Joondalup Health Campus
Part of Ramsay Health Care

AUSTRALIA ECU EDITH COWAN UNIVERSITY

Rapid evidence implementation: A modified participatory action research progress to change practice quickly

Development and Implementation of the Joondalup Obstetric Triage Score (JOTS)

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Background

- Over 4000 women per year give birth at Joondalup Health Campus, with the majority of these receiving care through the public side.

- Public maternity care is available at JHC for expectant women in all but the highest obstetric risk category.
- The service includes response to and treatment of emergent threats to the wellbeing of pregnant women and fetuses.

Background cont.

- At the beginning of 2018, the process at Joondalup Health Campus for clinical review of pregnant women who developed an emergent health problem was ‘first come, first served’…

> ***“It’s basically like taking a ticket at Coles’ deli counter…”***

- JHC was understandably concerned that something serious would be missed while women were ‘waiting in line’.
- ECU SNM invited by JHC to develop and implement an effective, evidence-based maternity triage model.

Considerations

- There is universal recognition that implementing evidence into practice is a complicated, lengthy and uncertain process.
- The materials and methods of Implementation Science (IS) provide the means to facilitate more timely uptake of latest best evidence into practice.
- IS methods and processes provide a continuum for disseminating knowledge produced through research and implementing it into clinical care contexts: these methods and processes help bridge of the gap between **knowledge producers** and **knowledge users**.

Considerations cont.

- Most recently, the **integration of knowledge users** throughout the research process has emerged to optimise these processes.[1]
- 'Integrated Knowledge Translation' refers to the combined efforts of researchers and knowledge users, and considers them both to be experts and active participants throughout the research process.[2]
- This co-operative style of research has been linked with **participatory research methodologies**.

Research aim

To develop and implement an evidence based, effective, best fit, antenatal triage system at Joondalup Health Campus.

Methodology

- A novel **modified** Participatory Action Research (PAR) approach that incorporated an additional step was used for this project.
- PAR is an approach to research and change in communities that emphasises **participation**, **action, collaboration, reflection, and experimentation grounded in experience**.
- Within a PAR process, "**communities of inquiry and action** evolve and address questions and issues that are significant for those [from the 'real' world] who participate as co-researchers".[3]

Methods: PAR Process Steps

1	Convene key stakeholder advisory group* (SAG). Agree SAG terms of reference and rules of engagement.
2	Capture existing process for prioritising pregnant women needing review.
3	Conduct review of literature on maternal-fetal triage processes.
4	Co-design assessment tool and process.
5	**Assess context for 'readiness for change'.**
6	Iterative implementation, evaluation and revision of triage process.

*Fluid membership depending on project needs
** Additional step to 'classic' PAR process

Methods: Setting and Participants

Study setting: Joondalup Health Campus

Participants: Stakeholders and representatives of stakeholder groups

- Clinicians/Clinical Leads: Medical/Midwifery
- Executive Team member
- Innovation and Improvement Team member

Participant recruitment: Invitation to join SAG issued; informed consent* obtained from all (100% buy-in)

*Ethics approval received from JHC and ECU

Timeline

Meeting 1: Jan 2018	SAG Terms of Reference agreed. First thoughts captured.
<u>Interim activity</u> Researcher	Lit Review completed: draft 1 of proposed new process developed and sent to SAG for review. One-on-one interview with coordinator of existing assessment area. Site where existing assessment occurs mapped.
Meeting 2: Feb 2018	Draft 1 of proposed new process discussed.
<u>Interim activity</u> Researcher	Draft 1 feedback incorporated into Draft 2 > sent to SAG for review.
Meeting 3: Mar 2018	Draft 2 of proposed new process discussed. Process/form named: **'The Joondalup Obstetric Triage Score' ('JOTS')**
<u>Interim activity</u> Researcher	Draft 2 feedback incorporated into Draft 3 > sent to SAG for review.

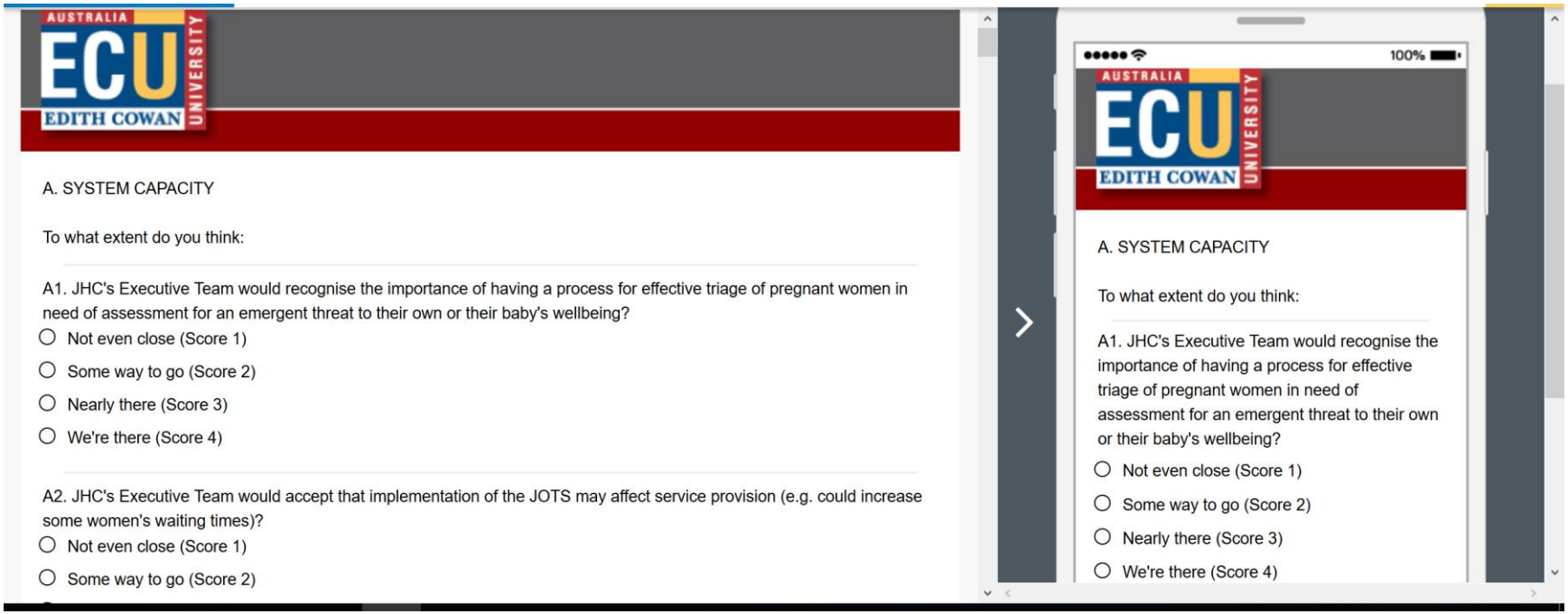
Timeline cont.

Meeting 4: May 2018	Draft 3 reviewed and accepted.
<u>Interim activity</u> Exec Team member Innovation & Improvement Team member Researcher	Document sent for printing. Staff education organised: all midwives, all maternity unit doctors. **Context assessment tool sent to SAG**
Meeting 5: Jul 2018	Discussion centred on staffing: proposed process required two midwives (one to triage and one to assess/initiate medical review) but funding was only available for one. SAG decided to conduct review of activity over one month.
<u>Interim activity</u> Innovation & Improvement Team member + Midwives	'Activity Snapshot' taken of amount, nature and timing of activity over one month: informed **increased staffing provision** ☺

Context Assessment

- Step 5: Assessment of organisational context for ‘change readiness’: completed by SAG members online / mobile device.
- 36-item questionnaire based on Damschroder’s ‘Consolidated Framework for Implementation Research’ (‘CFIR’).
- Aim: highlight any remaining possible barriers to change implementation.
  - None highlighted… all had already emerged and had been addressed in SAG meetings.

Context assessment cont.



A. SYSTEM CAPACITY

To what extent do you think:

A1. JHC's Executive Team would recognise the importance of having a process for effective triage of pregnant women in need of assessment for an emergent threat to their own or their baby's wellbeing?

- Not even close (Score 1)
- Some way to go (Score 2)
- Nearly there (Score 3)
- We're there (Score 4)

A2. JHC's Executive Team would accept that implementation of the JOTS may affect service provision (e.g. could increase some women's waiting times)?

- Not even close (Score 1)
- Some way to go (Score 2)

A. SYSTEM CAPACITY

To what extent do you think:

A1. JHC's Executive Team would recognise the importance of having a process for effective triage of pregnant women in need of assessment for an emergent threat to their own or their baby's wellbeing?

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Timeline cont.

Meeting 6: Sept 2018	Final considerations discussed. 'Go live' date set for 1st October 2018.
<u>Interim activity</u> Innovation & Improvement Team member + Clinical Leads (midwifery and medical) Midwifery Manager	Staff education. Second midwife appointed.
1st October 2018	Implementation and feedback Cycle 1 commenced.
End of October 2018	Review / refinement meeting scheduled.

Hot off the press!!

"***… all going well so far. We've changed the weekday shift patterns… have been caught out a little with this – there have been a couple of days that the assessing midwife has stayed back a couple of hours due to a backlog of patients still to be seen. The weekends shifts remain the same. No major rumbles … a few minor alterations have been suggested, but otherwise all good.***"

The JOTS

JHC 306-0

Joondalup Health Campus
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DRAFT

JOONDALUP OBSTETRIC TRIAGE SCORE (JOTS)

MRN: ....

Surname: ....

Forename(s): .... AFFIX PATIENT LABEL HERE

Gender: .... DOB: ....

Date: ..../........./.........

Time of initial phone call: ....

JOTS score given following phone call: ....

Time of arrival to LBS: ....

CIRCLE Woman's presenting condition on the table below

OTAS	Level 1 Resuscitative	Level 2 Emergency	Level 3 Urgent	Level 4 Less urgent	Level 5 Non urgent
Re-assessment	Continuous care	Every 15 minutes	Every 15 minutes	Every 30 minutes	Every 60 minutes
Time to LBS Medical Assessment	Immediately on arrival	<15 minutes after arrival	<30 minutes after arrival	<60 minutes after arrival	<120 minutes after arrival
S&S of Labour Fluid Loss	Imminent birth Fetal presenting part visible Active maternal bearing down Cord prolapse	<37 weeks: regular contractions <37 weeks: PV fluid loss Unplanned birth Unattended birth	>37 weeks: contractions 2-4 mins apart >34 weeks with regular contractions and HSV lesion/s >34 weeks planned / repeat CS with regular contractions >34 weeks multiple gestation with irregular contractions Woman not coping with labour	Contractions 5 mins apart >37 weeks: PV fluid loss 34-36+6/7 early labour signs +/- PV fluid loss	Cervical ripening Pre-booked maternal visits (for e.g. Anti D)
Antenatal bleeding		Active PV bleeding	History of bleeding prior to presentation	Spotting	
Fetal Assessment	No fetal movement No FHR detected by Doppler (fetal death not previously detected) FHR <110 bpm for >60 seconds Prolapsed cord Signs of placental abruption	Decreased fetal movement FH concerns Abnormal BPP FHR >160bpm for >60 seconds FHR decelerations			CTG (booked) ECV assessment
Hypertensive Hypotensive Neurological S&S	Actively seizing Cannot follow commands: altered consciousness Unresponsive: loss of consciousness SBP >160mmHG or DBP <110mmHG or 60mmHg palpable Maternal HR <40 bpm or >130 bpm Haemorrhaging Cardiac compromise	Sudden severe headache Visual disturbance, epigastric pain CVA-like symptoms SBP >140mmHg, DBP >90mmHG and symptomatic BP<80/40 mmHg repeated Maternal HR >120 bpm or <50 bpm	Mild/moderate/ sub-acute headache Non-dependant oedema	Follow up to hypertension detected in AN clinic e.g. blood tests	Chronic recurring headache
Pain		Acute severe abdominal / pelvic pain Chest pain	Mild / moderate abdominal pain Back pain Flank pain	Ligament pain	Pregnancy discomforts
Abdominal Trauma	Major trauma – penetrating	Major trauma – blunt	Minor trauma (e.g. minor MVA, fall)	Fall, no direct abdominal trauma	
Infection S&S		Fever, chills, uterine tenderness not related to contractions Nausea / vomiting, S&S of moderate dehydration Maternal temperature >38.3c	Nausea / vomiting, S&S of mild dehydration	S&S of UTI, haematuria Fever, cough, congestion Nausea, vomiting, diarrhoea	Rash
Respiratory	Severe respiratory distress Apnoeic SpO2 <93%	Moderate respiratory distress RR >26/min SpO2 <95%	Mild respiratory distress		
Substance Use Mental Health	Acute mental status change Unresponsive: Cannot follow commands	High risk / unknown substance use / uncertain flight or safety risk S&S of depression and planned / attempted suicide Homicidal Altered mental state	Situational crisis (physical, emotional) S&D of substance withdrawal S&S of depression, suicidal thoughts	S&S of depression, no suicidal ideation Anxiety	
Miscellaneous				Constipation	Prescription refill OP appointment that was missed Any event / procedure scheduled before woman's arrival (woman has no complaint)

MODIFIERS E.G. haemodynamic (in) stability, respiratory distress, fetal wellbeing, cervical dilatation may increase acuity

07/18

HR 306-0 JOONDALUP OBSTETRICS TRIAGE SCORE (JOTS)

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DRAFT

JOONDALUP OBSTETRIC TRIAGE SCORE (JOTS)

MRN: ....

Surname: .... AFFIX PATIENT LABEL HERE

Forename(s): ....

Gender: .... DOB: ....

Time:....................	Time:....................	Time:....................	Time:....................
JOTS Score:....................	JOTS Score:....................	JOTS Score:....................	JOTS Score:....................
Midwife reassess in .... mins	Midwife reassess in .... mins	Midwife reassess in .... mins	Midwife reassess in .... mins
Assessor Initials:....................	Assessor Initials:....................	Assessor Initials:....................	Assessor Initials:....................

Notes:	Date	Time	Sign	Designation

Contacts

Thank you for your interest.

If you would like more information about the JOTS please contact:

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If you would like more information about the modified PAR process or IS please contact:

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References

1. Reason, P. and Bradbury, H. (2008) (eds) The Sage Handbook of Action Research: Participative Inquiry and Practice. Sage, CA. ISBN 978-1412920292.
2. Graham, I., Kothari, A., & McCutcheon, C. (2018). Moving knowledge into action for more effective practice, programmes and policy: protocol for a research programme on integrated knowledge translation. Implementation Science, 13(1), 1-15. doi:10.1186/s13012-017-0700-y(Gagliardi et al., 2016).
3. Gagliardi, A., Berta, W., Kothari, A., Boyko, J., & Urquhart, R. (2016). Integrated knowledge translation (IKT) in health care: a scoping review. Implement Sci, 11, 38. doi:10.1186/s13012-016-0399-1