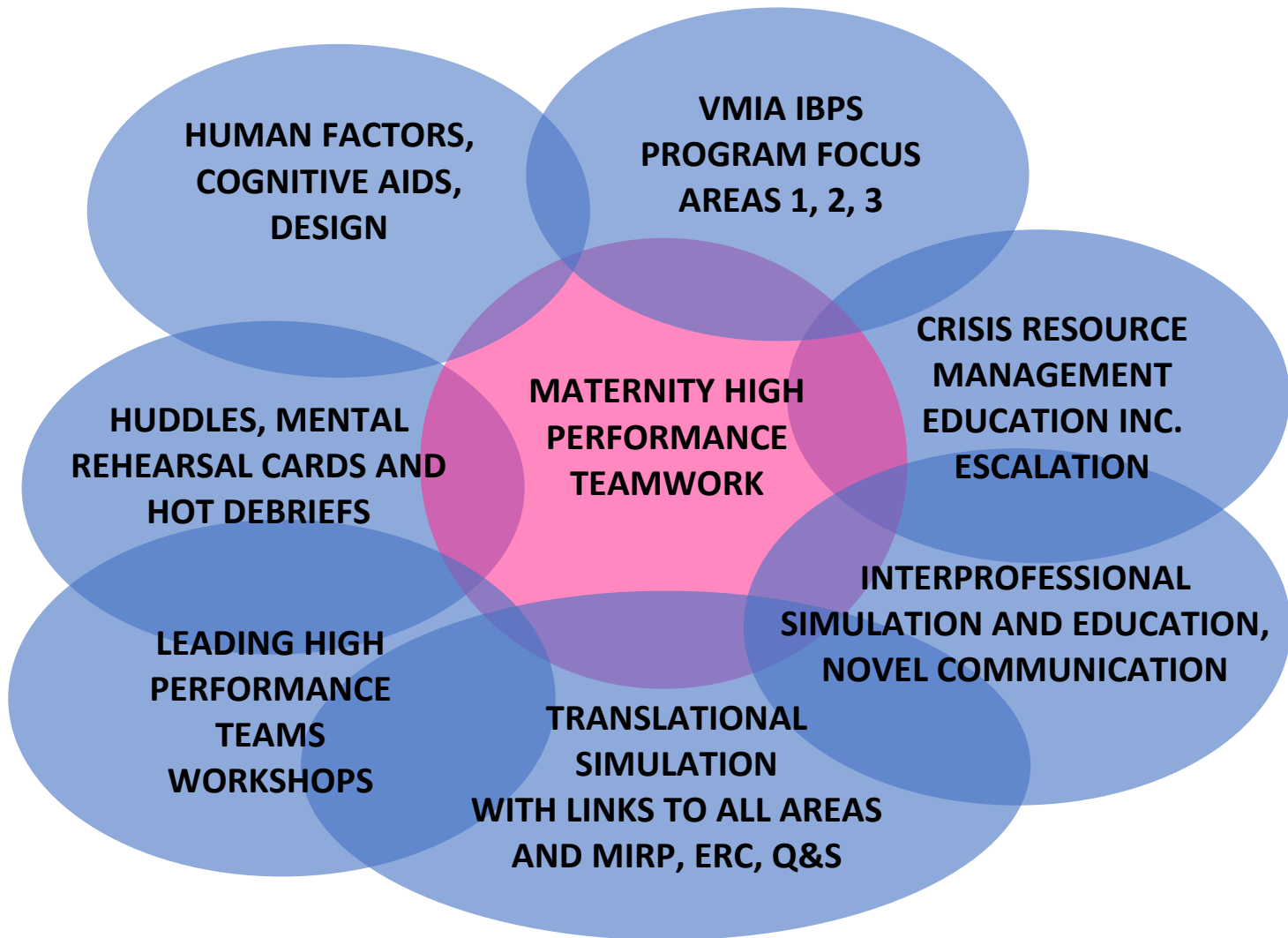


GSS: The Women's Maternity High Performance Teamwork Strategy



Overall Maternity High Performance Teamwork Strategy

The Women's Maternity Leading High Performance Teamwork Strategy is a multi-faceted program led by Gandel Simulation Service in collaboration with Bond Translational Simulation Collaborative and A/Prof Stuart Marshall. At The Women's this is in collaboration with clinical directors, clinicians, the Clinical Education Unit and the Quality & Safety team particularly Karen Moffat, Lisa Reti-Waks, Dr Lauren De Luca and Sophie Cameron.

Gandel Simulation Service is a translational simulation service using human factors and teamwork expertise with simulation to focus on patient safety and teamwork in the real environment to support teams particularly for maternity and newborn emergencies. Further information on Gandel Simulation Service and translational simulation below and in [link](#).

Central to simulation and high performing teams is the concept of **psychological safety. This is core to every pillar of the strategy as well as ensuring "work as done" in the real environment by teams, not "as imagined" in a guideline or "prescribed" in a protocol.**

Dr Eve Purdy, Anthropologist and Emergency Physician and Professor Victoria Brazil Emergency Physician, medical educator and Director of Simulation at Gold Coast University Hospital and Bond University have already done extensive work on [teamwork and psychological safety with translational simulation and in developing high performance teams](#). A/Prof Stuart Marshall has a PhD in human factors and anaesthetist.

A. VMIA IBPS

The hospital insurer, Victorian Managed Insurance Authority [Incentivising Better Patient Safety Program](#) or IBPS is about “putting women and babies first”. The three focus areas are – 1. multi-professional team simulation of maternity emergencies with crisis resource management and knowledge education, 2. Fetal surveillance / CTG education and 3. neonatal resuscitation.

IBPS exists to improve teamwork and contribute to improved patient safety and quality of care based on evidence. At Parkville IBPS has been possible due to the establishment of Gandel Simulation Service in January 2020 and 5% of the maternity premium was returned for the 2020/2021 financial year.

The other pillars of the strategy all support and feed into the IBPS program.

VMIA “Putting women and babies first: The evidence is clear. When birth suite clinicians take part in best practice training, outcomes for women and their babies improve. It also helps to manage risk within your health service, and improve teamwork contributing to a healthier, safer community. It’s a simple philosophy that drives the program: we all benefit when our health professionals are working at their very best.”

B. Crisis Resource Management (CRM) Education including Escalation

Crisis Resource Management or CRM originated from the aviation industry and was originally crew or cockpit resource management. CRM training developed in the 1970s following the realisation that 70% of airline crashes were due to human error resulting from teamwork failures.

CRM refers to the non-technical skills required for effective teamwork in a crisis or emergency. In addition to the nature of the task itself, numerous factors affect the performance of complex tasks at the level of the individual, team, environment and healthcare organisation and system. This directly relates to human factors, crisis communication and teamwork.

CRM is an integral part of simulation-based team training in healthcare and something simulation experts have additional training in. It is core to focus area 1 of the VMIA IBPS program and integrated throughout the strategy.

CRM includes the following principles outlined by Roll and Gaba* 2005:

- Know the environment
- Anticipate and plan
- Call for help early
- Exercise leadership and followership
- Distribute the workload
- Mobilise all available resources
- Communicate effectively
- Use all available information
- Prevent and manage fixation errors
- Cross (double) check – closed loop communication
- Use cognitive aids
- Re-evaluate repeatedly
- Use good teamwork
- Allocation attention wisely
- Set priorities dynamically

*Daniel Gaba (Stanford University) is one of the pioneers of healthcare simulation established in late 1970s/1980s

C. Human Factors, Visual/Cognitive Aids and Design Principles

Human Factors Human failures rather than technical failures are the greatest threat to complex and potentially hazardous systems such as healthcare systems. In aviation, over 70% of adverse events are due to human factors – data suggests a similar rate in healthcare. Managing the human risks will never be 100% effective. Human fallibility can be moderated, but it cannot be eliminated.

In simple terms understanding human factors means understanding how teams, systems, organisations and regulations can modify and mitigate human errors rather than blame humans who are fallible. This is encompassed in a safety II approach. Addressing human factors and CRM includes cognitive aids and incorporating design principles to ensure work as done not as imagined. Karen Moffat has incorporated this into a Women's specific fetal surveillance education webinar as part of CTG education, escalation and the focus area 2 for the VMIA program in collaboration with GSS.

Visual and Cognitive Aids Visuals, such as pictures, drawings, charts, graphs and diagrams, can be effective tools for communicating health information including as cognitive aids to healthcare professionals particularly in emergencies and for rare or uncommon situations e.g., eclamptic fit.

In healthcare, cognitive aids include checklists, emergency manuals, alarms, reminders like hand hygiene wall posters and mnemonics such as ISBAR. Often these are co-designed or co-created with staff and teams and tested in simulation. GSS examples are cognitive aids for Massive Transfusion Protocol at RWH theatres, PPH management at RMH theatres, Eclampsia and MgSO₄ and the codesigned PPE posters for COVID19 management.

Design Principles Design should be based on minimalist principles providing only essential information for the stated purpose – **vital to minimize user's cognitive load and decision-making time**, so quality and quantity of information is crucial. There are many factors to consider including font, colour, amount of information, flow, size of a chart, literacy and health literacy and this can also be factored into.

D. Interprofessional In Situ Simulation, Education and Novel Strategies

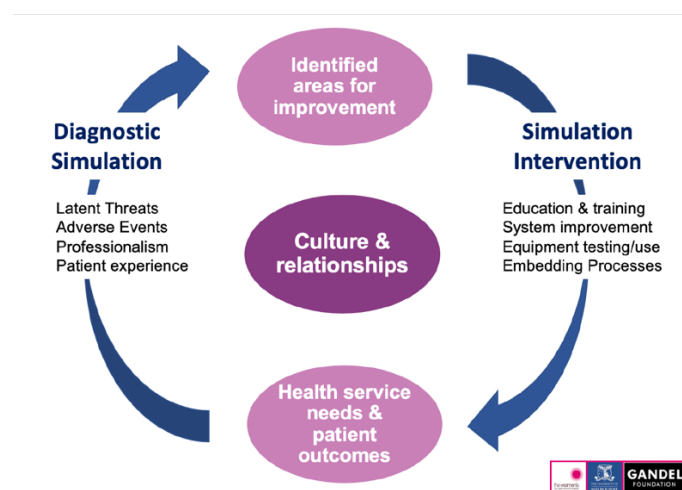
"Simulation is a technique - not a technology - to replace or amplify real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner." (Gaba 2004, BMJ Quality and Safety) GSS is a translational simulation service conducting interprofessional team-based simulation in situ or in the real space with real teams. Simulation is one powerful tool to improve teamwork, coordination, patient outcomes, and safety at the Women's. Maternity and newborn teams are made up of multiple professionals including midwives, doctors, allied health, nursing and support staff. Traditionally all these groups learn separately in silos. Interprofessional education and team training through simulation brings all these team members together.

Some of the novel communication strategies to reach all staff including night staff include podcast, videos and mental rehearsal cards. Other resources include a simulated birth centre in conference room A able to run 3-4 simultaneous emergencies with 3-4 teams. These can be used either within or to augment orientation and onboarding as well as with existing staff. An amazing race style exercise as part of team-based orientation has also been suggested based on the amazing race case paper on intern orientation from 2005.

E. Translational simulation with links to MIRP/ERC/Q&S

The term translational simulation describes healthcare simulation focused directly on improving patient care and healthcare systems, through diagnosing safety and performance issues and delivering simulation-based intervention, irrespective of the location, modality or content of the simulation. It offers a functional alignment with quality improvement activities in healthcare institutions, while encompassing those educational interventions targeting practice behaviour or patient outcomes.

Translational simulation requires close relationships with clinical governance and quality improvement services in healthcare institutions and can be used effectively as part of comprehensive health service improvement strategies. Integration with MIRP, ERC and Q&S have been vital for this work. Translational simulation activities encompass modalities, locations and delivery methods that address the gap between simulation education and patient outcomes. Current maternity work includes development of a Code Green ISBAR tool for improved communication and handover in Code Greens.



F. Huddles, mental rehearsal cards and hot debriefs

Huddles, team introductions, team briefings, hot debriefs and having a shared mental model through “mental rehearsal cards”, simulation and rostering can all improve foster a culture of safety, and effectively engage multidisciplinary teams and improve adherence to best practices (see page 6).

Mental rehearsal cards have already been used on birth centre and in Women’s Emergency Care. Time at or after handover would facilitate uptake and use as well as huddles incorporating team introductions. Team introductions, huddles and briefings were part of 5South/COVID ward orientation. Hot debriefs are to be introduced in 2022 in conjunction with GSS and the birth centre team. These are separate from critical incident debriefs and training will be needed to ensure psychological safety.

Mental rehearsal or planning ahead helps teams to work better together. Evidence from healthcare simulation and other fields has shown that mental rehearsal can be a critical element of improving individual and team performance in critical care settings like ours for emergencies. The mental rehearsal cards created by GSS are designed as a 5–8-minute exercise for teams to get to know who’s on for the shift, review role allocations, and discuss communication and escalation in maternity emergencies.

G. Leading High Performance Teams Workshops

Delivering healthcare is complex. Trying to lead teams within our systems can feel frustrating and risks poor outcomes if we can't 'get it all together'. This workshop is to train staff across clinical and non-clinical areas to understand what makes teams work – or not – in contemporary healthcare, and how these teams operate best in complex systems.

The workshops, which will continue in 2022 and beyond, are a collaboration between Gandel Simulation Service (Dr Rebecca Szabo, Dr Kara Allen and Nova Barrios), University of Melbourne Department of Critical Care and Bond Translational Simulation Collaborative with Dr Eve Purdy, Anthropologist and Emergency Physician; Professor Victoria Brazil Emergency Physician, medical educator and Director of Simulation at Gold Coast University Hospital and Bond University and A/Prof Stuart Marshall has a PhD in human factors and anaesthetist.

The workshop included understanding:

- teams, teamwork and psychological safety including the science and role of human factors and simulation.
- how we lead learning conversations (e.g., hot debriefs, coaching, mini-sims, mental rehearsal), and managing conflict.
- how to help our teams reflect on performance in the real world and embed systems to make this a habit.
- some advanced principles and frameworks related to teamwork in healthcare and beyond, with a focus on how we can develop teams with shared language, mental models and principles for discussing teamwork.
- the role of relationships and culture and how these can be shaped through both everyday conversations and through carefully designed simulation activities.
- how to lead learning conversations in the workplace and in training activities – in briefings, huddles and after action reviews or hot debriefs – and considered the role of structure and conversational techniques.

Two interactive online half day primer workshops were held in September 2021 and will be followed up in March 2022 with in person experiential workshops using simulation.

The clinician workshop was attended by a diverse mix of professions and specialities including midwifery, nursing, obstetrics, neonatal and emergency medicine. The Quality and Safety workshop was attended by the Women's Quality and Safety diverse team as well as Karen Moffat CMC and focused on teamwork and human factors.

The aim of this workshop is to ensure all leaders are across the high-performance teams' strategy and the above concepts, so they know how to help teams perform better together. This is one way Gandel Simulation Service aims to build capacity and capability to embed the maternity high performance teamwork strategy and extend it across other clinical and nonclinical areas.

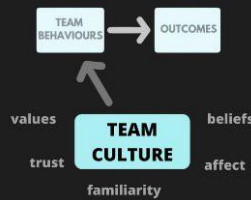
H. Other

[A grand round on psychological safety and teamwork](#), by Dr Eve Purdy with Professor Victoria Brazil moderated by Dr Rebecca Szabo with Dr Kara Allen and Nova Barrios was held in November 2021 and will be used for ongoing education and held again as a panel discussion.

PSYCHOLOGICAL SAFETY IS NO ACCIDENT

better team performance in emergency medicine

PSYCHOLOGICAL SAFETY - the ability for members of a team to take interpersonal risks (1)- is critical to team performance in dynamic, interdependent, time pressured environments. It supports a team culture that allows for the manifestation of excellent team behaviours.



aim for **SAFE... NOT SOFT.**

EXPECT

Teams with high levels of psychological safety are able to define and uphold high expectations. Members hold each other accountable to the common goal.

CHALLENGE

A hallmark of psychologically safe teams is the ability to challenge the status quo, approach problems in new ways, and feel such contributions are valued and heard.

LEARN

Psychological safety allows teams to continuously grow from their collective experience. To push the boundaries of what is possible..together.

MY TEAM IS NOT AS SAFE AS I THINK IT IS...BUT IT CAN BE.

We have found that psychological safety in the ED is **lower** than we might think, experienced **variably**, and driven primarily through **familiarity**.



Small moments impact psychological safety each shift. These **small moments** and departmental **big decisions** matter.



Shift Huddles

Allow for simple introductions, setting teamwork expectations, and lowers communication threshold.



Team Briefings

Facilitate rapid development of shared knowledge about roles, goals, and mutual respect.



After Action Reviews

Foster positive regard and identification of areas for improvement. The team grows together.



Simulation

Offers an efficient place for teams to build familiarity, and mutual respect.



Rostering

Schedules designed to build familiarity may impact the performance of ED teams.

FURTHER READING

- 1) Anything Amy Edmondson has written
- 2) Anything Roisin O'Donovan has written including "Exploring Psychological Safety in Healthcare"
- 3) The Team Briefing: Setting Up relational Coordination for your Resuscitation
- 4) Safe Not Soft - Hitting the Sweet Spot for Psychological Safety in Simulation
- 5) Consider Joining the Psychological Safety Newsletter

