



3 November 2020

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Dear Edwina, Christine,

**Re: RBRC – SA Productivity Commission, request for further information.**

Thank you for the recent opportunity to catch up in relation to the health and medical research inquiry.

Consistent with your request, please see attached case studies and text supporting and/or proposing recommendations for the Commission to consider.

Should you require any further information please contact Rob Bonner at [rob.bonner@anmfsa.org.au](mailto:rob.bonner@anmfsa.org.au) or call 08 8334 1900.

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Yours sincerely

Adj Associate Professor Elizabeth Dabars AM  
**CEO / Secretary**



The Australian Nursing and Midwifery Federation (SA Branch) and the Rosemary Bryant AO Research Centre has prepared the following response to a request by the SA Productivity Commission regarding strategies to build nursing research in South Australia.

### Key points:

With its three major Universities having Schools of Nursing (and Midwifery), South Australia has an ideal opportunity to establish itself as the Australian focal point for nursing- or midwifery-led research internationally with sustained investment and leveraging of industry partnerships.

### Case study 1: The Best Practice Spotlight Organisation program.

- Adopting a program designed to support the application and ongoing sustainability of Evidence-Based Practice (EBP) in healthcare is the most effective way of improving quality and safety of care and reducing variations in care.
- These programs have a natural link to translational research and evaluation and support the concept of a 'learning healthcare system'.
- Evidence developed through economic, effectiveness and implementation evaluation of the program showed that the BPSO program is a suitable program for South Australia to continue, and, at full maturity, can provide high quality, evidence-based care rolled-out across an entire health network.

### Case study 2: Nursing order sets

- Nursing order sets help to standardise the care provided for a specific patient or client condition. They complement EBP by supporting a standardised care pathway and are made available through a digital health system.
- SA currently has a digital health system that can be expanded to include nursing order sets, but there is currently no intention to do so.
- This limits a culture of EBP, a learning healthcare system, and an opportunity to engage in research (e.g. improvement science) to benefit health outcomes

### Commentary on nursing and midwifery research funding

- Nursing and midwifery research has the capacity to dramatically improve the delivery of care by the health system for all South Australians.
- Quarantined funds for nursing- and midwifery-led research is required to

support nurses and midwives to grow a culture of research as part of their clinical, education, leadership, administrative or policy duties.

- Current research grant funding favours curative intent research (e.g. drug or device research and clinical trials), yet there is a chronic under-resourcing of high-quality research focused on areas of most importance to improving nursing or midwifery practice (e.g. models of care, care continuity, care coordination)

## **CASE STUDY 1**

### **Best Practice Spotlight Organisation (BPSO) Program**

Evidence-based Practice (EBP) is a vehicle for translating research into practice. EBP takes advantage of a significant body of primary research and supports clinicians to make evidence-informed clinical care decisions in partnership with the patient or client. There is growing body of evidence that describe health and patient benefits of high quality EBP nursing care. More effective care can also save money. For example, avoiding misadventure, readmission to hospital, acquiring secondary illnesses or complications are all accepted as objectives that should be sought for both quality and cost outcomes.

Sustaining high quality, evidence-based care and introducing evidence-based practice (EBP) change is difficult in an environment of constant health system reform and where decision making discussions are led by budgets and financial performance. Hence, programs have been introduced to transcend a reform agenda, build continuity and stability and, in effect, systematise the process of testing implementing and disseminating EBP across a service or network.

The BPSO program is one of these EBP programs with an established track record of supporting the translation of research into practice through a structured implementation framework. Over the past 10 years, the BPSO program has been rolled-out at public health sites across Adelaide including Central Adelaide Rehabilitation Services (CARS), Northern Adelaide Local Health Network (NALHN), Women's and Children's Hospital Network (WCHN) and the CALHN Mental Health Directorate and The Queen Elizabeth Hospital (TQEH). The public health system investment per site was \$50,000 per annum, which was matched by the Australian sponsor (the Australian Nursing and Midwifery Federation (SA Branch)), which was committed primarily towards a nurse to lead the program.

Effectiveness evaluation of the BPSO program in SA have showed contribution to positive cultural, knowledge and attitudinal change within sites. For example, clinical practice change was evident in the CARS Hourly Rounding Audit whereby Clinical Rounding was introduced to ensure patient safety and care needs were met each hour with results showing a 96% compliance vs 50% pre-BPSO. In addition, Falls rates significantly reduced (64% reduction of SAC 1 and SAC 2 falls incidents, compared to a 18.6% reduction across SA Health over the same period). A simple cost-benefit analysis was also conducted based on falls and pressure injuries data (two expensive, yet avoidable adverse events) showing a net saving of \$461,000 at CARS.

Implementation evaluation showed that the BPSO program provides the necessary structure on which to advance evidence-based nursing and midwifery quality improvement strategies, and strategic re-orienting of healthcare services to

providing improved consumer-centred care. Two key factors to successful implementation were (i) strong and stable executive leadership and (ii) committed BPSO site leads and BPSO committee members. Together, effectiveness and implementation findings suggest that there was a sizeable shift towards an EBP culture in which decision making about health care and service delivery is based on the best evidence possible; hospital policies and procedures are standardised; and care variation is reduced, thus ensuring consistent quality safe care.

The BPSO program also provided a vehicle for clinician-researchers to test novel, care- or intervention- focused research within a program delivery and reporting framework in partnership with the university sector. Yet despite the evidence of improvement in performance to: (i) the quality of care; (ii) the reduction in negative outcomes; (iii) staff and patient satisfaction; and (iv) the economic efficiency of the services, at sites where the program was implemented, SA Health discontinued the modest funding required to sustain the program (\$100,000 pa).

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## Does evidence-based practice make sense? - an Australian economic evaluation of the BPSO® Program

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### Introduction

The Best Practice Spotlight Organisation Program (BPSO) has demonstrated improvements in quality performance and cost through improved practice performance of organisations through the implementation of evidence based practice guidelines.

The Australian BPSO program has utilised the evidence based practice model to deliver, implement and sustain improvements within the BPSO® (Best Practice Spotlight Organisation Program) model.

In order to evaluate the impact of the Australian BPSO program and determine the economic benefits of the program, the BPSO (SA Branch), in the national BPSO trial, conducted an economic evaluation, primarily aimed at understanding the financial gains from the program.

In this trial, pilot programs were evaluated for examples of hospital, performance and national quality care indicators including average length of stay, falls, pressure injuries, use of medical restraint, urinary catheterisation and patient transfers on an evidence based practice and interventions.

The evaluation was able to demonstrate very significant improvements not only with patient and nurse satisfaction, but also a system level and evidence of enhanced efficiency and financial performance. These demonstrate continued funding justification of the program and resulting in positive of the BPSO program.

This paper provides a model for the measurement of financial impacts of funding used which is transparent, replicable, and a financially sound system.

### Evaluation Findings

#### Has the BPSO® Program Changed Staff's Attitudes and Beliefs?

"Client Centred Care" Practice Champion Survey

The "Practice Champion Survey" was designed to determine an individual's attitude and level of knowledge prior to and following the BPSO initiative. Practice Champions were presented with a number of statements and asked to rate the level of agreement of their responses, from 1 strongly disagree to 5 strongly agree.

The chart below shows that the BPSO pilot sites were more likely to:

- Improve Practice Champions' knowledge and understanding of their commitment
- Significantly increase the confidence and belief of Practice Champions in the effectiveness of evidence based practice care
- Improve Practice Champions' belief that active engagement of patients and their family results in safe patient care and better outcomes.

### Evaluation Findings Continued

#### Has it Achieved the Intended Outcomes... and How Would They "Translate" into Financial Benefit?

Reduction of All Incidents - SAC 1 & SAC 2 With Significant Harm and Injuries

Significant reduction seen in SAC 1 and 2 All Incidents resulting in harm/injury over 24 month period. The economic benefits:

- Reduced length of stay, decreased mortality and morbidity, improved patient safety
- Outcomes are attributed to:
  - BPSO program
  - Clear commitment of staff, engagement with patients, families
  - Implementing evidence into practice from the best level, practice level, system and organisational level

### Background

The Australian Nursing and Midwifery Federation (ANMF) Best Practice Spotlight Organisation (BPSO) Program:

- Provides a framework for implementation of evidence based practice in health care organisations
- Requires commitment of health care organisations to both organisational, financial and human capital
- ANMF (SA Branch) is the designated national level organisation to assist in approval by SAC
- ANMF (SA Branch) supports BPSO sites to undertake a 3 year "journey" to achieve long-term results
- Is unique in the manner in which it seeks to embed evidence based practice into organisations
- Builds "change champions" networks within health care organisations

**Why the Focus on Economic Evaluation?**

- Health care systems are heavily resource intensive
- Accountability and pressure have increased medical and healthcare providers to deliver quality, national and regional healthcare quality to patients, doctors and organisations
- Political discourse about funding is increasing rather than decreasing in a community

**The Value of Funding**

- The generally low level of quality of outcomes, patient benefits and satisfaction
- Revenue of health care facilities and resulting in the waste of resources etc.
- Generally limited to some of the economic savings largely driven from (e.g. SAC)
- Arguments that do not "fit through" with the "best practice"
- Having limited the resources with patient outcomes
- Identifying financial impact on mortality and morbidity rates - to the work that is less possible in the coming decades
- Health care systems have, for the most part, failed to capture an economic value in their factors (e.g. cost, quality, patient safety, etc.)
- No model has been used to assess economic

**Our Approach**

- Conduct of the (SA) health system for the BPSO pilot sites to assist
- Research and literature review that would assist support for rolling out expanding the BPSO program
- Use best available evidence in this area - but we are thinking about and making an application
- Global evidence and literature that the BPSO pilot program was possible but did not return financial outcomes

### The Australian BPSO Evaluation Model

The BPSO has established the internationally recognised Quality Indicators for Reporting and Evaluation (QIRE) system to monitor BPSO as a nationally recognised and evidence based program and measure the implementation of the BPSO model within the BPSO (SA Branch) organisations. QIRE provides the measurement and comparison of economic, process and outcome indicators for each of the BPSO (SA Branch) pilot sites. The QIRE system is designed to be transparent and comprehensive of the BPSO (SA Branch) model.

Using a series of more sensitive indicators and the QIRE system, in supporting the evaluation of the pilot program, the questions that we sought to be answered were:

- Has the implementation of the BPSO changed staff attitudes and beliefs?
- Has the practice changed?
- Has it achieved the intended outcomes?

**Evaluation Model**

### Bed Ratio Audit

As part of the BPSO implementation, bed ratios were reviewed and a fairly consistent picture was identified. The table below shows the audit results, showing positive outcomes and evidence based practice.

Ward	Ward Type	Ward Lead	Ward Manager	Ward Nurse	Ward Midwife	Ward Physio	Ward OT	Ward Pharm	Ward Diet	Ward Social	Ward Psych	Ward Speech	Ward Music	Ward Art	Ward Gard	Ward Pet	Ward Other	Ward Total
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

### Hourly Reporting Audit

The table below shows significant improvements in client centred practice, including positive practice change.

Ward	Ward Type	Ward Lead	Ward Manager	Ward Nurse	Ward Midwife	Ward Physio	Ward OT	Ward Pharm	Ward Diet	Ward Social	Ward Psych	Ward Speech	Ward Music	Ward Art	Ward Gard	Ward Pet	Ward Other	Ward Total
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

### What the Economic Evaluation Added

- A reduction of 30 cases mean reduction savings of \$20,000 per year
- Based on BPSO financial outcomes and other data, the total potential of practice change results is savings of (revenue) \$2,000 per year (at)
- 30 cases x \$2000 = \$60,000

**Snapshot of BPSO Pilot Site Savings over 24 months**

Ward	Ward Type	Ward Lead	Ward Manager	Ward Nurse	Ward Midwife	Ward Physio	Ward OT	Ward Pharm	Ward Diet	Ward Social	Ward Psych	Ward Speech	Ward Music	Ward Art	Ward Gard	Ward Pet	Ward Other	Ward Total
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

### Real Value of Reduced Use of Restraint

Despite the number of reported Challenging Behaviour Incidents increasing, the number of patients being "restrained" reduced from 10 patients in 10 beds to 10 patients in 10 beds including more accurate information.

Planned safety net to be released.

**Reduction in Restraint - Financial Implications and Potential Savings**

Defining the economic effectiveness of restraint use, as well as related to identify such as risk factors, behavioural, individual, focus on staff, family, safety etc.

Identifying the frequency of the interventions that could have been avoided, and the number of interventions that would be required to undertake the intervention (by category)

Identify the cost of the person (category) eg. Restraint, other (cost) eg. Frequency, cost etc.

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## **CASE STUDY 2**

### **Nursing order sets**

Nursing order sets standardize care across sectors and geographical boundaries. They complement initiatives such as the BPSO program and EBP. They also expedite the process of translating research into routine care delivery, which is estimated at approximately 17 years for research to become a routine part of a practice. Nursing order sets are Best Practice Guidelines that have been converted into specific, action-oriented nursing interventions that can be embedded within a clinical information system or paper-based tool.

Nursing order sets help to standardise the care provided for a specific patient or client condition, such as pressure ulcers or pain. They also make it easier for nurses to access the best evidence to inform their practice, whenever and wherever they need it. Healthcare providers derive benefits from implementing nursing order sets, which can be applied to acute care, home care, long-term care or community care. Evidence-based nursing order sets can be embedded within clinical information systems and electronic medical records, and consequently all nurses will immediately have access to the best available evidence, to inform their practice.

Nursing order sets use a consistent language, called the International Classification of Nursing Practice (ICNP®), to describe the care that nurses provide regardless of the setting. Using a consistent language like ICNP aims to standardise nursing practice, making it easier for researchers to study the effect of specific interventions on health outcomes, and to compare the results across healthcare sectors and geographical areas. Examples exist (e.g. thinkresearch.com) which could easily be implemented, integrated with the Sunrise and scaled-up across the SA public health system.

In SA, from the early 1990's nursing and midwifery care in larger hospitals was supported by a clinical information system known as Excelcare. The system was standards based and embedded evidence-based nursing intervention sets related to particular clinical episodes of care at the patient level. The system became unusable over time and was being replaced by a functionally similar system when the decision was made to implement EPAS across all relevant sites. Allscripts (the vendor of the EPAS system) has a capacity to utilise nursing order sets which reflect internationally utilised evidence-based practice guidelines. However, the decision was made not to do so in the first instance and there are still no plans to do so at the time of writing (2020).

This decision reflects the dominance of and leadership by medical sponsors of the EPAS system and the failure to ensure that nursing and midwifery's long use of computerised care planning and documentation was at least maintained into the new system. Because of this decision, nursing and midwifery lost the capacity to drive patterns of care which were contemporary and reflected the best evidence through the use of a common system. Arguably, it has also had an impact on nurses and midwives working within a culture of a learning healthcare system, where nurses and midwives can work closely with researchers to advance the current evidence base

### **Commentary regarding nursing and midwifery research investment**

Together, nurses and midwives make up approximately 70% of the health system workforce; are involved at all levels of care policy, planning and delivery; care for

people from birth to death; and routinely provide care where many other professions do not (e.g. rural and remote nursing). Often, the research they lead is focused on care (e.g. evidence-based practice implementation, catheter insertion or removal), patient or client wellbeing (e.g. post-treatment quality of life or unmet needs), pain and comfort, care coordination (acute to primary care handover), or reducing treatment or care-related complications or adverse events (e.g. pressure injuries, wound care). Nurses and midwives also focus on reducing the cost of care or improving access to care in under-resourced areas where specialist intervention is not required (e.g. nurse-led colonoscopy clinics, midwife-led perinatal services).

Yet, nursing and midwifery-focused research is often overlooked as a priority for area for research investment. This chronic under-resourcing of nursing and midwifery research is a symptom of a systemic problem of the funding decision-making system where many of the key stakeholders are in a field of research where treatment and cure is a primary focus, or where treatment and cure help to sell their brand. For example, many charitable organisations focus on clinical intervention research that aims to improve treatment or cure of diseases, or development of new intellectual property. While this is a necessary and worthwhile investment, it is also an area where a significant amount of the state and national government funded research investment is also placed. This leaves very little for those whose research interest and areas of expertise are aimed at improving how we care for people when they are receiving a health service or improving people's quality of life while they live with a chronic disease or disability.

Thus, in many instances nurses and midwives are left to improve practice without the required infrastructure or investment to do so within a research paradigm. For example, SA Health recently funded a research project led by a palliative care nursing team aimed at improving care for people living in aged care facilities who were approaching their last months of life. This evidence-based project, drawing upon the success of a similar research in another jurisdiction, aimed to ensure a person's last year of life was one of dignity, minimised time spent in hospital or in pain, and that the person was able to die in their place of choice. The project was framed as a translational research and included an evaluation component to ensure that it (a) met its agreed objectives, and (b) was sustainable beyond the life of the grant. Yet, the modest budget for the project was cut by 50% and meant that the grant recipients not only had to cut the evaluation component of the project but also needed to apply to a charitable organisation to ensure sufficient funds were available to make the project viable. Given the current spotlight on aged care and the treatment of older people in their last years of life brought about by the Royal Commission into aged care, such research initiatives would help to accelerate culture and practice change in a care environment that is currently under-resourced and receiving critical attention for its poor treatment of vulnerable peoples.

Hence, quarantined strategic investment in nursing and midwifery-focused research is required to ensure a balance between fields of research, to ensure there is a balance between what can be achieved today to improve patient outcomes (i.e. translational research) vs what we need understand more about today to improve outcomes in the future (i.e. basic science and discovery research), and a balance between prevention, treatment and care. A proportion of the state Government research investment should be quarantined for nursing- and midwifery-led research to balance the current proportionally large investment in research with curative intent.