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Impact of the resumption of classes on the mental health of students of the Faculty of Letters and Social Sciences of the University of Dschang, in the context of Covid 19

Impact de reprise des cours sur la santé mentale des étudiants de la Faculté des Lettres et Sciences Humaines de l’Université de Dschang au Cameroun, en contexte de Covid 19.

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Abstract

The COVID-19 pandemic has grown rapidly around the world, bringing about suffering and fear, that may have impact on the mental health of populations. In Cameroon, the weakness of detection devices and treatment infrastructures, coupled with pessimistic forecasts from the UN and WHO, were increasingly potential for stress, anxiety and depression. The study set out to determine the impact of the pandemic on the mental health of Cameroonian populations. The methodology of mental health surveys in the general population was used. The Depression, Anxiety and Stress Scale (DASS 21) was used to carry out the diagnosis. An ethical and administrative clearance was carried out. It respected freedom, confidentiality and informed consent, following the guidelines of the Helsinki Protocol. 254 subjects were interviewed in two cities in the West Cameroon region, one of the 03 regions most affected by the pandemic. The results show a high rate of depression (31.7%) and anxiety (29.5%), as well as a low rate of stress (2.4%). These results indicate that the Covid 19 pandemic is affecting, even if moderately, the mental health of the Cameroonian populations.

Résumé

La pandémie du COVID-19 a eu une progression rapide dans le monde. Au Cameroun, la faiblesse des dispositifs de détection et de prise en charge, associée aux prévisions pessimistes de l’ONU et de l’OMS sur l’impact de la pandémie en Afrique, étaient susceptibles d’augmenter son retentissement psychopathologique. L’étude s’est donnée pour objectif de déterminer l’impact de la pandémie sur la santé mentale des populations camerounaises. La méthodologie des enquêtes de santé mentale en population générale a été mise à contribution. L’échelle de dépression, d’anxiété et de stress (EDAS 21) a été l’outil diagnostic utilisé. La collecte des données s’est faite au préalable d’une clarté éthique et administrative, suivant les orientations du protocole d’Helsinki. 254 sujets ont été interviewés. Les résultats montrent un taux de dépression de 31,5%; un taux d’anxiété de 29,5% et un taux de stress de 2,4%.
1. Introduction

This study will be based on a review of the literature to shed light on the context and justify the study.

1.1. Context

Following the 2003 SARS (or SARS CoV 1), the second Covid 19 pandemic (SARS CoV 2 or COVID 19) broke out in 2019 in Wuhan (Hubei, China). In December 2019, a cluster of pneumonia cases was reported in Wuhan, China. A few days later, Chinese health authorities confirmed the fact that this cluster was associated with the Corona virus (Hui et al., Cited by Yang et al., 2020). It has spread rapidly around the world, with high rates of morbidity and mortality across countries (Lipsitch et al., 2020). Governments around the world, in an attempt to control its incidence and impact, have taken measures of hygiene, social distancing, quarantine, associated to other risk factors such as fear of contracting the disease, fear of being a burden to the family, social isolation and psychological distress, pervasive awareness of uncertainty over the future, economic difficulties, history of childhood maltreatment etc., whose impact on mental health has been shown to be considerable in various contexts (Anderson et al., 2020; Choi et al., 2020; El-Hage et al., 2020; Huremovic, 2019; Kumar and Nayyar, 2020; Sood, 2020; Stankovska et al., 2020; Torales et al., 2020; Yang et al., 2020; Zandifar, 2020; Ornell et al. cited by Sher, 2020; Maurizio et al. (2014). (World Health Organization, cited by Stankovska et al., 2020). Nigam and Kumar cited by Sood (2020) indicate that the declaration of the corona virus infection as pandemic has followed a rapid rise in fear and anxiety among the general population. These statements are in line with the findings of Makwana, cited by Sood (2020) which indicates that mass events are strongly associated with negative mental health effects such as post-traumatic stress disorder, depression, anxiety, as well as other psychological and behavioral disorders. Choi et al. (2020), like Lee et al. (2018), Torales et al. (2020); Stankovska et al. (2020) point out that the pandemic has the potential to create a secondary crisis of psychological distress and mental health fallout.

Brooks et al. (2020) showed that confinement was, especially in the context of a lack of information or the circulation of false and alarming information, at the origin of collective fears affecting mental health. Abgrall et al. (2020) indicate that potentially fatal epidemics have a significant impact on mental health.

Cheng et al. (2004), in their study on the short-term follow-up of survivors of the SARS epidemic in 2003, showed that these subjects developed a significant rate of anxiety, depression and psychological distress. Lai and colleagues, in the same light, show that the 2003 SARS epidemic in China had an effect on the mental health of professionals in terms of symptoms of depression (50.4%), anxiety (44, 6%) and distress (71.5%).

In the context of the current SARS CoV 2 pandemic, Alby (2020) finds its rapid expansion a source of anxiety. Gerhold(in press) highlights in Germany, the fact that the very negative perception of the pandemic has helped to mobilize very anxiety-provoking fears and concerns. Aubrey (2020), valuesthe concept "worried" to indicate worry and fear. In a study conducted in the United States, he points out that 56% of participants were concerned or very concerned about the spread of COVID-19. Lee and Crunk (2020) in an etiologic research highlight three important risk factors for mental health in the context of SARS CoV2: "coronaphobia", neuritisocism and hypochondria.

Working on the prevalence of stress, depression and anxiety in the context of the SARS CoV 2 pandemic, on frontline health workers Teo et al. (2020), show that more than half exhibited fear, anxiety and depression of varying severity. Likewise, El-Hage et al. (2020) found significant rates of distress, anxiety and stress among healthcare workers. The work of Özdin and Özdin (2020) in a sample of 343 Turkish subjects, indicated that 23.6% had obtained a score above the threshold score for depression and 45.1% for anxiety. Shevlin et al. (2020) obtained similar trends. In general population research involving a sample of 2025 British subjects, they found significant rates of anxiety, depression and traumatic stress. Nguey-Keubo et al. (2020) also reported in a sample of 331 professionals in Cameroon, a significant rate of anxiety (41.8%) and depression (42.8%). These trends are confirmed and even reinforced by the results obtained by Qiu et al. (2020) in a study of 52,730 participants in 36 Chinese provinces. These authors highlight a high rate of distress (35%) in the sample.

2. Justification

The above references show that the scientific literature on the impact of Covid 19 on mental health remains weak in Africa. In the African context, the weakness in communication is associated with catastrophic announcements from the UN and WHO, which predicted mass deaths in millions. In the context of Covid 19, the uncertainty and the low predictability of the contamination increase the psychogenic potential. The stress theory of Norris et al., (2020) emphasizes that public health emergencies are often the source of negative emotions (stress, anxiety etc.), affecting cognitive assessment and health. mental. Schaller et al. (2015) add that individuals tend to engage in excessive behaviors in the face of threats considered invasive to health; especially the information and guidance on the measures to be taken to curb threats are considered inappropriate.

Since the start of the pandemic, the governments of each country have been working in close collaboration with the ministries in charge of health and local public health units, to assess the threat, provide evidence, mobilize expertise that can inform decisions and policies in surveillance, case control management, and ultimately infection control (Stankovska et al., 2020). Yet in June 2020, when the peak of the pandemic had not yet reached, Cameroon, unexpectedly, decided to reopen classrooms for examination classessstudents and academic institutions of higher education. Confinement was still observed and the fear of contamination was still growing, given the growing number of victims. It is this decision that justifed this study. We hypothesized that the context in which the resumption of teaching was decided, when the Covid 19 infection was at its peak, is likely to threaten the mental health of the students. More precisely, that the fear of contamination by Covid 19, associated with the resumption of classes is likely to generate anxiety, stress and depression

3. Methodological approaches of the study

The methodology briefly discusses the sampling process, the presentation of the collection tools as well as the techniques for analyzing and exploiting the results.

3.1. Target population and collection fields

The resumption of classes in Cameroon, in a context where many countries of the world had decreed confinement and in a context where the rate of contamination of Covid 19 was getting higher in Cameroon, without the protective measures being made available to students and teachers, nor psychological support measures, led the research team to hypothesize a major threat to the mental health of pupils and students. Dschang University due to the lack of available funding could not make available protective measures to protect students and the teachers, thus, Dschang University was selected, since the research team is on duty there. Which makes this choice a choice of opportunity, which is one of the main limitations of this study. The study targeted all students enrolled in the Faculty of Letters and Social Sciences at the University of Dschang (all courses and cycles included). As the research does not take place in the general population, and being in a university context in preparation for exams, it was decided to group students together by sector and to choose one level per cycle, for each sector (see table 1).
3.2. Survey base and plan

Data collection was direct and self-administered. Masters students in clinical psychology were called upon to assist in the administration of the questionnaires.

The survey frame was made up of exhaustive lists of regularly enrolled students from level 1 undergraduate (L1) to level 1 doctorate. (D1). As the study was conducted at the time of the resumption of classes, at the height of the corona virus infection in Cameroon, the students were not permanently present on campus. The research was financed with the researchers’ funds. In order to reduce costs and taking into account the constraints of the presence of the target, the authors opted for the random sampling method in establishing the sampling plan. It therefore opted for a random sampling by quota to which a post stratification was associated, to improve the precision of the estimators.

3.3. Choice and justification of quota variables

The selected quota variables are: the fields of study and the cycle. The field of study was chosen as a quota variable for reasons of organization of data collection and because it constitutes a natural variable, given the segmentation of the Faculty of Letters and Social Sciences of the University of Dschang. The importance of the cycle for the study comes from the fact that it is generally, with a few exceptions, correlated with age, employment status and, implicitly, standard of living (which is likely to be improved or improve for graduate studies).

3.4. Sample size

The size of the sample was determined by maximizing the variance so that the error did not exceed a maximum critical threshold. In this perspective, the threshold has been set at

\[ \alpha = 4\% \text{ (} \Delta E < 4\% \text{)} \]

\[ \Delta E = t_{0.95} \sqrt{\left( \frac{1 - n}{N} \right) \frac{p(1 - p)}{n}} \]

The sampling rate \( \frac{n}{N} \) is negligible here, since the total population of students at the Faculty of Letters of Dschang University is around 5000. Since \( t_{0.95} = 1.96 \approx 2 \) and the variance of the estimator is less than or equal to \( \frac{1}{2} \), the sufficient sample size is given by the equation:

\[ 2 \sqrt{\frac{1}{4n}} \leq 0.04; \text{ which allow to write } n \geq \left( \frac{1}{0.04} \right)^2 = 250 \]

Table 1

| Strates | Levels | Total effective | Samplesize |
|---------|--------|-----------------|------------|
| Histoire | L2 | 77 | 12 |
| Langue Africaine et linguistique | M2 | 57 | 9 |
| Littérature et Cultures Africaines | D1 | 19 | 3 |
| Géographie | L2 | 392 | 62 |
| Cartographie numérique | M2 | 74 | 12 |
| Dschang | D3 | 46 | 7 |
| Français-Anglais | L3 | 259 | 41 |
| Français-Anglais-Allemagne | M2 | 28 | 4 |
| Français-Anglais-Espagnol | D1 | 6 | 1 |
| Français-Anglais-Italien | |
| Philosophie | L1 | 265 | 42 |
| Psychologie | M1 | 116 | 18 |
| Sociologie | D2 | 33 | 5 |
| Lettre d’expression Française | L1 | 212 | 33 |
| (Modern English Letter) | M2 | 60 | 9 |
| | D1 | 25 | 4 |
| TOTAL | | 1669 | 262 |

Taking into account the expected response rate set at 95%, the total sample size was calculated at 249 and set at 262 students, distributed in Table 1, Table 2.

3.5. The data collection tool

Data were collected from the Depression Anxiety and Stress Scale (EDAS), French translation of the Depression anxiety and stress scale (DASS). DASS 21, which is used in this study is the short version published by Lovibond and Lovibond (1995) translated into French at the University of Ottawa in 2012 (see Paulin-Pitre, 2013). It is in the form of a 21-item self-questionnaire to measure the severity of depression, anxiety, and stress in the general population (Ramasawmy, 2015). It is composed of three subscales of 7 items each.

This scale has been the subject of several international studies and validations. Paulin-Pitre (2013) indicates good convergent and discriminant validity in the French version. The internal consistency of the three subscales vary between 0.82 and 0.94. Ramasawmy et al. (2013) report a good internal consistency of the English version on 93 women, 49 men in the general population (internal consistency of 0.89 at the 03 subscales) and 102 women, 115 men in the English-speaking Mauritian clinical population (consistency internal of 0.91). Working on the French version, Ramasawmy (2015) in a study targeting Mauritian adolescents, also reports a good internal consistency of the scale: 0.78 for the depression sub-scale, 0.72 for the anxiety sub-scale and 0.78 for the anxiety sub-scale. Stress scale. The correlation between the three components was moderate in this study (\( r = 0.86 \) for depression-anxiety; \( r = 0.92 \) for depression-stress; \( r = 0.91 \) for anxiety-stress) and strong internal validity.

Responses are rated on a 4-point Likert scale (from 0 "not applicable to me at all" to 3 "fully applicable to me"). The diagnostic cut-off scores were formulated following the guidelines of Lovibond and Lovibond (1995).
The characteristics retained for the cross-analysis are: age, sex, place of residence and marital status. Chi-square statistics are significant at the 0.05 level.

3.6. Method of data analysis and exploitation

Data entered on cs-pro version 6.3 and exported to SPSS version 21 for analysis and tabulations. The study used descriptive and inferential statistics. The central tendency indices that have been valued are the frequencies, for the study of the prevalence / rate of the pathologies studied and the average. Chi 2 is the main tool of inferential statistics that has been used for the study, when appropriate, the influence of characteristics such as age, sex, marital status on the prevalence of the disorders were taken into consideration.

3.7. Ethical procedures

Prior to the collection phase, an ethical and administrative clearance was obtained from the institutional ethics body of the University of Dschang. The study followed the ethical provisions of the Helsinki Protocol. Steps have been taken to ensure respect for the dignity, confidentiality, anonymity and freedom of each individual invited to participate. Signed informed consents were obtained from the participants.

4. Results

The results will focus on sample presentation, analysis and discussion of the results.

4.1. Sample characteristics

| Age Range | Sex | Total |
|-----------|-----|-------|
| 15 - 20   | Male | 9.8%  |
|           | Female | 8.3%  |
|           | Total | 18.1% |
| 20 - 25   | Male | 27.2% |
|           | Female | 29.1% |
|           | Total | 56.3% |
| 15 - 25   | Male | 37.0% |
|           | Female | 37.4% |
|           | Total | 74.4% |
| 25 - 30   | Male | 8.7%  |
|           | Female | 6.7%  |
|           | Total | 15.4% |
| 30 - 35   | Male | 3.9%  |
|           | Female | 2.0%  |
|           | Total | 5.9%  |
| 35 years +| Male | 2.0%  |
|           | Female | 2.4%  |
|           | Total | 4.3%  |

| Cycle     | Sex | Total |
|-----------|-----|-------|
| 1st Degree| Male | 39.8% |
|           | Female | 35.8% |
|           | Total | 75.6% |
| Masters   | Male | 7.5%  |
|           | Female | 9.4%  |
|           | Total | 16.9% |
| Doctorate | Male | 4.3%  |
|           | Female | 3.1%  |
|           | Total | 7.5%  |

| Marital status | Sex | Total |
|----------------|-----|-------|
| Single         | Male | 44.9% |
|                | Female | 41.7% |
|                | Total | 86.6% |
| living in a couple | Male | 0.0%  |
|                 | Female | 0.0%  |
|                 | Total | 0.0%  |
| Married        | Male | 6.7%  |
|                | Female | 6.7%  |
|                | Total | 13.4% |
| Divorced       | Male | 0.0%  |
|                | Female | 0.0%  |
|                | Total | 0.0%  |
| Widowed        | Male | 0.0%  |
|                | Female | 0.0%  |
|                | Total | 0.0%  |

| summary | Frequency | Total |
|---------|-----------|-------|
|         | 51.6%     | 100.0% |
|         | 131       | 254   |

The study involved a sample of 254 students representing a completion rate of 102%, compared to the calculated sample and 97% compared to the sample set taking into account non-responses (5%).

There is a relative parity between the sexes. Analysis by age shows that 15–24 year olds represent nearly 3 out of 4 subjects (74.4%); with 18.1% for 15–19 year olds, 56.3% for 20–24 year olds); 25–29 year olds 15.4%, 30–34 year olds 7.1%; 35 years and over, 3.1 From the point of view of educational level, undergraduate students represent 75.5%; those of the master’s cycle, 16.6% and those of the doctorate (7.5%). These figures represent in a proportional way the students by cycles, as contained in the list of the database. From a matrimonial point of view, there are more single subjects (85.4%), followed by subjects in officially married couples (7.9%), married subjects (5.9%) and divorced subjects (1.2%).

4.2. EDASS 21 results

Clinical categories are assessed from a dual categorial and dimensional perspective.

| Diagnostic categories | male | Female | Total | Number |
|-----------------------|------|--------|-------|--------|
| Depression            | 31.3%| 31.7%  | 31.5% | 80     |
| Anxiety               | 26.7%| 32.5%  | 29.3% | 75     |
| Stress                | 3.1% | 1.6%   | 2.4%  | 6      |

4.2.1. Categorical diagnosis

Table 3 presents the general situation of the indicators of prevalence of depression, anxiety and stress.

Table 4 and 5.

The results indicate a depression rate of 31.9%; an anxiety rate of 29.5% and a stress rate of 2.4%. Stress levels are low, unlike depression and anxiety. We observe a sensitivity of the various socio-demographic factors to stress (p = 0.001, for the sex variable and p < 0.001, for the 03 other variables. Depending on the sex variable, we can see that the symptoms of stress are higher among male students (3.1%) than among female students (1.6%). But the symptoms of anxiety are significantly greater in women than in men (32.5% versus 26.7, with p < 0.001). Symptoms of depression are slightly more important in women than in men (31.7 versus 31.3) those of depression.

Students aged 35 and over are generally more affected by stress (12.5% versus 0.0% for 30–34 year olds; 0.0% for 25–29 year olds; 2.8% for 20–24 year olds and 2.2% for 15–19 year olds)., doctoral students (D1) present a higher rate of stress (5.3), followed by those of License (2.5%). Master students do not present symptoms of stress, marital status, we observe that married subjects are those who show the most symptoms of stress (7.1%), followed by single subjects (2.3%). The other categories do not present symptoms of stress.

Concerning anxiety, we observe that male students are significantly more affected by anxiety (p < 0.001) than female students (31.5% vs.26.7). There is no significant difference for this variable regarding depression (respectively 31.3% for students and 31.7% for students, with P = 0.87). For the age factor, we observe that the 35 years and over show significantly more (p < 0.001) the symptoms of depression (62.5%, against 22.2% for the 30–34 years old; 28.2% for 25–29 years; 32.9% for 15–19 year olds and 38.3% for 20–24 year olds., and anxiety (75.0% against 22.2% among 30–34 year olds; 20.5% among 25–29 year olds; 33.6% among 20–24 year olds and 19.6% among 15–19 year olds). Regarding marital status, it is observed for depression that it is more married subjects who are the most affected (50%), followed by those who are in a free couple (40%), subjects in a divorce situation (33.3%) and single subjects (29.5%) (p < 0.001). Anxiety and for this same variable a significant difference is also recorded between sub-categories (p < 0.001). Divorced subjects show the highest rate (56.7%), followed by married subjects (42.6%), single subjects (28.6%) and
common-law subjects (25%). There is no difference significant between cycles for depression, but for anxiety. Symptoms of anxiety are highest among undergraduate students (31.3%), followed by doctoral (26.3%) and master’s (23.3%) students.

4.2.2. Dimensional diagnosis

The dimensional diagnosis is presented on a 4-point Likert scale. The prevalence rates vary in severity: 22.4% of students present with mild depression; 9.1% moderate depression.

When we look at the disorders according to their severity, we note that they are more often mild for depression, unlike anxiety where they are more severe. This suggests that anxiety affects people more seriously than depression. This also makes it possible to understand the relative parity of the rates of this last nosographic entity in both sexes. Regarding anxiety, 11.8% of subjects present with mild anxiety; 15.4% moderate anxiety and 2.4% severe anxiety.

4.2.3. Comorbidities

Co-morbidities are observed by crossing the three diagnostic categories.

The comorbidity of anxiety and depression is 19.7%; that of anxiety and stress is 3.4%; the depression-stress comorbidity is 2.4% and the anxiety-stress-depression comorbidity 2.4%.

When we consider co-morbidity by gender, we realize that it is significantly higher in women than in men. This testifies to greater susceptibility of women than men \(p < 0.001; \text{IC}=95\).

5. Discussion

The data indicate a high prevalence of depression (31.9%), as well as anxiety (29.5%). But the symptomatic manifestations are often mild or moderate. The stress rate is generally low.

Anxiety is 32.7% in women and 26.7% in men, with a significant difference: \(p < 0.001\). This shows a greater susceptibility of female subjects to anxiety. The rate of depression is slightly balanced in both sexes, despite a slight increase in women. The fact that depression is more often mild in both men and women may explain the relative parity of these results on this category. But when we consider the anxiety-depression comorbidity, it is significantly more important in women, testifying to their greater susceptibility to anxiety disorders, including to the context of Covid 19. The fact that the rate of depression is homologous in both sexes, in our opinion, can also be explained more by the context of fear of contamination that prevails among students of both sexes, where we recorded high rates of depression and anxiety. Due to the fact that data shows that men are more affected by stress than women, this reinforces the conclusion on the specific effect of Covid 19 on anxiety and depressive disorders.

The low level of stress, as well as the mild nature of the symptoms of anxiety and depression, can be explained in Cameroon by the flexibility of confinement measures and the low number of deaths. However, the rates are consistent with the trends of several studies examining the impact of Covid 19 on the mental health of individuals in different contexts (Li, Wang, Xue et al.; McKay et al.; Pappa et al.; Wang et al., 2020). This is the case with the work of NguepyKeubo et al. (2020) in Cameroon, who place the anxiety rate among health workers engaged in the response at 42.20% and the rate of depression at 43.50%. Lai, et al. (2020), In a similar sample estimated the rate of anxiety among these workers at 44.6% and that of depression at 50.4%. Ricci-Cabello et al. (2020) in their literature review on the impact of Covid 19 on mental health, reported rates of anxiety varying between 45% and 69% and rates of depression between 38 and 60%. Pappa et al. (2020) reported lower rates in their review of the literature: the pooled prevalence rate for anxiety in 12 studies was 23.2% and that for depression was 22.8% in 10 studies. Huang and Zhao (2020), in their sample, estimated the prevalence rate of depression at 20.1%. They also show that anxiety could be complicated by generalized anxiety disorder (GAD), the prevalence rate of which was estimated at 35.1%.

The research presented here suggests that others characteristics such as age, marital status are risk factors for anxiety, whereas only age and marital status, especially being married, constitute susceptibility to depression. In fact, the literature indicates a greater vulnerability of subjects aged 35 and over to corona virus infection. This explains the higher rates of stress, depression and anxiety in this age group. Regarding marital status, people living in a couple are the most likely to have children or dependents. They show a fear of seeing them being contaminated, as highlighted also by NguepyKeubo et al. (2020). Paradoxically, there is a greater exposure of male students to stress, anxiety and depression. There is a strong association between stress and anxious and depressive symptoms: almost all the subjects who presented symptoms of stress also present comorbidities with anxiety and depression: all the subjects who presented symptoms of stress.

Analysis of the severity of symptoms of anxiety and depression shows that it is often mild or moderate. This could explain the low level of stress recorded in the sample. This trend suggests an impact non negligible. Anxiety and depression are mostly above the moderate threshold, indicating a high potential for psychical stress in students. This suggests that the resumption of classes, without the establishment of a support system was for Cameroonians an important risk factor, which if not corrected, could render psychological problems more severe. The moderate impact of the Covid 19 pandemic on the mental health of Cameroonians could be explained by the relatively loose confinement measures and low morbidity and mortality rates in the country.

When we compare the results obtained with those of the scientific literature, we observe a convergence of trends. But many time higher rates of anxiety and depression are reported. Özdin and Özdin (2020) found, in a neighboring Turkish sample, a higher rate of anxiety (45.1%) but a slightly lower rate of anxiety. These rates are close to those obtained by Shevlin et al. (2020). Nguepy-Keubo et al. (2020) reported higher rates of anxiety and depression in a sample of healthcare workers in Cameroon (41.8% for anxiety and 42.8% for depression). Wang et al. (2020) found lower rates for depression (17%) but similar rates for anxiety (29%) and stress (8%). In a similar study in the general population, Mboa et al. (2020) reported an anxiety rate of 20.8%; a depression rate of 28.1% and a stress rate of 3.4%. In their online survey, a sample of 7236 health workers in China, Huang and Zhao, found an overall prevalence of generalized anxiety disorders, depressive disorders and sleep, respectively at 35.1%, 20.1% and 18.2%. What follows the same trends as this study.

We can therefore see a relative convergence of the results obtained with those of other contexts, which testify that the fear of contamination which accompanies the brutal resumption of classes in Cameroon. This can be explained by a context where the Covid 19 pandemic has not been brought under control, and where psychological support measures are not in place. While this effect is moderate, despite the low number of deaths following this pandemic in the country, its impact is not negligible on the student population in terms of anxiety and depression.

Conclusion

The Covid 19 pandemic triggered in Wuhan, China, has gradually spread around the world, accompanied in some countries by a significant number of deaths and serious illnesses. The vast media coverage that accompanied it introduced in Cameroon, as in several countries of the world, a significant climate of fear. The pessimistic statements of the Secretary General of the United Nations, like those of the Director of the WHO, predicting massive deaths in Africa, justified in Cameroon the taking of measures of confinement and social distancing, breaking the traditions of human interactions and solidarity of social communities. All of which could justify a significant impact of the pandemic on the mental health of students, who were entering school at a time when morbidity and mortality rates were on the rise. This study questioned
this impact in relation to the expression of depression, anxiety and stress. The results show that although there are high rates of depression and anxiety, in terms of severity, symptoms remain low or moderate. The study has a number of limitations:

1. It concerned only one state university out of 09 and only one region out of 10. In the university concerned, it only targeted one faculty. This was due to the limited means and made the study self-engaged.
2. The study did not question the factors associated with the onset of clinical syndromes. This would have required the creation of a new scale and / or the construction of additional questions which would have weighed down the research.
3. this also did not observe the moderating factors that could explain the epidemiological patterns observed. But she was able to highlight the fact that factors such as sex, age and life as a couple / family, if not risk factors, at least aggravating factors of anxiety, stress and depression in students.
4. There is no mental health research budget in Cameroon. As a result, there is no previous study of mental health in the general population and a fortiori on a specific student population, focusing on the variables studied. As a result, comparison with previous pre-Covid data was made impossible, on a homologous sample. This makes it difficult to isolate the specific impact factors of Covid 19. However, the researchers tried to balance this difficulty by comparing the data obtained with those obtained from the literature in other geographical contexts. This made it possible to draw relevant conclusions on the effects of the disease on the target population.

The two main limitations of this study relate to its restricted nature to a single university and to a single faculty in Cameroon, and to the fact that it did not examine the factors associated with the occurrence of clinical syndromes. The study also did not observe moderating factors that could explain the epidemiological patterns. However, it appears that factors such as sex, advanced age, couple / family life constitute, if not risk factors, then at least aggravating factors of anxiety and depression.

Contribution of authors
All three authors contributed from the start to the end of the article.

Declaration of Competing Interest
None

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