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A Closer Look at the Impact of the COVID-19 Pandemic on the Mental Health of Students from CamEd Business School

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ABSTRACT

The COVID-19 pandemic brought unprecedented changes in people's lives and more specifically to the life of many students around the world. This study aims to analyse the psychological distress related with the COVID-19 outbreak in students from CamEd business school. Common factors in psychological distress in students during the COVID-19 pandemic where analyzed in a literature review and used as focus to further understand psychological distress in this studies participants. Psychological distress and trauma symptoms related to the COVID-19 pandemic of 319 respondents where measured by the SRQ-20 and the IES-R. Scores on psychological distressed where compared between genders and the factors 'amount of COVID-19 related media consumption' and 'levels of (self)-isolation' where tested for correlation with psychological distress. This study found relatively high levels of distress and trauma related symptoms in this population. 51.4% of the participants reported levels of distress that brings them at risk for mental health disorders and 50.5% reported levels of trauma related symptoms bringing them at risk for PTSD. Further analysis showed that trauma related symptoms account for 36.7% of the variance in psychological distress. There was a significantly higher amount of psychological distress in females compared with males. The factors 'amount of COVID-19 related media consumption' and 'levels of (self)-isolation' did not show any correlation with psychological distress in this study. Limitations and implications of these findings are discussed. Factors in psychological distress for this specific population needs further research. General interventions and supportive measures for at risk students are discussed.

Keywords: COVID-19, Psychological Distress, Students, factors on Psychological distress, Cambodia.

1. INTRODUCTION

The Novel Corona virus (COVID-19) outbreak was first reported to the World Health Organization (WHO) late December 2019 following an increase in unclassified pneumonia cases in Wuhan, China. A new unknown type of Corona virus was identified quickly as the cause of these cases. During the following month the virus spread to every province of China and cases of COVID-19 were found outside of China by the end of January 2020. As a response on the rapid spreading the WHO declared COVID-19 a global health emergency on the 30th of January 2020. Due to the contagious nature of the virus, further accelerated by a lack of responsiveness from many countries, global spreading of the virus kept increasing exceptionally in the following months (figure 1). On the 11th of March WHO officially classified the COVID-19 outbreak as a pandemic, at the same time urging countries to take more aggressive measures to stop the spreading (World Health Organization, n.d.). Little was known this was only the start of a worldwide pandemic with unprecedented effects on people's day to day life. With a total of over 52,487,476 confirmed cases and 1,290,653 deaths globally at the moment of writing (World Health Organization, 2020), COVID-19 is quickly becoming one of the most deadly virus outbreaks in modern times, with numbers of deaths soon to surpass outbreaks such as SARS, Swine Flu and Ebola. Moreover, early predictions of how the COVID-19 pandemic will evolve in the rest of 2020 report a high chance of a second wave of infections

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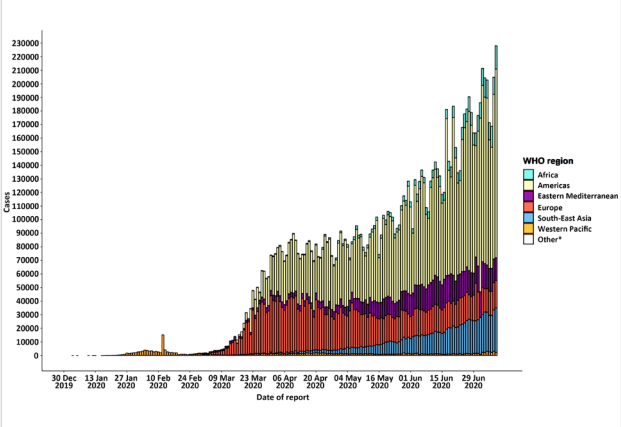
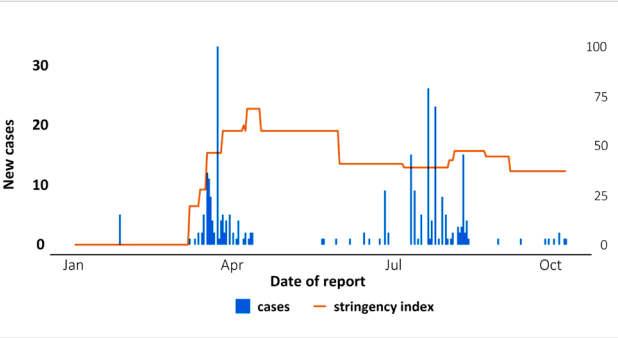
by the end of the year 2020 (CIDRAP, 2020). First signs of this second wave are at the time of writing already visible in some European countries.

Fig 1. Number of confirmed COVID-19 cases 30 December - 10 July 2020 (WHO, 2020)



COVID-19 in Cambodia. The first reported case of COVID-19 in Cambodia was found early this year on the 27th of January. More new cases only started to be found in March 2020 which also included the first Cambodian national infected by the virus. Response of the government on preventing further spreading started to increase in the same time period (figure 2). This included cancellation of public holidays, raising public awareness on preventive measures such as wearing masks, extensive hygiene procedures and the temporary closing of public area's such as schools, bars and cinemas. Unlike many other countries the amount of new cases in Cambodia stayed relatively low at below 300 total confirmed cases before November 2020 (World Health Organization, 2020). Data on the amounts of tests are not released in Cambodia, which makes further analysis of the relatively low number of COVID-19 cases difficult.

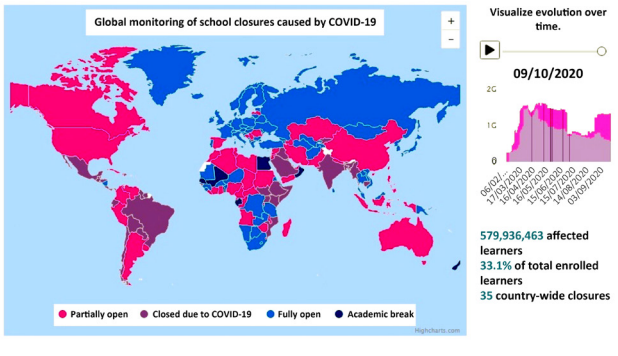
Fig 2. New COVID-19 cases and government response rates Cambodia until 10 October, 2020 (WHO, 2020)



Effects of COVID-19 on daily life. The effects of the COVID-19 pandemic are widespread and are felt in many different area's of daily life. The global economy is hit hard with a predicted GDP of -4.9, distorted global supply chains (International Monetary Fund, 2020) and a estimated loss of 500 millions jobs in 2020 (International Labor Organization, 2020). These predicted negative effects on economy are for many already felt in the form of loss of income and jobs. Besides effects on economy and income, the pandemic is changing people's day to day life in many other ways too. Over 1/3 of the global population have been living under lockdown (lockdown in this context is ranging from quarantine measures, social distancing to full lockdown of cities and countries) for extended periods of time in 2020 (AFP, 2020). Young adults particularly are feeling the effects of the pandemic. According UNESCO (2020) 580 million students/learners are affected in their education because by school closures, academic breaks or partial education (figure 3). A research focused on the student population in China, showed that the change in daily life and the psychological distress of students is higher during COVID-19 compared with the general population (Chen, et. al.2020).

Although for families in general the changes are big too. Complete families are suddenly working and studying from home and being together 24/7. These types of major shifts in daily (family) life are known psychological stressors. These stressors are only one part of a range of different stressors that COVID-19 is causing. This in a time where globally, even before the virus, psychological distress was, especially in young adults, already more prevalent than ever (Twenge, et. al., 2019). The first reports of a sharp increase in mental health related problems are currently coming to light. On top of this a worldwide survey on mental health services in 130 different countries reveals that in mental health services in most countries are experiencing levels of disruptions that make services less available for people in need for mental treatment (WHO, 2020). As stated by the Lancet infectious diseases editorial on the 8th of October 2020: "the world was woefully unprepared to deal with the mental health impact of this pandemic".

Fig 3. School closures and affected learners by COVID-19. Retrieved from unesco.org



Effects of Covid-19 on Mental Health and psychological distress. Research on the effect of COVID-19 on mental health is still limited due to this pandemic being so recent and still ongoing. Although different in size and impact, we will therefore include studies to the effects on mental health from other virus outbreaks for this reason.

Pandemics such as COVID-19 are known to negatively influence mental health. Studies to the effect of the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 gives more insight in these effects. Multiple studies done in Taiwan during and after the SARS outbreak show correlations between SARS and psychological distress (Peng et. Al., 2010). In particular Hospital staff from which a staggering 93.5% perceived the SARS outbreak as traumatic (Lin et. Al., 2007). Psychological distress was found to be increased in the general population of Hong Kong during and after the outbreak (Yeung, D.Y.-L. & Fung, H.H., 2007). Moreover, SARS increased symptoms of Post Traumatic Stress Disorder (PTSD) and lowered feelings of mental well-being in people living in area's of Hong Kong where outbreaks of the virus took place (Lee et. Al., 2006; Lau et.al., 2008). The first studies on the impact of the COVID-19 pandemic show similar negative effects of the pandemic on mental health. Psychological problems such as Anxiety, Depression and psychoticism where all increased in the general population immediately after the first outbreak in China (Tian et.al., 2020). A study of Liang, et. al. (2020) found that 14.4% of the Chinese Youth was suffering from symptoms of PTSD, two weeks after the outbreak. Higher rates of distress, depression and anxiety where found in health workers working in Wuhan (Zhu, et.al., 2020). In contrast of these severe effects a study from Zhang and Ma (2020) only found a mild impact from COVID-19 on Mental Health in their population sample. The first meta-studies show a clear effect of COVID-19 on mental health. A review done on 28 studies found a clear effect from the COVID outbreak on Mental Health over different populations (Rakjumar, R.P., 2020). A meta-study on 19 papers done by Xiong et. al. (2020) found a significant influence of the COVID-19 pandemic on psychological distress in the general population, in many cases on the threshold of clinical relevance.

Variables. Different variables are found to be influence it the link between COVID-19 and psychological distress We will take a short overview which into known and possible variables.

First there is the direct influence of the virus on mental health. Preliminary research shows that being infected with COVID-19 increases the risk on multiple neurological problems such as delirium, agitation, stroke, insomnia, loss of sense of taste and smell, anxiety, depression, and Guillain-Barré syndrome (Nicola et.al., 2020; Ellul et.al., 2020). Fear of being of being or getting infected is also related with psychological distress. A study of González-Sanguino et. al. (2020) found that knowing people that are infected or that are having COVID-19 like symptoms is correlated with higher levels of psychological distress.

Looking at demographics there is a clear link between higher levels of psychological distress because of COVID-19 and being female (González-Sanguino 2020; Mazza, et. al., 2020: Qui, et.al., 2020; Sun, et.al. 2020). Although exact details about this relationship need further research. Similar relationship between gender and psychological distress where found during the SARS outbreak (Lau et.al., 2006). Furthermore, we see that lower age groups, in specific students, are at a higher risk for symptoms of Depression, Anxiety and PTSD because of COVID-19 (Lei, et.al., 2020; Brooks, et. al., 2020, Lin, et.al., 2020). This population is also more likely to be hit by quarantine measures which is likely to increase psychological distress by itself (Brooks et.al., 2020) and can create feelings of loneliness which is also negatively correlated with psychological distress (González-Sanguino 2020). A similar increase in COVID-19 related psychological distress can be also been seen in the older population (Qui, et. al., 2020). There is some evidence that amount of time spend on COVID-19 related (social) media consumption is related with psychological distress (Moghanibashi-Mansourieh, A., 2020; Qui et. al., 2020; Huang, Y., & Zhao, N., 2020). Health related variables are also found to be related. Self perceived health is an

important factor in psychological distress whereby high levels of perceived health are related with lower levels of psychological distress (Lei, et.al., 2020). Similar correlations where found during the SARS outbreak (Lau, et.al.,2020). Furthermore: having a physical or mental disease was found to heightens psychological distress from COVID-19 (Mazza, et. al., 2020: Asmundson et.al.,2020). Also, for this group we see that isolation and (self) quarantine is most likely a big factor in this effect (Asmundson et.al.,2020).

Aim of study. As stated by the American Psychiatric Association: "COVID-19 gave unprecedented changes in student's life. It is important that educators identify at-risk students through screening, screen the general school population during and following online learning phases".

Prior research shows that levels of distress in students of CamEd are in line with high levels found worldwide in the student's population. With a moderate to high level of students with levels of distress bringing them at risk for mental health disorders (Cornet, 2018). Moreover, students at CamEd Business school are fitting many of risk factors as discussed above. High base levels of psychological distress, partial (self) isolation and being at student age are all prevalent factor in this population during the COVID-19 outbreak. It is therefore likely that students are experiencing a significant increase in levels of psychological distress during the COVID-19 outbreak. Even when taking the relatively low numbers of infections in Cambodia. This study aims to analyse experience distress in this population. Common variables such as: Gender, COVID-19 event stress, self-isolation and media consumption, which in prior studies where found to be related to psychological distress during the COVID-19 outbreak, will be used as a first focus on understanding important variables in this population.

Research question 1: Are the total levels of psychological distress related with stress directly from the COVID-19 outbreak event?

- H_0: Levels of psychological distress are not influenced by levels of trauma related symptoms from COVID-19 event.
- H_1: Levels of trauma relates symptoms will explain a part of the variance in total experienced psychological distress.

Research question 2: Are the worldwide found differences in distress between gender also visible in students from CamEd?

- H_0: There will be no significant difference in psychological distress between genders.
- H_1: Psychological distress will be significantly higher in females compared with males.

Research question 3: Is amount of time spend on consuming COVID-19 related media with levels of psychological distress?

- H_0: Amount of time spend consuming COVID-19 related media will not have a relationship with levels of experienced psychological distress.
- H_1: Amount of time spend on consuming COVID-19 related media will increase levels of psychological distress.

Research question 4: Are levels of self-isolation related with experienced psychological distress?

- H_0: Levels of self-isolation will not have a relationship with levels of experienced psychological distress.
- H_1: Levels of self isolation will increase levels of psychological distress.

2. METHODS

Design

Data was collected by an online survey presented to the participants through Google Forms. The survey included a questionnaire measuring social demographic variables, the SRQ-20 and the IES-R. A link to the survey was send to students from all grades throughout CamEd business school on the 1st of July 2020. Data collection continued until the 12th of October 2020.

Participants

Participants of this study where all students from CamEd Business school, which is located in Phnom Penh Cambodia. A total of 319 participants completed the survey. 233 participants where female and 86 where male (73% female over 27% male). The average age was 19.61 (SD=1.30) (see table 1).

Table 1. Social-Demographic Characteristics Participants

	Frequency (n = 319)	Percentage
Gender		
Female	233	73.0%
Male	86	27.0%

Enrolled year		
Year 1	80	25.1%
Year 2	168	52.7%
Year 3	36	11.3%
Year 4	35	11.0%
	Mean (n=319)	Standard deviation
Age	19.61	1.30

Measures

Social Demographic variables. These variables where collected at the start of the survey. Data on age, gender and enrolled year at CamEd where collected at first after which they continued to the other surveys.

Levels of self-isolation. Levels of self-isolation was measured by three questions. The first two: "How often did you socialize (meet friends) outside of you home during the last 6 months?" and "How often did you visit public area's (such as restaurants, shopping malls, etc.) during the last six months?". Both questions where scored by a 5 point likert scale ranging from 1: Never until 5: Very often. The third question: "Did you study from home during the last six months?" was scored on a 3 point likert scale.

COVID-19 media consumption. Levels of COVID-19 related media consumption was measured by the question: "How much time do you spend per week reading COVID-19 related information? ". Participants could give a score on a 5 point likert scale ranging from 1: "less than 1 hour a week" until 5: "More than 5 hours a week" (see appendix A).

Psychological distress. Levels of psychological distress where measured by the self-report questionnaire 20 items (SRQ-20). This questionnaire is developed by Harding et. al. (1980) and consists out of 20 items that can be answered by either "Yes" or "No". The SRQ-20 is recommended by WHO as instrument to measure psychological distress and has proven to have strong internal as well as external validity (WHO, 2014). To specify which levels of distress are likely to point to mental health disorders a cutoff point of 7/8 is used in this study. This cut-off point is most commonly used in studies to psychological distress in developing countries. With this cut off point, a score of 8 or higher can be seen as indicative of being at risk for suffering from a mental health disorder (see appendix B).

Trauma symptoms related to the COVID-19 outbreak event. To specify Levels of stress that are directly linked to the COVID-19 outbreak (separate from psychological distress originating from daily life stressors or other sources) we included the Impact of Event Scale revised (IES-R). The IES-R is a 22-item self report questionnaire that measures experienced distress caused by traumatic events. The items of this questionnaire are corresponding directly to symptoms of PTSD as specified in the DSM-IV. The IES-R asks respondents to indicate how distressed and/or bothered they are by specified event. Items are scored on a 5 point likert scale ranging from 0: "Not at all" to 4: "Extremely". The test is not used to diagnose PTSD but has a strong correlation with this mental disorder (see appendix 3).

Data analysis

All the data in this study was collected through Google Forms and transferred into IBM SPSS Statistics version 25 for windows, for further analysis. Gender, self isolation and time spend on COVID-19 related media consumption where dummy coded, whereby Gender was converted to a Dichotomous variable. First Descriptive statistics where formed to analyze the overall experienced psychological distress and COVID-19 related distress. To further analyze potential gender differences in psychological distress and potential gender differences in COVID-19 related trauma symptoms, the study used independent samples t-tests. Scatter-plots where made to analyse assumptions of linearity and simple linear regression analysis was used to analyze the correlation between psychological distress and COVID-19 related trauma symptoms and the correlation between psychological distress and levels of (self)-isolation..

3. RESULTS

Reliability tests

Cronbach's alpha was calculated for the SRQ-20, IES-R and levels of self-isolation to test the internal validity. Both the SRQ-20 (α = .866) as the IES-R (α = .933) showed an excellent reliability in this study. To increase the level of reliability of the scale Self-Isolation the question "Did you study from home during the last six months?" was removed. This improved the reliability from α = .547 to α = .680 which can be considered as acceptable (table 2).

Table 2

Reliability score SRQ-20, IES-R, Self-Isolation.

	Cronbach's Alpha	Items
SRQ-20	.866	20
IES-R	.933	22
Self-isolation		
3 questions	.547	3
1 removed	.680	2

Descriptive statistics

The average score on the SRQ-20 is 8.08 (sd=5.023) with a maximum score of 20. On the IES-R the average score is 31.78 (sd=17.076) with a maximum score of 88 (table 3). When using the cut off 7/8 for the SRQ-20 we found 51.4% of the respondents scoring 8 or higher on the SRQ-20. According this cut-off this we can assume 51.4% of this population experiencing levels of psychological distress that brings them at risk for a mental health disorder.

Table 3

Mean SRQ-20 and IES-R.

	Mean	SD
SRQ-20	8.08	5.023
IES-R	31.78	17.076

Table 4

Percentages according cut off 7/8.

	Frequency	Percentage
7 or lower	155	48.6%
8 or higher	164	51.4%

For the amount of time spent on consuming COVID-19 related media we found relatively low scores in this population. 58.3% of the participants spend less then an hour a week reading on COVID-19 related news and 35.4% of this population sample spend 1 till 3 hours per week (table 5).

Table 5

Time spend reading COVID-19 related information

	Frequency	Percentage
Less then 1 hour a week	186	58.3%
1- 3 hours a week	113	35.4%
3- 5 hours a week	12	3.8%
More the 5 hours a week	8	2.5%

Regarding frequency of socializing and spending time in public area's we found the majority of the participants spending at least once a week or more with friends and/or in public area's (fig. 4 and fig. 5).

Fig. 4: Frequency "How often did you socialize (meet friends) outside of you home during the last 6 months?"

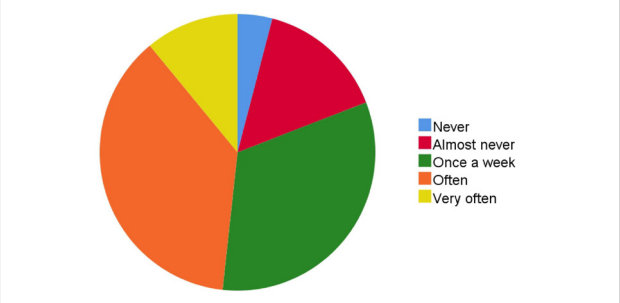
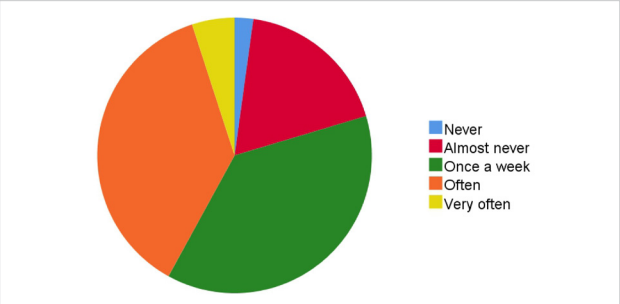


Fig. 5: Frequency How often did you visit public area's (such as restaurants, shopping malls, etc.) during the last six months ?

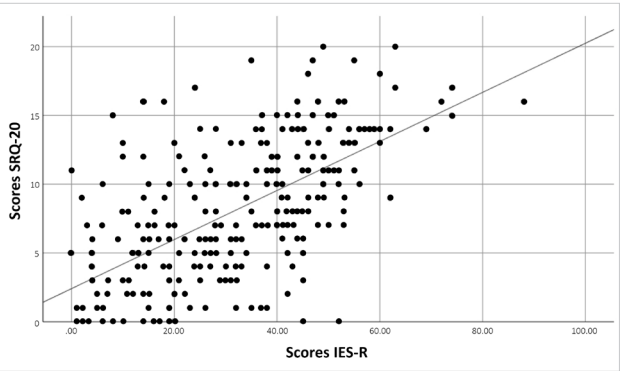


Research question 1

- H_0: Levels of psychological distress are not influenced by levels of trauma related symptoms from COVID-19 event.

First a scatter-plot was made to analyze the relationship between PD and Trauma symptoms directly related to the outbreak. We can see a linear relationship, homoscedasticity and no significant outliers. A simple linear regression analysis can therefore take place (Fig. 6).

Fig. 6: Scatter-plot total scores IES-R versus SRQ-20



A simple linear regression was calculated to predict Psychological distress based on Trauma related symptoms (F (1,317) = 184.73, p < .000), with an R2 of .367. Participants predicted total psychological distress is equal to 2.411 + .178 (trauma related symptoms) SRQ-20 scores when trauma related symptoms is measured in IES-R scores. Participants SRQ-20 score raises .178 with every point on the IES-R. SRQ-20 scores can be explained by IES-R scores for 36.7%. H0 is therefore rejected and H1 can be accepted (Table 6).

Table 6.

Linear regression analysis

	R	R2	Adjusted R Square	sd
1	.606[a]	.367	.365	4.001

Note. a. Total scores IES-R

Research question 2

H_o: There will be no significant difference in psychological distress between genders. Equal variance could be assumed and an independent-samples t-test was conducted to compare levels of psychological distress for female and male. There was a significant difference in scores of psychological distresses between female (M=8.54, SD=4.87) and male (M=6.84, SD=5.26), t (317) = 2.71, p = 0.07. These results show that females experience higher levels of psychological distress as males within this sample of CamEd students. H0 can

therefore be rejected and H1 can be accepted (Table 7).

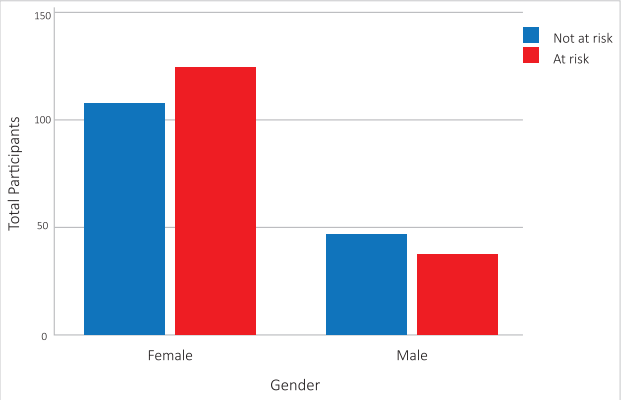
Table 7

Independent T-Test, differences SRQ-20 between gender

	n	Mean	sd	t	Sig.
Gender					
Female	233	8.54	4.865	2.708	.007
Male	86	6.84	5.260		

For further analysis we compared at risk scores on the SRQ-20 between gender. Using the cutoff point of 7/8 to determine amount of participants at risk for mental health problems. When compared we see in females a relatively higher amount of at risk levels of stress than in males. This further strengthens the findings above which shows a higher chance for females to experience high levels of distress during the COVID-10 pandemic (Fig.7).

Fig 7. Amount of participants Not at risk/At risk per gender



Further gender differences where analyzed on the IES-R scores. Equal variance could be assumed and an independent-samples t-test was conducted to compare levels of Trauma symptoms related to COVID between female and male. There was no significant difference in scores of trauma symptoms between female (M=54.01, SD=16.73) and male (M=52.98, SD=18.07), t(317)= .510, p = 0.610. These results show that there are no significant differences in COVID-19 related trauma symptoms between gender (Table 7).

Table 8.

Independent T-Test, differences IES-R between Gender

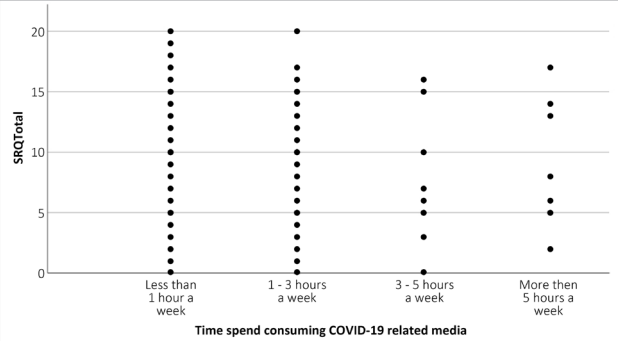
	n	Mean	sd	t	Sig.
Gender					
Female	233	32.08	16.73	.510	.610
Male	86	30.98	18.07		

Research question 3

- H_o: There will be no effect from time spent consuming COVID-19 media consumption on experienced psychological distress.

A scatter-plot was created first to see if a linear relationship could be assumed (Fig. …). The scatter-plot clearly shows no apparent relationship between amount of times spend consuming COVID-19 related media and experienced psychological distress. The H0 is therefore accepted.

Fig 9: Scatter-plot COVID-19 consuming time versus scores SRQ-20



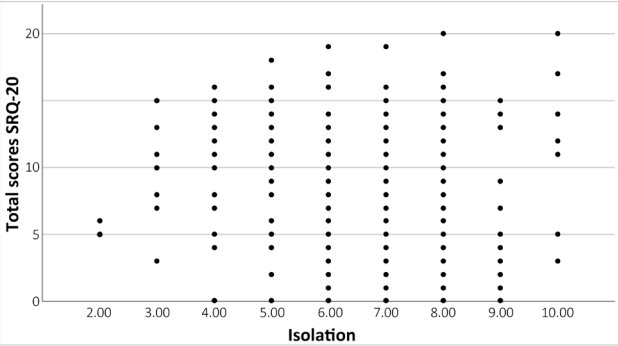
Research question 4

- H_o: There will be no effect from levels of (self)-isolation on levels of experienced psychological distress.

From the scatter-plot we can see a linear relationship can be assumed (Fig. 10). Although a

relationship between Isolation and psychological distress seems unlikely seeing this plot an simple linear regression analysis is conducted to further analyse the relationship.

Fig 10: Scatter-plot levels of isolation versus total SRQ-20 scores.



A simple linear regression was calculated to predict Psychological distress based on levels of (self) isolation ($F(1,317) = 120.156$, $p < .029$), with an R2 of .015. Self isolation therefore has a minimum (1.5%) influence in the variance of psychological distress in this population. H_0 can therefore be accepted.

4. DISCUSSION

Outcomes

This study shows elevated levels of psychological distress in students of CamEd Business school during the COVID-19 pandemic. Over half of the students (51.4%) are at risk for mental health disorders according the SRQ-20. Although stress levels are high, they are almost similar as found in earlier studies conducted with different samples of the same student population (Cornet, 2019). When focusing on trauma related symptoms measured by the IES-R this study found 50.5% of the population to be at risk for having or developing PTSD. This finding in particular is unexpectedly high in comparison with overall prevalence rates of PTSD in the general population estimated to be in the range of 1 - 8% (American Psychiatric Association, 2013). These findings therefore have to be approached with care and require further research. Although possibly pointing out large amount of trauma related suffering in this population these scores can also be influenced by, self-reporting bias and difficulties understanding the specific questions in the IES-R because of the questionnaire not being available in the native language of this studies population.

Further analysis on the relationship between the SRQ-20 and IES-R showed that 36.7% of the variance in psychological distress can be explained by the trauma related symptoms directly linked to the COVID-19 pandemic. This leaves a big part of experienced distress unexplained. This study aimed to analyse how some common found variables in COVID-19 related distress are of influence in students of CamEd Business school. The amounts of (self)-isolation and amount of time spend consuming COVID-19 related media where not of influence on experienced psychological distress in this population. This is not in line with the first findings in other studies that show a correlation between psychological distress, media consumption and isolation/quarantine during the COVID-19 outbreak so far. These findings can point to the possibility that in this studies population other variables are influencing experienced psychological distress, which is further supported by earlier studies done to psychological distress in different samples of same population in earlier years (Cornet, 2018; Cornet 2019). There are possible other explanations for these findings. Current studies to COVID-19 related psychological distress are still limited and suffering from limitations such as small sample sizes and a most findings on PD and during COVID-19 are not replicated yet. Moreover, we have to note that the measures (self)-isolation and media consumption are not standardized in research yet and therefore likely not measuring the same factors. Present study is also suffering from the same limitations.

Regarding gender differences in experienced psychological distress we see a significant higher amount of experienced psychological distress in females compared to males. This relationship is in line with the general theories and data on the relationship between gender and PD during the COVID-19 outbreak (Song et.al., 2020). Multiple factors are possibly responsible for this effect. Gender bias in self reporting psychological are often found to influence reported symptoms. Females are often more likely to self-report stress and mood related symptoms versus males disclosing substance use (as coping for underlying stress and mood symptoms) more often. The SRQ-20 specifically focuses on stress and mood related factors to measure psychological distress which possibly results in over representing PD in female participants. Other known factors are the often more vulnerable position of woman in many societies and when taking the COVID-19 pandemic as context, the higher prevalence of women in care given roles which brings them in more close proximity to pandemic related stressors (WHO, 2020).

5. LIMITATIONS

Present study is facing a couple of limitations that should be taken into account when drawing assumptions and implications from the results.

There is a possibility of selection bias in this studies sample seeing participant where free to take part in this study. This can lead to an over presentation of students who decided to participate in this study, because they are experiencing psychological distress from COVID-19. Moreover, there was an over presentation of female students in this sample compare with the general CamEd student's population.

The analyzed studies in the introduction/literature review are often not peer reviewed, pre-printed, limited in used methods and most results not yet replicated yet. Although the studies used in this paper where selected on these limitations, assumptions based on these studies should still be taken with care.

External validity of the factors "(self)-isolation" and "Amount of time consuming COVID-19 related media" can not be guaranteed. There are no general measurements available for both factors which leaves the possibility of these factors having a weak external validity.

6. IMPLICATIONS

Findings of present and past studies on psychological distress in CamEd Business school students are highlighting the necessity of continued attention for the mental support of this population. Especially when taking the context of the COVID-19 pandemic into account, which worldwide shows to have a severe impact on our mental well-being. Preventive measures are the first step in increasing the mental well being of students. To achieve an effective outcome, it is important to know predictors of psychological distress in the student population. This will allow the preventive measure to be specifically targeted to factors of influence in PD and more vulnerable groups is this population. Besides gender being a predictor for higher levels of experienced psychological distress, current and past studies give reason to assume that psychological distress holds different predictors and factors than are found. Further research is therefore necessary to find the specific predictors and factors in the experienced psychological distress in CamEd students.

When taking COVID-19 into account we see a high level of trauma related symptoms as part of the total experienced psychological distress. These findings suggest the need of interventions focused on increasing emotional resilience in students, in order to prevent a potential full onset of a post traumatic stress disorder. Psycho-education, positive coping strategies, self-care and seeking social support are all detrimental in increasing emotional resilience and lowering psychological distress in general (National center for biotechnology information, 2012: APA, 2020). Although the present study shows the need of more understanding on factors and variables that are important in the experience of psychological distress in students of CamEd business school, general coping strategies are often having a positive effect on mental well-being non the less. Information on how to cope with stress can be provided to students through different online channels (See for example the APA information on how to cope in Appendix C). As stated by the American Psychiatric Association it is important that educators identify at-risk students through screening, to screen the general school population during and following online learning phases and increase awareness of the importance of mental health screening with professors, administrators as well parents (APA, 2020). Especially now most contact between professors and students is taking place online, it is necessary to find new ways for

professors to check-in regularly with their students and their mental well-being. Screening in CamEd's students population should take gender differences in reporting symptoms in account to correctly identify at risk students in females without underestimating the experienced PD in male students.

Careful screening of students' mental health will result in better possibilities to support the at risk group of students. Counseling services for students are being available at CamEd business school and is extended in size this year to provide increased support during these challenging times. Referring students to mental health care providers is advised although seeing the very limited availability of such services in Cambodia difficult to achieve.

7. CONCLUSION

In conclusion this studie found high levels of psychological distress and trauma related symptoms directly related to the COVID-19 outbreak in students of CamEd Business school. Gender was identified as a predictor of levels of PD. Predictors of PD during the COVID-19 outbreak as found by other studies where not found to have any influence on PD in this population. More research is therefore need to further improve prevention and support for the mental distress of students at CamEd business school.

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Appendix A

SRQ-20

Do you often have headaches?

Is your appetite poor

Do you sleep badly?

Are you easily frightened? Do your hands shake?

Do you feel nervous,tense or worried?

Is your digestion poor?

Do you have trouble thinking clearly?

Do you feel unhappy?

Do you cry more than usual?

Do you find it difficult to enjoy your daily activities? Do you find it difficult to make decisions?

Is your daily work suffering?

Are you unable to play a useful part in life

Have you lost interest in things?

Do you feel that you are a worthless person

Has the thought of ending your life been on your mind? Do you feel tired all the time?

Are you easily tired?

Do you have uncomfortable feelings in your stomach?

Appendix B

impact of event scale - revised

your name: _____ today's date:_____

on_____you experienced_____ (date) (life event) below is a list of difficulties people sometimes have after stressful life events. please read each item and then indicate how distressing each difficulty has been for you during the past 7 days or other agreed time:		how distressing? not -ately a little bit moder -mely quite extre at all bit 0 1 2 3 4
a.	any reminder brought back feelings about it	
b.	I had trouble staying asleep	
c.	other things kept making me think about it	
d.	I felt irritable and angry	
e.	I avoided letting myself get upset when I thought about it or was reminded of it	
f.	I thought about it when I didn't mean to	
g.	I felt as if it hadn't happened or it wasn't real	
h.	I stayed away from reminders about it	
i.	pictures about it popped into my mind	
j.	I was jumpy and easily startled	
k.	I tried not to think about it	
l.	I was aware that I still had a lot of feelings about it, but I didn't deal with them	
m.	my feelings about it were kind of numb	
n.	I found myself acting or feeling like I was back at that time	
o.	I had trouble falling asleep	
p.	I had waves of strong feelings about it	
q.	I tried to remove it from my memory	
r.	I had trouble concentrating	
s.	reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea. or a pounding heart	
t.	I had dreams about it	
u.	I felt watchful and on-guard	
v.	I tried not to talk about it	

Appendix B

Coping with COVID-19-related Stress as a Student

With schools around the country closed, students are facing unprecedented change.

Your classes may now be virtual. You may have returned home, where you're missing friends and finding studying difficult. Or maybe you've stayed put and worry about your family. Perhaps you're juggling your children's educational needs as well as your own. You might have lost funding or your job. Whether you're a graduate student or an undergrad, you're probably feeling anxious, sad and uncertain. These feelings are normal. And there are ways to lessen your stress.

HOW TO COPE

PRACTICE SELF-CARE

Basic self-care will keep your immune system strong and your emotional reserves full. Get enough sleep. Exercise regularly. Eat well. Try mindfulness apps.

Find activities that engage different parts of yourself. Do something physical like dancing. Occupy your mind with puzzles. Engage your senses with hot baths or fragrant candles.

Look for tasks you can postpone or simply eliminate from your to-do list.

Recognize that the current circumstances are hard for everyone. Don't judge yourself; just do the best you can.

FIND WAYS TO FOCUS

You might feel unmotivated now. Recognize that the current circumstances are hard for everyone. Don't judge yourself; just do the best you can.

Establish a routine. Get up, go to bed and do your work at the same time every day. Frequent breaks can help you re-engage in your work.

Try to create a separate work space, although you should reserve your sleeping area for sleeping. If family members are distracting you, use "I statements" to explain the problem—"I'm worried about my exam next week"—and work together to develop solutions.

SEEK OUT SOCIAL SUPPORT

Your classmates have probably scattered. And having to stay home can be lonely. To combat isolation, come together with your dorm-mates or graduate school cohort via technology.

Even something as simple as turning on your webcam during virtual classes can help you and others feel more connected.

HELP OTHERS COPE

Your classmates and family members are anxious, too. You don't have to fix their problems. It's enough to let them know they're not alone.

If you're a psychology graduate student on a clinical track, you're probably helping patients manage the same anxieties you're facing yourself. Be sure to address your own concerns separately so you can focus on patients during sessions. Ask your supervisor for help.

FIND WAYS TO MANAGE DISAPPOINTMENT

Whether it's an internship, dissertation defense or graduation ceremony, important events may not happen this year.

Grieve those losses, then reframe how you think about these life events. Think about how you can honor what you've achieved. Find new ways to celebrate. Consider recreating important events once it's safe.

LIMIT YOUR MEDIA CONSUMPTION

Of course, it's good to stay informed, especially about what's happening in your area.

But too much news—especially social media—can add to your anxiety. To avoid being overwhelmed, set limits on your media consumption and smartphone use. Cut through misinformation by relying on reputable sources like the Centers for Disease Control and Prevention and World Health Organization.

FOCUS ON THINGS YOU CAN CONTROL

Your classmates, friends or family members may be disobeying the rules about physical distancing or doing other things that add to your stress.

While modeling good behavior and staying safe yourself, recognize that you can't control what other people do. You can only control your own thoughts, feelings and behaviors. Another thing you can't control? The uncertainty about what comes next. Instead of worrying about our ambiguous future, focus on solving immediate problems.

ADDITIONAL RESOURCES

APA Webinar for Students on Coping in the Era of Coronavirus
on.apa.org/coping-webinar-students

COVID-19 Education FAQs
on.apa.org/ed-covid-faq