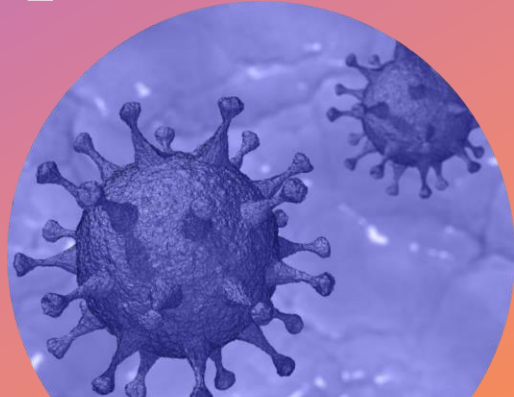


# ONLINE LEARNING PREDICTORS OF MENTAL HEALTH IN THIRD-LEVEL STUDENTS DURING THE COVID-19 PANDEMIC IN IRELAND



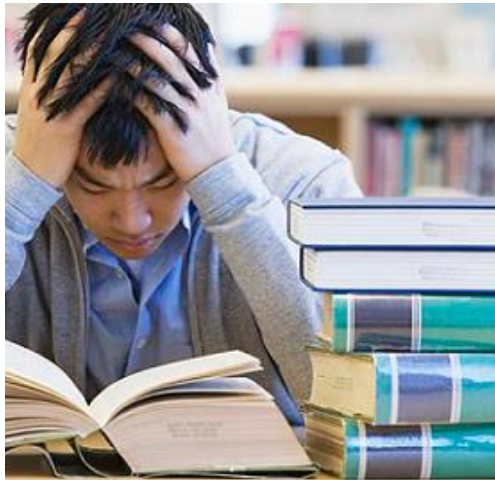
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Dr David Mothersill

# Introduction



Being a student is stressful



COVID  $\neq$  Stable Learning Env

Anxiety  
Depression  
PTSD  
CPTSD



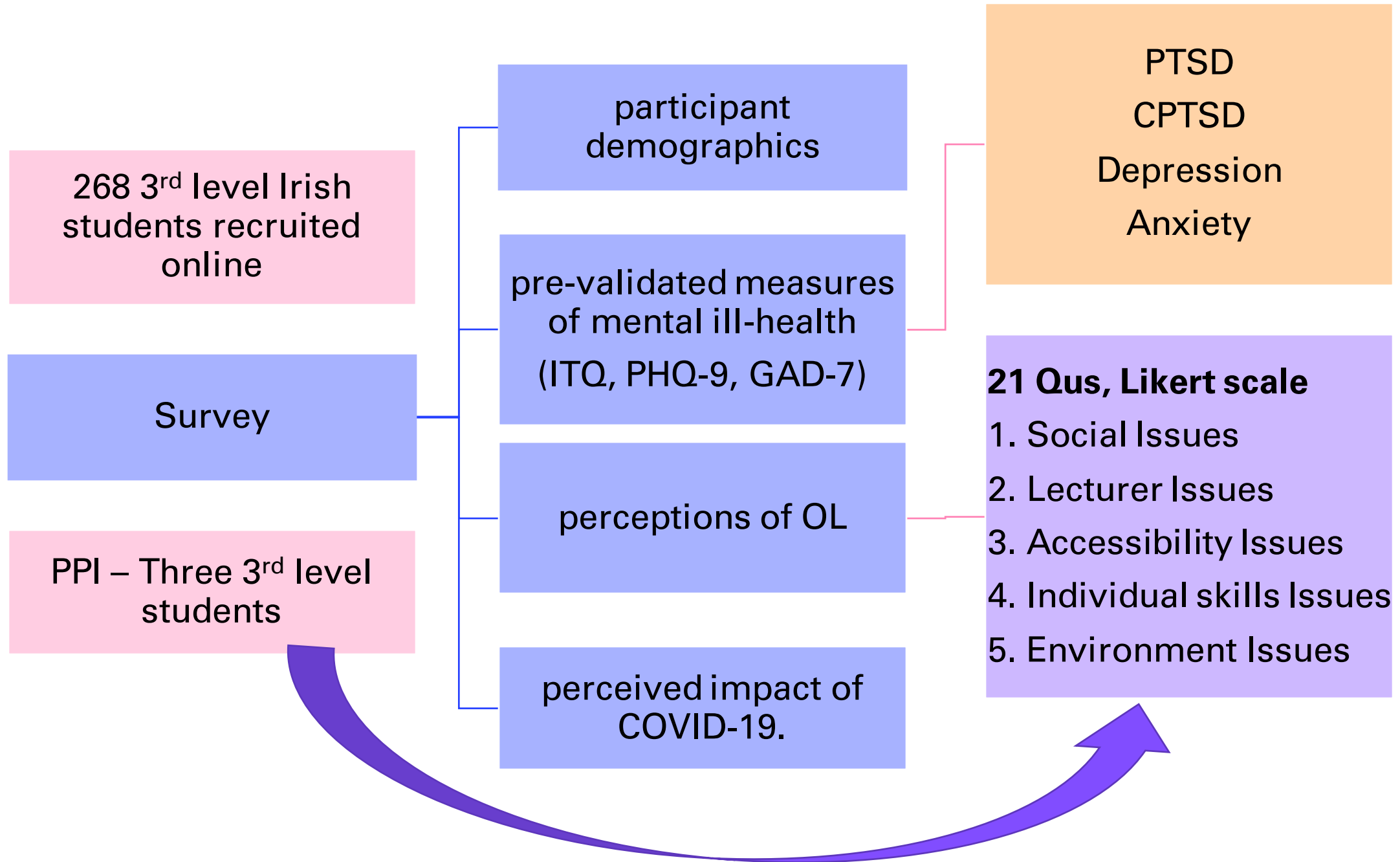
China, Kosovo,  
Bangladesh,  
USA, Ireland

OL or other factors?

## Mothersill, Nguyen, Loughnane & Hargreaves: Irish study

- Impact of COVID-19 on mental health of 3rd level students
- Significant levels of PTSD, CPTSD, depression and anxiety

# M e t h o d s



# Descriptive Statistics

Categorical variables			
Variable	Categories %		
Gender	Female = 61		
PTSD	24		
CPTSD	17		
Depression	48		
Anxiety	34		
Pre-existing mental illness	29		
Preference to keep OL	44		
Preference for a mixture of OL and in-person learning	64		
Student-reported change in academic performance due to OL	Yes: improved 22	No change 51	Yes: have dropped 27

## Descriptive Statistics

Continuous variables			
Variable	Range	Mean	$\delta$
Age	18-60	28	9.612
<b>OL Social Issues</b>	0-20	12	4.736
<b>OL Lecturer Issues</b>	0-16	8	4.609
<b>OL Accessibility Issues</b>	0-20	7	5.569
<b>OL Individual Skills Issues</b>	0-16	7	4.296
<b>OL Environment Issues</b>	0-12	6	3.483

Social Issues	Lecturer Issues	Accessibility Issues	Individual Skills Issues	Environment Issues
<ol style="list-style-type: none"> <li>Too personal</li> <li>Lack of <b>communication</b> among learners.</li> <li>Lack of group <b>discussions</b> during assignments.</li> <li>Too indirect</li> <li>Difficult to reach out to classmates for <b>support</b> when studying from home.</li> </ol>	<ol style="list-style-type: none"> <li>Lower quality of materials online.</li> <li>Lack of clear learning expectation from lecturers.</li> <li><b>Delay</b> of course materials appearing online.</li> <li>Lecturers or instructors are <b>not prepared properly</b> for an online medium.</li> </ol>	<ol style="list-style-type: none"> <li>Required <b>technology</b> is unavailable.</li> <li>Incompatible phones/ laptops</li> <li>Issues with correct <b>browsers</b> for learning.</li> <li>Lack of adequate <b>internet</b> access.</li> <li>Cost of internet bundle is too high.</li> </ol>	<ol style="list-style-type: none"> <li><b>Communication</b> skills for OL</li> <li><b>Reading and writing</b> skills for OL</li> <li>Difficulty when the majority of <b>learning materials are in online format.</b></li> <li>Lack <b>personal motivation</b> for online learning.</li> </ol>	<ol style="list-style-type: none"> <li>OL environment is not <b>motivating</b> enough.</li> <li>OL can't achieve <b>learner objectives.</b></li> <li>Do not receive adequate <b>support</b> from the College/University when studying from home.</li> </ol>

# Inferential Statistics

- 5 binary logistic regressions to see if **OL issues** predicted mental ill health/ desire to keep OL :

	<b>Significance</b>	<b>OL issue driving the association</b>	<b>% Variance explained</b>
PTSD	$\chi^2 (6) = 39.184, p < 0.0005$	Individual skills	21
CPTSD	$\chi^2 (6) = 26.307, p < 0.0005$	Individual skills	17
Depression	$\chi^2 (6) = 38.227, p < 0.0005$	Individual skills	18
Desire to keep OL	$\chi^2 (5) = 108.974, p < 0.0005$	Environment issues	56

## Individual Skills Issues

1. Communication skills for OL
2. Reading and writing skills for OL
3. Difficulty when the majority of learning materials are in online format; prefer paper & pen
4. Lack personal motivation for online learning.

## Environment Issues

1. OL environment is not motivating enough.
2. OL can't achieve learner objectives.
3. Do not receive adequate support from the College/University when studying from home.

# Inferential Statistics

- 4 chi-square tests to see if desire to keep OL was associated with:

	Significance
PTSD	None
CPTSD	None
Depression	None
Anxiety	None

## Conclusion

It's not a dislike of OL that predicts mental health.

It's perception of one's own ability to perform in an OL medium (Individual Skills) that predicts mental ill health.

This suggests that **academic self-efficacy (ASE)** may play an important role.

## Individual Skills Issues

1. Communication skills for OL
2. Reading and writing skills for OL
3. Difficulty when the majority of learning materials are in online format; prefer paper & pen
4. Lack personal motivation for online learning.

### **Mental health does not associate with preference for OL**

With current discussions in education regarding continuation of OL in some format even post pandemic, it is reassuring to know that doing so would not disregard the preferences of students with mental ill health.

### **ASE can be improved by:**

1. The experience of mastery
2. Observing someone succeed
3. Social persuasion, such as direct encouragement (Yokoyama, 2019)

To this end, Hayat & Shateri (2019) recommend providing training courses wherein students would receive explicit instruction on how a specific learning strategy is adopted, why it is important and when and how it applies to a specific task.





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**Dr April Hargreaves**



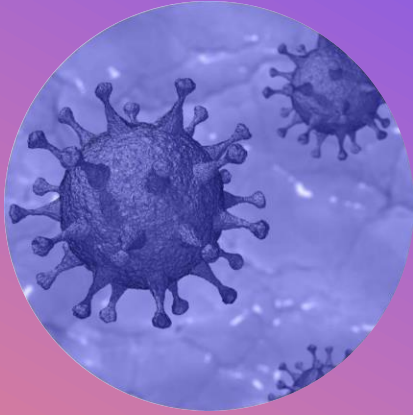
**Dr Gerard Loughnane**



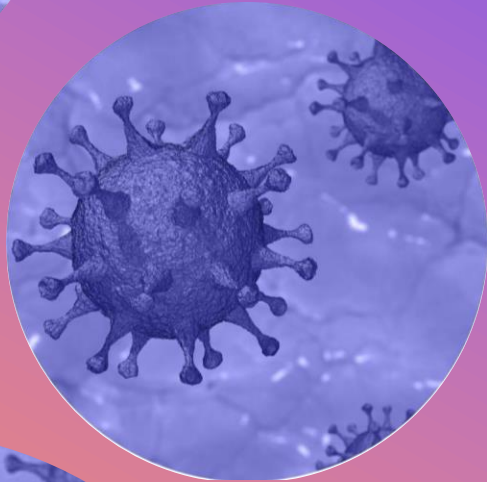
**Hau Nguyen**



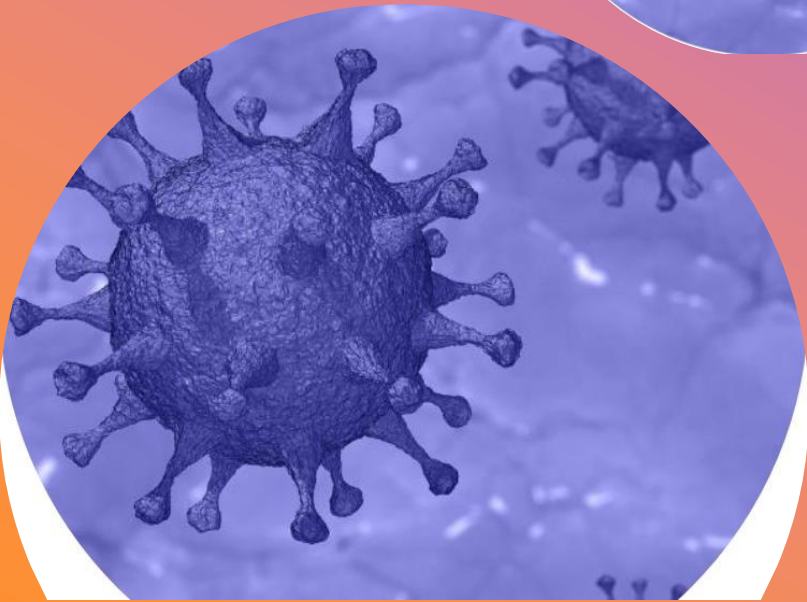
**Dr David Mothersill**



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# THANK YOU

## Questions?