Patient Safety and Interprofessional (Multidisciplinary) Collaboration

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The Olympics are travelling from London to Brazil: their first journey to South America.

Mine too!

I am very excited to be here!
Thank you for inviting me.
Estou muito feliz em estar aqui!
Obrigada por me convidar!

Teamwork

Cyclist by Peter Trimming at http://www.geograph.org.uk/photo/3062243
Operating Theatre supplied by Barts and The London Clinical Simulation Centre

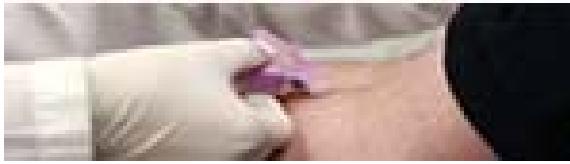
Today

- Patient safety and interprofessional collaboration
- Setting the scene and highlighting work from different people and places.

Tomorrow

- I will focus more closely on one aspect of maintaining safety through collaborative teamwork – Team Situation Awareness (TSA).
- I will use one of my own studies to show different patterns of TSA and link these to outcomes.

Presentation slides and bibliographies will be available



Patient safety ...

- ... global public health challenge and World Health Organisation (WHO) priority.
- Comparing my flight to Brazil with receiving hospital care in London ...
  - "There is a one in 1 000 000 chance of a traveller being harmed while in an aircraft. In comparison, there is a one in 300 chance of a patient being harmed during health care."
    Fact 9, WHO (2012) *10 Facts on Patient Safety*
    www.who.int/features/factfiles/patient_safety/patient_safety_facts/en/index8.html

Images from Aaron Escobar http://www.flickr.com/photos/caribb/2372670886/ and http://www.clinicalskillscentre.ac.uk/index.php

Visualising the Scale of the Patient Safety Challenge

- Each London bus carries up to 72 people
- Imagine an average sized, averagely performing hospital organisation.
- Patients suffering avoidable harm would fill almost two buses, every week.
- Health care could and should be much safer.

Buses used in Patient Safety First campaign 2007, UK, Public Domain

Health services need input from many people with different perspectives and expertise

- Similar ‘players’ with subtly different roles and talents?
- Or different species?
- It is collaborative teamwork that allows them to succeed.

•Brazilian football team by ‘caju1901’ at http://www.fotopedia.com/items/flickr-1982493555
• Horse & rider by Beechwood Photography at http://www.flickr.com/photos/beechwoodphotography/4974728117/

Interprofessional/Multidisciplinary Collaboration

- Interrelated working that achieves better outcomes than
  - independent parallel work
  - working towards different objectives
  - work that disregards others' (potential or actual input).
- Collaboration can improve patient safety

Train tracks by Stevie Spears at http://www.geograph.org.uk/photo/1321810
Road sign by Roy Hughes at http://www.geograph.org.uk/photo/1283020

Supporting Patient Safety: Collaboration can ...

- Catch and mitigate errors (omission and commission) and latent errors
- Reduce risks of overload and fixation
- Check and, when necessary, challenge assumptions
- Generate new ideas for solving persistent problems (particularly collaboration between people with different perspectives)

Reason's 'Swiss Cheese' model of accident causation

- Errors happen all the time. Most don't cause a problem.
- When all the holes line up an error goes undetected or unaddressed. Eventually it becomes an adverse incident.
- Collaboration is one layer of defences (cheese)

Swiss cheese diagram from AHRQ web M&M slide at http://www.webmm.ahrq.gov/case.aspx?caseID=127

Slices of cheese – defences include

- Teamwork, interprofessional collaboration
- Design (e.g. workplace, equipment, labels, record sheets, systems) – simple, tidy, ergonomic, 'forcing'
- Checklists and protocols - communication; doing the best thing consistently; building culture
- Safety culture, feedback and leadership - social pressure to do things right and aim to improve; appropriate targeting of resources
- ...

Collaboration has additional benefits

- In addition to patient safety, interprofessional collaboration can support:
  - Effective use of resources
  - Better working lives

Example, UK operating theatres, Allard, Bleakley, Hobbs and colleagues, 2006, 2007, 2011

- Short period of briefing and debriefing at the beginning and end of operating theatre lists
- Two or three brief questions (Beg and End) for whole team, e.g.
  - Beg: Are we expecting any problems today?
  - End: Did that go how we thought it would?
  - End: Is there anything we need to follow up?

Bleakley et al continued

- Teams worked more quickly and efficiently
- Teamwork climate & safety climate scores improved
  - These 2 findings echoed other briefing/debriefing studies
- Recurrent and annoying safety-related problems were addressed
- Staff sickness rates fell

- But
  - Needs surgeons' support
  - If it does not become integrated in routine work – a habit – frequency falls & associated benefits decline

WHO Surgical Safety Checklist (2008, 2009)

- Checklist for each patient focuses on three key perioperative moments: ‘sign in’, ‘time out’, ‘check out’
- Work by Bleakley et al at Royal Cornwall Hospitals NHS Trust predates WHO checklist, but is complementary because it reviews the whole surgical list
- UK National Patient Safety Agency (NPSA) advised use of both - 5 moments of review

Interpreting Bleakley et al

- Interprofessional collaboration (IPC) supported safety by:
  - promoting anticipation, review and problem-solving
  - encouraging each profession to speak up
  - strengthening safety climate
  - reducing delays and improvisation

Interpreting Bleakley et al continued

- Ideal nursing contribution to this IPC
  - Willing and solutions-focused contributions to briefing and debriefing
  - Supporting less powerful and less experienced staff to contribute appropriately
  - Nudging reluctant participants into participation, if their participation is required
  - Follow-up of safety and efficiency issues that were noted during debriefing

Interpreting Bleakley et al cont.2

- What supported IPC around briefing and debriefing?
  - Answer could lie Edmondson's work on Leader Inclusiveness, Team Leader Coaching and Team Psychosocial Safety
- Team Psychological Safety (TPS) 1999
  - shared belief that the team is safe for interpersonal risk taking, e.g. express concern make suggestions, ask for help or experiment with improvements (promotes learning)

Edmondson's constructs

- 'Team Leader Coaching' (2003) invites and clarifies the need for others' input
  - increases ease of speaking up
  - increases 'boundary spanning' (liaison with related teams)
- 'Leader Inclusiveness' 2006
  - encapsulates words and actions that invite and appreciate others' contributions
  - moderates the effect of status on psychological safety

My thoughts on Edmondson Linking back to Bleakley et al

- Surgeons' support for theatre briefing and debriefing (exercised through Leader Inclusiveness and Team Leader Coaching) was vital in theatres due to power gradient between professions
- But senior nurses are powerful too, in theatres and other healthcare settings
- Nurses can influence Team Psychological Safety, interprofessional collaboration and patient safety.

Nurses are key to IPC and patient safety

- Nurses manage health services, the nursing workforce and several types of assistant professionals: their leadership behaviours can support or inhibit collaboration and safety
- Nurses often lead ‘boundary spanning’ - collaboration with other teams & organisations
- Nurses subtly ‘manage’ more powerful professionals (doctors, dentists, pharmacists ...) and supervise (an opportunity to socialise) these professions’ students

Example2, USA, ICU, Pronovost et al

2006, 2008, 2010, 2011, 2012

- Successful multifaceted, evidence-based intervention to reduce catheter-related bloodstream infections
- Dramatic improvements, sustained (18+ months)
- Intervention spread across USA and abroad with high level of success (e.g. ‘Matching Michigan’ campaigns)
  - but cultural barriers occasionally limited success

Reducing catheter-related bloodstream infections: the intervention at ICU level

- Four evidence-based actions to avoid introducing infection during insertion of catheters
- Removing unnecessary catheters
- Having trolley set up with required equipment
- Use of checklists
- Assessment and review of safety culture
- Empowering nurses to speak up if any part of the evidence-based procedure was overlooked or ignored
- Reviewing regular feedback on infection rates

The intervention within the healthcare organisation and wider network of ICUs, required, for example:

- Commitment letter from the hospital CEO to the programme team.
- Project team leader (e.g. nurse manager) ~10% time.
- Interprofessional project team, at minimum: physician advocate, nurse manager/advocate, data coordinator, hospital executive advocate.
- Submit baseline and monthly infection rate data
- Blinded data provided to all ICUs for benchmarking.
- Participation in conference calls & network meetings (intervention content, coaching and peer learning).

My interpretation of the nursing and IPC contributions to the remarkable success

- Leadership of nursing managers was vital and worked effectively with medical, managerial and administrative leadership
- Nursing project leaders key to boundary spanning with non-ICU services and other ICUs for support with improvement efforts and problem-solving
- Senior nurses key to improving and sustaining safety culture within ICU
- Nursing workforce empowered to speak up and engage in problem-solving

Reducing catheter related infections – How did the state-wide program work? Dixon-Woods (2011)

- Sociological analysis found six mechanisms:
- generating isomorphic pressures for ICUs to join the programme and conform to its requirements
- creating a densely networked community that exerted normative pressures on members
- reframing these infections as a social problem with a solution and addressing the problem through a ‘grassroots’ professional movement

How did it work? continued

- using several interventions that functioned in different ways to shape a culture of commitment to doing better in practice
- harnessing data on infection rates as a disciplinary force
- using ‘hard edges’ e.g. making the opaque visible (infection rates, auditable checklists), requesting that non-compliant ICUs withdraw from the programme

Not stress-free …
e.g. Dixon-Woods 2011 p193

- “Some physicians did call the program leaders to complain that the program was fomenting revolution among nurses, and these calls were used as an opportunity to explain that the program was trying to ensure that patients got the best care.”

Possible examples from Brazil

- Warning: I can't really evaluate literature in Portuguese
- I did not find published work examining interprofessional/multidisciplinary collaboration and its link to patient safety
  - (Lots of other patient safety studies)
- But some interesting studies that might touch upon this …

Possible recent examples from Brazil

- da Silva et al (2012) Safety of paediatric intensive care inpatients: understanding adverse events from the companions' perspectives. Segurança da criança hospitalizada na UTI: compreendendo os eventos adversos sob a ótica do acompanhante.
- Lemo et al (2012) Risk reduction in musculoskeletal practice assistance professional nursing pilot in semi intensive care unit
- Costa Santos et al (2011) Structural changes in a home for aged people aiming the prevention of falls among residents. Alterações estruturais numa instituição de longa permanência para idosos visando prevenção de quedas

Summary: some aspects of how (senior) nurses are key to improving and sustaining safety culture

- Developing expertise and preparedness to ‘speak up’ among nursing and other staff
- Role-modelling best safety practices and interprofessional collaboration
- Ensuring inexperienced staff are well-supported
- Fostering engagement in review meetings and improvement efforts
- Oversight of correct supplies, safely and accessibly stored
- Local problem-solving

Conclusion

- Nurses have vital roles in patient safety and in supporting collaborative practice to underpin patient safety.

- Tomorrow I will be talking about collaboration for patient safety in maternity units.

- References
  - See separate bibliography

- Thank you for listening

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