



# INTERPROFESSIONAL EDUCATION

Community-based Interprofessional Collaboration  
(COMIC)  
programme

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2

## Contents

- @ PART 1: What is Interprofessional Education
- @ PART 2: An IPE case: Community-based Interprofessional Collaboration (COMIC) Program
- @ PART 3: How to develop IPE

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### Health Care Deja vu



3

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## What is IPE

“...occurs when two or more professions learn ABOUT, FROM and WITH each other to enable effective collaboration and improve health outcomes..”

→ Professional is an all-encapsulating term that includes individuals with the knowledge and/or skills to contribute to the physical, mental and social well-being of a community.

Framework for Action on Interprofessional Education and Collaboration Practice, 2010 CAIPE, 2002

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## What does IPE look like ?

5

- An educational approach
- Requires interaction
- Something must be exchanged that changes how they PERCEIVE themselves and others
- Changes must positively affect clinical practice



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## What IPE must NOT look like?

6

It is not:

- a collective of learners from different professions sitting in the same room listening to the same picture
- Learners from one profession sharing knowledge with one or more other professions in a one way exchange.

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## Terminology

7

- **Uni**-professional: occasions when professionals or students from one profession learn together
- **Multi**-professional: occasions when two or more professionals or students learn side by side but in parallel (minimal interaction)
- **Inter**-professional: occasions when two or more professionals learn about, with, and from each other to improve collaboration and the quality of care.
- **Trans**-professional: occasions in practice where professional boundaries have been crossed or merged

Carpenter J, Dickinson H, 2008

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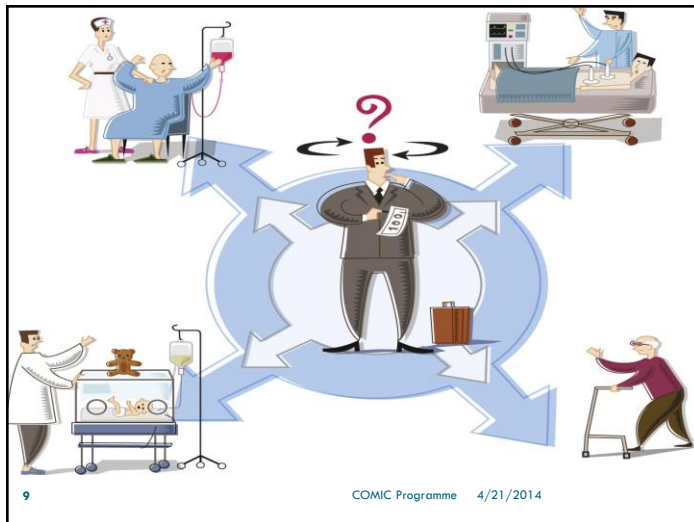


## What is the situation today?

8

- Health professional working in parallel
- System is fragmented
- More discipline centric than patient centric
- Increase incidence of medical errors

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10 Why?

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12 WHO Statement

“Once students understand how to work interprofessionally, they are ready to enter the workplace as a member of the collaborative practice team.

IPE is a KEY STEP in moving health systems from fragmentation to a position of strength.”

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13

## Why is IPE needed?

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## Evidence to support IPE

14

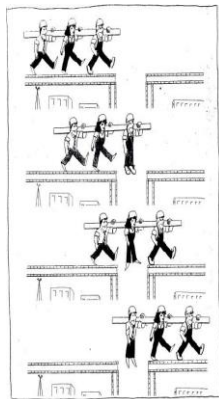
- Increased access to health care
- Improved outcome for people with chronic disease
- Less tension and conflict among healthcare providers
- Better use of clinical resources
- Lower rates of staff turnover

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## Evidence for student

15



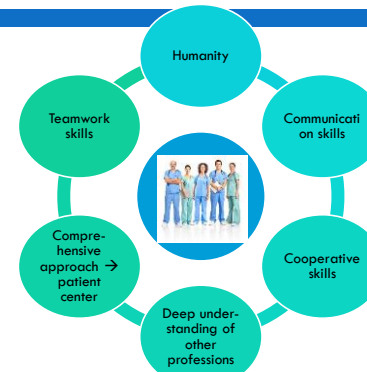
- Enhances motivation to collaborative
- Change attitudes and perceptions
- Cultivates interpersonal, group and organizational relations
- Establish common value and knowledge bases

(Barr et al 2000 )



## Evidence for professions

16



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## IPE as the KEY to safe, high quality, accessible Patient-centered

17

IPE is supported by four domains competencies:

1. Values / Ethics for IPE practice
2. Roles / Responsibilities
3. IP Communications
4. Teams and teamwork

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18

## Part 2

### A case study of Interprofessional Education

1. Community-based Interprofessional Collaboration (COMIC) Programme
2. Outcomes of COMIC Programme
3. Learn from COMIC Programme

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19

## Community-based Interprofessional Collaboration (COMIC) Programme

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## Community-based IPE: Needs

20

### Global Issues

- Complexity of health problem
- Increasing aging population
- Strengthening primary health care (PHC) by WHO (2010)

### Local Context

- PHC has been promoted in Indonesia
- Different professions collaborate more easily in community settings
- Non-health professionals have roles in community setting in Indonesia



## Review of previous studies\*

21

Indicator (n=83)	Developed Country	Developing Country
Country	USA (41%), Canada (20.5%), UK (14.5%)	Nepal, Taiwan, Turkey (3.6%)
Program		
Academic	53.0%	All
Community project	14 (16.9%)	(Case study, Egypt, 2013)
# of profession $\geq 4$	24.1 %	None
Evaluation: behavioral changes that assessed longitudinally	rare	None
Test validity of questionnaire	21.7 %	None

\* Abu-Irish. E et al., 2012; Hosny. S et al., 2013

22

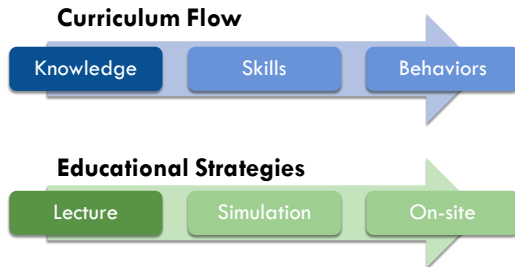
## COMIC Program

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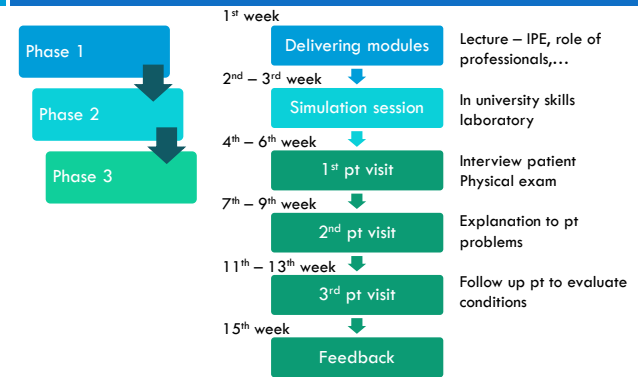
## 1. Educational Framework

23



## 2. Flow of COMIC Program

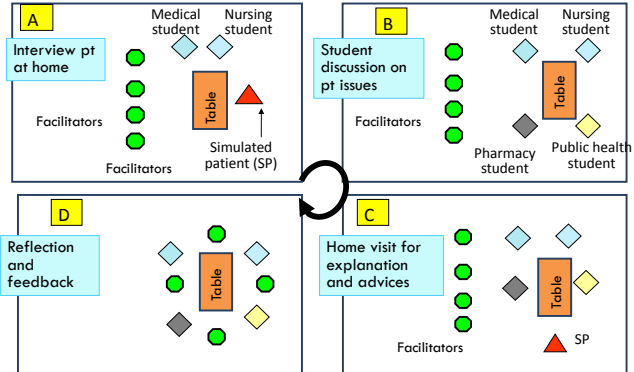
24





### 3. Instructional Plan

25



### 4. Learning Activities

Both **Simulation** and **On-site**



### Simulation session

27



With Real Patient

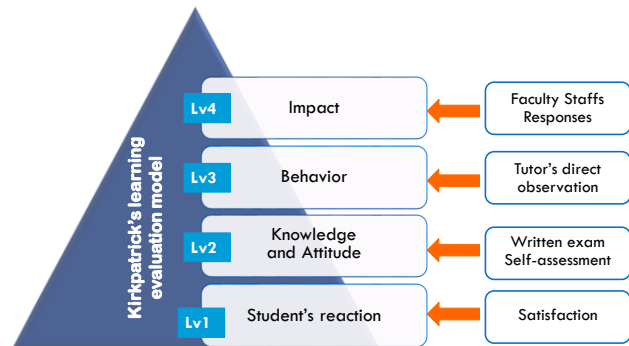
● Facilitator ▲ Real Patient

28



## 5. Evaluation the program : Kirkpatrick's 4 Levels of Program Evaluation

29



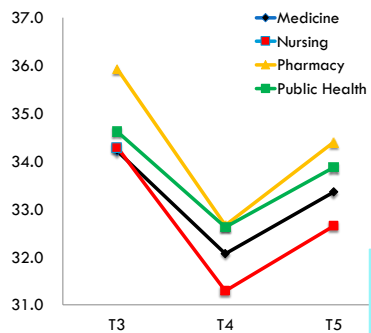
30

## Outcome of COMIC Programme

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## Result 1 Level 1 – students' satisfaction

31



Item	p-value
Timing	p<0.001
T3 – T4	p<0.001
T4 – T5	p=0.03
T3 – T5	p=0.38
Discipline	p=0.52
Timing x Discipline	p=0.95

- Satisfaction was significantly dropped from T3 to T4 but significantly recovered from T4 to T5.

## Result 2 Level 2 – Knowledge for IPL

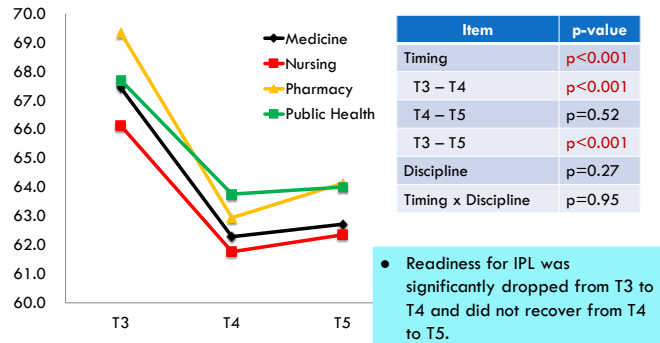
32

Student's knowledge level	N	Mean	SD	Paired Differences				
				Mean	SD	t-value	df	p
Before (T1)	62	15.68	2.52	-9.97	3.23	-2.35	61	0.02
After (T2)	62	16.65	2.88					

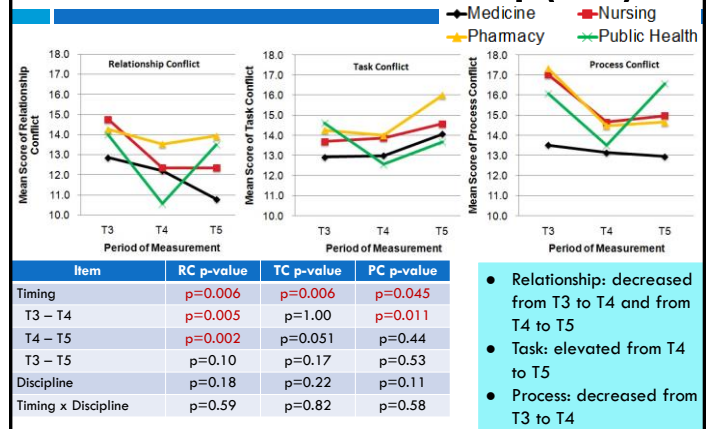
- Knowledge was significantly improved.



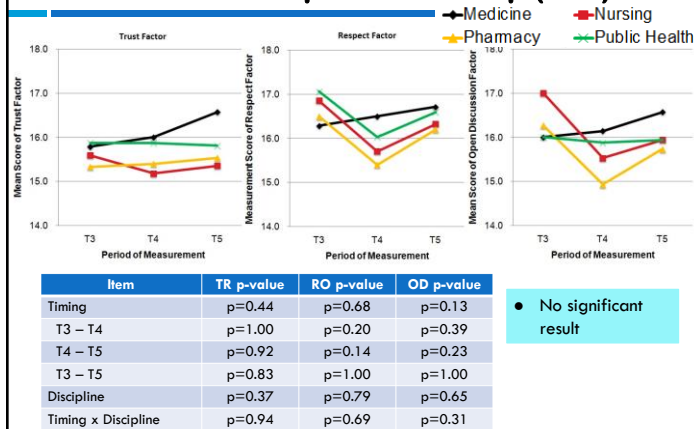
### Result 3 (Attitude) Level 2 – Readiness for IPL (RIPLS)



### Result 4 (Attitude) Level 2 – Conflicts in Group (CIG)



### Result 5 (Attitude) Level 2 – Atmosphere in Group (AIG)



### Result 6 Level 3 – Behavior

Indicator	Simulation model (N=193)	1 <sup>st</sup> patient visit (N=148)	p
	Mean (SD)	Mean (SD)	
Team performance (TP)	50.0 (5.5)	52.0 (3.5)	<0.001
Communication skills (CS)	43.5 (4.0)	45.2 (2.2)	<0.001
Teamwork skills (TS)	30.2 (2.6)	31.3 (1.7)	<0.001

- Team performance, communication skills, and teamwork skills were significantly improved after 1<sup>st</sup> visit to a real patient.



## Summary:

37

COMIC program was an effective program to develop students' interprofessional competencies in community-based health care



- COMIC program generated the relevant learning experiences with IPE in community setting
- COMIC program produced the significant effect to the students' knowledge, attitude, and behavior as well as the positive impact for the organization
- The program was underpinned by educational principles. Multi-method of teaching and evaluation might be the reason for success.

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38

## Learn from COMIC Programme

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39

### 1. Ice-breaking activity

- This activity
  - give positive impact to facilitate students in the learning process.

### 2. Reflection activity in debriefing process

- Applying reflective activities and debriefing process
  - assisted students to link theory to practice, connecting the experience gained with the existing theory.
- The significant learning process occurred when students revealed explicitly their deep insights through reflection activities.

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40

### 3. Competencies to support activities in IPE

- Two main basic competencies needed:
  - Professional competencies
  - Soft-skills: teamwork skills, adaptation and acceptance with different professions and cultures, organization behavior, etc.

### 4. Tutor: Role and training

- In IPE
  - a facilitator or tutor is a person who helps the student to work together.
- For complex learning like IPE
  - students need a ROLE MODEL. In IPE, tutors are role model.

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41

### 5. Developing of teamwork skills

- Profession should learn and be exposed to teamwork activities during their training.
- To become an effective team
  - each team must undergo the group development process.

### 6. Timing for introducing IPE

- Since working in interprofessional team is essential to deliver quality health care and to provide a skilled health provider
  - students need more and earlier training in interprofessional teamwork.
- Students and tutors suggested to introduce IPE in first semester.

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42

## Part 3

### How to develop IPE

1. Tips for the Curriculum Developer
2. Tips for the Educator
3. Tips in planning and maintaining an IPE Programme

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43

## Tips for the Curriculum Developer

There are 10 tips for the curriculum developer

Reeves et al (2005), Mires, G (2013); Chen Yu Sui (2013)

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44

## Tips 1: Determine IPE model

- ✦ IPE model during pre-licensure or post-licensure
- ✦ IPE model for student or profession
- ✦ IPE model: community-based or hospital-based

1

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## Tips 2: Ensure appropriate support and resource

45

- Requires leadership at all levels
  - Dean to delivery team
- Consistent message of value institution places on IPE needs to be delivered
- Time and resources

2

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## Tips 3: Define desired outcomes / objectives

46

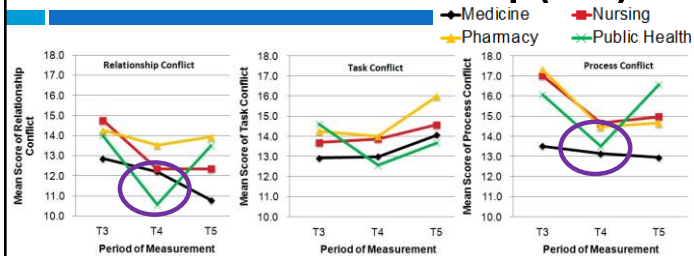
- Specifically with respect to IPE
- Related to individual professional curricula
- Common outcomes / objectives
- Consider most appropriate subject or topic areas:
  - Specific clinical areas
  - Themes e.g. ethics, patient safety, professionalism

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## Result 4 (Attitude) Level 2 – Conflicts in Group (CIG)



- Relationship: decreased from T3 to T4 and from T4 to T5
- Task: elevated from T4 to T5
- Process: decreased from T3 to T4



## Tips 4: Develop a programme which well deliver the outcomes / objectives and key principle of IPE

48

- Requires leadership at all levels
  - Dean to delivery team
- Consistent message of value institution places on IPE needs to be delivered
- Time and resources

4

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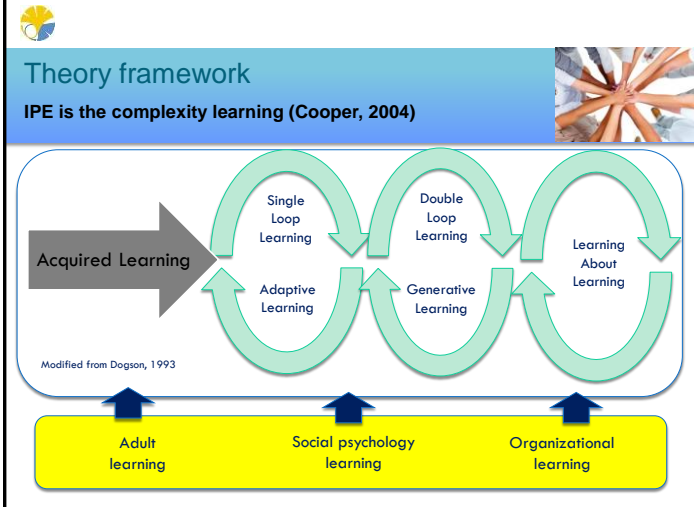
## Tips 5: Consider approaches to teaching and learning

49

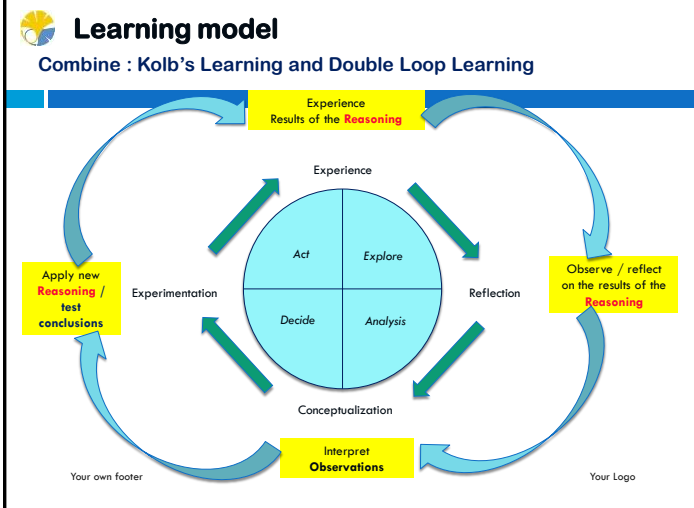
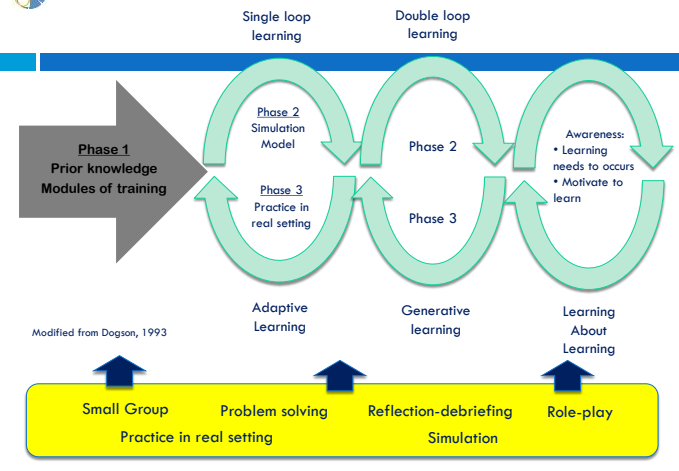
- ✚ Principle of adult learning are key
- ✚ Must be authentic and reflect appropriate and relevant professional practice and service delivery
- ✚ Importance of feedback opportunities to reflect (individual and team / formal and informal)
- ✚ Consider the role of social time

5

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## Learning model



## Tips 6: Don't forget the students / participants

53

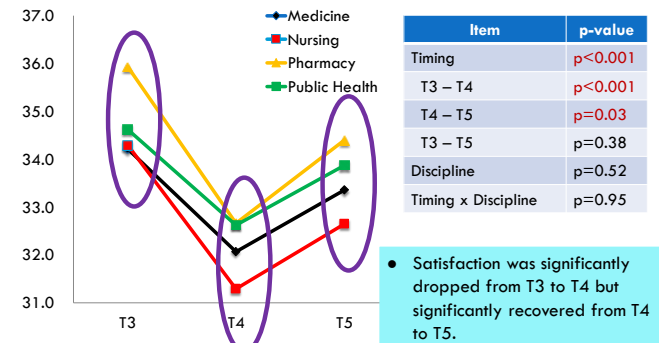
- Numbers
- Participants bring UNIQUE VALUES and PERCEPTIONS about themselves and other professional groups to IPE event and then interact in A COMPLEX WAY which will impact on outcome
- Students groups may be at different stages in developing own professional identity
- Recognize that different professional groups of learners may not respond to IPE in same way

6

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## Result 1 Level 1 – students' satisfaction

54



## Tips 7: Ensure we have the right and appropriately trained and prepared teaching staff

55

- The teacher is central to success
- The teacher has multiple roles
  - mentor, tutor, facilitator, supervisor
- Capability staff with responsibility to facilitate sessions
  - key to success and student experience.
- Instrumental ensuring that IPE effective at many levels:
  - Curriculum (its design and balance of activities)
  - Timetabling
  - Allocation of resources
  - Selection of appropriate activities for IPL
  - What goes on in the learning environment

7

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## Tips 8: Determine how students will be assessed

56

### Considerations:

- How can IPE be assessed equitably, reliably and with good validity
- What form will assessments take?
- When should they take place
- Who will assess: discipline-based teacher or 'specialist IPE teachers'?

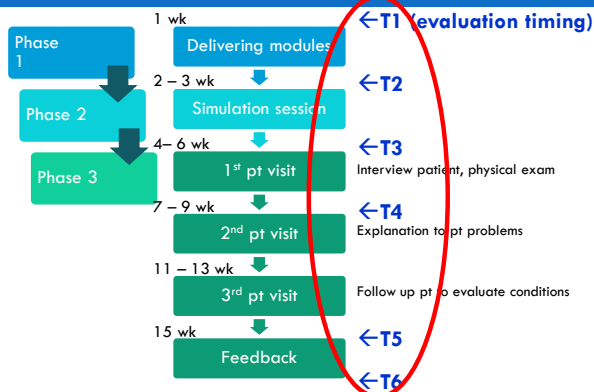
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## Multiple Assessment

57



## Tips 9: Assessment of students

58

- Assess three domain: Knowledge, Attitudes, Skills
- Use Miller concept:

### MILLER'S PRISM OF CLINICAL COMPETENCE (aka Miller's Pyramid)

It is only in the "does" triangle that the doctor truly performs



Based on work by Miller GE. The Assessment of Clinical Skills/Competence/Performance. Acad. Med. 1990; 65(9): 63-67. Adapted by Drs. R. Manby & R. Burns, UK (Jan 2009)

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## Result 6 Level 3 – Behavior

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- Team performance, communication skills, and teamwork skills were significantly improved after 1<sup>st</sup> visit to a real patient.



## Tips 10: Do not lose sight of key challenges and constraints

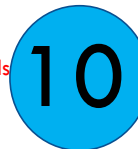
60

Key barriers to interprofessional collaboration and education:

- Differences in history and culture
- Historical INTRA-professional and INTER-professional rivalries
- Different in language and jargon
- Difference in schedules and professional routines
- Varying levels of preparation, qualification, and status
- Different in requirements, regulations and norms of professional education
- Fears of diluted and professional identity
- Differences in accountability, payment and rewards
- Concerns regarding clinical responsibility

Headrick et al, 1998; Barr et al, 2002

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61

## Tips for the Educator

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62

## IPE is a complex learning and students learn it in complex way

Educator:

- To PROVIDE a programme for MIXED students
- To BALANCE need individual and groups
- To WORK WITH rather to teach learner

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63

## Tips in planning and maintaining an IPE Programme

*Ronald Harden, Haider Abdulameer, Khoo Suan Phaik*

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64

1. Identify a patient care system  
Build the IPL/IPE collaboration around this focus:  
e.g Diabetic care, ICU, Homecare
2. Decide the common communication platform → to start our idea (facebook, website page group, periodic meeting) for sharing information, listening and respecting other opinions

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65

### 3. Learning and sharing

Health care provider/profession should be:

Practitioner – I am able to help my patient

Learner – I am willing to learn from others

Educator – I am willing to teach

### 4. Role Clarification

→ our capabilities – expertise – unit culture, etc

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66

### 5. Collaborative goals

Establish goal / effective plan for the patient through working together (e.g. Sharing decision making, problem solving, conflict resolution)

### 6. Assessment and evaluation of IPL learning students, IPL activity carried, etc.

→ multiple and mixed methods evaluation

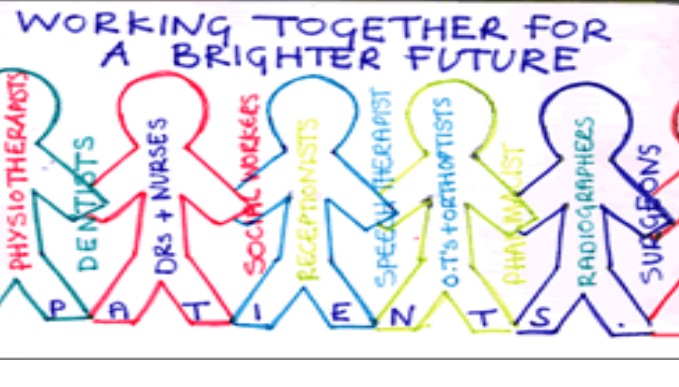
### 7. Reflection and feedback

→ the end of each session or programme

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# THANK YOU



## Debriefing

- What do you think is wrong with your patient?
- How did you come to that conclusion? What were the s/s?
- What orders did you write and why? What standards of care did you utilize?
- What were the outcomes? Did the patient improve?
- What did you teach your patient?
- What were the advantages and/or disadvantages of working with another discipline.

