Training in Professional Skills (TIPS):
The creation and evolution of a simulation-based ‘non-technical’ skills course for Trainee surgeons in Australia and New Zealand

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Date: 27th September, 2019
I do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

Je n’ai aucune affiliation (financière ou autre) avec une entreprise pharmaceutique, un fabricant d’appareils médicaux ou un cabinet de communication.
Acknowledgements

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• Catherine Gibb
• Deborah Amott
• Paul Bowe
• Erica Jacobson
• Robert O’Brien
• Julian Van Dijk
• Peter Subramaniam
• Ellen Webber
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What is TIPS?

Cognitive & interpersonal skills

- Non-technical skills
- Professional skills
- Human factors
- Behavioural skills
Why TIPS?

Because poor patient outcomes arise from:

- inadequacies in patient communication  
  *Pichert et al 1998, Little et al 2001*

- failures in teamwork  

and because…

- underperforming Trainees struggle with professional skills  
  *Paice 2009*

- professional skills are not well taught  
  *Al-Jundi et al 2015*
Objectives

The educational core tenets of the course are:

- **Extension**: affirmation and extension of effective professional behaviours.
- **Integration**: safe technical and ‘non-technical’ skills are mutually dependent. Integrated learning experience with clinical practice.
- **Experience**: participation and active observation in simulated scenarios.
- **Reflection**: feedback-reflection-experience cycle.
Course development

- Pilot course 2009
- Launched in July 2011
- Designed from an initial project, ‘Non-technical skills training using simulation’, of the Australian Society for Simulation in Healthcare, funded by the Australian Government.
- Content has been co-developed by RACS and Monash University, with support from St Vincent's Hospital and Southern Health.
Course development

Written by Dr Margaret Bearman from the Centre for Medical and Health Sciences Education (CMHSE) Monash University, in collaboration with:

Prof Brian Jolly (CMHSE)
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Prof Debra Nestel (Gippsland Medical School)
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How do we teach TIPS?

- 2 day course
- 12-16 participants supported by 8-10 instructors
- Pre-course communication e-module and survey
- Interactive lectures
- Demonstrations
- Small group activities
- Scenario-based role-playing with actors
- Immersive simulation
- Briefing & debriefing
- Post-course evaluation

- ad hoc & stable teams
- cognitive capacity & load
- leadership & followership
- hazardous behaviours
- shared mental models
- biases & assumptions
- situation awareness
- closed loop communication
- conflict resolution & negotiation
- graded assertiveness
E-learning modules

Current communication module

6 human factors modules:

- Stress & resilience
- Decision making
- Team dynamics
- Conflict management
- Situation awareness
- Speaking up (in response to unacceptable behaviour)
Interactive lectures

Role-playing

Debriefing
Immersive simulation

- Situation awareness
- Teamwork skills
- Task focused communication
- Graded assertiveness
- Leadership & followership
Who do we teach?

- SET Trainees, all specialties
- Unaccredited Trainees
- IMGs
- Junior doctors
TIPS faculty

Each course is facilitated by a volunteer faculty including surgeons, physicians, emergency physicians, anaesthetists and medical educators with human factors experience.

Annual TIPS Instructor Course to train potential instructors.
How effective is TIPS?

**Learning Surgical Communication, Leadership and Teamwork Through Simulation**

Margaret Bearman, PhD,* Robert O’Brien, EdD,† Adrian Anthony, MBBS, FRACS,‡
Ian Civil, MBChB, FRACS,‡ Brendan Flanagan, MBBS, *Brian Jolly, PhD,* David Birks, FRACS, MHPE, *
Mary Langcake, MBBS, FRACS, Elizabeth Mollay, PhD,* and Debra Nestel, PhD*

**A pilot training program in surgical communication, leadership and teamwork**

Training in Professional Skills (TIPS): Outcomes of a Non Technical Skills (NTS) Course for Surgical Education and Training (SET) Trainees

Dr Robert O’Brien, Mr Adrian Anthony, Mr David Birks, Mr Phil Moreau, Associate Professor Phil Truskett, Mr Julian van Dijk, Mr John Cartmill

ST VINCENT’S HOSPITAL, ROYAL AUSTRALASIAN COLLEGE OF SURGEONS.

- Bearman et al, ANZ J Surg 2011
- O’Brien et al, Sim Healthcare 2013

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ROYAL AUSTRALASIAN COLLEGE OF SURGEONS
## How effective is TIPS?

### 2018 Participant Evaluation Results (88 responses)

<table>
<thead>
<tr>
<th>Having attended TIPS, I am now able to…</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>…describe the benefits and challenges associated with effective patient-doctor communication in surgical practice</td>
<td>0%</td>
<td>1%</td>
<td>3%</td>
<td>50%</td>
<td>45%</td>
</tr>
<tr>
<td>…describe the benefits and challenges associated with effective teamwork and collegial communication in surgical practice</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
<td>47%</td>
<td>50%</td>
</tr>
<tr>
<td>…identify personal strengths and areas for improvement with respect to skills relevant to the above domains</td>
<td>0%</td>
<td>1%</td>
<td>3%</td>
<td>47%</td>
<td>49%</td>
</tr>
<tr>
<td>…identify methods for practicing and integrating these skills in the workplace</td>
<td>0%</td>
<td>1%</td>
<td>6%</td>
<td>52%</td>
<td>41%</td>
</tr>
<tr>
<td>…reflect on achieving appropriate professional behaviours</td>
<td>0%</td>
<td>2%</td>
<td>3%</td>
<td>41%</td>
<td>53%</td>
</tr>
</tbody>
</table>
Post-course evaluations

Feedback from 2018 participant evaluations:

“The whole course was really excellent. The faculty provided a safe environment to test out new skills. I think just the right amount of time was spent on lectures versus practical sessions. There were fun moments and some fairly confronting moments, and the content was aimed at the right level for my own practice.”

“One of the benefits was that scenarios tailored to specialties. Using actors to make cases as realistic as possible. Positive and very constructive feedback.”

“There was an excellent balance between lectures and practical sessions. The lectures were interactive and engaging. There was a diverse faculty who were all extremely knowledgeable.”
Summary

- Deficiencies in professional skills jeopardise patient safety – *professional skills are integral to safe and effective surgical practice*

- Professional skills are implicitly taught and learnt – *a more deliberate, explicit approach is required*

- The TIPS course provides an evidence-based approach towards understanding and developing professional skills
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