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Psychological Distress among International Students during COVID-19 in Sweden

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ABSTRACT

In this study, we used the biopsychosocial model to frame the COVID-19 pandemic as a traumatic event and investigated the psychological distress that international students endured during the pandemic. At a large university in western Sweden we interviewed eight international students from various countries. We investigated the difficulties they encountered such as limiting policies that hindered their capacity to travel back to their native countries and build social networks through in-depth qualitative interviews. Students reported higher levels of stress, anxiety, and depression as a result of the pandemic, according to a thematic analysis of the interviews. These challenges had a big impact on their social lives, goals, and academic achievement. Our findings demonstrate how the pandemic exacerbated these difficulties, even though some of them were related to the typical difficulties of living overseas. This study highlights how crucial it is to provide international students with specialised crisis support.

Keywords: COVID-19, international students, psychological distress, biopsychosocial model.

The Organisation for Economic Co-operation and Development [OECD], (2020) defines international students as individuals who study outside their country of origin. Being an international student entails much more than studying and attending lectures; it extends to creating new social connections and memories that could last a lifetime. It includes solidifying one's social and career networks (University of Gothenburg, n.d.). Unfortunately, with the onset of the COVID-19 pandemic, international students' optimism about such benefits significantly reduced (Sahu,

2020). The general population, practitioners, and students experienced inevitable psychological distress resulting from COVID-19 and the resultant restrictive changes (Essangri et al., 2020; Eweida et al., 2020; Vahedian-Azimi et al., 2020). Psychological distress is often characterized by depressive symptoms such as sadness, loss of interest, helplessness, and anxiety signs such as tension and restlessness. Sometimes individuals are likely to encounter somatic symptoms such as lack of sleep, energy, and headaches (Drapeau et al., 2012). Experiences of psychological distress often comprise failure to cope with life events, hopelessness, disillusionment, and low self-esteem, pessimism about the future and social and self-withdrawal (World Health Organisation [WHO], 1994). However, there are still few studies about psychological distress resulting from COVID-19.

   Essangri et al. (2020) observed that previous studies have focused on the effects of the Coronavirus disease itself. However, several studies have shown interest in expanding research beyond the mental health of infected individuals to include other population groups and the emotional distress caused by misinformation. Kibbey et al. (2020) drew attention to the fact that distress about the comorbidities of COVID-19 has been widely explored among the general population, but little is known about distress, particularly among international university students. The contextual stressors, specifically among a vulnerable population of university students, might provide an exclusive "phenotype of COVID stress" (Kibbey et al., 2020, p.2). Our particular interest in this study was about exploring experiences of psychological distress among the sub-group of university students (international students) in Sweden by capturing stories in which international students were psychologically impacted by the adversities of COVID-19. We believe that our exploration of COVID-19-related psychological distress contributes to a varied understanding of the COVID-19 pandemic as a traumatic event (Bridgland et al., 2021). However, it is important to mention that prominent conventional definitions and measurements of trauma or PTSD often focus more on the symptoms exhibited after and less on those experienced before or during a stressful event and this is why COVID-19-related stressors might not obviously be considered as traumatic (Bridgland et al., 2021). For instance, the definition of trauma in the Diagnostic and Statistical Manual (DSM-V) as an emotional response to direct exposure to death, serious injury or sexual abuse American Psychological Association (APA), 2013 has done limited justice to the understanding of COVID-19 as a traumatic event. However, the more recent definition of trauma by the APA (2022) might be relevant for the categorizations of COVID-19 as a global traumatic event. According to the APA (2022) "[t]rauma refers to exposure to actual or threatened death, serious injury, or sexual violence. This exposure can occur through directly experiencing the event, witnessing the event in person, learning that the event occurred to a close family member or friend, or experiencing repeated or extreme exposure to aversive details of the event (e.g., first responders collecting human remains). Trauma can lead to significant distress or impairment in social, occupational, or other important areas of functioning" (p. 301). Additionally, newer psychiatric insights seem to challenge the traditional understanding of trauma. Some seem to suggest that the level of exposure to a stressful event must not necessarily be extreme or beyond normal human experience for it to be considered traumatic but can as long as it leaves an individual stuck in a

vulnerable, helpless and overwhelmed situation (Bridgland et al., 2021; Guzman, 2019) and reduces one's sense of control, agency and safety (Boring-Bray, 2021). Some researchers have thus argued that COVID-19 might be considered as capable of eliciting pre, peri and post-traumatic stresses, implying that COVID-19 related trauma should be understood in a continuous process rather than only in the post-exposure phase (Bridgland et al., 2021). Against this backdrop, the experiences of psychological distress by this study's participants can illustrate traumatic stresses especially at the pre and peri levels. However, since we did not conduct any clinical or psychiatric tests and measurements, the conclusions we make about COVID-19 as a traumatic event are largely our subjective understandings and interpretations; however, these conclusions are also informed by the contentions of trauma by the aforementioned scholars.

The COVID-19 pandemic created a difficult environment for international students, characterised by abrupt changes, isolation, fear, and financial hardship. Lockdowns and social distancing measures increased stress and contributed to PTSD symptoms, while fears of illness and death exacerbated feelings of helplessness. Being cut off from their usual support systems and having limited access to critical resources exacerbated their vulnerability. Additionally, financial stress caused by uncertain job prospects and the high cost of education exacerbated anxiety. Academic disruptions and the shift to online learning exacerbated their overall stress, while stigma and discrimination, particularly among Chinese students, resulted in feelings of alienation and psychological strain. This convergence of factors had a significant impact on their mental health, emphasising the critical need for individualised psychological support and intervention programs (Song et al., 2021).

LITERATURE

In this section, we present literature relevant to COVID-19-related psychological distress. The reviewed literature not only highlights the unique psychological challenges that international students faced during the COVID-19 pandemic but further offers a broader overview of the negative impacts of the pandemic on students and the public in general in various countries. Although international students were likely to be more psychologically affected, as indicated by a study on Chinese international students (Song et al, 2021), the COVID-19 pandemic posed psychological challenges among all local and international students.

. International students were distressed mostly because they could not return to their home countries due to academic duties and border restrictions. The study findings by Song et al. (2021) indicated moderate to severe scores of the Post-traumatic stress disorder (PTSD) scale among the respondents. For example, being aged between 20 and 23 was associated with higher scores in PTSD symptoms (0.20), depression (0.32), anxiety (0.19), and stress (0.14). These findings indicate that this age group is more likely to face these mental health challenges than others (Song et al., 2021). A relevant study of international students in Malaysia reported that the students expressed worry about the tremendous effects of COVID-19 on themselves and their families (Yassin et al., 2021). In this study, the university students experienced two sources of psychological stress; distress resulting from the effects of

COVID-19 and psychological challenges from keeping up with the pressure from studying (Yassin et al., 2021). Besides the regular academic challenges, pressures and stressors experienced by students, the sudden emergence of COVID-19 presented additional pressures and stressors to the students, thereby exacerbating their experiences of psychological distress (Pascoe et al., 2020). The most frequently highlighted COVID-19-related stressors are financial constraints, online classes, and uncertainty about the future due to COVID-19 and lockdowns (Sundarasen et al., 2020). Conversely, certain crucial factors influenced the impact these stressors had on the students. For instance, living alone was listed as one of the factors that influenced COVID-19-related stressors in some students, as evidenced by a study conducted in Malaysia (Sundarasen et al., 2020) that revealed that students living alone experienced higher anxiety levels than those living with family or friends, due to the sudden threat to their safety and security during the pandemic. This made them feel more isolated and face multiple challenges simultaneously (Sundarasen et al., 2020).

Somatic Challenges Related to COVID-19 among Students

Like the previous acute pandemics such as Severe Acute Respiratory Syndrome (SARS), the psychological implications of the COVID-19 pandemic significantly affected both the infected and uninfected people. Previous studies have shown that the adverse effects of pandemics such as COVID-19 can susceptibly lead to Post Traumatic Stress Disorder (PTSD). As a result, PTSD caused by COVID-19 can negatively lead to sleep difficulties. The sleeping patterns of individuals can be affected when they are presented with life stressors. Marelli et al. (2020) revealed that Bedtime hours were extended amongst students, and the Wake-Up time was consequently delayed. Therefore, the quality of sleep worsened, so students experienced symptoms of insomnia during the lockdown (Marelli et al., 2020).

The WHO (2020) issued a stern warning against excessive consumption of media content related to COVID-19, including updates on the rate of spreading, number of cases, and deaths, emphasizing the potential for psychological disturbances resulting from such "over-following". Undoubtedly, most young people below the age of 35 who spend more time on the internet; that is, three hours or above following the information and news about COVID-19, significantly experienced psychological disorders (Marelli et al., 2020). Due to the failure to sleep, young adults invested more time-consuming content on digital media platforms before sleeping. This practice lowered their sleep quality, and they majorly experienced mild levels of anxiety and depression. Those who had higher levels of anxiety and depression experienced worse sleep complications. According to Marelli et al. (2020), the results of psycho-emotional distress are more noticeable amongst students with greater underlying or previous negative experiences.

Stress, Anxiety and Depression as a Result of COVID-19

Sümer et al. (2008) stressed that in some instances, loneliness and isolation are inevitable when international students are trying to adjust to an unfamiliar

sociocultural environment. So, they experience hopelessness, a symptom of depression. Sümer et al., contend that the adjustment process is often characterised by feelings of estrangement, depression and anxiety as international students are confronted with antagonistic or differing cultures and foreign patterns of life that contradict their previous cultural orientations. International students often find it hard to replace primary social networks they recognise as safety nets, such as families, friends, and neighbours in their home countries (Sümer et al., 2008). Hence the onset of the COVID-19 pandemic worsened the situation for international students who were still trying to fit into new environments (Kibbey et al., 2020).

Yassin et al. (2021) revealed that some students feared getting infected by COVID-19, were worried about the inability of scientists and governments to find a cure but also became anxious about carrying the virus to their loved ones or other people in society. According to Yassin et al. (2021), the outbreak of COVID-19 inevitably caused situational psychological problems for students, resulting in stressors and anxieties that affected their academic responsibilities. International students were often psychologically distressed by the rampant spread of the coronavirus, fretful about getting infected or their loved ones and frustrated by their failure to change the situation (Song et al., 2021). Kibbey et al. (2020) revealed that the COVID-19 pandemic for example affected the psychological health of university students in the US where 46% of the sampled students in New Jersey revealed heightened levels of psychological distress mainly caused by positive testing of someone in their close networks and having pre-existing health conditions that increased vulnerability to COVID-19.

COVID-19 Related Structural Changes

Due to COVID-19, which resulted in the closure of many facilities including learning institutions, there were changes in the delivery of lecturers, so most learning institutions resorted to digital learning platforms. The digital platforms themselves are not inherently challenging, but their use due to the circumstances brought or highlighted challenges in usage, adaptation/adjustment, and adoption as well, thus causing increased mental pressure among university students (Sahu, 2020). Stress among students was due to a lack of technological facilities, poor and low internet speed and connectivity, and limited skills in the usage or operation of Information Communication Technology (ICT) (Ling, 2020; Yassin et al., 2021). Additionally, the evaluation of examinations and tests, especially in practical courses, became complex where for example, medical students experienced challenges related to learning practical anatomy online (Naidoo et al., 2020). This negatively impacted students' overall academic performance (Ling, 2020) and elevated their feelings of stress and anxiety (Yassin et al., 2021).

Travel restrictions and social distancing were other significant changes. Pham and Shi (2020) highlighted that international Vietnamese students in the US experienced homesickness due to lockdown and self-quarantine measures. They were uncertain regarding travel restrictions and when they would be lifted so that they could return home. In a pandemic situation, social interactions were also cut off, and

the students had to endure staying in a lonely foreign country and adjusting to the unknown cultures. Some international students come from cultures that are strongly built on collectivism and strong human capital. Strong cultural bonds, norms, and values are pivotal in dealing with situations that involve many future uncertainties (Pham & Shi, 2020). Unluckily, COVID-19 shattered the collective aspect of society by barring physical contact and preventing people from predicting their future. As a result, people, including international students, became psychologically distressed.

The COVID-19 pandemic caused significant financial strain on students, leading to concerns about food shortages and other basic needs. This resulted in psychological distress for many students, as they struggled with the economic hardships that arose from the loss of income sources during the lockdown period (Gallagher et al., 2020; Song et al., 2021; Yassin et al., 2021).

THEORETICAL FRAMEWORK

We utilised the biopsychosocial model to guide our understanding, interpretation, and analysis of the data. The Biopsychosocial Model of Health and Healing, by Zittel, Lawrence, and Wodarski (2002), emphasises the interconnectedness between biological, psychological, and social factors in understanding health and disease. This model acknowledges that an individual's health is influenced not only by biological factors like genes and physiology, but also by psychological factors such as emotions, thoughts, and behaviours, as well as social factors including family, community, and societal influences. For instance, stressful reactions impair the immune system's ability to fight disease, and when faced with psychological stressors, people may increase their consumption of cigarettes, alcohol, and drugs, further weakening their immune systems (Zittel et al., 2002). The health of an individual is inextricably linked to bodily functions, emotions, cognitions, social support systems, and religious beliefs. Anxiety, for example, can have an impact on physical health, with panic attacks resulting in shortness of breath, uncontrolled heartbeats, chest pain, and feelings of fear and loss of control. Anger and frustration can also raise blood pressure during stressful situations (Zittel et al., 2002).

The Biopsychosocial Model of Health and Healing (Zittel et al., 2002) emphasises the need for a comprehensive and multidimensional understanding of health and healing, as well as the importance of incorporating biological, psychological, and social factors into healthcare practices. The model suggests that social support, socioeconomic status, and environmental factors all have a significant impact on health and healing. Furthermore, psychological well-being and emotional factors must be considered when dealing with physical illnesses (Zittel et al., 2002). In this study, the biopsychosocial model was particularly useful for our understanding of experiences of psychological distress from our participants' stories. The pandemic increased stressors such as health concerns, social isolation, and academic pressures. Notably, cultural differences, language barriers, and separation from family support systems were all unique challenges for international students also contributing to psychological distress. The adopted model contributes to the study of the interactions of biological, psychological, and social factors, providing a comprehensive framework for addressing these students' well-being. We considered this approach

relevant for understanding and therefore addressing the unique challenges that international students face during the COVID-19 pandemic, ultimately improving their psychological and physical well-being. Recognising the complex and dynamic interplay between biopsychosocial factors and health outcomes allows mental health providers to create more effective, holistic, and client-centered intervention strategies.

METHODS

To understand the experiences of psychological distress among international students during COVID-19, we conducted an exploratory cross-sectional study utilising qualitative research approaches and data collection methods, specifically personal interviews. This qualitative approach aligned with a constructivist paradigm that facilitated exploration of the individual meanings that international students attached to their experiences of psychological distress during the pandemic (Bryman, 2016; Crotty, 1998, cited in Creswell and Creswell, 2017; Green & Thorogood, 2009). We conducted this study at one of the Universities in the Western part of Sweden with a considerably high number of international students. Although Sweden did not implement a total lockdown, various containment measures were put in place to curb the spread of COVID-19 (Kamerlin & Kasson 2020), including a shift from physical to digital studies. Such COVID-19-related restrictions worsened the plight of international students as a group who were already facing social challenges associated with living abroad, prior to the onset of the pandemic. Therefore, given these reasons, we can justify a qualitative inquiry within the previously described physical setting to explore the psychological distress caused by the COVID-19 pandemic with the selected international students. Participants in our study were international students who had been residing in Sweden for no more than two years by the time of data collection. They were attending English-taught master's level program which usually takes students between1 to 2 years to complete. The age range of these participants was 24 to 42 years. The study sample included eight international students from Ghana, India, China, Finland, Uganda, Nigeria, Spain and Bangladesh. These participants were selected using purposive sampling with deliberate efforts to generate a heterogeneous sample, by including international students with varying characteristics. We included students who had different characteristics, such as self-sponsored students, scholarship recipients, full-time students, exchange program participants, and students with children. Since we conducted interviews digitally due to the COVID-19-related restrictions on travel and physical contact, participants who could be conveniently accessed through online platforms were prioritized. Therefore, eight participants were considered a sufficient sample since the study was more concerned with the peculiar experiences of the selected participants rather than representation and generalization (Bryman, 2016).

We implemented in-depth, qualitative semi-structured interviews to capture the participants' narratives and conducted the interviews digitally via ZOOM and Microsoft Teams, as an observation of the COVID-19 social distancing restriction protocols. Interview data was captured electronically with recorders or manually with notebooks. The data was transcribed verbatim (Bryman, 2016) and refined through

denaturalization and familiarisation to identify the main message from participants' narrations (Crocker, 2009; Oliver et al., 2005). We conducted thematic data analysis with NVivo, a qualitative data analysis computer software package for making sense of data by categorizing, coding, and organizing related patterns into themes (Braun & Clarke, 2006; Bryman, 2016). This analysis technique enabled us to gather rich and relevant data by continuously interpreting and relating emerging codes and themes to the research questions.

Ethical Considerations

To ensure that this study was ethically sound, we paid attention to essential ethical issues for conducting social research. The proposal for conducting this study was reviewed and approved by the representative of the University under which the research was conducted. We also sought informed consent from participants throughout the data collection process and constantly assured them of privacy, confidentiality and anonymity regarding their information. We made deliberate efforts to limit the study participants from physical, emotional, and psychological harm exposure. These included adhering to the COVID-19 Standard Operating Procedures (SOPs), using appropriate language in interviews, and informing participants of their freedom to answer questions they were comfortable with and to withdraw from the study at any time they wished. Additionally, as current or previous international students at the time of data collection and analysis, we exercised a high degree of reflexivity and self-awareness during the research process to minimize potential biases and preconceptions that can be associated with a researcher's insider position (Bryman, 2012; Kanuha, 2000).

RESULTS

This section elaborates on the two main themes that emerged from the analysis. Then, the themes are explained in detail to include the personal experiences of our participants and how they experienced psychological distress as a result of COVID-19. Direct excerpts from data transcripts are sometimes used to illustrate the participants' opinions in their own words.

Experiences of Stress and Anxiety

The COVID-19 pandemic created stressful experiences for most of the study participants who were still trying to adjust and integrate into the unfamiliar country. During the early stages of the pandemic, participants' colleagues, university websites, public health agencies, and the media all provided conflicting and uncertain information. Importantly, Sweden communicated the most essential information regarding COVID-19 in Swedish only, so participants expressed being stressed about this aspect about the language barrier/linguistic challenge. . Participants also faced these linguistic challenges/language barriers when they tried to seek medical and

counselling services through university-based or public channels. Salah, one of the participants, said:

> I don't know the language if you go to a health centre, for example, and the information is written in Swedish. So, imagine I go to see a counsellor, psychologist, or psychiatrist, and they make me fill out a form of three pages in Swedish without assistance. It does not make sense.

Such limitations in access to health services during health emergencies and the negative media feeds escalated the stress among foreign students, as Pham and Shi (2020) also observed in their study in New York City.

The alterations and regulations put in place to curb the spread of COVID-19 also created a stressful situation for study participants. These included the evacuation of residences, travel restrictions, closure of social and public spaces and more specifically, a shift to digital learning (Gallagher et al., 2020; Lai et al., 2020; Ling, 2020; Ramia, 2021; Song et al., 2021). This shift to electronic learning platforms presented numerous challenges in usage and adaptation, thus increasing the students' stress and frustration. Some participants expressed frustration with poor internet connectivity, disruptions in their physical settings, and difficulty navigating unfamiliar e-learning platforms.

Participants also reported feeling disconnected from their natural learning environments, which is defined by physical interaction with peers and lecturers. Some participants mentioned that they learn better through discussions with colleagues and seeking clarification from teachers during in-person/face-to-face classes. For instance, Cindy mentioned her online learning experience below:

> I think that this virtual thing comes with this inconvenience. It makes me a bit detached from the whole class. And then, for somebody like me, I learn more when I see people lecturing or making jokes. Some students say certain things, and then I relate them to what the lecturer said, and that actually helped me a lot in my studies before, but then COVID takes away all of that.

Other researchers, for instance, Ling (2020) and Yassin et al. (2021), in their studies in Malaysia and Australia, highlighted similar challenges experienced by students while learning digitally. Relatedly, Procentese et al. (2020) presented students' frustrations caused by the lack of physical interaction during learning. Naidoo et al. (2020) also revealed that the sudden transition from face-to-face instruction to distance learning created difficulties in effectively delivering anatomy education, particularly practical aspects such as dissection procedures. Although online learning was not so novel, it was not fully developed at the onset of the pandemic to facilitate effective learning and assessment of student's performance on a large scale. Thus, some students were likely to be uncertain about working on the different assignments or projects digitally (Sahu, 2020). Although online learning presented significant challenges, the larger context of the pandemic exacerbated participants' stress and frustration and aroused feelings of helplessness and failure to substantially change the COVID-19 situation for themselves, their loved ones, and

the rest of the world (Lai et al., 2020). These stressful experiences negatively affected some participants' academic performance and made them doubtful about achieving their future dreams and aspirations. For instance, Cindy said she reduced the efforts she was investing in her future and career:

> COVID showed that there are certain things you can't predict, like after school what's next, and that also makes you a bit discouraged to maybe learn more or to read articles because I remember before COVID, I was reading almost every article in the class and all of that, because I had this clear mind-set that after school, I was going to apply for a PhD and all of that, but then this COVID shows up and then at the end of the day, things are so uncertain.

Therefore, this [differentiated learning context due to the pandemic] created experiences of psychological distress among the participants, given that the next course of action was unknown. Uncertainty and helplessness might not only limit one's ability to make rational decisions and priorities (Lai et al., 2020; Sahu, 2020; Yassin et al., 2021), but these states and feelings might also expose or be a manifestation of traumatic stress (Boring-Bray, 2021; Guzman, 2019). Not only did the participants feel helpless and uncertain about the COVID-19 pandemic, they also feared for their lives and the lives of their loved ones. This fear was accompanied by anxiety, panic, loneliness, and rash decisions. For instance, some participants were apprehensive about moving out of their residences to access basic needs such as food or medical care, fearing infection. The encouragement of social distancing by public health agencies compelled most participants to avoid any physical and social contact since they suspected anyone could be infected with the coronavirus. Some participants reported being paranoid about being in physical contact with anything, constantly washing their hands, bodies, and clothes, and excessively using sanitizers. These findings align with those in Lai et al. (2020), who emphasised that international students feared fear contracting COVID-19 and dying from the disease. The COVID-19-related fear, uncertainty, and helplessness elicited feelings of meaninglessness in the lives of some of our participants. Notably, they felt unmotivated to learn because they were worried that COVID-19 would persist for a long time. They found no meaning in studying or pursuing their academic goals; after all, the future was vague to them and some thought acquiring a degree was pointless. The following passages illustrate the feelings of stress, fear, and anxiety among our participants:

> Regardless of whether I was less motivated, the point was that, in the end, you are going to die, there's no point in studying, and we were just thinking about our health, our lives, and the health of our families. So, this pandemic is never going to end; it is going to wipe out the entire human race. So, what's the point of school? (Kingston)

> I don't think I felt hopeless about COVID-19, but I think I felt powerless because I had nothing to do to bring the situation back to normal, you know. Imagine the situation was just abstract. There is nothing you can do about it; you must be

there and be there and leave everything to chance and fate, if you die, you die or live, so there is nothing you can do about it. (Jasper)

So, at a time, we had to prioritise the things in our lives. My wellbeing and that of my family, friends, and loved ones were most important. I care less about school because even if school ends with your degree and all the employers are dead. What do you do with the certificate? It is useless, so... It made me see life differently and re-prioritise a lot of things. (Kim)

I felt like life was starting to lose meaning, especially when COVID reached my home country. But, yeah, my parents are going to die. You know when they say older people die faster if they get COVID-19. Perhaps people will die, including my friends and myself. So, what's the meaning of life? I kind of gave up on life. So, I even stopped protecting myself and being careful. And for the most part, I was lonely because I lived alone in the student house. Everyone left; even my fellow students left. So, I was the only person in the entire apartment. Yeah, that was quite a hell for me. (Kingston)

International students also demonstrated anxiety through panic shopping during the COVID-19 pandemic, when most participants rushed to grocery stores to purchase and stock essential items like food, beverages, detergents, facemasks, hand sanitizers, and toilet paper. One of the participants recounted:

So, when I received information about COVID-19 and the measures taken to close down everything, I had to rush to this supermarket. And then, I ended up buying things on impulse, like everything, without checking their expiration dates. Because of the panic that came with information being spread online, I had to act based on that panic, and I later realised some of the information wasn't even true. I realised that I didn't need some of the things I bought, and yet they were costly.

This kind of panic shopping further strained the finances of some participants, especially those who were on private sponsorship. Some of them were working part-time or had been laid off at the beginning of the pandemic on the grounds that companies were not making enough profit. Therefore, students were unable to purchase essential emergency goods, and this escalated their frustrations and bitterness regarding the COVID-19 pandemic.

Depression

Based on the international students' accounts, feelings related to depression arose. COVID-19 frustrated our study participants and saddened and angered them about the COVID-19 pandemic situation. International students manifested feelings of regret, bitterness, and hatred arising from the COVID-19 pandemic. Participants mentioned that they had lost interest in studying and contacting people and

experienced difficulties eating and sleeping as well. A worsening factor at the peak of the COVID-19 pandemic included longer daytime hours and shorter night-time hours, which contributed to the distress from COVID-19 thus leading some participants to have sleep difficulties (Lai et al., 2020). The following statement portrays Salah's definition and understanding of depression from how he experienced it:

> So, I was pretty depressed. I was thinking about my siblings, my family, and my friends, and I was thinking about myself too. You know, I got paranoid. That's from a lot of things we saw on the internet about the transmission. It is difficult to even know you have contracted the virus, so the COVID-19 routines made us paranoid because you know when you are nearing someone you don't know, like when you see everybody as a carrier of COVID-19, you enter a room, you have to wash your hands, you go to your friends, you have to wash your hands, you go to the kitchen, you have to wash your hands, so, it was quite depressing.

Salah's narrative vividly depicted how pandemic-induced paranoia contributed to a depressive state. His constant concern about virus transmission, combined with his strict hand-washing regimen, reflected anxiety, thus exacerbating feelings of isolation and fear. This hyper-awareness of potential contamination represented a psychological toll in which fear of the virus dominated daily activities and interactions, which resulted in an overwhelming feeling of dread and helplessness.

In addition, Kim mentioned experiencing difficulties with eating and constantly worrying about his loved ones, "the eating times changed, you know, because you can't eat well when you are worried about someone and you have to check on that person and all that, so you can't even think of eating."

Kim's struggle with eating and concern for his loved ones reflected the impact of psychological distress on basic life functions. The change in eating habits and persistent worry indicate a common symptom of depression. His inability to stick to regular eating schedules due to constant concern for the well-being of others demonstrated how negatively the pandemic impacted his mental health, disrupting normal routines and leading to a decline in overall well-being.

In a similar vein, Patricia elaborated on her experience, highlighting a significant loss of interest in activities she previously enjoyed:

> I know who I was before COVID-19. I know I was energetic; how much I loved to do so many things. I love to write, but right now, you cannot get me to write a sentence. The whole day, I look at my book, and I'm not able to do anything. But I don't even want to attempt to write. I have read more than 50 articles, but I don't want to write, I don't want to get out of my room. I look at the sun, and it's nice, but I don't want to go out or eat. These days, any little thing offends me. I am trying to understand why, but I don't know.

Patricia's account emphasized the loss of interest and motivation, which are typical symptoms of depression. Her reflection on the dramatic change in her energy levels and enthusiasm for previously enjoyable activities, such as writing, revealed a

significant shift in her mental state. The inability to engage in previously pleasurable activities, as well as the avoidance of social interaction, pointed to a depression-related withdrawal. Patricia's tendency to get easily offended, as well as her struggle to understand these emotional changes, highlighted the confusion and frustration that are common in depressive states.

As highlighted in the previous statements from our participants, international students commonly reflected on a sense of loss of enjoyment or apathy towards previously enjoyed activities. The negative effect of the pandemic on the entire world painted the picture that everything in the world was going to be wiped out. The COVID-19 pandemic stifled the zeal, ambition, and self-motivation that had previously driven international students to study abroad (i.e., Sweden) and pursue new opportunities. Some participants lost interest in meeting people and engaging in the few leisure activities that were still open in Sweden. For instance, Patricia noted her lack of interest in meeting people or getting assistance from anyone:

> I am even afraid of going out to see people. I don't even want to talk to anyone because I don't want anyone to find out what I am going through. My friend has asked me to speak to the coordinator, but I am even avoiding talking to her now because I don't want anyone to advise me to talk to someone else.

Patricia's experience portrays social avoidance and uneasiness in seeking help. According to Sümer et al. (2008), international students with secure social networks can be socially active and interact more with friends, which reduces their psychological distress, while those who fail to build social networks become lonely, hopeless, anxious, and depressed.

Unfortunately, some participants who wished to meet and interact with other people had no opportunity due to the social restrictions implemented to control the spread of COVID-19. Social distance became the new normal that took precedence over social interactions with friends, colleagues, and teachers. Therefore, some international students, could not avoid feeling lonely and homesick in a new foreign country. In line with this, Salah mentioned:

> I became so lonely. And I felt like I joked about it. I don't know if I have started to forget what it feels like to speak to people physically. No one was there. You just wake up, and you see people from the window walking in the road with dogs, with their kids, or with baby strollers. They are minding their own business. So, for me, it felt like I was in the world alone. I was in an apartment alone, but this apartment was my world because the world was closed. Everything was closed. It felt like I was in the world alone. I missed physical contact with people.

According to WHO (2017), having reliable social networks is associated with good mental health and well-being. Sümer et al. (2008) emphasized that students with weaker social networks are more stressed than those with stronger social networks. On the other hand, COVID-19, weakened our participants' social networks and forced them to deal with the resulting fears, worries, and frustrations on their own, even though the effect was not equal for introverted and extroverted participants. Some

participants who were comfortable living alone reported that the social distancing rules had little effect on them because this was their normal routine. However, they also revealed that the prolonged time spent living alone affected them, and they felt lonely. Related studies have also shown that living alone exacerbated the experiences of psychological distress by students (Sundarasen et al., 2020); however, those who were living alone before COVID-19 were less psychologically distressed by social distancing compared to those who lived with others (Gómez-Salgado et al., 2020).

Somatic Experiences Relating to COVID-19

In the following section, we highlight common biological symptoms that participants encountered, which were presumably connected to the psychological distress (Drapeau et al., 2012) international students experienced during the COVID-19 pandemic. To illustrate, body pains or aches and fatigue were several of the experiences mentioned by study participants which could be related to feelings of depression and anxiety associated with the COVID-19 pandemic. The thoughts, feelings and behaviours that international students revealed included feeling unexplainable body aches, constant worrying about being ill, and loss of interest in physical exercises. International students also mentioned feeling exhausted all the time without doing any activities and spending most of their time resting with a strong disinterest in doing anything substantial as well. These somatic symptoms that participants experienced might be connected to difficulties in effectively processing and regulating their thoughts, feelings, and behaviours and possibly failure to cope with the associated psychological distress. The following description elaborates such somatic experiences:

> I can't sleep, and I eat too much. I can eat until midnight. I can't sleep until 3:00 a.m., and I am awake by 5:00 am. That's like 2 hours. And when I wake up, I don't do anything. I am not able to study, but I just want to lie down, and I have a constant headache and body aches. I think it's because I'm not going out, I'm not moving around. I think that may be the problem, but I move around in my room.

DISCUSSION AND CONCLUSION

The emergence of COVID-19 adversely impacted the different strands of health among participants in our study. The WHO constitution (2020) defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (p.1). This definition aligns with the biopsychosocial aspect proposed by Zittel et al. (2002), who stated that for people to function normally, the three dimensions of biological, psychological, and social aspects must be balanced. Conversely, our study findings depict that COVID-19 negatively impacted the psychological aspect of international students as well as their biological, and social dimensions, which posed challenges for their well-being, as illustrated below:
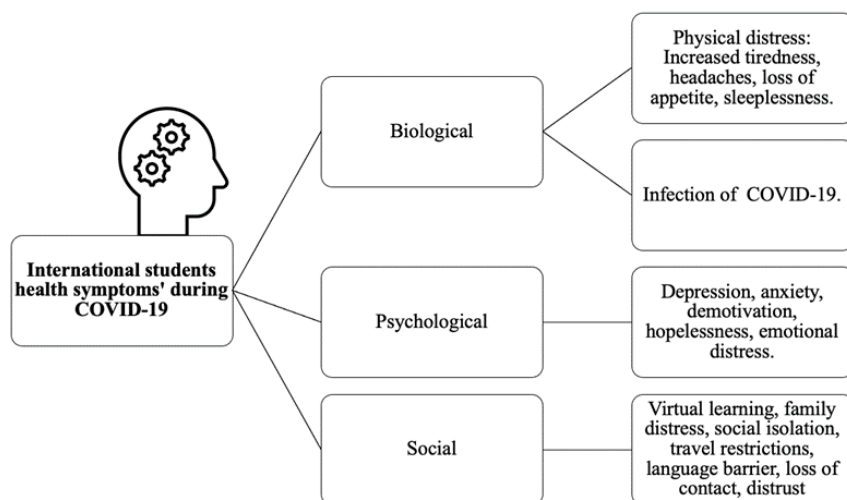
**Figure 1: International Students' Well-being with the
Biopsychosocial Model**

As exemplified in the figure above, the biological experiences of our participants included physical distress such as loss of appetite and somatic experiences included increased tiredness and lack of sleep. Moreover, participants encountered fear related to the contraction of the COVID-19 virus. The psychological impacts of COVID-19 were mainly depression and anxiety, while the social ones included social isolation, restrictions on travel, the challenges of virtual learning, and the loss of physical contact with friends and families.

Importantly, the breakdown of social networks, pessimism, and fear defined the pandemic among international students. The pandemic also disrupted the traditional learning atmosphere, thereby adversely impacting our participants. For example, the cancellation of internships denied some the opportunity to enjoy hands-on learning experiences within Western work environments, especially for those from less developed or developing countries (Pham & Shi, 2020). Further, the learning modalities such as exchange programs, internships and research fellowships were cancelled, thus frustrating learning opportunities for international students. Missing field placements and exchange studies had unimaginable negative impacts on students' career aspirations and consequently resulted in psychological distress (Pham & Shi, 2020). A failure to navigate and utilize environmental resources and learning opportunities in Sweden caused psychological distress and challenges to the well-being of our study participants in since these resources were highly restricted during the COVID-19 pandemic. Considering participants' symptoms related to their well-being and reflecting from a social work perspective, we identified trends in social processes before and during COVID-19. Below, we present an illustrative summary of the changes that international students experienced after the onset of the COVID-19 pandemic:
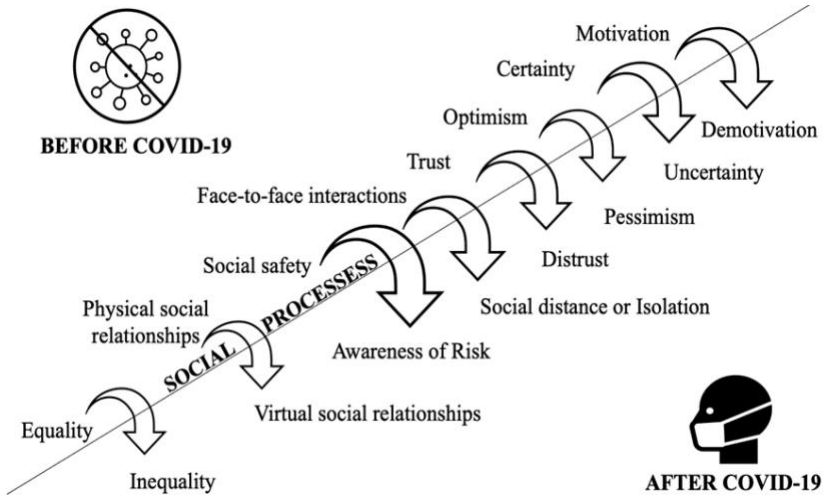
Figure 2: The Psychosocial Changes brough by COVID-19

COVID-19 is still an ongoing matter globally, and the changes in all social interactions are still acquiring meaning, gradually evolving, and being re-constructed, according to the variation in the spread of the disease. In this sense, the social processes shown above portray how COVID-19 has forced international students in our study into a new environment infused with risks and threats to their well-being. For instance, they transitioned into demotivation to study, uncertainty about their future, pessimism about life, and distrust of social contacts as well as institutions. Physical relationships became virtual relationships, and face-to-face interactions were replaced by social isolation. The lack of awareness regarding the risks associated with COVID-19 compromised the social safety of the international students in our study and their loved ones, exacerbating their psychological distress. It is crucial to note that the ongoing pandemic and its uncertainties mean that the state for international students could either improve or deteriorate in the future.

As suggested by the biopsychosocial model that guided this study, practitioners need to integrate biological, psychological, and social variables while managing COVID-19-related psychological distress and trauma. As these different domains of an individual are interwoven; therefore, comprehensively addressing them is likely to yield better outcomes. For instance, international students from collectivist societies, Universities, and other relevant stakeholders need to offer them opportunities for forming and maintaining social networks in their new educational environments while keeping their transnational connections. Student fora, unions and associations are some relevant mechanisms for forming and maintaining local and international connections. In case of limited physical contact, as was the case during the pandemic, these student associations could arrange online events and activities. Additionally, using senior students to mentor newer ones could ease the transition process into a

new study environment and offer safe spaces to share psychological experiences as well.

In terms of research, this study does not address certain methodological gaps. Because we focused purely on the qualitative aspects of psychological distress, specifically how it is experienced by the selected international students. Consequently, future research can employ alternative methodologies and specific scales for measuring psychological distress among international students and other student categories. More research is also needed about the preparedness of educational institutions to respond to current and future global pandemics. Additionally, a major limitation of our study is its use of a cross-sectional design, which limited exploration of whether participants (i.e., international students) later experienced symptoms of PTSD associated with COVID-19-related psychological distress. Future research on global pandemics could thus employ longitudinal designs to explore their long-term psychological impacts.

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