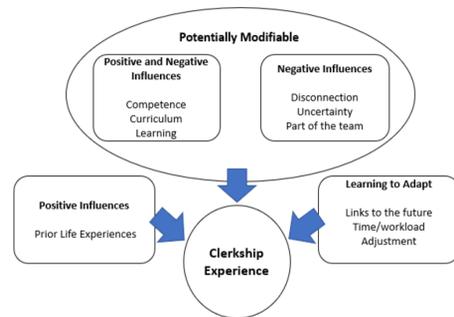


INTRODUCTION

Clinical clerkships are an integral part of undergraduate medical education.¹ Until now, clerkships have either been offered through simulation labs, didactics or in the healthcare setting dependent upon the pedagogical approach of each institutions' curricula.² Subsequent to coronavirus-2019, medical students had decreased accessibility to the aforementioned educational settings. This has provided an innovative opportunity for clerkship directors to provide the same clinical experience to students in a novel way – virtually.

Recently, the Larner College of Medicine at the University of Vermont created a two-week virtual simulated clerkship elective encompassing the curricula taught throughout the OB/GYN clerkship. Until now, this virtual elective had yet to be evaluated on its effectiveness in increasing student success in the traditional OB/GYN clerkship.

Based on a study conducted by Surmon et al (2016), four main themes correlate with students' perception of preparedness – positive influences, learning to adapt, and potentially modifiable influences, which encompasses positive and negative influences. Our systematic review of self-perceived preparedness focused on the modifiable factors of positive and negative influences - competence, curriculum, and learning.



AIM

Evaluate the effectiveness of a virtual clerkship elective increasing students' success in their traditional clerkship via their self-perceived preparedness, confidence with clinical knowledge, and final examination scores.

Curriculum Objectives:

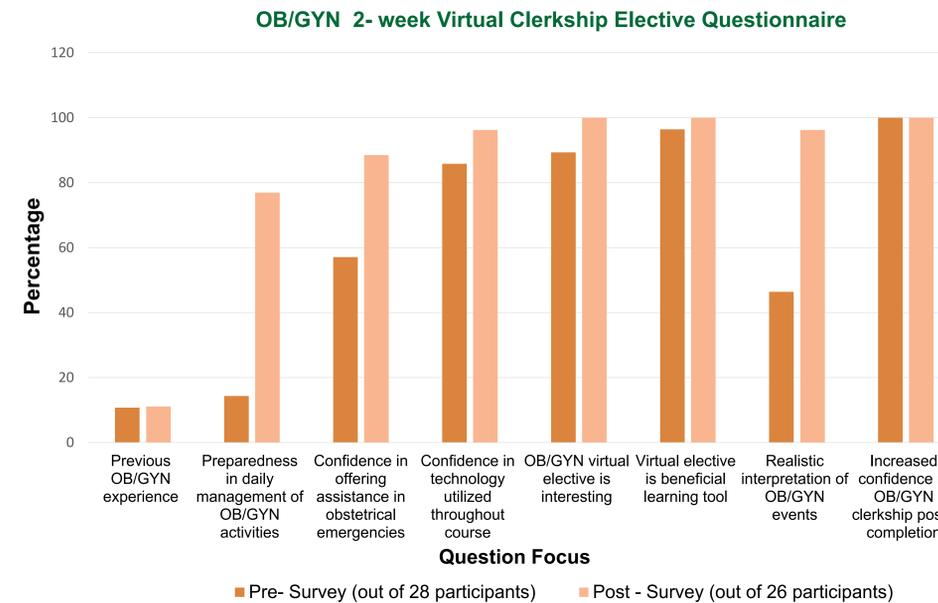
- basic understanding in all topics of obstetrics and gynecology
- Students' able to verbalize what is included in a basic history and physical associated with a gynecology or obstetric patient.
- Students will be invigorated to learn obstetrics and gynecology.
- Students will be able to verbalize some acronyms in obstetrics and gynecology.

METHODS

- Cohort: third-year medical students who elected to take the two-week virtual clerkship elective created by Larner College of Medicine at University of Vermont through the American Professors of OB/GYN website.
- Control group: third-year medical students who did not take the two-week virtual clerkship elective.
- On day one, participants voluntarily completed a pre-survey anonymously before beginning course work.
- On the final day, participants voluntarily completed a post-survey anonymously.
- Survey responses included scores of 1-5, with '1' corresponding to strongly disagree and '5' with strongly agree.
- Results of the pre- and post-survey were analyzed via T-tests and the Levine's Test for Equality of Variances.
- UWise examination scores of the traditional non-virtual six-week OB/GYN clerkship was compared between the cohort and control group.

RESULTS

- 28 participants completed the pre-survey, while 26 participants completed the post-survey.
- Percentage of participants who 'strongly agreed' in the post- survey were as follows:
 - Preparedness in daily management of OB/GYN activities (76.9%)
 - Confidence in offering assistance in obstetrical emergencies (88.5%)
 - Virtual elective is a beneficial learning tool (100%)
 - Virtual elective is a realistic interpretation of OB/GYN events (96.2%)
 - Increased confidence for traditional OB/GYN clerkship post – completion (100%)
- Difference in UWise test scores between cohort and control group ($p > 0.05$)



	Pre- Survey (out of 28 participants) 'strongly agree'	Post – Survey (out of 26 participants) 'strongly agree'
Previous OB/GYN experience	10.7%	11.1%
Preparedness in daily management of OB/GYN activities	14.3%	76.9%
Confidence in offering assistance in obstetrical emergencies	57.1%	88.5%
Confidence in technology utilized throughout course	85.8%	96.2%
OB/GYN virtual elective is interesting	89.3%	100%
Virtual elective is beneficial learning tool	96.4%	100%
Realistic interpretation of OB/GYN events	46.4%	96.2%
Increased confidence in OB/GYN clerkship post – completion	100%	100%

	Statistical Significance (p <0.05)
Previous OB/GYN experience	0.25
Preparedness in daily management of OB/GYN activities	0.0001
Confidence in offering assistance in obstetrical emergencies	0.009
Confidence in technology utilized throughout course	0.003
OB/GYN virtual elective is interesting	0.011
Virtual elective is beneficial learning tool	0.278
Realistic interpretation of OB/GYN events	0.0001
Increased confidence in OB/GYN clerkship post – completion	0.782
UWise exam score difference between participants and non-participants	< 0.34

CONCLUSIONS

- Early virtual exposure increased student's confidence and self – perceived preparedness for the traditional in-person OB/GYN clerkship.
- daily management of OB/GYN activities - virtual elective interesting
- assisting in obstetrical emergencies - realistic interpretation of OB/GYN events
- No statistical significance:
 - virtual elective is a beneficial learning tool
 - increased confidence for the traditional OB/GYN clerkship post-completion
 - UWise examination scores

This may be explained by 96.4% of participants who 'strongly agreed' in the pre-survey that the elective would be a beneficial learning tool, followed by 100% of participants who 'strongly agreed' in the post-survey. 100% of participants in the pre- and post-survey 'strongly agreed' they would have increased confidence for their traditional OB/GYN clerkship post-completion of the virtual clerkship elective. No statistical significance between participants and their UWise examination scores may be explained by several factors. The time lapse between participation in the virtual elective and in-person 6-week OB/GYN clerkship may correlate with participants frequency of reviewing curricula as they were responsible for current clerkship requirements. The in-person 6-week OB/GYN clerkship curricula encompassed all information taught in the 2-week virtual elective. By its' completion, all students were taught the same material.

- Study limitations: the inability to evaluate UWise scores before and after completing the virtual clerkship elective.
- Future aims: investigation of how technology and consistent early virtual exposure can enhance medical education, clerkship performance, and recruitment of students into unmatched specialties.

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