



Perspectives on interprofessional student learning in a simulated clinical environment

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Objectives

- Appreciate the complexities and challenges involved in designing and delivering an IP curriculum
- Understand the importance and role of simulation in IP learning experiences
- Identify the successful components of an IP curriculum



Interprofessional education

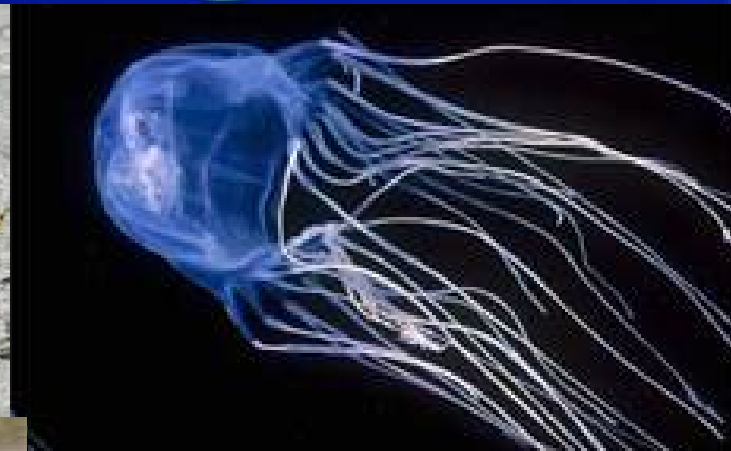
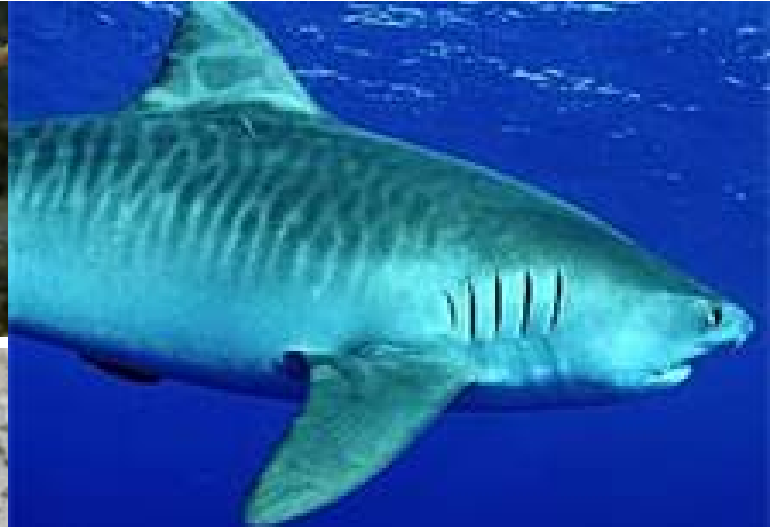
Learn

With

From

About

Each other



River Thame, Oxfordshire, England







Background

- Increased Clinical Training Capacity grant
 - Increase clinical placements
 - medicine, nursing, occupational therapy, pharmacy and physiotherapy
 - Develop and implement an IP Curriculum
- Curriculum group comprising above professions



Outline

- Development of the IP curriculum
- Implementation challenges
- Evaluation of the curriculum
 - Quantitative
 - Qualitative
- Personal perspectives and insights



Why an interprofessional curriculum?

When healthcare is sub-optimal
root causes:

- ineffective working relationships
- poor team work
- inadequate sharing of clinical documentation
- inadequate understanding of and respect for the contributions of other clinical professions



Curriculum development - Purpose

Providing students the opportunity to;

- Further develop interpersonal skills,
- Demonstrate their role in the multidisciplinary team and
- Expand their understanding and respect for the contributions of other health professionals



Curriculum Development - Aims

Students will gain understanding and further develop skills in:-

- Communication within teams
- How teams function
- Roles of professional colleagues
- Conflict resolution to reach 'consensus' in decision making to ensure safe and effective patient care

Curriculum development - Objectives

- Importance of communication
- Demonstrate
 - skills in effective communication and collaboration
 - skills in building and maintaining relationships
 - respect for the skills, responsibilities and contribution
 - Active participation within a team
- Describe the roles, skills, responsibilities and contributions.
- Demonstrate respect for the skills, responsibilities and contribution
- Develop an understanding of the importance of reflection



Curriculum Activities Developed

Case
Conference

Ward
Round

Role
Play

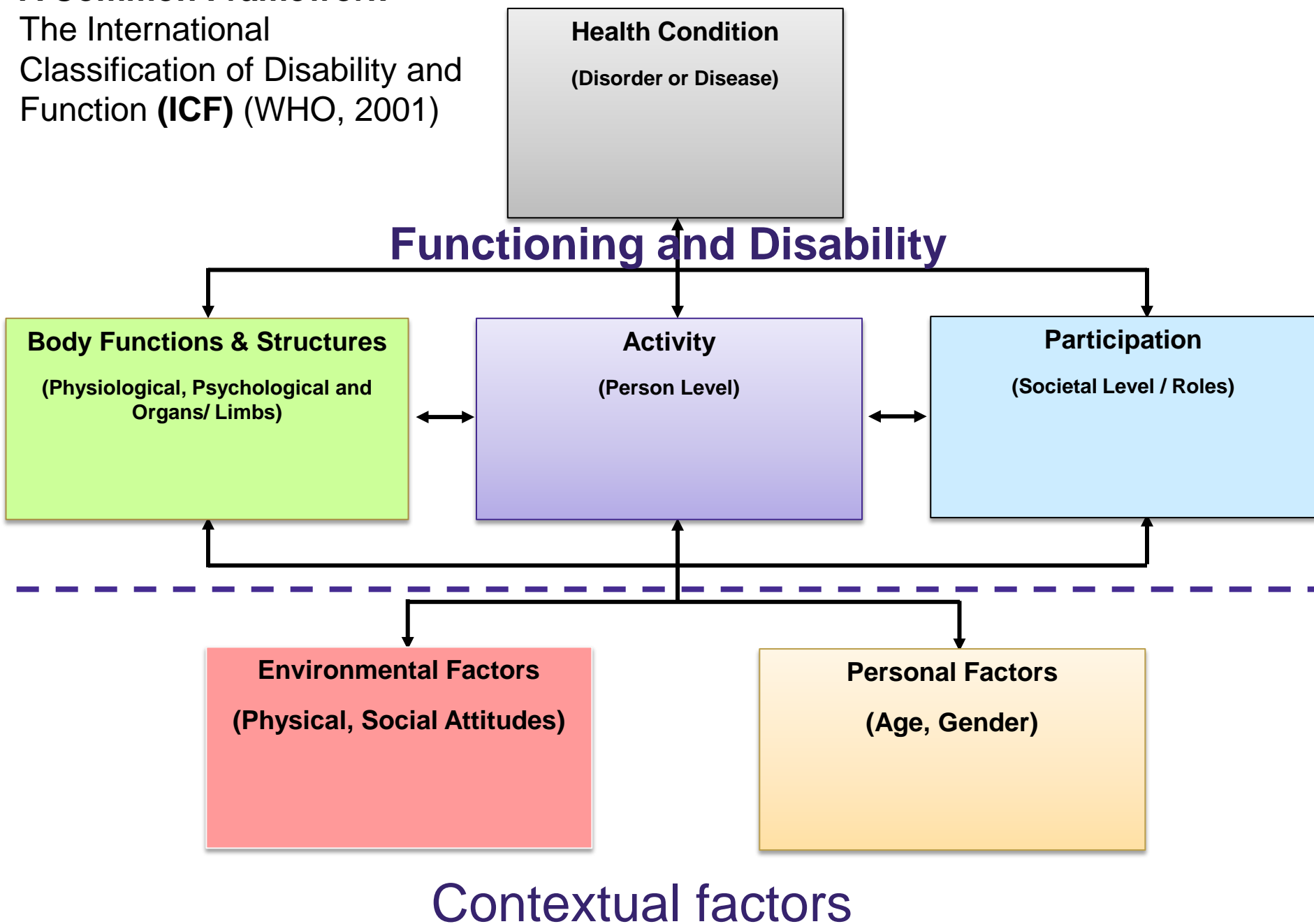


Case Conferences

- Student group provided with a case history
- Session One - discussion
 - Patients issues from own discipline perspective
- Session Two – discussion/presentation
 - Complete the ICF framework
 - Develop management plan

A Common Framework-

The International Classification of Disability and Function (ICF) (WHO, 2001)



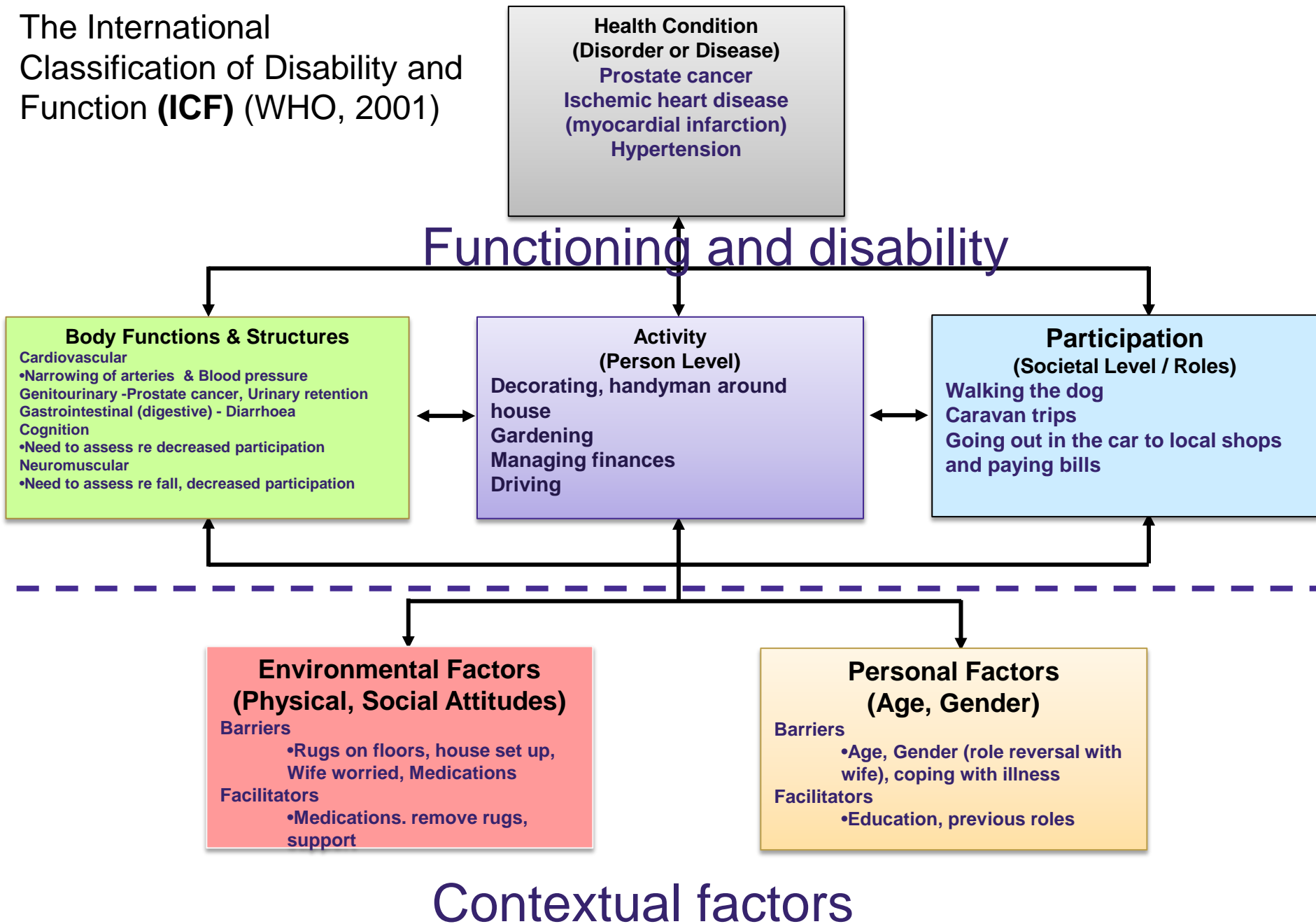
A Case example – you are the multi-disciplinary team in the oncology out-patients

- George - 72-year-old diagnosed with prostate cancer 12 months ago -6 month check up
- Heart attack 5 years ago, Hypertension 10 years
- Experienced three Falls at home when going from sitting to standing
- Live with wife and is DIY fanatic – decorates/ gardener
- Lost confidence
 - Much less DIY –get in a man (or woman)
 - Used to look after finances at home –drove to shops to pay bills
 - Stopped caravanning used to go once per month
- Ex miner –a mans man.



A Common Framework-

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Management Plan

Issue identified	Plan for resolution of issue	Profession to coordinate the plan
Falls prevention	Home visit to properly assess environment (rugs etc) Assess muscle strength/ balance	OT PT
Orthostatic hypotension	Review	Nurse, GP, Pharm, PT
Decreased participation	Family involvement for holidays, walking club	Social worker, OT, Family
Loss of confidence	Need to explore reasons for this – could be related to fall	PT, GP, Psychologist



Environmental Factors

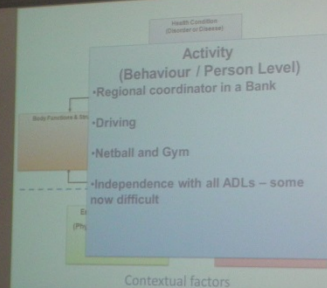
Barriers

- Worry - fear of stigma, high demanding role
- Societal attitudes towards stroke, particularly a younger person
- Lack of MBS access and delay in vocational rehab

Facilitators

- Supportive partner
- Easy access to specialised health services
- Back up access to services e.g. Controls

Contextual factors



Management Plan

Issue identified	Plan for resolution of issue	Profession to coordinate the plan
Persistent neurological deficit	<ul style="list-style-type: none"> •Ongoing community rehab •GP - Enhanced Primary Care programme - OT and PT •Recreational programme •OT driving assessment 	GP, OT, Physio, Practice Nurse
Control of Ongoing Risk Factors	<ul style="list-style-type: none"> •Monitor HT - self As •Monitor cholesterol levels •Dietary change •Smoking cessation •Aggressive pharmacological control and adherence •Exercise programme 	PT, Pharmacy, GP, Dietitian, OT



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Case Topics

1. Type 2 DM with below knee amputation
2. Refugee from Sudan who is 30 weeks pregnant
3. Indigenous gentleman with a MI → regional hosp
4. Elderly lady with delirium/confusion-early dementia,
5. Young lady who suffers an ischaemic stroke



Simulation Role Plays

Students given a context and 'script'

- Reflects flow of interactions in practice environment
- Communication with
 - Patients
 - Other healthcare professionals
- Key knowledge provided
- Feedback (debrief) with facilitator





Simulation Role Play Scenarios

1. Hip replacement – thromboembolism risk
2. Hip replacement – potassium & ADLs
3. Deep vein thrombosis – warfarin and stockings
4. Knee replacement – ADLs and blood glucose levels.

Simulation Ward area

Ward Rounds

Three patients

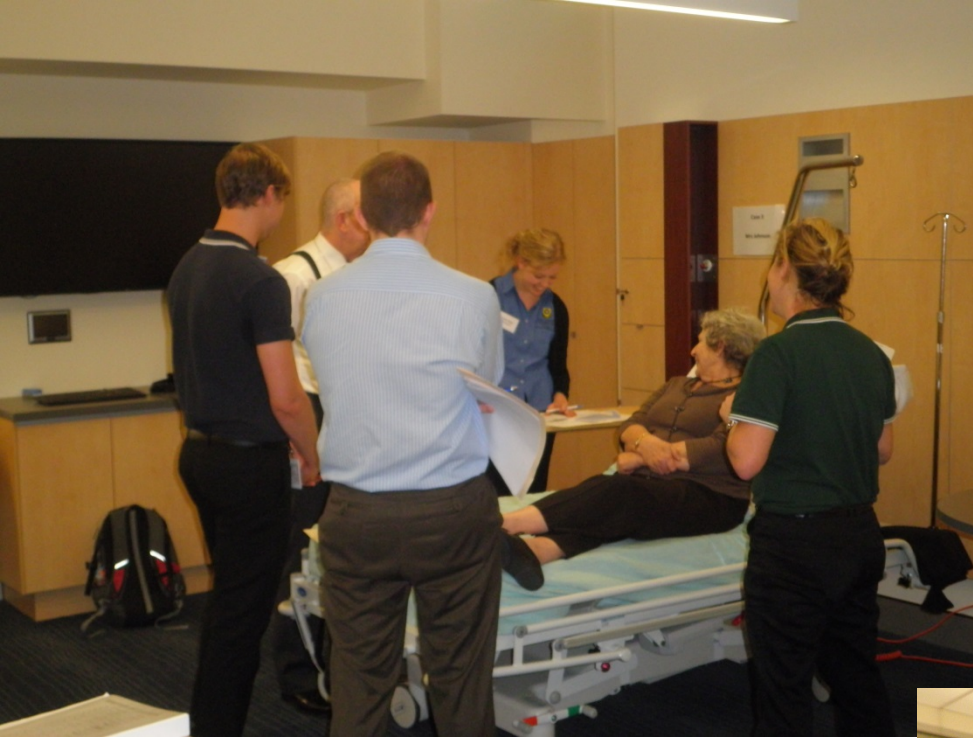


Information at end of the bed



10 minutes to interview patient





Conduct a ward round
with consultant
physician – all
disciplines

Discuss what going
on and
Plans for next 24
hours





Simulation Ward Rounds Cases

1. Fractured neck of femur day 3 post-op
2. An elderly stroke patient day three
3. A post-take ward round for a lady admitted with de-compensated heart failure who also has rheumatoid arthritis.



Curriculum Activities

Timeframe

1. Activity (90 mins)
2. Afternoon tea (30 mins)
3. Case conference presentation(45-60 min)

Students participated in all three activities over 4 to 6 weeks



Implementation Challenges – Timetabling

	1
Pharmacy - 3rd year	
Pharmacy - 4th year	
OT - 3rd year	
OT- final year	
Medicine - 3rd year	
Medicine 4th year	
Physiotherapy	

Medic
Nursin
Occup
Pharm
Physic

[illegible]



Implementation Challenges – Timetabling

- Release from placement each Wednesday afternoon
- Presence of all professions every week
- Balance of professions between each group



Implementation and Delivery

- Curriculum implemented four times;
- Evaluation of students using survey
 - Readiness for Interprofessional Learning Scale (RIPLS)
- All students surveyed
 - Start of first session
 - End of last session

RIPLS Subscales

- Teamwork and collaboration
 - Willingness to share knowledge and skills (↑ score)
- Negative professional identity
 - Want to learn with other professions (reverse score - ↑ score)
- Positive professional identity
 - Value working with students from healthcare disciplines (↑ score)
- Roles and responsibilities
 - Clearer picture of own roles and that of others (↓ score)



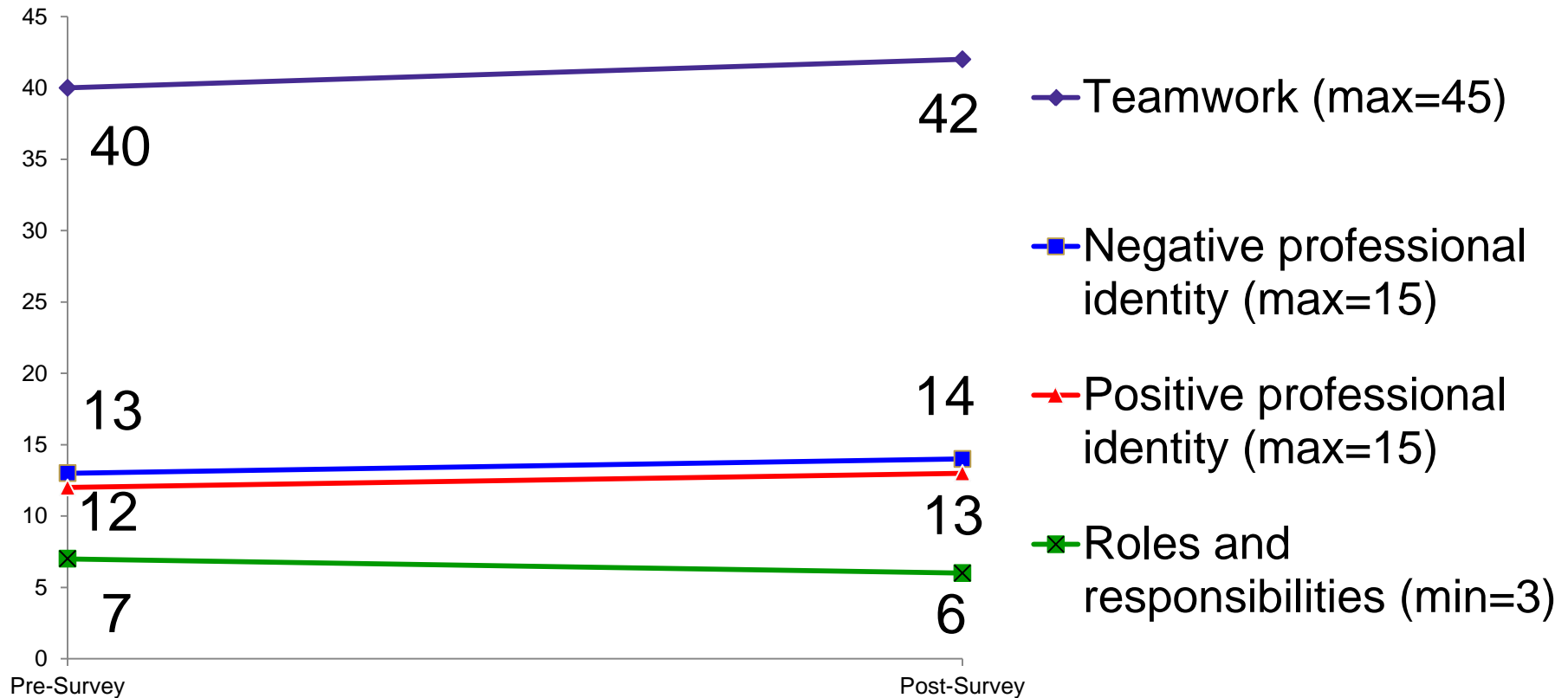
Results

“It was great !!”

Student cohort, n=89 (107)

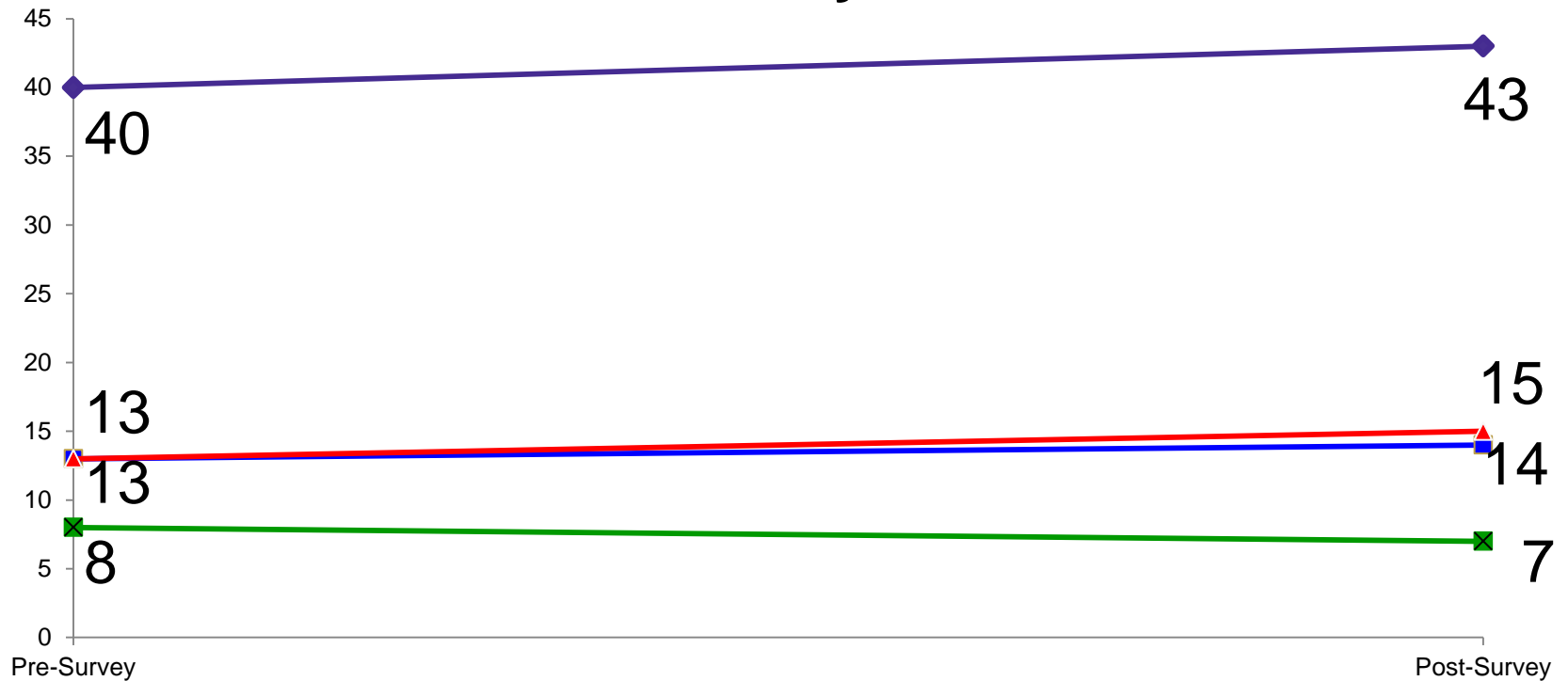
Age (mean [SD]) years	24 (\pm3.5)
Gender	n (%)
Female	65 (73)
Male	24 (27)
Discipline	
Pharmacy	31 (35)
Medicine	20 (22)
Physiotherapy	15(17)
Occupational Therapy	13 (15)
Nursing	10 (11)
Previous work in Healthcare	28(32)

All Disciplines, RIPLS scores



	Teamwork	Negative professional identity	Positive professional identity	Roles and responsibilities
Z	-4.692	-3.797	-4.312	-3.384
P value	p<0.005	p<0.005	P<0.005	p=0.001
r	0.50	0.40	0.46	0.36

Pharmacy RIPLS scores




	Teamwork	Negative professional identity	Positive professional identity	Roles and responsibilities
Z	-4.389	-2.370	-3.464	-2.757
P value	p<0.005	p=0.018	p=0.001	p=0.006
r	0.79	0.43	0.62	0.50

Discussion - RIPLS

Positive attitude towards Interprofessional Learning.

- Want to share knowledge and skills
- Learn with other professions
- Value working with students from healthcare disciplines
- Developed a clearer picture of own roles and that of others



Feedback - *What was useful about the integrated case activities and why?*

Learnt about the roles of the other health professionals;

- “Scope and knowledge”
- “Perception”
- “Familiarisation”
- “Contribution of team to patient care”

“Learning about the role of other professions and how to provide holistic care for the patient and working together.”

*“Seeing what other professions do by partaking in **activities quite different** to what we've done in uni.”*



What was not so useful about the integrated case activities and why?

How could the integrated case activities be improved?

“Adequate representation from all health discipline groups”

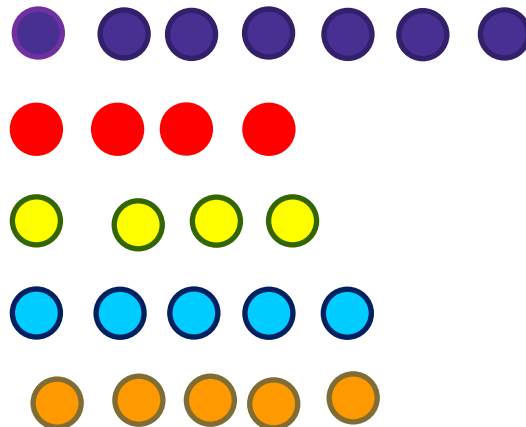
Unsolicited comments

“Really enjoyed being part of IPE... found it incredibly beneficial - felt that I understand other professionals roles much better because of it.”

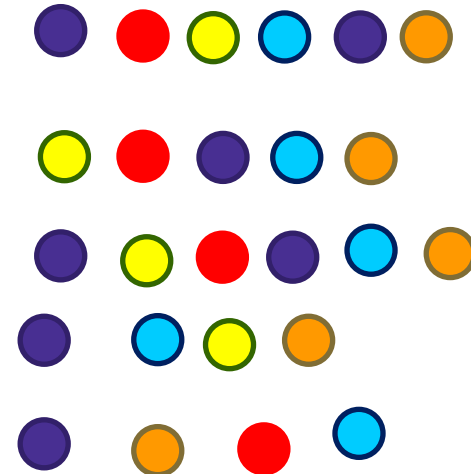
“Just wanted to say I have really enjoyed participating in IPE and we all think it is of tremendous benefit!! I can't believe how little I knew about the fellow allied health team! So thank you!”

Personal Perceptions and Insights

Change in the students from the first to last session



Week One



Week Two



Personal Perceptions and Insights

- Change in the students from the first to last session
- Level of engagement
- Authentic scenario content and context—they related to practice (Relevance +++++)



Personal Perceptions and Insights

- Clinicians/ academics who were skilled educators
- Risk free environment
- No assessment involved
 - representing own profession
- Simulation rooms
 - enhanced the experience



Personal Perceptions and Insights Pharmacy students

- **Teamwork**
 - Appreciation of what they can contribute
- **Confidence**
 - Realisation of their own knowledge
- **Knowledge still to know**
 - Realisation that others know about drugs



Conclusion

Successful curriculum

- Finance and faculty backing
- Relevance of activities

Simulation environment

- Simulation of patients
- Room simulation not as critical

Challenges

- Timetabling



Acknowledgements

Curriculum Development Group

- | | |
|-----------------------|-----------------------------|
| •Chair | Dr Neil Cottrell |
| •Physiotherapy | Dr Susan Waller |
| •Occupational Therapy | Linda Rylands |
| •Nursing | Adam Burston / Robyn Dickie |
| •Medicine | Dr Brad Kendall |
| •Pharmacy | Dr Michael Barras |
| •Faculty T&L | A/Prof Michele Groves |
| •Admin | Felicity Lindberg |

Department of Health and Ageing

- Increased Clinical Training Capacity Grant

All Tutors / Greenslopes Private Hospital staff involved in the IPE activity