

Research Objectives

This study aims to investigate the levels of acculturation, stigma tolerance, self-efficacy, expertness, and the mental health impact of COVID-19 on Saudi university students in the United States. It also seeks to understand the correlations between these factors and their collective role in predicting the intention to seek mental health help. By examining these relationships, the research will shed light on the key predictors of mental health help-seeking intentions, both in isolation and when accounting for the impact of COVID-19 and symptoms of anxiety and depression. Each of the following questions will be checked by survey conducted on (n=196) participants.

- i- What are the levels of acculturation, stigma tolerance, expertness, self-efficacy, intent, COVID-19 impact and experience, anxiety, and depression among Saudi University students in the United States?
- ii- What are the bivariate correlations between acculturation, stigma tolerance, expertness, self-efficacy, and mental health help-seeking intention?
- iii- Are acculturation, stigma tolerance, expertness, and self-efficacy significant predictors of mental health help-seeking intentions?
- iv- Are acculturation, stigma tolerance and expertness, and self-efficacy significant predictors of mental health help-seeking intention after adjusting for the impact and experience of COVID-19 and current level of anxiety and depression?

To evaluate the pervious question, we need to demonstrate suitable Hypothesis.

- i. Descriptive statistics for demographic (frequency, %) for categorical variables such as (sex, age group, academic level, long been in united states.
- ii. Descriptive statistics for each scale VIA (Host, Heritage), BAPS (stigma, Expertence , intention),PHQ-4(Anxiety & Depression) ,and self-efficacy(GSC), by using mean and standard deviation .
- iii. Descriptive statistics for each statement in each scale using median and mode with visualizing cluster bar chart , as ordinal response .
- iv. Conduct bivariate spearman correlation between each factor.
- v. Check the statistically significant difference between each scale on the demographics factors (Gender, Age group, Time spent in US , and academic Level) by using Mann Whitney for abnormal distribution of the scales .
- vi. Demonstrate Multiple linear regression in two models, the first one predict the dependent variable mental health help-seeking intention based on the independent variables (Host, Heritage, stigma tolerance, Expertness, self, and demographics factor , where the second model add covid-14 , and Anxiety and depression as independent variables.
- vii. Check the impact of covid-19, and Anxiety & depression moderation or medication analysis

Descriptive statistics

Table 1 presents Saudi students in the united states ' demographic characteristics who participated in the study. It includes descriptions by sex, age group. Where participants from female , representing 53.6% of the total sample, higher compared to male participants with 46.4%%. In terms of age group, 14.8% of the participants were aged between 18 and 22 years, 26.5% aged between 23 and 27 years, 21.4% aged between 28-32, and 35.2% aged more than 4 years. A total of 34.2% participants were long in the united states more than 4 years , followed by less than one year about 28.6%, followed by 1-2 years about 18.9%, and 3-4 years about 17.9%. When it comes to Academic level types , 60.2% are graduate from the whole sample ,followed by 24.5%, 10.2% of undergraduate , and ESL respectively. Only 5.1% of the participant from other level .. The following demographic characteristics provide a detailed outline of the participant profile, which is critical to understanding mental health seeking for the student's time spend in the united states and educational level within the study also showed in Figure 1.

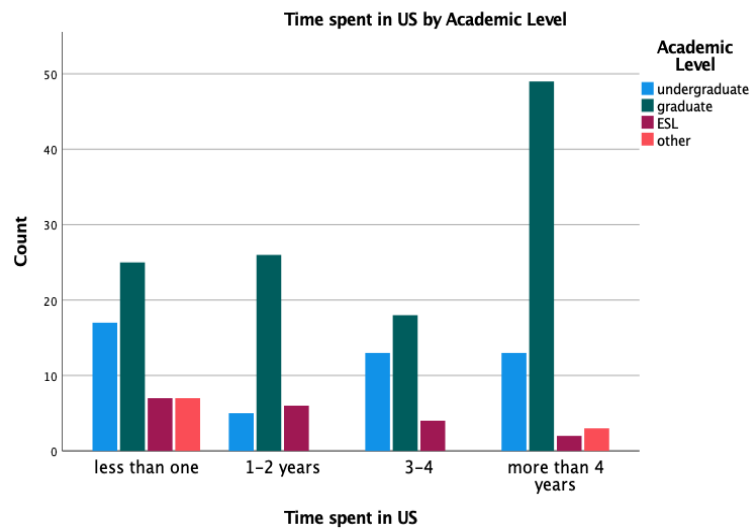


Figure1.cluster bar chart time spent in united states

Table1. Descriptive statistics for characteristics demographic (n=196)

	Factor	Frequency (n)	Percent (%)
Sex	Male	91	46.4
	Female	105	53.6
	Total	196	100
Age group	18-22	29	14.8
	23-27	52	26.5
	28-32	42	21.4
	More than 33	69	35.2
	Missing	4	2
	Total	192	100
Long in the United States			
	Less than one	56	28.6
	1-2 years	37	18.9
	3-4 years	35	17.9
	More than 4 years	67	34.2
	Missing	1	.5
	Total	192	100
Academic level			
	Undergraduate	48	24.5
	Graduate	118	60.2
	ESL	20	10.2
	Other	10	5.1
	Total	196	100

Table 2 shows the descriptive statistics for each scale, where the BAPS scale had the highest mean (M=63.79, SD=13.43) ,which contain stigma with (M=35.84,SD=8.793), followed by Expertness with (M=10.44, SD=4.72), Intention (M=10.90,SD=5.49).In the term of VIA scale had mean (M=59.68, SD=16.119) , which contain Host with (M=40.04,SD=16.12),followed by Heritage with(M=22.88, SD=10.193). In the term of covid-19 scale with (M=39.64,SD=16.30), followed by self-efficacy scale (GSC) with (M=30.07,SD=5.55), followed by anxiety &depression scale (PHQ4)with (M=4.87,SD=3.466), which indicate mild severity of anxiety & depression, and about of the remain scale each increase of the mean value indicate increasing of the severity .

Table2. Descriptive statistics for each scale

	Mean	SD	Severity
VIA	59.68	16.119	
Host	40.04	11.870	
Heritage	22.88	10.193	Increase of the
BAPS	63.79	13.438	mean value
Stigma	35.84	8.793	indicate
Expertness	10.444	4.72	increasing of
Intention	10.90	5.499	the
Covid-19	39.64	16.302	Severity
anxiety and depression	4.87	3.466	2-0 none
(PHQ4)			5-3 mild
			8-6 moderate
			severe 12-9
Self-efficacy (GSC)	30.07	5.661	

Detailed Responses to Host scale

Table 3.a provides a comprehensive analysis of each item on the VIA (Host) scale, which contains 10 statements rated by respondents on a six-point ordinal scale: 1 = strongly agree, 2 = agree, 3 = somewhat agree, 4 = neither agree nor disagree, 5 = somewhat disagree, and 6 = disagree. The statement 7, "I often participate in mainstream American cultural traditions," resulted in a median of 4 and a mode of 4, indicating that respondents neither agreed nor disagreed with this statement. The statement 9, "I would be willing to marry an American person," showed a median of 6 and a mode of 7, reflecting a predominant disagreement among participants. The statement 11, "I enjoy social activities with typical American people," had a median of 3 and a mode of 2, suggesting a tendency toward somewhat agreeing with this statement. The statement 15, "I enjoy American entertainment (e.g., movies, music)," resulted in both a median and mode of 2, indicating agreement. The statement 17, "I often behave in ways that are typically American," presented a median of 4 and a mode of 3, indicating a general neutrality or slight disagreement with the statement. The statement 19, "It is important for me to maintain or develop American cultural practices," had a median and mode of 4, showing neither agreement nor disagreement. The statement 21, "I believe in mainstream American values," also had a median and mode of 4, reflecting neutrality in responses. The statement 23, "I enjoy American jokes and humor," resulted in a median and mode of 3, suggesting respondents somewhat agreed with this statement. The statement 25, "I am interested in having American friends," produced a median and mode of 2, showing agreement among participants.

These results, represented visually in Figure 1, offer an overview of the distribution of participant responses across the VIA (Host) scale. The clustered bar chart illustrates the frequency and central tendency measures (i.e., median and mode) for each statement. This visual summary reinforces the finding that participants generally reported a mixture of agreement and neutrality towards American cultural engagement, with some items showing stronger responses toward agreement (e.g., entertainment and friendships) and others indicating neutrality or disagreement (e.g., marriage and behavioral adaptation).

Table3.a Descriptive statistics for each statement in VIA(Host) scale

	Median	Mode
7- I often participate in mainstream American cultural traditions.	4	4
9- I would be willing to marry an American person.	6	7
11-I enjoy social activities with typical American people.	3	2
13- I am comfortable interacting with typical American people.	3	2
15- I enjoy American entertainment (e.g. movies, music).	2	2
17- I often behave in ways that are typically American.	4	3
19 It is important for me to maintain or develop American cultural practices.	4	4
21 I believe in mainstream American values.	4	4
23- I enjoy American jokes and humor.	3	3
25- I am interested in having American friends.	2	2

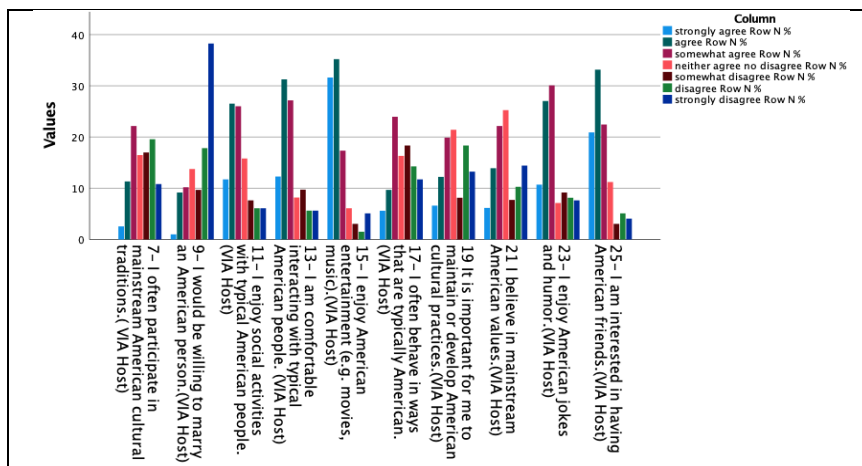


Figure2a.Cluster bar chart for VIA(Host) scale

Detailed Responses to Heritage

Table 3.b provides a comprehensive analysis of each item on the VIA (Heritage) scale, which contains 10 statements rated by respondents on a six-point ordinal scale: 1 = strongly agree, 2 = agree, 3 = somewhat agree, 4 = neither agree nor disagree, 5 = somewhat disagree, and 6 = disagree. The statement 6, "I often participate in my heritage cultural traditions", the statement 12, "I am comfortable interacting with people of the same heritage culture as myself", the statement 16, "I often behave in ways that are typical of my heritage culture" resulted in a median 2 and a mode of 2, indicating that respondents agreed with these statements. The statement 8, "I would be willing to marry a person from my heritage culture", the statement 10, "I enjoy social activities with people from the same heritage culture as myself", the statement 14, "I enjoy entertainment (e.g. movies, music) from my heritage culture", the statement 18, "It is important for me to maintain or develop the practices of my heritage culture", the statement 22, "I enjoy the jokes and humor of my heritage culture", the statement 24, "I am interested in having friends from my heritage culture" resulted in a median of 2 and a mode of 1, showing agreed respondents. The statement 20, "I believe in the values of my heritage culture", produced a median 1 and a mode 1, showing a strongly a agreement among participants.

These results, represented visually in Figure 2.b, offer an overview of the distribution of participant responses across the VIA (Heritage) scale. The clustered bar chart illustrates the frequency and central tendency measures (i.e., median and mode) for each statement. This visual summary reinforces the finding that participants generally reported a mixture of strongly agreement and agreement towards heritage cultural engagement, with some items showing stronger responses toward agreement (e.g., the believe of heritage culture) and others indicating agreement (e.g., marriage and participante). In general heritage cultural engagement is generally high among respondents.

Table 3.b. Descriptive statistics for each statement in VIA Heritage scale

	Median	Mode
6- I often participate in my heritage cultural traditions.	2	2
8- I would be willing to marry a person from my heritage culture.	2	1
10- I enjoy social activities with people from the same heritage culture as myself.	2	1
12- I am comfortable interacting with people of the same heritage culture as myself.	2	2
14- I enjoy entertainment (e.g. movies, music) from my heritage culture.	2	1
16- I often behave in ways that are typical of my heritage culture.	2	2
18- It is important for me to maintain or develop the practices of my heritage culture.	2	1
20- I believe in the values of my heritage culture.	1	1
22- I enjoy the jokes and humor of my heritage culture.	2	1
24- I am interested in having friends from my heritage culture.	2	1

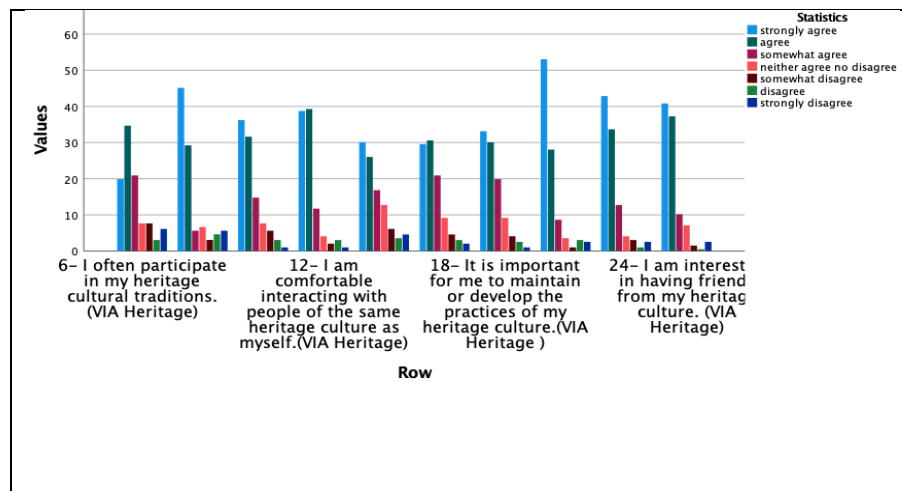


Figure 2b. cluster bar for VIA heritage scale

Detailed Responses to stigma Tolerance

The Beliefs About Psychological Services (BAPS) had 18 questions and was subcategorized into three subscales Stigma Tolerance, Expertness, and Intent. Participants responses ranged from 1-7, except of the statement 43, "If I thought I needed psychological help, I would get help no matter who knew I was receiving it" founded in the stigma scale, the Stigma Tolerance subscale has eight questions.

Table 3.c presents the descriptive statistics for the stigma tolerance scale, which assesses participants' attitudes toward seeking psychological help. For each statement, the median and mode are reported to highlight the central tendencies and most frequent responses.

Participants reported feeling uneasy about going to a psychologist due to concerns about others' opinions (Median = 5, Mode = 7), indicating a slight tendency towards disagree. A notable proportion of respondents disagreed that going to a psychologist signifies weakness (Median = 6, Mode = 7), reflecting high stigma related to psychological help-seeking behavior. Regarding the belief that receiving psychological help stigmatizes a person's life, the median and mode were both 4, suggesting neutral among participants. Participants were also neutral to believe that some problems should not be discussed with a psychologist (Median = 4, Mode = 4). About that psychologists make individuals feel incapable of managing their own problems was slightly disagree (Median = 5, Mode = 6). A similar level of slightly disagreement was found for the belief that talking to a psychologist is an ineffective way of addressing emotional conflict (Median = 5, Mode = 4). Moreover, participants found a slightly disagree about challenging to discuss personal issues with highly educated professionals such as psychologists (Median = 5, Mode = 6). Also, there was disagreement on whether individuals would seek psychological help regardless of who knew about it (Median = 3, Mode = 2), indicating they seek about privacy in helping.

Overall, the results suggest that participants generally hold stigmatizing views toward seeking psychological help. Several statements had high medians and modes (e.g., feeling uneasy about going to a psychologist, associating psychological help with weakness), indicating that negative perceptions about counseling and psychological services are prevalent. These findings highlight the need for interventions that reduce stigma and promote mental health services as an acceptable and valuable resource.

Table3c. Descriptive statistics for each statement in stigma Tolerance BAPS

	Median	Mode
30- I would feel uneasy going to a psychologist (counselor, psychiatrist) because of what some people might think.	5	7
33- Going to a psychologist (counselor, psychiatrist) means that I am a weak person.	6	7
35- Having received help from a psychologist (counselor, psychiatrist) stigmatizes a person's life.	4	4
36- There are certain problems that should not be discussed with a stranger such as a psychologist (counselor, psychiatrist).	4	4
38- Psychologists (counselor, psychiatrist) make people feel that they cannot deal with their problems.	5	6
40- Talking about problems with a psychologist (counselor, psychiatrist) strikes me as a poor way to get rid of emotional conflict.	5	4
42- It is difficult to talk about personal issues with highly educated people such as psychologists (counselor, psychiatrist).	5	6
43- If I thought I needed psychological help, I would get this help no matter who knew I was receiving it.	3	2

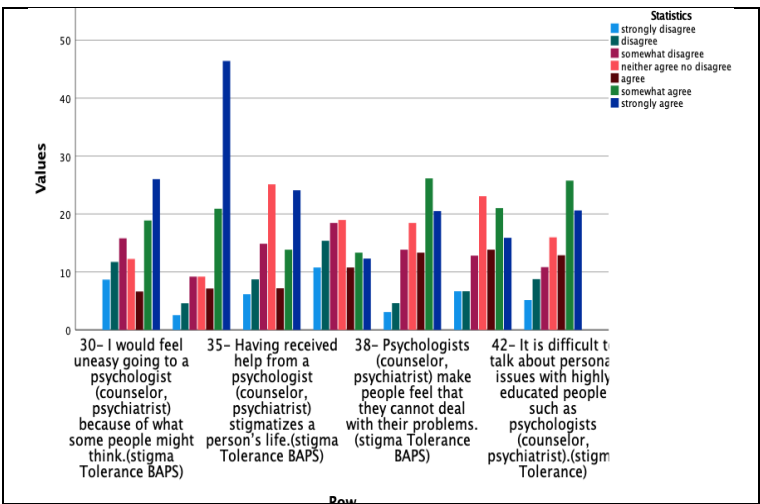


Figure3. cluster bar for stigma scale

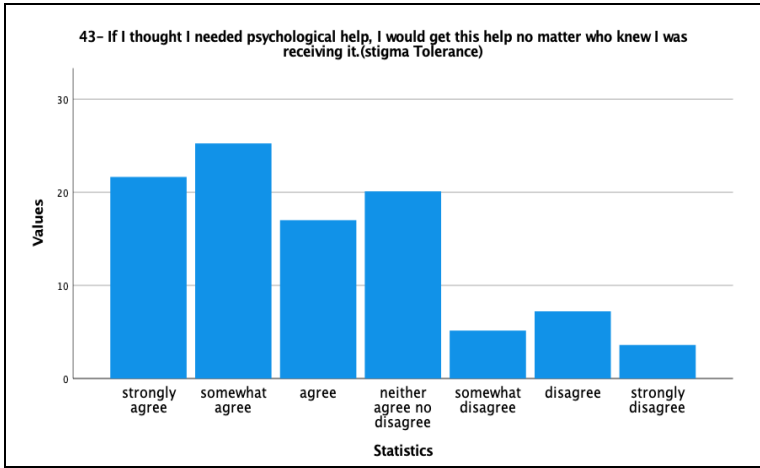


Figure4. cluster bar for non- reverse statement in stigma scale

Detailed Responses to Expertness BARS

Table 3d represents the descriptive statistics for each statement in expertness BARS, the expertness has four questions, assessing the perceived expertness of psychologists, counselors, or psychiatrists. Statements cover beliefs about professional training, confidentiality, non-judgmental attitudes, and valuable advice due to their knowledge of human behavior, for each statement the median and mode are shared to underline the central tendencies and most frequent responses. The statement 32, "Because of their training, psychologists (counselor, psychiatrist) can help you find solutions to your problems" had a median of 3 and mode of 2, indicating slightly agreed responses. The statement 34, "Psychologists (counselor, psychiatrist) are good to talk to because they do not blame you for the mistakes you have made", and the statement 39, "It is good to talk to someone like a psychologist (counselor, psychiatrist) because everything you say is confidential", produced a median of 2 and mode of 1, showing agreed responses. The statement 41, "Psychologists (counselor, psychiatrist) provide valuable advice because of their knowledge about human behavior", resulted a median of 2 and mode of 2, representing agreed responses.

Overall the cluster bar chart visually represents the distribution of responses, indicating general agreement with positive perceptions of psychologist's expertise .

Table3.d Descriptive statistics for each statement in Expertness BARS

	Median	Mode
32- Because of their training, psychologists (counselor, psychiatrist) can help you find solutions to your problems.	3	2
34- Psychologists (counselor, psychiatrist) are good to talk to because they do not blame you for the mistakes you have made.	2	1
39- It is good to talk to someone like a psychologist (counselor, psychiatrist) because everything you say is confidential.	2	1
41- Psychologists (counselor, psychiatrist) provide valuable advice because of their knowledge about human behavior.	2	2

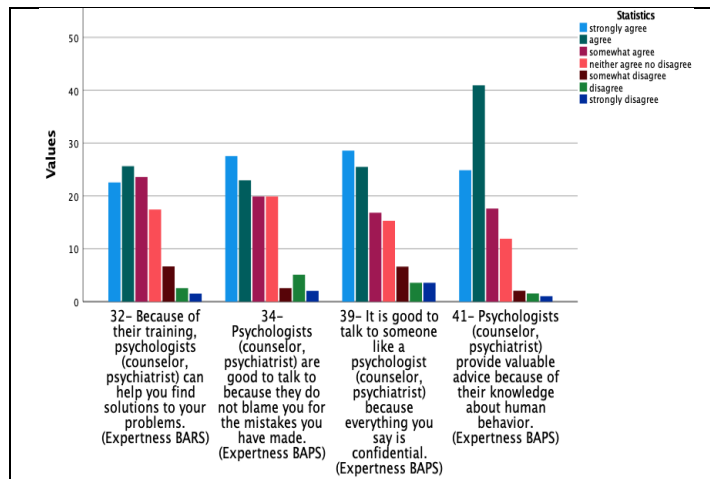


Figure5. cluster bar for Expertness scale

Detailed Responses to intention BARS

Table 3e represents the descriptive statistics for each statement in intention BARS, the intention has six questions, which determines the intentions of the participants to seeking help about his/her mental health issues, for each statement the median and mode are computed to focus on the central tendencies and most frequent responses. The statement 26, “ If a good friend asked my advice about a serious problem, I would recommend that he/she see a psychologist (counselor, psychiatrist)”, and the statement 28,” Seeing a psychologist (counselor, psychiatrist) is helpful when you are going through a difficult time in your life”, had a median of 2 and a mode of 1, showing agreed responses. The statement 27,” I would be willing to confide my intimate concerns to a psychologist (counselor, psychiatrist)”, and the statement 37,” I would see a psychologist (counselor, psychiatrist) if I were worried or upset for a long period of time “, resulted a median of 2 and mode of 2, representing agreed responses. The statement 29,”At some future time, I might want to see a psychologist (counselor, psychiatrist)”,produced a median of 3 and mode of 1, meaning a slightly agreed responses. The statement 31,” I would see a psychologist (counselor, psychiatrist) if I were worried or upset for a long period of time”, ensured a median of 4 and a mode of 3, confirming neutrally responses. Overall, most statement have a median 2 and a mode values of 1 or 2 , reflecting agreement. One statement shows neutrality with a median of 4 , indicating varied intentions among respondents. Figure 6 indicates the clustered bar chart depicts how frequently participant endorsed theses intention, highlighting the levels of agreement.

Table3e. Descriptive statistics for each statement in Intention BARS

	Median	Mode
26- If a good friend asked my advice about a serious problem, I would recommend that he/she see a psychologist (counselor, psychiatrist).	2	1
27- I would be willing to confide my intimate concerns to a psychologist (counselor, psychiatrist).	2	2
28- Seeing a psychologist (counselor, psychiatrist) is helpful when you are going through a difficult time in your life.	2	1
29- At some future time, I might want to see a psychologist (counselor, psychiatrist).	3	1
31- If I believed I was having a serious problem, my first inclination would be to see a psychologist (counselor, psychiatrist).	4	3
37- I would see a psychologist (counselor, psychiatrist) if I were worried or upset for a long period of time.	2	2

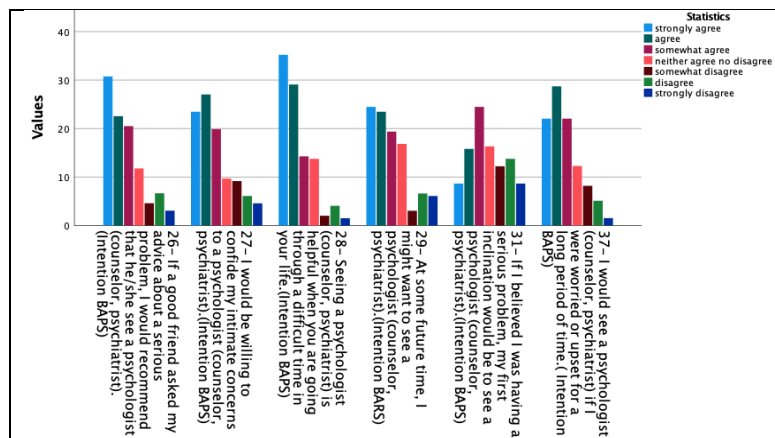


Figure6. cluster bar for Intention scale

Detailed Responses to covid-19 EI

Table 3f. represents the descriptive statistics for each statement in covid-19, the covid-19 has 13 questions, which determines the prevalence of coronavirus and how effect on the attitudes and psychological including financial impacts , access to resources, mental health effects, and proximately to those effects, for each statement the median and mode are computed to focus on the central tendencies and most frequent responses .The statement 45,” The Coronavirus (COVID-19) has impacted me negatively from a financial point of view”, and the statement 46,” I have had a hard time getting needed resources (food, toilet paper) due to the Coronavirus (COVID-19)”, had a median of 1 and a mode of 1 ,indicating not true of me at all responses. The statement 47,” It has been difficult for me to get the things I need due to the Coronavirus (COVID-19, the statement 48,” I have become depressed because of the Coronavirus (COVID-19)”, the statement 54,” I have been in close proximity with someone who has had coronavirus-like symptoms in the last eight months (covid-19)”, produced a median of 2 and a mode of 1, indicating mostly not true of me responses. The statement 44,” The Coronavirus (COVID-19) has impacted me negatively from a financial point of view”, and the statement 49,” The Coronavirus (COVID-19) outbreak has impacted my psychological health negatively (covid-19)” resulted a median of 3 and a mode of 1 , showing some what not true of me responses .The statement 50, “I have been diagnosed with coronavirus (COVID-19)”, and the statement 52,” I have been sick with something other than the coronavirus in the last eight months. (covid-19)”, produced a median of 4 and a mode of 1, representing neutral response. The statement 53,” I have been in close proximity with someone who has been diagnosed with coronavirus (COVID-19)” resulted in a median 4 and a mode 7, revealing neutral responses.Overall median and mode values range from 1 to 4, showing a mix of response , with many minimal impact (median=1), or natural experiences (median=4),Figure7 visually summarizes the extents of agreement or disagreement with each statement about COVID-19’s impact .

Table3f. Descriptive statistics for each statement in covid-19

	Median	Mode
44-The Coronavirus (COVID-19) has impacted me negatively from a financial point of view.	3	1
45- I have lost job-related income due to the Coronavirus (COVID-19).	1	1
46- I have had a hard time getting needed resources (food, toilet paper) due to the Coronavirus (COVID-19).	1	1
47- It has been difficult for me to get the things I need due to the Coronavirus (COVID-19).	2	1
48- I have become depressed because of the Coronavirus (COVID-19).	2	1
49- The Coronavirus (COVID-19) outbreak has impacted my psychological health negatively. (covid-19)	3	1
50- I have been diagnosed with coronavirus (COVID-19).	4	1
51- I have had coronavirus-like symptoms at some point in the last eight months. (covid-19)	1	1
52- I have been sick with something other than the coronavirus in the last eight months. (covid-19)	4	1
53- I have been in close proximity with someone who has been diagnosed with coronavirus (COVID-19).	4	7
54- I have been in close proximity with someone who has had coronavirus-like symptoms in the last eight months (covid-19)	2	1
55- I watch a lot of news about the Coronavirus (COVID-19).	3	1
56- I spend a huge percentage of my time trying to find updates online or on TV	2	1

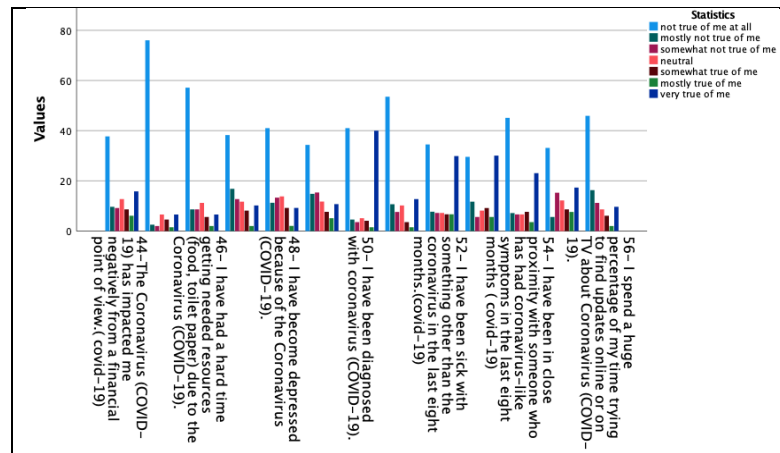


Figure7. cluster bar for covid-19 scale

Detailed Responses to anxiety and depression (PHQ-4)

Table 3g. represents the descriptive statistics for each statement in PHQ-4 scale, the PHQ-4 has 4 questions, assessing symptoms of anxiety and depression , such as feeling nervous and depression attitudes of participant or losing interest in activities, for each statement the median and mode are computed to focus on the central tendencies and most frequent responses .In the overall the statement in PHQ scale had the same median and mode , where feeling nervous , anxious , unable to stop or control worrying ,feeling down, depressed, or hopeless, and little interesting or pleasure in doing things , resulted in a median 1 and a mode 1, revealing several days. Consistently low median and mode values of 1, indicating symptoms were reported infrequently (several days),Figure 8 cluster bar chart shows the frequency distribution for these symptoms.

Table3g. Descriptive statistics for each statement in PHQ-4

	Median	Mode
57- Feeling nervous, anxious or on edge (PHQ-4)	1	1
58- Over the last two weeks, how often have you been bothered by the following problems? Not being able to stop or control worrying (PHQ-4)	1	1
60- Over the last two weeks, how often have you been bothered by the following problems? Feeling down, depressed, or hopeless (PHQ-4)	1	1
59- Over the last two weeks, how often have you been bothered by the following problems? Little interest or pleasure in doing things (PHQ-4)	1	1

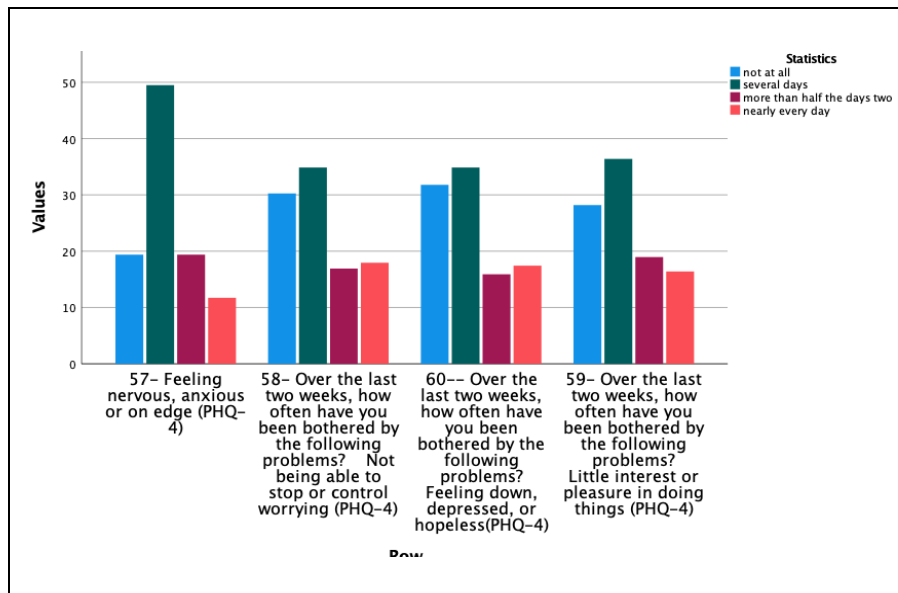


Figure8. cluster bar for PHQ-4 scale.

Detailed Responses to self-efficacy (GSC)

Table 3H. represents the descriptive statistics for each statement in self-efficacy scale, the self-efficacy has 10 questions, which revolved to the belief in participants capacity to execute behaviors necessary to produce specific performance attainments, for each statement the median and mode are computed to focus on the central tendencies and most frequent responses .In the overall the statement in GSC scale had the same median and mode , where solve difficult problems when try hard , finding way to get what you want , sticking the aims and accomplish his/her goals , dealing efficiently with unexpected events, handling unforeseen situation, remain calm when facing difficulties because I can rely on my coping abilities, finding several solutions for the problem, handling whatever coming her/his way , produced a median of 3 and a mode 3, indicating moderately true. Moreover, about investing necessary effort to solve most problem, had a median of 3 and a mode of 4 , showing moderately true ., median and mode are mostly 3, suggesting that respondents felt moderately confident in their abilities. One statement shows slightly higher variability with a mode of 4 , Figure9 illustrates participant's self-rated efficacy , emphasizing moderate confidence across various situation. Each figure accompanying the tables helps to visually reinforce the distribution of responses and the central tendencies, making the descriptive statistics more accessible and easier to interpret.

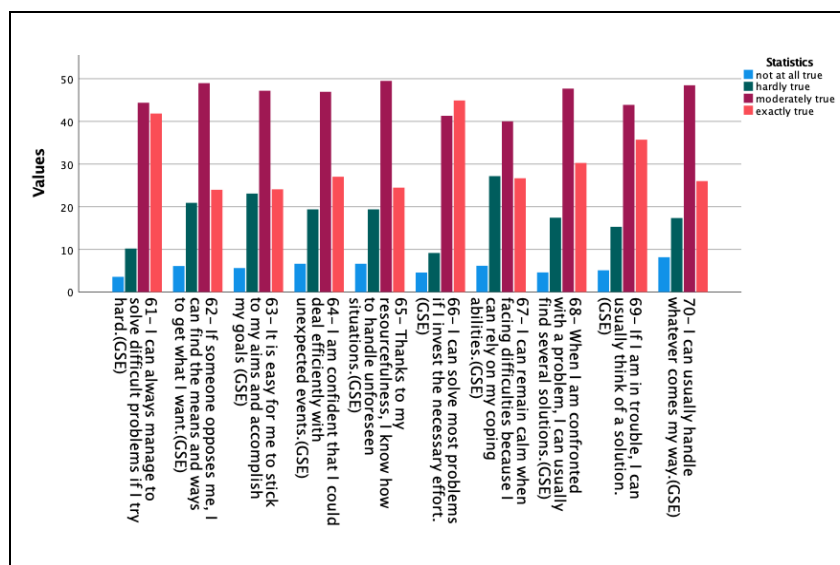


Figure9. cluster bar for GSC scale

Table3H. Descriptive statistics for each statement in GSE

	Median	Mode
61- I can always manage to solve difficult problems if I try hard.(GSE)	3	3
62- If someone opposes me, I can find the means and ways to get what I want.(GSE)	3	3
63- It is easy for me to stick to my aims and accomplish my goals (GSE)	3	3
64- I am confident that I could deal efficiently with unexpected events.(GSE)	3	3
65- Thanks to my resourcefulness, I know how to handle unforeseen situations.(GSE)	3	3
66- I can solve most problems if I invest the necessary effort.(GSE)	3	4
67- I can remain calm when facing difficulties because I can rely on my coping abilities.(GSE)	3	3
68- When I am confronted with a problem, I can usually find several solutions.(GSE)	3	3
69- If I am in trouble, I can usually think of a solution.(GSE)	3	3
70- I can usually handle whatever comes my way.(GSE)	3	3

Table 8. person correlation among scales variables

	1	2	3	4	5	6	7
1 Host							
2 Hertiage	.214**						
3 Stigma	.151*	0.076					
4 Expertness	.204**	.422**	-0.137				
5 Intention	.228**	.259**	-0.085	.656**			
6 COVID-19	-.141*	-0.042	-.304**	-.157*	-.237**		
7 PHQ-4	.240**	0.002	0.047	-0.107	-.187**	0.113	
8 GSC	-.225**	-.320**	-0.069	-.188**	-0.106	0.07	-.289**

*Note .N=196, * $p < 0.05$, ** $p < 0.01$*

The results of the person correlation analysis among the study variables are presented in Table 8. The correlation coefficients indicate the strength and direction of the relationships between variables. There is a significant positive correlation between Host and Expertness ($r=.228, p<.01$), and Heritage and Expertness ($r=.259, p<.01$), suggesting that higher Host and heritage scores are associated with higher levels of Expertness ,a significant positive correlation was found between Heritage,Host,expertness and Intention ($r=.259, p<.05$),($r=.228, p<.05$),($r=.65, p<.05$), indicating that scores in Heritage, Host are weak link to Intention ,and expertness are linked to greater Intention. Covid-19 showed a significant weak negative correlation with Expertness ($r= -.157, p<.05$), suggesting that higher stigma is associated with lower perceived covid-19. The strongest positive correlation was between Intention and Expertness ($r=.656, p<.01$), indicating a robust association where higher Intention is strongly linked to higher Expertness. A significant negative correlation was observed between COVID and host, stigma, expertness, intention ($r=-.14, p<.05$), ($r=-.304, p<0.01$), ($r=-.157, p<0.05$) suggesting that COVID concerns are associated with lower host stigma, expertness, intention scores.

All significant correlations are marked with asterisks to indicate their level of significance (* $p < .05$, ** $p < .01$).

Table9. Descriptive statistics for the demographic characteristics corresponding to each scale

Factor		Host	Heritage	stigma	expertness	Intention	COVID	PHQ4	GSC
Gender									
male	Median	36	21	34	11	12	37	3	31
	Range	54	45	38	24	23	78	12	27
female	Median	42	21	39	9	8	38	5	29
	Range	53	49	36	23	22	75	12	25
age group									
18-22	Median	43	19	34	12	12	36	6	29
	Range	54	48	24	20	22	47	12	20
23-27	Median	43.50	19.50	36	10	10.50	36.50	4	31
	Range	38	44	38	24	23	71	12	24
28-32	Median	40.50	23	37.50	10	9.50	39.50	4	30
	Range	64	49	41	23	22	66	12	26
+ 33	Median	36	22	37	10	10	39	3	30
	Range	52	45	44	20	17	78	12	27
Time spent in US									
less than one	Median	39	20	35	12	11	40	4	30
	Range	52	48	36	24	23	49	12	24
1-2 years	Median	42	19	39	11	8	34	4	30
	Range	50	45	27	18	18	57	12	19
3-4	Median	40	21	36	10	10	36	4	30
	Range	46	39	41	15	16	78	12	25
+ 4 years	Median	37	22	36	10	10	39	4	30
	Range	64	49	43	23	22	78	12	27
academic level									
undergraduate	Median	44	19	34.5	11	12	34	5.50	28
	Range	49	48	31	20	22	57	12	22
graduate	Median	37.50	22	37	9	9	39	4	30
	Range	64	45	42	24	23	78	12	27
ESL	Median	36.50	19.50	37.5	7.5	10	41	3	30.50

	Range	62	49	44	23	22	78	12	26
other	Median	38	21.50	37	9	8.50	38.5	3	31
	Range	40	19	13	10	13	43	9	19

Table 9 presents the descriptive statistics for demographic characteristics such as gender, age group, time spent in the US, and academic level across different scales including Host, Heritage, Stigma, Expertness, Intention, COVID, PHQ4, and GSC. The median scores for males were generally lower than those for females on most scales. For instance, the median score for Host was 36 for males compared to 42 for females. Similarly, males had a higher range in Host (54) compared to females (53), indicating greater variability among male participants. Participants aged 18-22 had the highest median scores in Host (43) and covid-19 (36), indicating that younger participants rated higher on these scales compared to older age groups. The range for COVID was highest among the +30 age group (78), showing more variability in this group's responses. Participants who spent less than one year in the US had the highest median score on COVID (40). In contrast, those who spent 1-2 years scored highest on the Host scale (42). Variability was highest in COVID scores for those who spent 3-4 years and more than 4 years in the US, both with a range of 78. Undergraduate participants had higher median scores in Host (44) compared to other groups, while ESL participants had higher scores in stigma (37.5). Graduate students showed the highest range in covid-19(78), suggesting more variability in responses. These descriptive statistics provide an overview of how demographic characteristics are related to the scales, highlighting differences across various groups.

Initial Analysis of Behavior Intention

Table 10 shows the results of statistical tests (U and Kruskal-Wallis) used to assess differences in median scores across demographic categories for various scales, including Host, Heritage, Stigma, Expertness, Intention, COVID, PHQ4, and GSC. Regarding to gender , there is significant differences were observed between males and females on several scales. The Host scale ($U=6305$, $p<.00$), Stigma ($U=6637$, $p<.001$), Expertness ($U=3851$, $p=.019$), Intention ($U=3505$, $p=.001$), PHQ4 ($U=6150$, $p<.001$), and GSC ($U=3737$, $p=.008$) all showed significant differences, indicating that gender influences these factors. About age Group we conduct the Kruskal-Wallis's test which revealed significant differences by age group for the Host scale ($k=17.346$, $p=.001$) and PHQ4 ($k=12.181$, $p=.007$), suggesting that age group affects responses in these scales. About United Long time there is no significant differences were observed across the categories in United Long on any of the scales, indicating no variation in scores by this demographic factor. Finally, there is significant differences were found for the Host scale ($k=8.438$, $p=.038$) and PHQ4 ($k=8.263$, $p=.041$) across different education levels, showing that education impacts these scales. These findings highlight the impact of demographic factors on various psychological and behavioral scales, emphasizing the importance of considering these variables in analysis.

Table10. statistically significant difference in the median of each scale between the categorize demographics

Factor		Host	Heritage	stigma	expertness	intention	Covid	PHQ4	GSC
Gender	U	6305	5031	6637	3851	3505	4928	6150	3737
	Sig	<0.001	.522	<0.001	0.019	0.001	0.703	<0.001	0.008
Age group	Kruskal	17.346	3.588	2.765	1.026	1.817	1.705	12.181	1.896
	sig	.001	.310	.429	.795	.611	.636	.007	.594
United long	Kruskal	2.948	1.452	1.966	3.616	1.118	3.140	3.927	.559
	Sig.	.400	.693	.579	.306	.773	.370	.269	.906
education	Kruskal	8.438	2.909	3.612	4.082	5.379	4.210	8.263	1.522
	Sig.	.038	.406	.306	.253	.146	.240	.041	.677

Hierarchical Regression Analysis

A hierarchical regression was conducted to examine the predictors of mental health help-seeking intention. The analysis was performed in two models. In Model 1, the independent variables included self-efficacy, time spent in the US, stigma tolerance, academic level, expertness, host culture, sex, age, and heritage. In Model 2, the additional predictors COVID-19 and depression & anxiety were added to assess their contribution beyond the variables in Model 1. In the terms of the Model 1 accounted for a significant proportion of the variance in mental health help-seeking intention, $R^2=.48$.74, $F(9, 181) = 18.74$, $p<.001$.

Among the predictors, sex ($B = -2.015$, $p=.003$), host culture ($B = 0.076$, $p=.010$), and expertness ($B = 0.747$, $p<.001$) were significant predictors of help-seeking intention. Other variables such as age, time spent in the US, academic level, heritage, stigma tolerance, and self-efficacy were not significant predictors as shown in Table 12.

Table 11. Model(1& 2) Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Change statistics sig F change
1	.695 ^a	.482	.457	4.087	.482	18.739	9	181	.000
2	.714 ^b	.510	.480	4.000	.027	4.985	2	179	.008

a. Predictors: (Constant), Self-Efficacy, Time spent in US, Stigma Tolerance, Academic Level, Expertness, Host, Sex, Age, Heritage

b. Predictors: (Constant), Self-Efficacy, Time spent in US, Stigma Tolerance, Academic Level, Expertness, Host, Sex, Age, Heritage , COVID-19, Depression& Anxiety

c. Dependent Variable: Mental Health Help-seeking Intention

In Model 2, the inclusion of COVID-19 and depression & anxiety significantly improved the model, $\Delta R^2=.027$, $F(2,179)=4.99$, $p=.008$, bringing the total variance explained by the model to $R^2=.51$, $F(11,179)=17.35$. In this model, sex ($B = -1.691$, $p=.012$), host culture ($B = 0.078$, $p=.007$), expertness ($B = 0.690$, $p<.001$), and depression & anxiety ($B = -0.216$, $p=.028$) were significant predictors. Time spent in the US approached significance ($B = 0.515$, $p = .051$). COVID-19 ($B = -0.037$, $p=.064$) showed a marginal effect.

In summary, factors such as sex, host culture, expertness, and depression & anxiety significantly predicted mental health help-seeking intentions, with COVID-19 showing a marginal influence as shown in Table 12.

Table 12. Hierarchical regression to predict mental health help seeking Intention (Model 1&Model 2)

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.595	3.390		.766	.445
	Age	-.034	.050	-.043	-.695	.488
	Sex	-2.015	.674	-.182	-2.991	.003
	Time spent in US	.417	.266	.092	1.568	.119
	Academic Level	.127	.418	.017	.304	.762
	Host	.076	.029	.162	2.620	.010
	Heritage	-.017	.036	-.030	-.465	.642
	Stigma Tolerance	.031	.036	.049	.850	.397
	Expertness	.747	.076	.630	9.891	.000
	Self-Efficacy	-.015	.057	-.015	-.257	.798
2	(Constant)	7.437	3.659		2.032	.044
	Age	-.056	.050	-.070	-1.108	.270
	Sex	-1.691	.667	-.152	-2.535	.012
	Time spent in US	.515	.262	.114	1.965	.051
	Academic Level	.070	.413	.009	.168	.866
	Host	.078	.029	.166	2.732	.007
	Heritage	-.011	.036	-.019	-.304	.762
	Stigma Tolerance	.004	.038	.006	.104	.917
	Expertness	.690	.076	.583	9.071	.000
	Self-Efficacy	-.048	.059	-.048	-.803	.423
	COVID-19	-.037	.020	-.108	-1.864	.064
	Depression& Anxiety	-.216	.097	-.135	-2.214	.028

a. Dependent Variable: Mental Health Help-seeking Intention

Among the predictors, sex ($B = -1.794$, $p=.008$), host culture ($B = 0.082$, $p=.005$), and expertness ($B = 0.713$, $p<.000$), and Depression & Anxiety ($B=-.245$, $p=.012$), were significant predictors of help-seeking intention. Time spent in the US approached significance ($B = 0.493$, $p = .063$). Other variables such as age, academic level, heritage, stigma tolerance, and self-efficacy were not significant predictors as shown in Table 13.

Table 13. Model(3) summery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.707 ^a	.500	.472	4.027

Table 14: Multiple linear regression to predict mental health seeking intention (Model3)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.017	3.604		1.670	.097
	Age	-.066	.050	-.083	-1.312	.191
	Sex	-1.794	.669	-.162	-2.679	.008
	Time spent in US	.493	.264	.109	1.870	.063
	Academic Level	.012	.414	.002	.029	.977
	Host	.082	.029	.175	2.858	.005
	Heritage	-.018	.036	-.031	-.495	.621
	Stigma Tolerance	.028	.036	.044	.769	.443
	Expertness	.713	.076	.601	9.418	.000
	Self-Efficacy	-.059	.059	-.059	-.994	.322
	Depression& Anxiety	-.245	.097	-.153	-2.531	.012

a. Dependent Variable: Mental Health Help-seeking Intention

Table 14 shows the visual diagram of the correlation between each independent variable and the intention in each model using Amos spss.

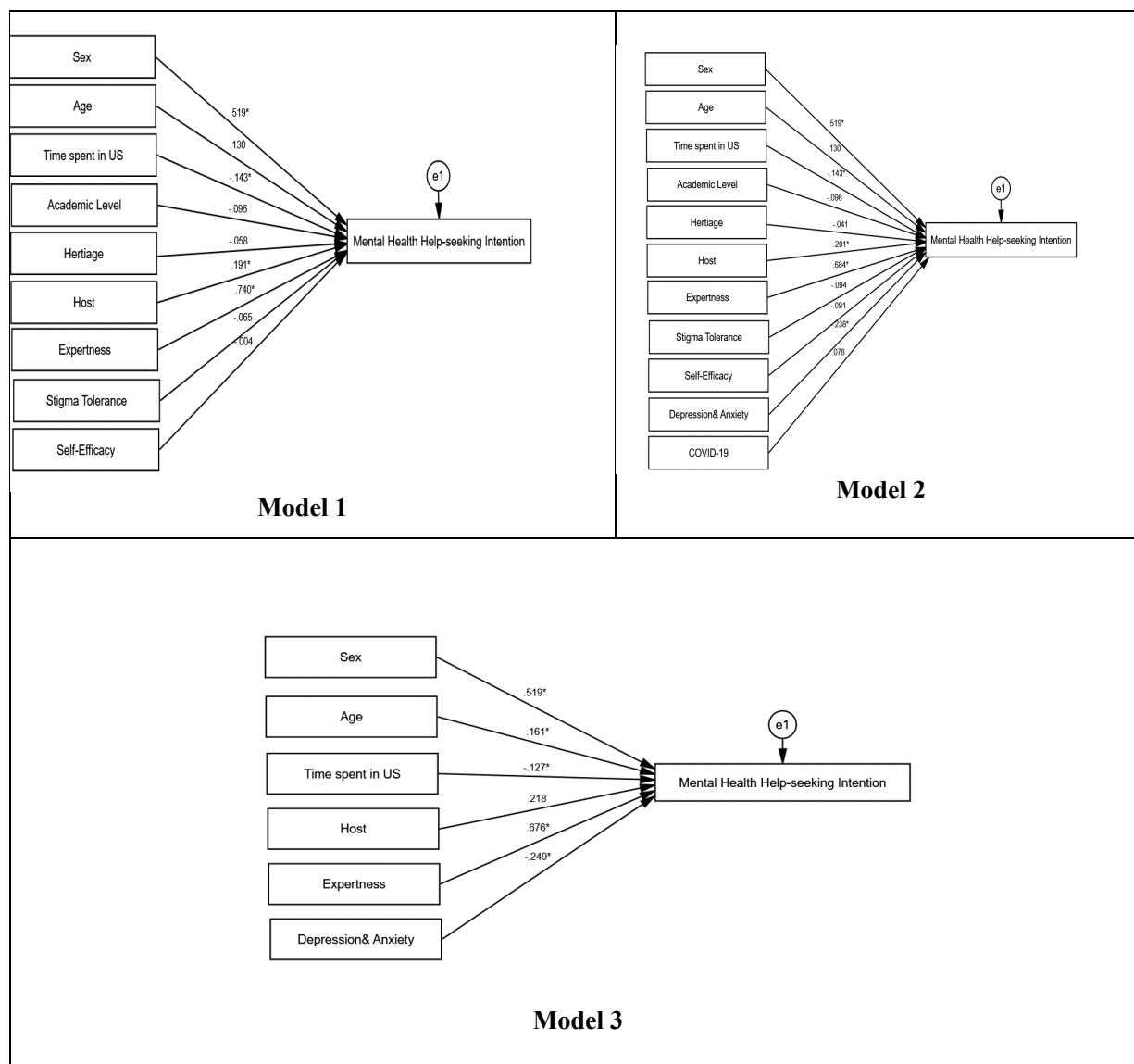


Table 14 : visual diagram of the correlation between each independent variable and the Intention in each model

Implication:

The findings of the analysis indicate that anxiety and depression significantly impact the mental health of Saudi Arabian students studying in the United States. These students often experience feelings of nervousness and anxiety, struggle to control their worries over several days, and may feel down, depressed, or hopeless. Their lack of interest in activities can be attributed to the distance from their homes and families, coupled with the numerous responsibilities they face, such as academic obligations, project work, and the challenges of adapting to life in the United States. They must also manage personal tasks like cooking, cleaning, and self-care. The study recommends seeking assistance from a psychologist, as they can provide solutions to these issues. Psychologists offer a non-judgmental environment where students can discuss their concerns confidentially and receive valuable guidance based on their expertise. Furthermore, factors such as perceptions of expertise and cultural adaptation significantly affect students' willingness to seek mental health support. Feelings of disinterest and sadness may stem from the unfamiliar culture prevalent in the United States. Engaging in social activities, interacting with peers, and enjoying American entertainment, such as movies and music, can help alleviate these feelings. Lastly, it is noted that female students tend to experience more anxiety than their male counterparts, suggesting a need to focus on addressing the specific challenges faced by females in adapting to a new culture while embracing beneficial aspects and rejecting those that conflict with their values.

