to be considered for the future. Whilst there was a member of the allied health team on the project we did not have a medical officer (MO). The presence of a MO would have been useful given the multidisciplinary nature of the work we do. Our challenge for future work of this nature is how to engage the interest of our professional colleagues in a process like PAR. Perhaps MOs could be targeted for recruitment in a future project. We did not put in place a follow-up plan for disseminating the DAP beyond our ward. Although this is underway now, we believe this should have been identified at the time of the completion of the project.

A final word:

> *It was an enjoyable experience and we would like to see this kind of research carried out on the ward again.*
>
> *PAR group participant*

[1]Whilst Iris Li did not participate in the study reported here she lead the development and writing of this paper during a stewardship program.
[2]Isabel Higgins provided stewardship and support for the writing of this paper. She was also a PAR group member.

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Neophyte Writers' Group

Have you recently completed a project and would like to write it up and tell the world about it?
Are you considering presenting at an upcoming conference and have never presented before?
Are you nervous about starting it because you really are not sure where to start?
The neophyte writers' group offers support to aspiring writers and presenters alike. We have all been there before and the informal atmosphere at either our breakfast or lunchtime monthly session is a great way to help overcome the fear and uncertainty that comes with writing and presenting. For further information please contact:

Newcastle
Teresa Stone (teresa.stone@newcastle.edu.au)
Margaret Harris (margaret.harris@newcastle.edu.au)

Armidale
Glenda Parmenter (gparment@une.edu.au)

Port Macquarie
Lyn Bowen (lynette.bowen@newcastle.edu.au)