1
00:00:04,560 --> 00:00:05,640
Hi everyone.

2
00:00:05,640 --> 00:00:09,800
Thanks for tuning into the NUS
Nursing Research Podcast series

3
00:00:09,800 --> 00:00:12,880
where we feature the latest works
of our brightest minds.

4
00:00:13,160 --> 00:00:13,760
I'm Dr. Jocelyn Chew,

5
00:00:13,760 --> 00:00:18,600
 a research fellow
at the Alice Lee Centre for Nursing studies.

6
00:00:18,600 --> 00:00:21,000
Here with us today is Dr. Shawn Goh,

7
00:00:21,000 --> 00:00:23,120
an assistant professor at the

8
00:00:23,120 --> 00:00:26,520
Alice Lee Center for Nursing Studies,
National University of Singapore.

9
00:00:26,880 --> 00:00:30,640
He's also a registered mental health nurse
with more than two decades

10
00:00:30,720 --> 00:00:33,560
of experiences
in various mental health settings.

11

00:00:33,880 --> 00:00:37,600
Dr. Goh has published papers
in many nursing and non nursing

12
00:00:37,600 --> 00:00:41,040
related, peer reviewed journals
with high impact factor.

13
00:00:41,480 --> 00:00:43,920
He is also a nurse
clinician in mental health

14
00:00:44,120 --> 00:00:47,720
with the assessment
and shared care team at the Department of

15
00:00:47,720 --> 00:00:51,600
Psychological Medicine
National University Health System.

16
00:00:51,600 --> 00:00:52,720
Our topic for today

17
00:00:52,720 --> 00:00:57,120
is taking mental health education
to a new virtual frontier, where Dr.

18
00:00:57,120 --> 00:01:02,800
Goh shares about how he makes use of
technology, specifically virtual reality,

19
00:01:02,800 --> 00:01:07,200
to educate the next generations
of nursing leaders in mental health.

20
00:01:07,400 --> 00:01:07,960
Hi, Dr. Goh.

21
00:01:07,960 --> 00:01:10,400
It's so nice to have you with us today.

22
00:01:10,400 --> 00:01:10,840
Thank you.

23
00:01:10,840 --> 00:01:12,640
Happy to be here too.

24
00:01:12,640 --> 00:01:14,440
So I know mental health.

25
00:01:14,440 --> 00:01:15,360
Every one of us know

26
00:01:15,360 --> 00:01:20,160
the importance of mental health,
especially after going through COVID 19 pandemic.

27
00:01:20,160 --> 00:01:23,360
I remember
having to restrict my social outings,

28
00:01:23,360 --> 00:01:27,200
having to go out so much,
and I even had to cancel my wedding.

29
00:01:27,360 --> 00:01:30,080
So I know it's very important
for us to educate

30
00:01:30,240 --> 00:01:34,200
the next generation
of nursing leaders in mental health.

31
00:01:34,200 --> 00:01:38,040

So you're going to share with us
a little bit more about this today, right?

32
00:01:38,280 --> 00:01:42,600
So maybe, first of all, can you share with
us a little bit more about what you do?

33
00:01:42,600 --> 00:01:43,560
Yeah. Hello.

34
00:01:43,560 --> 00:01:45,760
I'm Dr. Shawn Goh, an Assistant Professor

35
00:01:45,760 --> 00:01:49,920
from the Alice Centre for Nursing Studies,
National University of Singapore.

36
00:01:49,920 --> 00:01:52,280
So I think mental health nursing is so interesting

37
00:01:52,440 --> 00:01:55,120
and is a part of healthcare
that we don't usually talk about.

38
00:01:55,320 --> 00:01:59,680
So what actually inspired you
to dive into this aspect of health care?

39
00:02:00,200 --> 00:02:02,960
Mental health is always something
that is close to my heart.

40
00:02:03,320 --> 00:02:06,760
It is an issue for many people
as they face with stress

41
00:02:06,960 --> 00:02:08,840

and challenges in their life.

42
00:02:08,840 --> 00:02:12,960
This has especially become important
as we transition out of the pandemic.

43
00:02:13,520 --> 00:02:15,720
I've been a nurse
for more than two decades.

44
00:02:15,960 --> 00:02:18,360
Seeing people struggling
with the mental health condition

45
00:02:18,360 --> 00:02:21,080
when I was working in the clinical area.

46
00:02:21,080 --> 00:02:24,640
Reinforced by interest
was providing mental health care.

47
00:02:24,960 --> 00:02:29,640
It was in my early days in nursing
when I first got the opportunity

48
00:02:29,640 --> 00:02:33,960
to see how a mental health nurse
played role model for a patient

49
00:02:34,000 --> 00:02:37,760
who was trying to gain control
over his anxiety condition,

50
00:02:38,040 --> 00:02:40,240
which affected his life tremendously.

51
00:02:40,800 --> 00:02:44,360

The nurse was able to journey
with the patient until he became more

52
00:02:44,360 --> 00:02:47,960
independent and started to reintegrate
back into society.

53
00:02:48,560 --> 00:02:49,600
Now, at a level,

54
00:02:49,600 --> 00:02:53,520
I can effect a change in teaching mental
health, nursing to my future nurses.

55
00:02:53,920 --> 00:02:59,240
It has become important for me
to develop a successful and sustainable

56
00:02:59,280 --> 00:03:03,080
method that will equip future
generations of nurses

57
00:03:03,400 --> 00:03:07,560
with the knowledge and skills to provide
mental health care to their patient.

58
00:03:08,280 --> 00:03:12,640
Therefore, we constantly improve
our teaching pedagogy a NUS nursing

59
00:03:12,640 --> 00:03:17,920
by innovating and experimenting
what works best for students learning.

60
00:03:18,360 --> 00:03:22,040
So I know that to teach mental health
nursing more engagingly,

61
00:03:22,040 --> 00:03:26,640
you have developed a very comprehensive
learning package called MAGIC,

62
00:03:27,240 --> 00:03:31,320
which is the shot form for managing
aggression using immersive content.

63
00:03:31,560 --> 00:03:33,920
Is this an online platform?

64
00:03:33,920 --> 00:03:38,840
Yes. MAGIC is a consolidated blended
learning program, which includes didactic

65
00:03:38,880 --> 00:03:44,640
lectures, roleplay, using virtual reality
to learn, followed by a debrief session.

66
00:03:45,160 --> 00:03:47,240
This is a three hour learning workshop.

67
00:03:47,760 --> 00:03:50,520
Before I elaborate on MAGIC,
I need to go back

68
00:03:50,520 --> 00:03:52,920
further into how I got started with it.

69
00:03:53,600 --> 00:03:57,120
The whole blended learning approach
started in 2019,

70
00:03:57,520 --> 00:04:01,000
together with the Department
of Psychological Medicine and NUS Nursing,

71
00:04:01,360 --> 00:04:06,120
where I led a team to develop
an empathetic care and response program,

72
00:04:06,520 --> 00:04:11,000
or ECARE, hands on workshop
teaching medical and nursing students

73
00:04:11,240 --> 00:04:14,320
how to manage an aggressive patient
in the ward.

74
00:04:14,640 --> 00:04:17,400
Many times in the clinical setting,
students verbalize

75
00:04:17,400 --> 00:04:20,720
that they are not confident
when they need to provide care

76
00:04:20,880 --> 00:04:24,000
for patients
who exhibit aggressive behavior.

77
00:04:24,480 --> 00:04:28,680
So with ECARE, students were first
given a didactic lecture

78
00:04:28,920 --> 00:04:32,400
on the theories related to aggression,

79
00:04:32,400 --> 00:04:36,440
how to recognize it, how to de-escalate
the potential aggression.

80
00:04:36,640 --> 00:04:40,040
And finally, how to use rapid ranquilisation

81
00:04:40,320 --> 00:04:42,720
to manage the aggressive behavior
when needed.

82
00:04:43,360 --> 00:04:47,360
During the hands on session, students
are brought to a simulated ward environment

83
00:04:47,640 --> 00:04:51,400
where they are shown videos on walking
confidently with a client

84
00:04:51,600 --> 00:04:54,960
with potential aggression
and de-escalation techniques.

85
00:04:55,400 --> 00:04:58,120
They are then encouraged to practice
what they have

86
00:04:58,120 --> 00:05:01,440
seen on the video
with the supervision of their tutors.

87
00:05:01,880 --> 00:05:06,360
Finally, they were allowed to practice
and experience physical restraint

88
00:05:06,600 --> 00:05:11,040
with someone holding them down,
being restrained, using limb restraints.

89
00:05:11,560 --> 00:05:14,280
Students during the practice were all excited,

90
00:05:14,280 --> 00:05:17,680

especially when they are allowed
to practice the physical restraint

91
00:05:18,000 --> 00:05:20,520
under the close
supervision of their tutors.

92
00:05:21,120 --> 00:05:25,320
One of the most memorable feedback
that I received after the session was

93
00:05:25,800 --> 00:05:28,880
I would never want to subject
my patient under restraints

94
00:05:28,880 --> 00:05:31,320
unless is absolutely used
for their safety.

95
00:05:32,000 --> 00:05:36,080
And another student told me
I felt so vulnerable, being restrained,

96
00:05:36,080 --> 00:05:38,760
even though people around me
are my friends.

97
00:05:39,360 --> 00:05:42,840
I can't imagine how terrified patients
were feel right.

98
00:05:42,920 --> 00:05:45,000
It doesn't sound
pleasant at all.

99
00:05:45,000 --> 00:05:45,520
Precisely.

100
00:05:45,520 --> 00:05:46,080
You're right.

101
00:05:46,080 --> 00:05:49,560
This experience helped us to reinforce
students that restraints

102
00:05:49,560 --> 00:05:51,920
should be only used as a last resort.

103
00:05:51,920 --> 00:05:53,480
After the session,

104
00:05:53,480 --> 00:05:57,360
students report on increase
in the confidence and empathy level

105
00:05:57,720 --> 00:06:01,080
towards patients
with aggressive tendencies as well.

106
00:06:01,480 --> 00:06:04,080
At the same time as tutors,
we began to explore

107
00:06:04,080 --> 00:06:07,240
the possibility of having a
simulated ward environment

108
00:06:07,440 --> 00:06:11,360
where students can experience
what they would see in an actual ward setting.

109
00:06:11,920 --> 00:06:15,520
At that point, we were thinking of
using an actual simulated

110
00:06:15,520 --> 00:06:19,200
ward setting with multiple
simulated patients playing

111
00:06:19,200 --> 00:06:24,320
individual roles while having one of them
starting to become aggressive.

112
00:06:24,360 --> 00:06:27,360
A simulated ward environment
may be the most realistic.

113
00:06:27,360 --> 00:06:30,480
Students can experience the seriousness
or the depth

114
00:06:30,480 --> 00:06:33,840
of the situation
that can occur even in real life.

115
00:06:34,280 --> 00:06:38,320
However, the overall course
and logistic arrangement can be daunting

116
00:06:38,400 --> 00:06:42,400
if you want to train the entire cohort
of nursing and medical students.

117
00:06:42,960 --> 00:06:45,760
With that in mind, our team brainstormed

118
00:06:45,760 --> 00:06:49,080
and explored
how else we can answer this learning need.

119
00:06:49,200 --> 00:06:51,560
What we wanted

was to have a teaching pedagogy

120
00:06:51,560 --> 00:06:52,400
that can provide us

121
00:06:52,400 --> 00:06:57,000
with an authentic learning environment
and be sustainable in the long run.

122
00:06:57,120 --> 00:07:02,520
Therefore, in 2021, we jointly developed VRAM,
Virtual Reality in Aggression

123
00:07:02,520 --> 00:07:06,480
Management with the Department
of Psychological Medicine at NUS.

124
00:07:06,960 --> 00:07:11,000
This is the first virtual reality
learning platform in Asia

125
00:07:11,280 --> 00:07:14,440
where we harness
the use of virtual reality for students

126
00:07:14,840 --> 00:07:17,280
to learn how to manage
aggression in the ward.

127
00:07:17,880 --> 00:07:22,280
This was a further enhancement
to ECARE, our hands on session.

128
00:07:22,520 --> 00:07:25,440
Together with ECARE and VRAM,
NUS nursing and the Department

129

00:07:25,440 --> 00:07:28,560
of Psychological Medicine
officially started MAGIC,

130
00:07:28,880 --> 00:07:32,560
a three hour blended learning workshop
for aggression management.

131
00:07:33,040 --> 00:07:35,120
I think it's so wonderful
that you actually

132
00:07:35,120 --> 00:07:38,000
bring the medical students
with the nursing students together.

133
00:07:38,000 --> 00:07:40,120
So what actually happens in VRAM?

134
00:07:40,160 --> 00:07:43,480
How I as a student can use it.

135
00:07:43,560 --> 00:07:47,840
VRAM provides a totally different approach
as students are able to see

136
00:07:47,880 --> 00:07:51,680
and act as a doctor
or a nurse to experience for themselves

137
00:07:51,720 --> 00:07:56,240
how they could manage a potential
aggressive outburst of a virtual patient

138
00:07:56,640 --> 00:07:59,640
using the Oculus Quest 2 VR headset.

139

00:08:00,200 --> 00:08:03,400
We run this program with 98 nursing

140
00:08:03,400 --> 00:08:08,480
and 60 medical students at NUS Medicine
as part of the learning module.

141
00:08:09,000 --> 00:08:13,400
In this scenario, students played
the role of either a nurse or a doctor

142
00:08:13,600 --> 00:08:18,240
where they were encounter Debbie,
a main character in the VR.

143
00:08:18,840 --> 00:08:19,560
At the start,

144
00:08:19,560 --> 00:08:23,840
students are brought to Debbie's bedside
where they are introduced to her.

145
00:08:24,160 --> 00:08:28,440
After a while, the student will be
immersed in a very real environment.

146
00:08:28,760 --> 00:08:31,720
For example, a noisy ward with the television

147
00:08:31,720 --> 00:08:35,560
switched on, a telephone ringing,
dissatisfied relatives

148
00:08:35,600 --> 00:08:40,120
asking questions
while Debbie becomes unmanageable.

149

00:08:40,600 --> 00:08:44,080
During the entire VR session, students
need to recognize

150
00:08:44,080 --> 00:08:47,560
the importance of situational management
into what

151
00:08:48,480 --> 00:08:51,960
they will be required
to make the necessary judgment, calls

152
00:08:52,240 --> 00:08:57,040
and decisions as the situation unfolds
at each juncture presented.

153
00:08:57,280 --> 00:09:00,440
There is a time limit
for every decision to be made.

154
00:09:00,800 --> 00:09:03,280
This makes the VR scenario more realistic.

155
00:09:03,760 --> 00:09:07,200
A wrong decision
at any point will lead to a bad outcome.

156
00:09:07,640 --> 00:09:10,640
Some outcomes are very real as it can be

157
00:09:10,640 --> 00:09:15,880
having a patient absconding from the ward
or having relatives taking video clips

158
00:09:15,880 --> 00:09:19,680
as the situation progresses
and post them on social media.

159
00:09:20,480 --> 00:09:23,200
Well, that sounds like
a very terrible situation to manage.

160
00:09:23,440 --> 00:09:27,360
So what did the students mention to you
about your takeaways from this?

161
00:09:27,960 --> 00:09:31,480
At the end of the MAGIC Workshop,
after they've gone through the ECARE

162
00:09:31,800 --> 00:09:35,200
and VRAM training, tutors will spend time

163
00:09:35,200 --> 00:09:37,960
to conduct debriefing sessions
for all participants.

164
00:09:38,440 --> 00:09:42,080
Some students noticed one important cue
in the learning session

165
00:09:42,360 --> 00:09:44,880
that they did not notice at the beginning.

166
00:09:45,320 --> 00:09:48,360
This was a family photo of Debbie,
the patient

167
00:09:48,760 --> 00:09:51,480
with her daughter placed on her bedside.

168
00:09:52,040 --> 00:09:55,520
If students were to pick up that cue,
they could have de-fused

169
00:09:55,520 --> 00:09:56,520
and de-escalate

170
00:09:56,520 --> 00:10:01,200
the entire situation by diverting Debbie's
attention back to her family.

171
00:10:01,640 --> 00:10:05,760
This would have reinforced to students
the importance of providing

172
00:10:05,800 --> 00:10:08,400
empathetic care towards their patients.

173
00:10:08,760 --> 00:10:13,680
Furthermore, using virtual reality,
we were able to allow students

174
00:10:13,680 --> 00:10:18,840
to make mistakes and replay the scenario,
allowing a consolidated learning

175
00:10:19,520 --> 00:10:24,240
as a team, we are currently evaluating
the learning outcomes for the students for MAGIC.

176
00:10:24,240 --> 00:10:27,320
Anecdotally, students are happy
and satisfied

177
00:10:27,320 --> 00:10:30,240
with their learning experience
with reported improvement

178
00:10:30,240 --> 00:10:34,800
on their confidence in managing aggression
when they encounter it again.

179
00:10:35,160 --> 00:10:38,600
They also mentioned the importance
of situational awareness

180
00:10:38,840 --> 00:10:41,080
and empathetic care for their patients.

181
00:10:41,640 --> 00:10:44,520
So I think being able to learn
from your mistake,

182
00:10:44,520 --> 00:10:49,520
for example, through a program like MAGIC,
which is a combination between VRAM and ECARE

183
00:10:49,520 --> 00:10:50,800
allows for this.

184
00:10:50,800 --> 00:10:54,280
So I know that to develop
a technologically enchanced

185
00:10:54,320 --> 00:10:58,120
teaching pedagogy or teaching intervention
is quite difficult, right?

186
00:10:58,320 --> 00:11:02,520
So I'm curious about what
are the challenges that you have faced.

187
00:11:02,640 --> 00:11:04,520
Show us a little bit more about that.

188
00:11:04,520 --> 00:11:07,360
I think the main challenge in the project
development

189
00:11:07,920 --> 00:11:12,680
is especially when most mental
health programs or such training programs

190
00:11:13,080 --> 00:11:17,880
coming from off the shelf are usually not
catered to a local audience.

191
00:11:18,560 --> 00:11:21,880
This limits the realism of the program,
which may eventually

192
00:11:21,920 --> 00:11:24,240
hinders students learning.

193
00:11:24,240 --> 00:11:25,320
So why do you feel that

194
00:11:25,320 --> 00:11:29,280
there's a constant
need to improve on your teaching pedagogy?

195
00:11:29,720 --> 00:11:32,720
For five years,
I focus on improving pedagogy in mental

196
00:11:32,720 --> 00:11:36,840
health nursing curriculum
to improve students learning experience.

197
00:11:37,200 --> 00:11:40,440
increasingly by incorporating technology.

198
00:11:40,440 --> 00:11:42,440
During our tutorial session,

199
00:11:42,600 --> 00:11:45,520
students will always ask how
and what patients

200
00:11:45,520 --> 00:11:48,680
actually experience when they are having
mental health condition.

201
00:11:49,080 --> 00:11:53,320
So many times
I will try to describe what we can do,

202
00:11:53,800 --> 00:11:57,480
but with technology, I
now can bring more realism into learning.

203
00:11:57,920 --> 00:12:01,440
It will never be the same
if you can experience it for yourself.

204
00:12:02,080 --> 00:12:02,400
Right.

205
00:12:02,400 --> 00:12:03,240
So when you

206
00:12:03,240 --> 00:12:07,000
have other projects in the pipeline,
are you thinking of any other things

207
00:12:07,000 --> 00:12:10,600
in the mental health space
in terms of teaching and pedagogy?

208
00:12:11,080 --> 00:12:15,240
Yes, with technology in place,
I'm now exploring the contents within the

209
00:12:15,240 --> 00:12:18,600
curriculum and hopefully across

210
00:12:18,600 --> 00:12:21,640
different preregistered
healthcare students.

211
00:12:21,840 --> 00:12:24,960
And I hope that I can make refinements
to the curriculum

212
00:12:24,960 --> 00:12:28,240
so that we can better prepare our future
healthcare workers.

213
00:12:28,240 --> 00:12:29,280
With the advancement

214
00:12:29,280 --> 00:12:33,280
in technology, education,
the pedagogy use a matter of the things

215
00:12:33,840 --> 00:12:38,400
that are now changing to incorporate
authentic learning in our daily classes.

216
00:12:38,880 --> 00:12:42,600
These changes have allowed us
to provide a real life learning experience

217
00:12:42,600 --> 00:12:43,920
for our students.

218
00:12:43,920 --> 00:12:44,600
Thank you. Dr. Goh

219
00:12:44,600 --> 00:12:48,200
for your wonderful sharing
about how we can make use of technology,

220
00:12:48,200 --> 00:12:52,960
specifically virtual reality, to enhance
our students learning experiences.

221
00:12:53,560 --> 00:12:57,200
Interested students out there.
If you are listening, come to our school

222
00:12:57,240 --> 00:12:59,440
to experience this first hand.

223
00:12:59,440 --> 00:13:01,280
You've been listening
to a podcast

224
00:13:01,280 --> 00:13:04,760
on taking mental health education
to a new virtual frontier,

225
00:13:05,160 --> 00:13:08,560
part of the NUS Nursing
Research Podcast series.

226
00:13:08,560 --> 00:13:10,160
With us in the studio was Dr. Sean Goh

227
00:13:10,160 --> 00:13:13,520
an Assistant Professor at the

228
00:13:13,560 --> 00:13:16,960
Alice Lee Centre for Nursing Studies,
National University of Singapore.

229
00:13:16,960 --> 00:13:18,520
I am Dr. Jocelyn Chew.

230
00:13:18,520 --> 00:13:20,560
Thank you for joining us in this episode.

231
00:13:20,560 --> 00:13:23,800
And stay tuned for our next podcast.