

0:00:00.000,0:00:02.000

0:00:02.000,0:00:04.000

Hi Everyone. My name is Kristen Teranishi

0:00:04.000,0:00:08.304

and I am the Assistant Director of Student Affairs

0:00:08.304,0:00:10.304

at JABSOM and I'm happy to present to you

0:00:10.304,0:00:12.304

my HPEC poster titled

0:00:12.304,0:00:14.304

USMLE Step 1 Timing Effects on Performance During COVID

0:00:14.304,0:00:19.187

0:00:19.187,0:00:21.187

First of all I will share that I have no

0:00:21.187,0:00:23.187

conflicts of interests and I'm going to screenshare

0:00:23.187,0:00:25.610

my disclosure which I submitted to HPEC

0:00:25.610,0:00:29.421

0:00:29.421,0:00:29.921

Now I'll sharescreen my actual poster. Here it is

0:00:29.921,0:00:38.456

And thank you for listening

0:00:38.456,0:00:40.456

0:00:40.456,0:00:43.986

Again, the title of my project was USMLE Step 1 timing effects on performance during COVID

0:00:43.986,0:00:52.667

And as some of you may know

0:00:52.667,0:00:54.667

our JABSOM medical students take the USMLE Step 1

0:00:54.667,0:00:57.826  
a very important exam for them

0:00:57.826,0:01:01.627  
before they start their clerkship year

0:01:01.627,0:01:04.478  
before they start their MS3 year

0:01:04.478,0:01:07.289  
where they're working in the hospital

0:01:07.289,0:01:09.289  
working intensely with patients

0:01:09.289,0:01:15.277  
and their performance on this exam is important

0:01:15.277,0:01:20.386  
residency program directors do sometimes

0:01:20.386,0:01:22.386  
screen students based on their performance on this exam.

0:01:22.386,0:01:24.610

0:01:24.610,0:01:27.407  
Interestingly this exam is going to be a

0:01:27.407,0:01:29.407  
pass fail exam.

0:01:29.407,0:01:33.063  
starting this month

0:01:33.063,0:01:36.545  
of 2022.

0:01:36.545,0:01:40.805  
Passing this exam is still important

0:01:40.805,0:01:42.805  
so performance on this exam is

0:01:42.805,0:01:44.805  
still important for students, especially those

0:01:44.805,0:01:46.805

who might be on the cusp of

0:01:46.805,0:01:49.631

perhaps not passing.

0:01:49.631,0:01:54.972

0:01:54.972,0:01:56.972

During COVID in 2020 what happened was

0:01:56.972,0:02:03.065

students who were taking the exam before their clerkship year

0:02:03.065,0:02:04.707

their exams were starting to get canceled

0:02:04.707,0:02:07.564

by the testing center and there is just one testing center

0:02:07.564,0:02:09.564

on our islands.

0:02:09.564,0:02:14.462

0:02:14.462,0:02:16.462

Testing cancellations were pretty last minute

0:02:16.462,0:02:19.230

and students had a lot of anxiety about this

0:02:19.230,0:02:25.462

and logistically as well

0:02:25.462,0:02:29.778

it wouldn't have been possible to have all our students take

0:02:29.778,0:02:31.778

the exam before they started clerkship

0:02:31.778,0:02:32.278

due to these cancellations.

0:02:32.278,0:02:36.651

So the school made an exception

0:02:36.651,0:02:38.651

that students could take this exam

0:02:38.651,0:02:40.651  
into the clerkship year. And there was no telling

0:02:40.651,0:02:42.651  
how this would affect their performance

0:02:42.651,0:02:44.651  
but students were relieved to have this

0:02:44.651,0:02:46.759  
opportunity to take it later into the year

0:02:46.759,0:02:47.427  
if they wanted to

0:02:47.427,0:02:51.645  
even if their exam

0:02:51.645,0:02:55.085  
wasn't necessarily cancelled.

0:02:55.085,0:02:57.085  
Some students wanted the certainty

0:02:57.085,0:02:59.085  
that they would have an exam date

0:02:59.085,0:03:03.530  
later on in the year that wouldn't be

0:03:03.530,0:03:05.530  
cancelled last minute.

0:03:05.530,0:03:06.206  
And I was interested in seeing

0:03:06.206,0:03:13.917  
whether students'

0:03:13.917,0:03:15.917  
performance on Step 1 might be affected

0:03:15.917,0:03:18.145  
if they took their exam into their clerkship year

0:03:18.145,0:03:20.145  
when they're really busy working with patients

0:03:20.145,0:03:23.537

and trying to learn a lot of clinical things.

0:03:23.537,0:03:26.263

So the objective of my study was to

0:03:26.263,0:03:28.263

assess whether Step 1 performance

0:03:28.263,0:03:30.263

varied based on

0:03:30.263,0:03:32.708

time elapsed into the step 1 exam period.

0:03:32.708,0:03:34.708

0:03:34.708,0:03:35.488

0:03:35.488,0:03:36.925

The method I used was

0:03:36.925,0:03:38.925

I looked at the

0:03:38.925,0:03:40.925

Class of 2022

0:03:40.925,0:03:42.060

and I did not include

0:03:42.060,0:03:44.060

any students who were off-cycle

0:03:44.060,0:03:46.060

during this time.

0:03:46.060,0:03:48.060

So these are students

0:03:48.060,0:03:50.060

who kind of went through the

0:03:50.060,0:03:52.060

traditional curriculum.

0:03:52.060,0:03:54.846

There were 64 students included in this study.

0:03:54.846,0:03:57.288  
From the Class of 2022.

0:03:57.288,0:03:59.224  
And I used a

0:03:59.224,0:04:01.224  
regression analysis

0:04:01.224,0:04:01.724  
through Minitab software

0:04:01.724,0:04:03.986  
to see

0:04:03.986,0:04:06.676  
whether there was any significant

0:04:06.676,0:04:09.751  
association between step 1 score

0:04:09.751,0:04:13.310  
and days elapsed

0:04:13.310,0:04:15.310  
into the step 1 exam

0:04:15.310,0:04:16.032  
period after

0:04:16.032,0:04:18.255  
step 2ck score was accounted for.

0:04:18.255,0:04:24.158

0:04:24.158,0:04:25.564  
The reason why I used step 2ck score

0:04:25.564,0:04:27.564  
as another factor was that

0:04:27.564,0:04:29.564  
some students are just sometimes

0:04:29.564,0:04:31.564  
might be naturally a little

0:04:31.564,0:04:32.279  
bit more skilled at

0:04:32.279,0:04:33.348  
taking standardized exams.

0:04:33.348,0:04:36.828  
And so I used it to

0:04:36.828,0:04:41.690  
kind of account for that in the analysis.

0:04:41.690,0:04:43.947  
Just looking

0:04:43.947,0:04:45.337  
at, getting a feel for the data

0:04:45.337,0:04:51.153  
the average step 1 score

0:04:51.153,0:04:56.298  
step 2 score

0:04:56.298,0:04:58.263  
can be seen here for JABSOM

0:04:58.263,0:05:01.027  
compared to the national average

0:05:01.027,0:05:03.027  
for this cohort. And you can see that it's higher for JABSOM.

0:05:03.027,0:05:05.027  
But the standard deviation

0:05:05.027,0:05:07.987  
is pretty comparable

0:05:07.987,0:05:10.267  
and you can see the days

0:05:10.267,0:05:13.684  
into the step 1 exam period that the average student took the exam in  
2020

0:05:13.684,0:05:15.684  
was 46 days.

0:05:15.684,0:05:19.616  
The median

0:05:19.616,0:05:21.616  
was 29 days.

0:05:21.616,0:05:27.532  
Here's a

0:05:27.532,0:05:29.532  
scatterplot showing

0:05:29.532,0:05:31.627  
step 1 and step 2 scores

0:05:31.627,0:05:33.627  
so step 1 is in the blue

0:05:33.627,0:05:35.627  
step 2 is in the yellow.

0:05:35.627,0:05:37.065  
You can see a regression line

0:05:37.065,0:05:39.065  
going down where

0:05:39.065,0:05:41.065  
the further into the step 1 exam study period

0:05:41.065,0:05:42.025  
you get, the lower the step 1

0:05:42.025,0:05:48.750  
score tends to be

0:05:48.750,0:05:50.750  
for a student.

0:05:50.750,0:05:52.476  
But in the regression analysis

0:05:52.476,0:05:55.719  
what I found was

0:05:55.719,0:05:57.719  
before you account for

0:05:57.719,0:05:59.719  
step 2ck score there is a significant decrease

0:05:59.719,0:06:01.465  
in step 1 exam score



0:06:01.465,0:06:03.465

as increasing days

0:06:03.465,0:06:05.465

are elapsing

0:06:05.465,0:06:07.750

through the step 1 exam period.

0:06:07.750,0:06:11.747

But once you

0:06:11.747,0:06:13.747

account for step 2ck score

0:06:13.747,0:06:15.747

so once you account for a student's standardized

0:06:15.747,0:06:17.747

test taking ability,

0:06:17.747,0:06:19.592

there actually is no significant

0:06:19.592,0:06:24.101

difference

0:06:24.101,0:06:26.101

of step 1 score

0:06:26.101,0:06:28.811

as days elapse into the step 1 exam

0:06:28.811,0:06:30.811

period.

0:06:30.811,0:06:32.811

So basically,

0:06:32.811,0:06:34.811

students who are taking the

0:06:34.811,0:06:36.811

step 1 exam into their clerkship year

0:06:36.811,0:06:40.124

don't seem to be impacted with statistical significance,

0:06:40.124,0:06:45.394

in terms of score. And....

0:06:47.394,0:06:49.394  
that was pretty interesting because I thought

0:06:49.394,0:06:50.827  
there would be some impact because

0:06:50.827,0:06:52.827  
students are just busy when they're in clerkship

0:06:52.827,0:06:53.327  
helping patients and learning a lot of

0:06:53.327,0:06:55.327  
new clinical skills.

0:06:55.327,0:06:58.648  
And so it's hard for them to keep up with their step 1 studies.

0:06:58.648,0:07:02.880  
But it looks like

0:07:02.880,0:07:04.880  
they are able to do so

0:07:04.880,0:07:06.880  
at least from this analysis.

0:07:06.880,0:07:10.123  
So that was

0:07:10.123,0:07:12.123  
kind of an interesting finding and

0:07:12.123,0:07:14.123  
of course like with any study

0:07:14.123,0:07:16.123  
there are weaknesses.

0:07:16.123,0:07:18.123  
It would be, it would have been interesting

0:07:18.123,0:07:20.123  
to look at perhaps a

0:07:20.123,0:07:22.119  
bigger set of students

0:07:22.119,0:07:24.119

but because we're

0:07:24.119,0:07:26.119

just one school

0:07:26.119,0:07:28.119

and no school is exactly like us

0:07:28.119,0:07:30.119

I'm not sure how many

0:07:30.119,0:07:32.119

schools out there

0:07:32.119,0:07:34.119

have this kind of

0:07:34.119,0:07:36.119

this exact data, but looking at this data

0:07:36.119,0:07:38.119

from other schools

0:07:38.119,0:07:40.119

might be interesting and a future

0:07:40.119,0:07:40.676

opportunity for research.

0:07:40.676,0:07:45.067

0:07:45.067,0:07:46.067

Another thing that

0:07:46.067,0:07:48.067

would be interesting

0:07:48.067,0:07:50.067

to do would be to

0:07:50.067,0:07:52.067

kind of see what the power

0:07:52.067,0:07:54.067

the statistical power of this analysis

0:07:54.067,0:07:54.567

was.

0:07:54.567,0:07:57.241  
Hopefully with sixty-four students

0:07:57.241,0:07:59.241  
that would hopefully

0:07:59.241,0:08:01.241  
be enough

0:08:01.241,0:08:03.241  
to detect

0:08:03.241,0:08:05.645  
some kind of

0:08:05.645,0:08:07.528  
statistically significant

0:08:07.528,0:08:09.528  
difference

0:08:09.528,0:08:11.528  
you know, after accounting for

0:08:11.528,0:08:13.528  
step 2ck in the data.

0:08:13.528,0:08:17.049  
But that could be another venue

0:08:17.049,0:08:22.765  
to look at

0:08:22.765,0:08:25.030  
for a

0:08:25.030,0:08:26.428  
future study.

0:08:26.428,0:08:29.724

0:08:29.724,0:08:30.374  
Overall what this data tells me

0:08:30.374,0:08:36.213  
is that should a COVID

0:08:36.213,0:08:38.213

surge affect our testing

0:08:38.213,0:08:40.213  
site again in Hawaii

0:08:40.213,0:08:42.213  
for students who are wanting to take

0:08:42.213,0:08:44.213  
step 1, then it is

0:08:44.213,0:08:46.213  
not a detrimental idea

0:08:46.213,0:08:48.213  
to again allow students to take

0:08:48.213,0:08:48.713  
their step 1 exam

0:08:48.713,0:08:50.233  
into their clerkship year.

0:08:50.233,0:08:53.285  
And yeah so thank you

0:08:53.285,0:08:55.285  
for listening

0:08:55.285,0:08:57.285  
to my presentation.

0:08:57.285,0:08:59.285  
And I hope that

0:08:59.285,0:09:01.285  
you enjoyed it! Okay thank you, Bye!