



**HKU
Med** LKS Faculty of Medicine
Department of Obstetrics
& Gynaecology
香港大學婦產科學系

A **Virtual Teaching Clinic** in Obstetrics and Gynaecology during the COVID-19 pandemic

- using **simulated patients** to teach history taking and patient management



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- Online patient clinics
- Virtual consultations



HKU O&G – New Teaching formats during COVID-19

- **Web-side Teaching Clinic**
real patients in clinic, on Zoom
(Another presentation by Dr SF Ngu)

- **Virtual Teaching Clinic**





Virtual Teaching Clinic

in Obstetrics and Gynaecology during the COVID-19 pandemic

- using **simulated patients** to teach
history taking and patient management

Virtual Teaching Clinic (VTC)

- 32 final-year medical students
- O&G Specialty Clerkship
- **March 2020:** 3 weeks of online teaching
- **August to September 2020:** 5.5 weeks clinical teaching
 - No face-to-face clinical teaching until the last week
 - 4 VTCs in one clerkship



Virtual Teaching Clinic (VTC)

Learning objectives

At the end of the sessions, students should be able to:

- take an appropriate **history** from patients presenting with common and important O&G problems;
- formulate **differential diagnoses** and **management plan** for the presenting problems.

16 cases – variety to cover gaps

Gynaecology

- heavy periods
- vaginal discharge
- ovarian cyst
- infertility
- postmenopausal bleeding
- request termination of pregnancy
- genital prolapse and urinary incontinence

Obstetrics

New case encounter

- hypothyroidism + previous C-section
- previous IUGR + pre-eclampsia
- previous DVT
- chronic hypertension + IGT

Ward encounter

- leaking + GBS colonization at 38 weeks
- vaginal bleeding at 34 weeks
- leaking at 32 weeks
- abdominal pain at 24 weeks

Training of simulated patients (laypersons)

- Via pre-recorded videos on 



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虛擬教學門診
(Virtual Teaching Clinic)
角色扮演者簡介

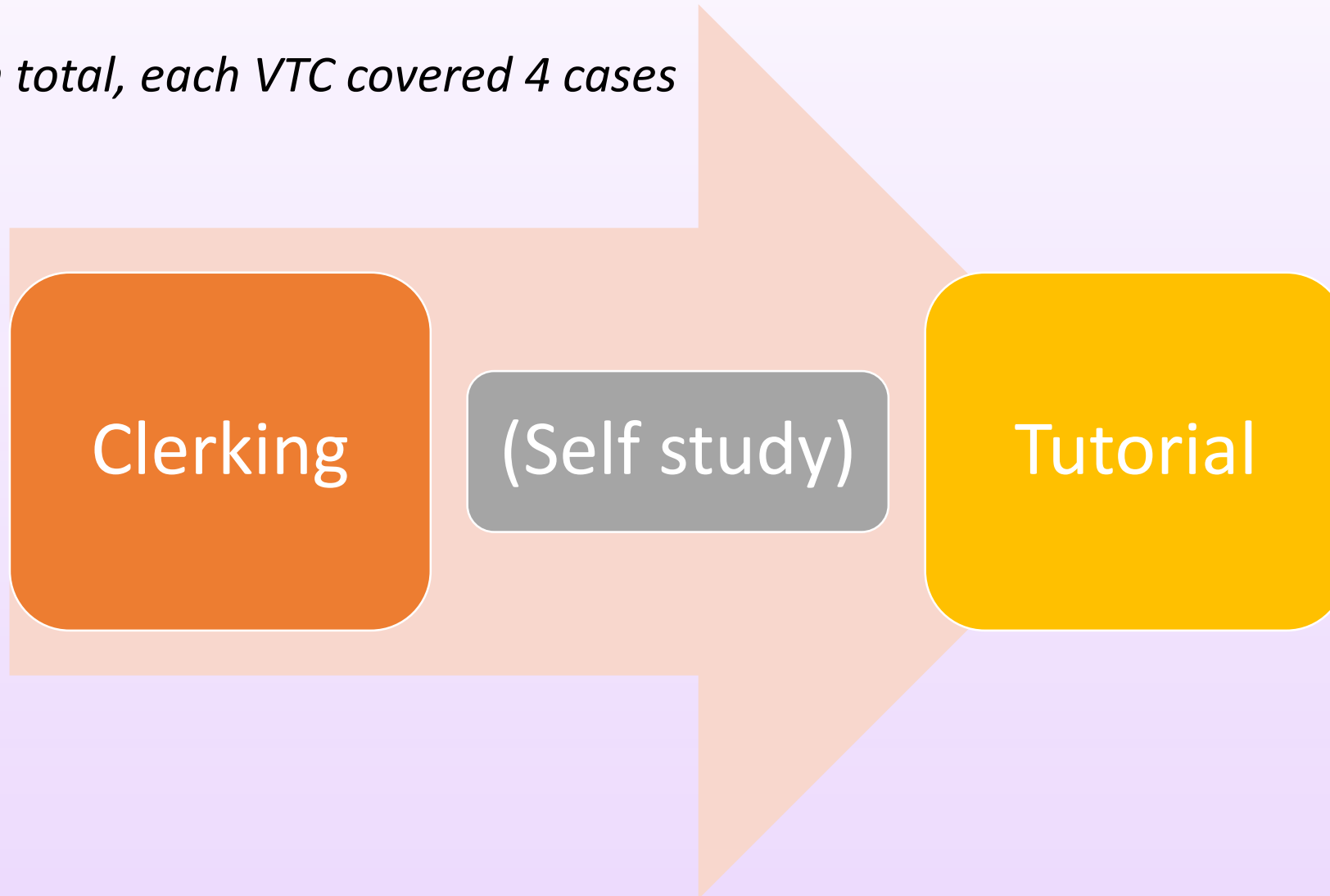


簡介

- 你好，多謝你幫我們作角色扮演
- 「虛擬教學門診」是醫學生學習向婦產科病人問病歷的教學方法
- 你將會透過 Zoom 跟我們的醫學生會面
- 你將會扮演一名婦產科病人
- 醫學生將會扮演醫生，向你問取病歷
- 你會收到一份稿，稿上面會有你的角色及詳細病歷資料，你要跟從稿上的資料回答問題

Virtual Teaching Clinic (VTC)

4 VTCs in total, each VTC covered 4 cases



1. Clerking

- Total 4 days of Clerking on Zoom
- **All** the students take turns to clerk **each** of the 16 simulated patients
- 20 minutes each



Timetable for Zoom Clerking session

Timeslot	Minute	Gyn	25-Aug							
1000-1020	20	Case No.	G1	G2	G3	G4	G5	G6	G7	G8
		Surrogate No.	S1	S2	S3	S4	S5	S6	S7	S8
		Student No.	13	14	15	16	9	10	11	12
1020-1040	20	Case No.	G1	G2	G3	G4	G5	G6	G7	G8
		Surrogate No.	S1	S2	S3	S4	S5	S6	S7	S8
		Student No.	5	6	7	8	1	2	3	4
1040-1100	20	Case No.	G1	G2	G3	G4	G5	G6	G7	G8
		Surrogate No.	S1	S2	S3	S4	S5	S6	S7	S8
		Student No.	14	15	16	9	10	11	12	13
1100-1120	20	Case No.	G1	G2	G3	G4	G5	G6	G7	G8
		Surrogate No.	S1	S2	S3	S4	S5	S6	S7	S8
		Student No.	6	7	8	1	2	3	4	5
1120-1140	20	Break								
1140-1200	20	Case No.	G1	G2	G3	G4	G5	G6	G7	G8
		Surrogate No.	S1	S2	S3	S4	S5	S6	S7	S8
		Student No.	15	16	9	10	11	12	13	14
1200-1220	20	Case No.	G1	G2	G3	G4	G5	G6	G7	G8
		Surrogate No.	S1	S2	S3	S4	S5	S6	S7	S8
		Student No.	7	8	1	2	3	4	5	6
1220-1240	20	Case No.	G1	G2	G3	G4	G5	G6	G7	G8
		Surrogate No.	S1	S2	S3	S4	S5	S6	S7	S8
		Student No.	16	9	10	11	12	13	14	15
1240-1300	20	Case No.	G1	G2	G3	G4	G5	G6	G7	G8
		Surrogate No.	S1	S2	S3	S4	S5	S6	S7	S8
		Student No.	8	1	2	3	4	5	6	7

One simulated patient in one Zoom session. Students take turn to join in and take history (20 minutes each).



2. Self-study

The students, at their own time,

- organize the case histories
- practise note keeping
- list the differential diagnoses
- formulate the management plan (physical exam, investigations, management)
- study the topic



All students know about all the cases, and study all of them.

3. The tutorial



- A few days after the Clerking sessions
- One tutor meets all the 32 students on Zoom
- 80 minutes, to discuss 4 cases

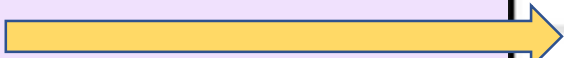


3. The tutorial



- For each case,
 - One student share his/her case notes (“Share Screen” function of Zoom) and present the history
 - The whole group discuss the special points to note in the history, the differential diagnoses, and the management plan

Screen Share



Simulated patients' feedback to students

虛擬教學門診 -- 「病人」評分

請在以下每個項目上給學生打分。些評分是用作評估學生於虛擬門診的表現。

		1 非常 不同意	2 不同意	3 中立	4 同意	5 非常同意
1.	學生有禮貌。	1	2	3	4	5
2.	學生表現自信。	1	2	3	4	5
3.	學生的提問技巧純熟。	1	2	3	4	5
4.	學生用適當的用語，容易讓你明白。	1	2	3	4	5
5.	學生有細心聆聽你的說話。	1	2	3	4	5
6.	學生讓你的感覺舒服。	1	2	3	4	5
7.	學生整體表現專業，能給予你信心。	1	2	3	4	5

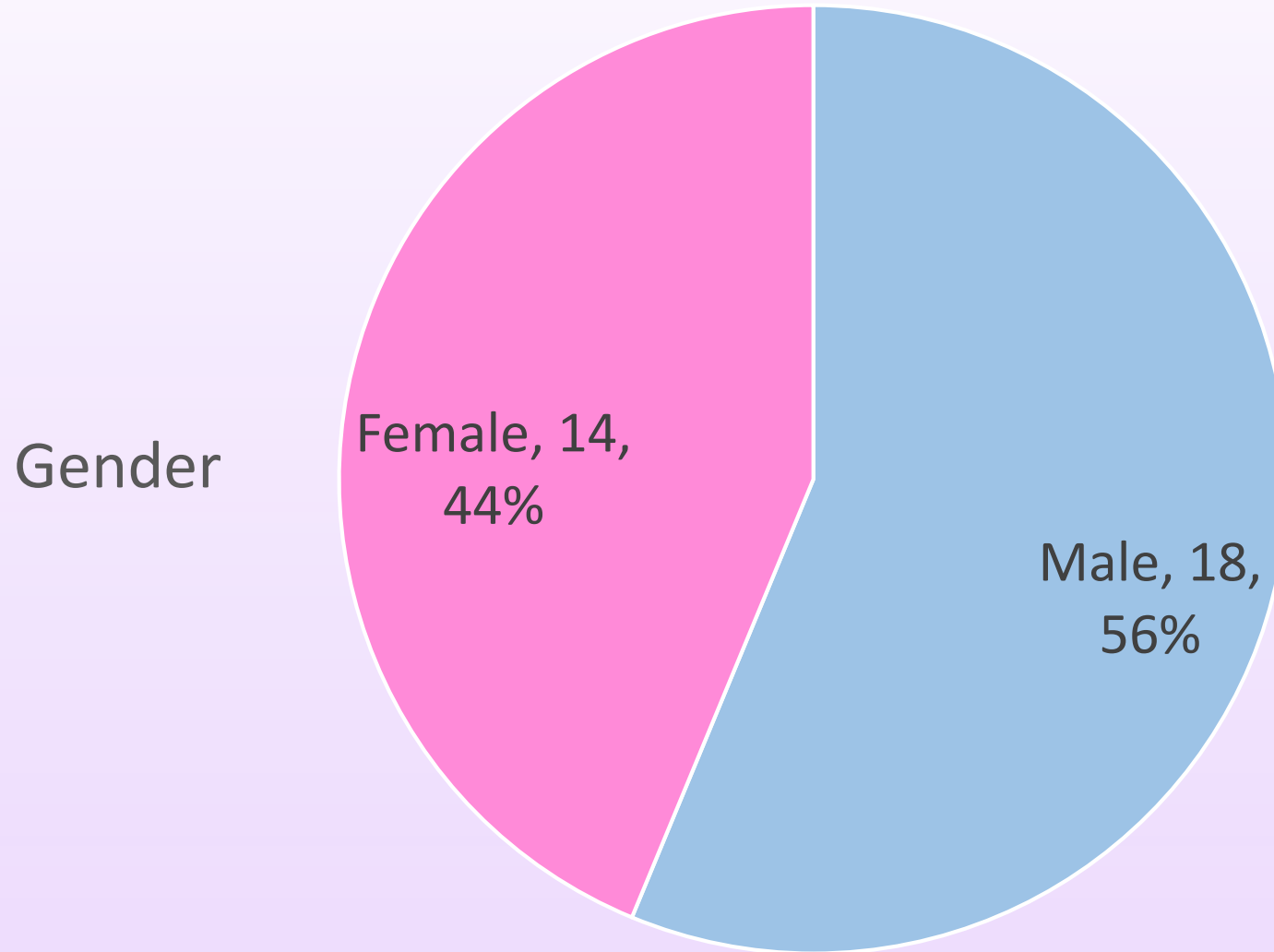
學生做得好的方面： _____

學生有待改善的方面： _____

- Politeness
- Confidence
- Questioning & listening skills
- Layman terms
- Professionalism & rapport

Evaluation

All 32 students returned anonymous questionnaires



Evaluation of the VTCs (1)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I enjoyed the history taking.	/	3%	19%	65%	13%
The history taking experience was similar to a real doctor-patient interaction.	3%	16%	31%	44%	6%
The encounter with the simulated patients felt natural.	/	6%	22%	66%	6%
I enjoyed the discussion of management plan with the tutor.	/	3%	13%	59%	25%
I find the feedback from the simulated patients useful for my learning.	/	6%	28%	50%	16%
I find the feedback from the tutor useful for my learning.	/	/	13%	59%	28%

N = 32

Evaluation of the VTCs (2)

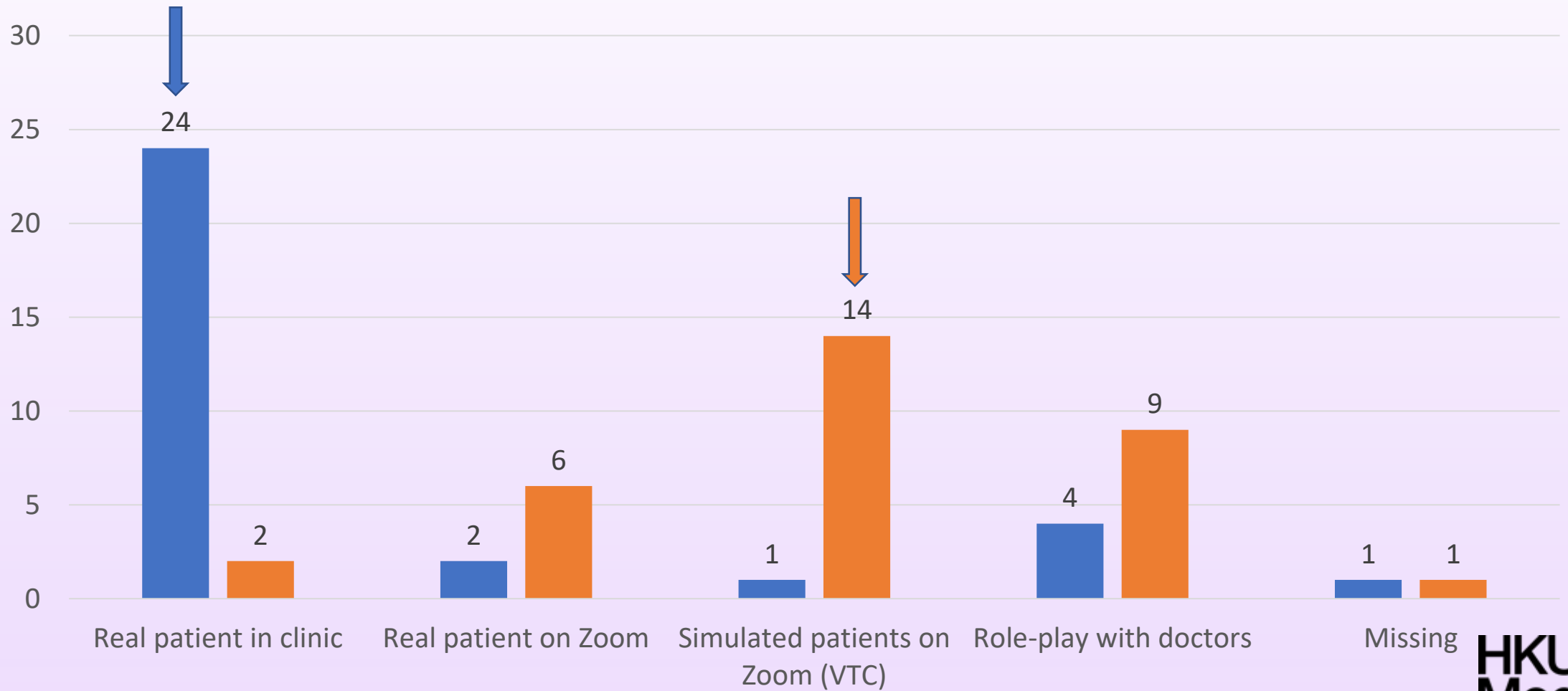
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I like the teaching format.	/	3%	16%	62%	19%
After the VTCs, I am more capable of taking a good history.	/	/	13%	63%	25%
After the VTCs, I feel more comfortable asking patients about sensitive issues like menstrual/sexual/abortion history.	/	3%	9%	63%	25%
The sessions allow me to reflect on my own skills and improve.		3%	9%	63%	25%
I learned about management of important O&G conditions.	/	/	6%	72%	22%
This teaching format allows me to learn the management of a good variety of O&G conditions.	/	3%	9%	59%	28%
I want to have more teaching in this format, even if "normal" clinical teaching can be resumed.	3%	9%	25%	53%	9%

N = 32

Evaluation of effectiveness of different teaching formats

	Very ineffective	Ineffective	Neutral	Effective	Very effective
Learning communication skills					
Real clinic teaching	/	/	6%	63%	31%
Web-side teaching clinic (WTC)	/	6%	28%	53%	13%
Virtual teaching clinic (VTC)	/	3%	23%	61%	13%
Learning patient management					
Real clinic teaching	/	/	9%	56%	34%
Web-side teaching clinic (WTC)	/	3%	16%	75%	6%
Virtual teaching clinic (VTC)	/	/	34%	50%	16%

Preferred format to learn history taking



N = 32

■ 1st preference ■ 2nd preference

Compare VTC vs real patient encounters (Free text comments)

VTCs

- More variety of cases (14 students)
- More time-effective
- Less time constraint
- Not so real sometimes

Real patient encounters

- More real / authentic (22 students)
- Genuine reactions from patients, esp. sensitive topics
- Rushed clinic sessions

<p>Students' comments</p>	<p>Practise history taking in Chinese / layman terms, and learn about common gynae problems.</p>	<p>Tutorial gets us all on the same page after clerking.</p>
<p>Great clinical learning experience in the COVID period, very well organized.</p>	<p>Less intimidating, more individualized practice than in real life, time effective.</p>	<p>Resembles clinical bedside, discuss work-up of "real" patients.</p>
<p>Good practice on history taking skills - not as good as teal clinical encounters but is comparable - different cases on a variety of topics.</p>	<p>Opportunities to clerk cases despite COVID. Clerk 4 cases in one morning is good, can reflect and improve my skills immediately after each case.</p>	<p>The case formats motivates us to study about the diagnosis, investigations, management plan and I like it very much.</p>
<p>Good logistics and role players, very well organized. Everyone gets chance in taking a full history of different chief complaints. Good debriefing by doctors, can learn from own mistakes.</p>	<p>Allow each of us to have the chance to clerk. The cases also cover most important common topics! Very good experience. It would be nice for other rotations to have this to ensure case exposure (even if clinical teaching is resumed).</p>	<p>Practised writing down a proper case history, learned about targeted physical exam and investigations, summarizing the case.</p>
<p>Wide coverage of cases to practise common complaints. Surrogate patients are professional, clear about the script.</p>	<p>Simple but effective format to clear misunderstandings/confusions and apply knowledge in a clinical way.</p>	<p>Good practice for clerking, allows us to take menstrual / gyn / obs/ sexual history, good variety of cases, keeping us busy with our knowledge.</p>

Student's suggestions for improvement	Doctor's supervision	Provide physical exam and investigations results during the tutorial for better discussion.
Peer evaluation.	More time for case discussion.	
Doctor to observe history taking and give feedback	Add some counselling practice.	Focus on "rare" cases if clinical teaching is resumed.

After resumption of face-to-face clinical teaching

- The next rotation
- 32 students
- Face-to-face clinical teaching **resumed**
- VTC still continued, but only half of the cases (8 cases), 2 tutorials

Evaluation of the VTCs – clinical teaching resumed

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I like the teaching format.	/	19%	16%	63%	3%
After the VTCs, I am more capable of taking a good history.	/	9%	19%	63%	9%
After the VTCs, I feel more comfortable asking patients about sensitive issues like menstrual/sexual/abortion history.	/	16%	28%	53%	3%
I learned about management of important O&G conditions.	/	6%	19%	66%	9%
This teaching format allows me to learn the management of a good variety of O&G conditions.	/	13%	22%	59%	6%
I want to keep the teaching in this format, even now “normal” clinical teaching has be resumed.	6%	13%	16%	56%	9%

N = 32

Evaluation of effectiveness of different teaching formats - clinical teaching resumed

	Very ineffective	Ineffective	Neutral	Effective	Very effective
Learning communication skills					
Real clinic teaching	/	/	13%	61%	26%
Virtual teaching clinic (VTC)	/	10%	26%	61%	3%
Learning patient management					
Real clinic teaching	/	/	10%	68%	23%
Virtual teaching clinic (VTC)	/	3%	29%	52%	16%

N = 32

Virtual Teaching Clinic (VTC)

- an effective online learning innovation
- providing medical students valuable opportunities to practise communication skills and formulate management plans for a variety of clinical conditions
- good substitute for clinical teaching during the COVID-19 pandemic
- supplementary for conventional clinical teaching – to cover important conditions that are not commonly encountered in real clinic settings

Tips

- Careful selection of case topics – tailored to students’ need and level
- Training of simulated patients
- Every student to clerk all the cases
- Zoom clerking timetable – clear logistics
- Time between clerking and tutorial to allow self-study
- Note-keeping practice – “Share Screen” function
- Tutorial – specific discussion about the “patients” and management

Future directions

- Practice on counselling
- Feedback from peers
- Doctor’s individual feedback on clerking – may be difficult
→ **Web-side Teaching Clinic** may be a better setting (Dr SF Ngu’s presentation)

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- All the students who participated in the teaching, and helped us improve

