

Challenges and Experiences Faced by Malaysian Undergraduates in Coping with Low Academic Motivation During the COVID-19 Pandemic

Brenda Ang Shau Ying
Samiya Mir*
Lai Ge Xin
Nicholas Wong Yi Zheng
Wong Jia Jia

*School of Liberal Arts and Sciences
Taylor's University.*

*Corresponding e-mail: [samiya.mir@sd.taylors.edu.my]

COVID-19 pandemic has impacted educational institutions worldwide due to a sudden transition of the learning system, which has affected students' academic performances in several aspects. This qualitative study examines Malaysian undergraduates' challenges and experiences in coping with low academic motivation during the COVID-19 pandemic with this qualitative study. One to one semi-structured interviews were conducted among a total of 24 undergraduates in Malaysia between the age of 19 to 24 through online platforms. The data collected was analysed by interpretative phenomenological analysis (IPA). Four analytic themes are presented: (1) intrinsic challenges; (2) extrinsic challenges; (3) intrinsic motivation, and (4) extrinsic motivation. Future research is suggested to take cultural differences, quality of mental health and student's perception of stress into consideration.

Keywords: COVID-19, coronavirus infections, motivation, coping strategies, challenges

The biggest crisis that happened in 2020 is no doubt the COVID-19 pandemic, which occurred all around the world. The COVID-19 is an infectious disease that has spread rapidly around the world, and it has affected millions of people, where countless deaths occur each and every single day. In general, even though being young meant not being among any particular risk groups endangered to be infected by the coronavirus and to have serious health consequences. However, the group in the population who felt severe effects from the first wave of the COVID-19 pandemic were the students. They underwent a huge change in their daily lives and the prospects for their near and distant future.

Due to the COVID-19 epidemic, regular university classroom teaching was terminated and replaced by an online virtual learning system on March 18, 2020 in Malaysia, with consideration of preventing the spread of the infectious disease into the

university community (Kamaludin et al., 2020). According to the United Nations (2020), the COVID-19 pandemic has affected nearly 1.6 billion students in more than 190 countries and continents.

Face-to-face learning disruptions and the transition to online distance learning have already raised numerous obstacles and are potential sources of stress for learners (Abdullah, 2020). Amid a global health crisis, undergraduate and final year students have to think about their future, their career, and further study plans making maintaining motivation an expanding challenge for students facing weeks of quarantine (Tang, 2020). Few have adjusted well to the new standards, while countless continue to struggle to grasp the new norms.

UNESCO estimates that following the education disruption due to COVID-19, about 24 million learners, from pre-primary to university level, are at risk of not returning to school in 2020. A survey

reported that 76% of all undergraduates identified the lack of motivation for online learning as the biggest obstacle (Soria et al., 2020). There were several stressors such as environmental, social, and major concerns about the disease's impact and the measures imposed on the population's social, psychological, and mental well-being.

These circumstances evidently influence the importance of an in-depth study in understanding the students' experiences that are affected by it. Thus, the purpose of the study sought to address the scarcity in the literature by carrying out a qualitative investigation on the challenges faced by Malaysian undergraduate students and experiences in coping with low motivation in their academic studies during the COVID-19 pandemic through semi-structured interviews. We agree that this research is felicitous and informative in examining the challenges and strategies used by university students during this unprecedented time.

Literature Review

Academic Struggles

Since the start of this pandemic, education institutions worldwide have converted from conventional classes to online classes. According to UNESCO (2020), the closing of colleges and schools has many detrimental impacts on students, such as disrupted learning, depriving students and young people of growth and development opportunities. The availability and use of online learning resources in the e-learning environment are becoming the biggest challenge for many universities (Almaiah et al., 2020).

It was reported that university students showed uncertainty about their assessments, had problems with the internet speed, difficulty using the online platforms, and found it inconvenient to study at home (Moawad, 2020; Baloran, 2020). In addition to that, students were also not convinced of the fairness of having online

exams. Research also concluded that the students' highest stressor is their uncertainty regarding exams, the end of the semester, and their assessment (Moawad, 2020).

Students reported a loss of motivation, poor focus, and impaired memory attributable to the COVID-19 crisis, making learning difficult for them (Lovri'c et al., 2020). In the United States, the pandemic has led many students to delay their graduation, withdraw, and drop out of classes, while some planned to change majors or courses they were originally taking (Aucejo et al., 2020). In addition to that, 50% of students reported that they had noticed a huge decrease in their hours of study and their academic performances (Aucejo et al., 2020). Students were also taking breaks from college, which proved to be twice the rate in years before this.

Apart from that, a study done by Gonzalez et al. (2020) identified the effects of COVID-19 confinement on students' academic performances. The study results indicated that students only work hard and put in effort during the last days before exams. Even when students were given materials to revise weeks before the exam, there was procrastination until 2 days before the final exam (Gonzalez et al., 2020).

Financial Struggles

During this critical period, many people around the world are facing an economic crisis and financial issues. Focusing solely on university students, countless in the US work part-time jobs, earning extra income to support their tuition fees. According to the studies, approximately 40% of students lost their internship, part-time jobs, or even job offers. A reduction in income from family members is also reported (Aucejo et al., 2020). It was also reported that university students' financial insecurity during this pandemic became the most significant stressor contributing to their depression and anxiety (Islam et al., 2020).

Psychological Impacts

A study by Fullana et al. (2020) found that sixty-five percent of the participants reported depressive or anxiety symptoms (Fullana et al., 2020) by worrying about the risk of losing their jobs or career. Also, Kecojovic et al. (2020) reported that undergraduates who need jobs to support themselves and their families were worried about their financial hardship due to the pandemic, thus making them more vulnerable to depression and less focused on their academics. Symptoms of depression were also significantly increased, especially during the submission of their course work (Barker et al., 2018).

Student's Coping strategies

A study found that those who reported lower depressive and anxiety symptoms follow a healthy or balanced diet. They were also following a routine every day and not reading about news regarding COVID-19 very often. They also took lockdown as an opportunity to carry out and pursue their hobbies (Fullana et al., 2020).

Kamaludin et al. (2020) found that students used maladaptive coping strategies to cope with anxiety induced by the pandemic and the effects of movement control order rather than adaptive coping strategies. The study found the usage of four coping strategies: (1) seeking social support; (2) acceptance; (3) mental disengagement; and (4) humanitarian (Kamaludin et al., 2020).

Another study by Khiat (2013) revealed three main categories of coping behaviors of secondary-level students: (1) Avoidance; (2) Denial, and (3) Apathy. These coping behaviors evolved from various defense mechanisms achieved to reduce the psychological and physiological pains of the students' stress and anxiety.

There is also a lack of robust research focused on university students' struggle with this critical situation in other countries, like Malaysia. Moreover, due to

the overwhelming difference in the number of the current literature mostly being quantitative instead of qualitative, it is even more difficult to compare our study to past studies in gaining insight into each individual's subjective experience and cognitive process that could be extracted from a qualitative study.

Thus, the study will focus on providing answers to the following questions: (1) how are the students' struggle; and (2) how are their coping strategies for low academic motivation during the global COVID-19 pandemic.

Method

Participant

The participants in the study were 24 undergraduate students from 10 different private or government universities and colleges in Malaysia, ranging from the ages of 19 to 24, using purposeful sampling. There were 17 females and seven males; among them were five Malay, one Indian, and 18 Chinese. Three main races of participants were included due to the consideration of diversities of Malaysian cultures. Participants from private or government universities were chosen to study any financial factors contributing to academic motivation in students, as tuition fees vary across all universities in Malaysia. In this study, the saturated number of 24 respondents is compatible with other comparable related studies and descriptions, indicating that to gain a detailed insight into the phenomena examined in such studies, the data should be based on about one to 30 participants (Hsieh, 2005).

Research Questions

Before the interview process, the interview questions were carefully designed after discussion and brainstorming. Through extensive literature review regarding stress and coping mechanisms, we were able to form a list of open-ended questions that aim

to answer our participant's experience as an undergraduate during Covid-19.

Instead of identifying specific questions, we formulated the questions based on our topics and sub-topics, providing a general structure for the interviewers to guide the conversation. Through these curated questions, interviewers were able to come up with specific questions according to the respondent's answers during the interview to gain a deeper understanding of their experience.

The questions were formulated in light of possible biases and helped individuals, regardless of their responses, to feel accepted. Interview questions created to determine the decrease in our participants' motivation and coping mechanisms were revised, and feedback was received from supervisors and student researchers who did not participate in this research.

Procedure

After getting approval from Taylor's University Human Ethics Committee, one-to-one semi-structured interviews were conducted virtually, using Zoom and Microsoft Teams, which enabled more in-depth knowledge from participants (DeJonckheere, 2019). This method gives the interviewer flexibility to explore and decide the flow and direction of the interview. It also allowed the respondents more time to open up and be guided to explain their challenges more extensively. The duration of each interview ranges from 10 to 50 minutes ($M = 22.5$ minutes). The whole process of all online interview sessions was recorded and saved as audio files for transcribing purposes.

The participants were debriefed to ensure that they were fully informed about the research's purpose and reassure the participants that confidentiality would be

maintained. All the recordings were immediately erased after transcribing to ensure the confidentiality of the research.

Analytic Strategy

Researchers intended to investigate the quality of experiences instead of identifying causal relationships within this topic of research. As such, data are analyzed using interpretative phenomenological analysis (IPA) in this experiential qualitative research. It is best to use when exploring, in more detail, the personal experiences of research participants regarding their academic motivation during the pandemic.

Themes were identified in an idiographic approach, focusing thoroughly on personal's experiences and challenges faced during the pandemic. Steps were taken in analysis, starting with repeatedly reading transcripts several times, finding connections between participants' own words, and identifying and labelling the interview contents into codes. This step allows researchers to make sense of the disparate data related to the research question.

The next steps involve searching for overlapping codes and reducing the data established by the connection. Accordingly, emergent themes were formed after recognizing the patterns of connection across data. In order to conceptually make sense of the data, emergent themes were hence interpreted and clustered appropriately under ordered superordinate themes.

The themes were refined throughout the process to aid understanding the inter-relationship of themes and thematic development. The consensus was gained from all researchers throughout the analytic process.

Table 1

Table of Themes

Superordinate Theme 1: Intrinsic Challenges

Emergent theme 1: Low Self-Discipline

Qin	I tend to procrastinate more at home, want to do everything before deadline.
Hin	Feel lazy because study alone in the house
Qu	Being more unmotivated, slacking more and being more lazy in a way
May	Pick up the habit of slacking and procrastinating
E	Have been a bit lazy because new semester starts in the mid of MCO
Ying	Can't focus during online class, don't feel like doing anything
Nur	My discipline was totally off. Waste more time.
Gordon	Laziness might be one of the most challenging factors.
Ri	The source of my low motivation also comes from sleeping and waking up too late.
Chang	I am more laid-back cause I know which classes I can skip.
Tracy	I don't think I am a person that is very self-disciplined, so I usually need someone or something to keep pushing me against my goals.
Unicorn	Lack of motivation because self discipline come in to play quite major role.
Lee	I tend to feel like oh because I don't know what to do so nah, it can wait.

Emergent theme 2: Future Uncertainties

E	I have been struggling on what I can do to help my parents during this hard time.
Unicorn	Worried about own safety and not sure what will happen to Uni
Ri	They're uncertain whether their plans are still gonna happen
Lara	Feel anxious everyday and it kinda distracts from my academic goals. I don't care about my academic anymore because all I think is I want to survive this pandemic.

Nur	We are all so new to this virus environment we have never faced this kind of stage before. Not sure how long the lockdowns are gonna be (.) It's starting to be everyone's concern.
Lily	Questioning what was the purpose of going for class while a world pandemic is going on.
Micheal	Everything was quite uncertain like we did not know when class was going to start
Mia	It was because when you're not hopeful for the future. The pandemic is in place, it's hard to remain hopeful in your daily life.

Superordinate Theme 2: Extrinsic Challenges

Emergent theme 1: Lack of Physical Academic Interaction

Tracy	The lecturers and the students are more engaging in physical class.
Unicorn	More motivation to attend and have friends around. Feel more connected because there's a real person lecturing.
Saw	More motivated to study because it is due to the classes being face to face
Gordon	I also have like less interaction with my friends and coursemates
Chang	I had more interaction with my lecturers and my classmates
Hin	Unable to interact with friends and lecturers
Nur	That's why going to campus is more focused on your education and there is less distraction from other factors.
Qu	Everything is done virtually, unable to have a sense of touch to it, so it might not feel that surreal
Ying	It's hard for me to communicate with my lecturer or my group assignment group mates
Micheal	Lack of physical interactions with your peers and also your lecturers demotivate you from studying
Mandy	Can't have the correct and proper way of having the feedback sessions with the lecturers. Don't have the chance to communicate face to face.
Olivia	Face-to-face interaction is required to boost motivation.
Dio da	Have friends to study with me so we can just help each other and then study together

- Jojo Everyone is like communicating or doing their own work. That can influence me and motivate me to study and do my work
- Lily Not being able to go into the lab for our session was a bit hard to correlate what we learned as in theory

Emergent theme 2: Studying in A Non-conducive Learning Environment

- Tracy At home you will have distraction which will affect your focus or your attention towards one thing you are working on.
- Ying Like when I want to study, my mom will come into my room out of a sudden and distract me instantly from my study or even my exams.
- Saw Entertainment like phones, tv and games distract me.
- Qu Very comfortable at own home as can directly associate it with like play or place to rest and then bonding with family.
- Qin My brother likes to play guitar and sometimes it is irritating to hear him practice more on studying
- Chang Lets say I wanna start on an assignment and they interrupt me.
- Nur I do kind of get bothered by family members because they are all with me and then my classes are running, they are just outside watching tv.
- Lee Environment is not appropriate or ideal for academically learning or others academic related stuff.
- Gordon My parents watching TV, and I'm studying, so there are sounds
- Ri Yeah you just kinda spend time with your family a lot, like watching movies together and all that.
- Yu My mom will nag me and ask me to do house chores.
- Lara I have a hyperactive and talkative brother, most of the time he makes things harder for me especially when I have presentations.
- Unicorn Rearranged room because there's no proper table.
- Olivia The environment of the house is too comfortable, they are working in their room which makes them sleepy.
- Jojo I prefer like resting sleeping and playing game
- Saw Bed distracts me.

Emergent theme 3: Lower Obligation for Students During Online Classes

- May Don't have to go to school. We only have to attend online classes, let it sit there and we can even go back to sleep

Ying	I feel like it is in a bad way because, um, I can't really focus on my studies even on my assignment.
Saw	The lecturer can't see what I'm doing, not focusing in class, start to lose the motivation to study as this is getting boring.
Qin	Tend to wake up late and not worry about going to school physically. Could join the live session and go to bed.
Chang	You know how the online environment you are not expected to participate as much unless you are being called out on.
Tracy	Nobody will pay attention because no one will be supervising you doing the lecture.
Nur	Even if our classes start at the same time but we don't have to like wake up super early to get ready and some people skip breakfast
Lara	Cuz all lectures are online and it does make me feel like i don't have any responsibility as a student anymore.

Superordinate Theme 3: Intrinsic Motivation

Emergent theme 1: Self-determination

E	I will always think of my parents whenever I feel lazy or low motivated. I don't wanna let them down.
May	I would take some time to think about what I want to achieve in my life and how to manage my problems to try to motivate myself.
Ying	I have to train myself to have better discipline and control
Saw	I would like to be less lazy but that one comes from self improvement and also from the changes that I make from myself.
Hin	Think for the positive way and avoid negativity. able to accept unpleasant fact.
Qin	My parents, they paid for my studies and I know that I could not disappoint them
Qu	Focusing on my well being so more self care and also that I don't easily get overwhelmed
Chang	I am responsible enough to like do my work on time and stuff.
Ri	You need to start like motivating yourself
Nur	Try to be more positive and move to the stage where you have to realize that it's gonna be another environment you gonna be going through

- Micheal I'm quite a determined person so I want to get things done, when it comes to academics I would try my best to (.) you know to complete the whole semester.
- Mandy I will need to force myself to do all those stuff, it's the way I need to motivate myself in order for me to push myself to the limit.
- Lily Yeah the motivation just went down ((laughs)) but I had to pick myself up.

Emergent theme 2: Following a Scheduled Timetable

- May Something like a timetable or a schedule for me to follow.
- Gordon So I think it somehow push myself according to the timetable to do the things I've listed out.
- E When I feel low motivated, I will list out all the things that I have to do within one month
- Qu Making a to do list, like being very clear on what I need to do and then knowing the deadlines.
- Mia Whenever I had a task, I tried to write it down.
- Qin Prepare a timetable for my studying session.
- Tracy I set a timetable for the lectures that I was supposed to attend and for the tutorials that I was supposed to work on.
- Olivia I start my thing in a very structured schedule, it really helps boost the motivation to do stuff for the whole day.
- Nur It's like my checklist. I have to get it done, I have to create a checklist for the day even though I am at home.
- Unicorn Write a piece of paper like a book for to do list for the day
- Jojo Have a daily to do list like every day I list which goal which assignment I need to complete today.
- Dio Da Scheduling my own timetable
- Lee Setting up schedules and reminders on google calendar.

Emergent theme 3: Relaxation Activities

- Tracy I will go for like a short game just for the sake of entertaining myself and relieve the stress from the assignment.
- Gordon Actually having a new hobby also quite motivating,

- Chang I have a lot of hobbies right you know, so I keep doing everything like over and over again.
- Lee Uh, sports. Exercising in general I think.
- Nur Ya um, I do skipping and those little housework. Just get out, be active you know. Get some fresh air outside.
- Mandy I usually have myself to have a break to do what I love to do, with my hobbies, TV or youtube or reading la.
- Lily I also read a lot on top of exercising too. It helps me to get my mind off things you know to just indulge in a book.
- Olivia I would say like take a short break before working to regain my motivation first.
- Yu I won't do any stuff la, I just wait the motivation to come. ((laugh))
- Tracy I will usually go for sports to sweat out.
- Lee Cause sometimes for me I go for exercises and go for whatever I want first, sometimes I just relax.
- Lily So if you ask me my strategy was like definitely exercising.

Emergent theme 4: Set Goals and Target

- May I decided to be better by doing something meaningful and productive at least.
- Jojo Have a daily to do list like every day, which goal which assignment I need to complete today.
- Ri Another one will be setting targets, like, by the end of this week, what do I wanna finish studying
- Nur Encouragement to um do something beneficial for our day and finish the day strong you know.
- Mandy I need to list out my goals so that I need to remind myself that oh I need to do.
- Tracy I will limit myself or the screen time of my phone.
- Ri Another one will be setting targets, like, by the end of this week, what do I wanna finish studying,
- Lily To draw the line and to separate yourself from that (social media), that's very very important.
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Superordinate Theme 4: Extrinsic Motivation (friends, family, etc)

Emergent theme 1: Having Assigned Due Date

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|--------|--|
| Tracy | I will set a deadline for every work that I do and every assignment that I was supposed to hand out. |
| Chang | If I am close to the due then I basically have to force myself to do it. |
| Dio da | Have a calendar that we create together and then we write all the deadlines of assignment and midterm. |
| Lee | I mean that's part of my responsibility you know to complete stuff, to meet deadlines and everything. |
| Mia | I tried to take it week by week and set my own deadlines for assignments. |
| Saw | deadline of the assignment motivates me |
| Beer | I'm not motivated enough to start anything until last minute |
| Jojo | Only the due date is pushing me trying to do my work and not the motivation itself |

Emergent theme 2: Favourable Learning Environment

- | | |
|--------|---|
| Ying | I will go to the library, a more quiet place instead of staying at home for me to focus more. |
| May | I would go to a quiet and peaceful place to rest and clear my mind |
| Olivia | I try to choose a time where I can work at the dining table of the dorm, so that's a bit more spacious there. |
| Chang | I think it's better if I get to like go out and like sit in different locations. |
| Lee | I get to experience an internship period for around three months so, ya. That definitely make me change in my motivation level. |
| Jojo | Going to outside like some place to study like café or library which give me a environment which good for my studying |
| Ri | I would change it up a bit, to like, maybe try different environment, study outside |
| Yu | When I at home. I'll prefer to work outside like, as in studying and doing my assignments. |
| Mandy | I'm a person that like to go out more. i feel like so stressful to stay in my room. |

Emergent theme 3: Emotional Support

- Qu Family care for me a lot. When I'm with my family they actually helped a lot.
- Qin Family members have always been supportive in many ways and often cheer me up.
- Nur The lecturers are more concerned of the studying environment at home for the students.
- Mandy Thoughtful lecturers that help us although they do the class online.
- Micheal They would check in time to time, they would call me from time to time ask me how I'm doing.
- Yu Even though they don't force me to study or what, they always tell me to do my best la.
- Lara I think my mom always tries to understand how busy I am. So.. it does make things a little easier for me.
- Mandy She always gives me the more support for me to continue my study journey.
- Lily When you're at home there's always people around who are constantly encouraging and caring about you.
- Qu Connecting with friends, when we want to do assignments together and we can provide support to each other.
- Gordon Call each other, trash talk and then somehow we'll work together la
- Lara We kinda talk a lot and we play games....we also video calls a lot. They make me feel a bit safer.

Emergent theme 4: Instrumental Support

- Ri Having family here is you know, good, when my mom would come in, and ask if I need a cup of coffee, a cup of tea,
- Olivia He is quite stern, but he gives me advice. I would say he gives me motivation.
- Lara My lecturer also try to extend the due date as much as they can so it doesn't feel too pressured to submit the assignment.
- Unicorn Family help to remind when have things coming up that I might not remember
- Dio Da When I living with my family and then I don't have to cook my own meals. Lesser things for me to worry about

Qin	Contacted some of my close friends to study together, I'm very motivated to improve myself along with my friends
Dio Da	Schedule of Voice, voice call or FaceTime with my friend and then we will discuss online.
Micheal	We did interact with one another, so that we could still discuss our studies together.
Chang	They like to remind me once in a while to focus more on my education and like not to go out too often you know.
Hin	Find friend and they give some suggestion to motivate me

Results

just one click away from attending the class. (May)

A table of superordinate themes and emergent themes is developed; see (Table 1). Four superordinate themes derived from the IPA are presented. The four superordinate themes are as follows:

1. Intrinsic Challenges
2. Extrinsic Challenges
3. Intrinsic Motivations
4. Extrinsic Motivations

Intrinsic Challenges

Intrinsic challenges refer to the challenges faced by an individual on a personal level. Participants described their academic challenges, 17 of which stating low self-discipline and future uncertainties being the main ones.

Low self-discipline. For the Malaysian undergraduate students, low self-discipline causes many problems for our participants, such as sleep problems, distraction, procrastination, and clutter; these things pile up, becoming overwhelming and further contributing to lower motivation in their academics. For example, one participant said:

Online classes have me pick up the habit of slacking and procrastinating as I don't need to get ready for school because I am

Online classes instead of physical classes where students need to get ready and travel to campus to attend class have made May slack and procrastinate more. This may be due to the relaxing environment, and atmosphere home gives everybody, plus studying online at home with no supervision or peer pressure always tends to make a student feel more at ease, which can lead to the lack of discipline. Ri's lack of motivation also comes from a bad lifestyle:

The source of my low motivation also comes from me sleeping too late, waking up too late. (Ri)

Having an unhealthy lifestyle, especially an irregular sleep schedule, could be significantly detrimental to a person's health both mentally and physically. Sleep deprivation or a messed-up sleep schedule could negatively reduce one's attention which directly influences academic motivation and performances. It is believed that insufficient sleep has a profound impact which causes students to have lower concentration during online classes and lower sustained attention when reading or writing.

Future uncertainties. It is not a surprise that a sudden global pandemic, COVID-19, would be able to instil uncertainties in everybody's minds, this rapid increase in infected cases and school closure created

feelings of confusion and fear for students over what is going to happen:

My fear keeps increasing. I feel anxious everyday and it kinda distracts me from my academic goals. I don't care about my academics anymore because all I think is I want to survive this pandemic. (Lara)

Participants also shared that their motivation and aspirations were disrupted, their careers and anxiety over future academic concern, and felt unable to graduate. This can be because they are starting to doubt their own potential to achieve their goals; they are also beginning to contemplate their future decisions on either continuing working hard or giving up completely due to the fear of being defeated by the uncertainty's pandemic. This uncertainty towards the future is a great demotivator to everyone, including students. Mia described it as being 'not hopeful':

Um..... it was because when you're not hopeful for the future, in this case because the pandemic is in place, it is hard to remain hopeful in your daily life. (Mia)

Mia has explained that the pandemic has made it hard to remain hopeful. Aggravated by social isolation due to rules on quarantine and social distancing, lead to hopelessness, which could in turn lead to lower motivation in life.

Extrinsic Challenges

Extrinsic challenges are known as the external or environmental challenges faced by an individual. In this section, we discuss the external struggles faced by the participants during this pandemic.

Lack of Physical Academic Interaction. Learning on campus was a part of every university student's life, however, it was taken away when COVID-19 happened.

Since then, learning has been converted online, however, most students do not find this method of learning too efficient and having physical interaction with lecturers and course mates for academic purposes was preferred.

Lectures are physical so give more motivation to attend and have friends around. Feel more connected because there's a real person lecturing. (Unicorn)

Physical interaction with lecturers or friends plays a significant role in learning as it promotes academic engagement. Unicorn mentioned that she felt that there is more connection when there is a physical person compared to virtual teaching. It is because lecturers and students are more engaging in physical class and students get to understand better in a face-to-face class. Face to face interaction is required in learning in order to boost one's motivation. Furthermore, students who could afford to take online classes to study theoretical benefited more than students with practical classes that required them to be physically present:

Not being able to go into the lab for our session was a bit hard to correlate what we learned as in theory. (Lily)

When everything is done virtually, students are unable to have a sense of touch due to the lack of hands-on experience, and thus it might not feel that surreal and lead to caring less about their work. Students don't have the same availability of resources that they can find at their university and cannot know the details of the work, not having the right and proper way of having the feedback sessions with lecturers.

Studying in a non-conducive learning environment. During the COVID-19 pandemic, every student is required to study from home in uncertain times. Without going to campus, home is the place where students learn virtually. However,

being out of the academic environment makes it easier as students can get things easily at home and there are a lot of distractions leading to lower motivation:

Like when I want to study, my mom will come into my room out of a sudden and distract me instantly from my study or even my exams. (Ying)

Environmental factors like family members watching TV or siblings being noisy affect the effectiveness of learning as students are unable to have an ideal learning environment. Home is also seen more as a place of solace, very different from the active environment of university. It could be a reason for low motivation in studies.

The environment of the house is too comfortable, they are working in their room which makes them sleepy. (Olivia)

Home is a comfort zone where students can lay on the bed at any time. For instance, some participants mention when watching recorded lectures or attending online classes, they will fall asleep or go to their bed and sleep without listening to the lectures. With the low pressure environment, students get off their track easily and take students away from studying or completing the assignments.

Lower obligation for students during online classes. Online learning has become the mainstream of learning as there are quite a number of students who are engaging in it. However, students are not participating actively in online learning:

Don't have to go to school. We only have to attend online classes, let it sit there and we can even go back to sleep. (May)

When it is online learning, students are not expected to participate as much, being given the choice to close the camera and mute their mic. There is less involvement

between the lecturer and students which leads to more distractions from students:

The lecturer can't see what I'm doing, not focusing in class, start to lose the motivation to study as this is getting boring. (Saw)

Even if the classes start at the same time, students do not need to wake up early and make an effort to get ready like they would when going to campus or take breakfast, they will just wake up late or just sleep back. Students lack discipline in the online learning as they feel like they do not have any responsibility as a student anymore when all the lectures are being conducted online.

The coping strategies the participants use are divided into two superordinate themes: Intrinsic Motivations and Extrinsic Motivations.

Intrinsic Motivation

Intrinsic motivation was used as a coping strategy, it is an eagerness to do something driven by internal rewards. In other words, the motivation to do something comes from within the individual and does not depend on external rewards or reasons.

Self-determination. Self-determination is motivating oneself and having the mentality to not give up until the work is done. It is common to face hardships in life, however, with self-determination, anyone can stay motivated to overcome the hurdles in life, and need not to depend on external factors to feel motivated.

I would take some time to think about what I want to achieve in my life and how to manage my problems to try to motivate myself and make myself more in the mood to get things done. (May)

When May feels unmotivated to do work, she takes time to do some thinking and motivates herself to do work, and this is one form of intrinsic motivation as she is

motivated to get things done by her own determination and work hard to achieve whatever she wants to achieve in life.

I'm quite a determined person so I want to get things done, when it comes to academics, I would try my best to, to (.) you know to complete the whole semester...face it, head-on and be tough along the way. (Michael)

It takes self-determination to push oneself to their own limit. Michael mentioned that he would force himself to do what is needed in order to achieve his goals.

Following a Scheduled Timetable. Creating and following a scheduled timetable requires a person to be disciplined and in a sense is intrinsic motivation as it is relying on oneself to get things done with this method.

So, I think it somehow pushes myself according to the timetable to do the things I've listed out. (Gordon)

When a timetable is created, it can push oneself to do things according to the timetable because we can have a clear picture of what to do for the entire day/week. It helps people to stay on track and be motivated, focusing on the end goal. According to Gordon, having a timetable pushes him to complete the things listed on the timetable on time.

You know it's like my checklist. I have to get it done, I have to create a checklist for the day even though I am at home. (Nur)

Other than making a timetable, a checklist can also be used to get things done. Having goals and targets gives people a reason hence motivation to work hard. This method is more flexible as it is not time constrained hence is more suitable for people who do not like following a strict schedule. It is very motivating when the boxes from the checklist get checked, and stay focused and motivated when you see that you still have work to be done.

Relaxation activities. Sometimes, work can be tiring, so breaks between work have to be taken to relax and rest. Games and music are healthy ways to feel relaxed and after an appropriate gaming or music session, people can feel motivated to work again with newfound strength.

I will go for like a short game, maybe five to ten minutes, just for the sake of entertaining myself and relieve the stress from the assignment. And then after the five to ten minutes, I will usually go back to what I left off. (Tracy)

A 5 to 10 minutes break from working to rest is a way participants use from overworking themselves. However, discipline has to be exercised so that after a short while remember to go back to working.

So if you ask me my strategy was like definitely exercising. (Lily)

Another healthy hobby as a means of relaxation is by exercising. The physical body can be trained and it can improve one's health too. On top of that, exercising also help people to release stress and relax. Since exercising is fun and relaxing at the same time, many participants mentioned exercising regularly to help keep themselves motivated to do academic work.

Extrinsic Motivation

Extrinsic motivation (also known as external motivation) is another form of coping strategy, it is the desire to do something because of the rewards and reinforcements it brings. In this case, Skinner's operant conditioning theory can be used to explain our participant's situation. The participants are motivated to do work only when negative reinforcements are being introduced to their work. Sometimes, negative reinforcements can end up having a positive impact on learning, especially e-learning.

Having assigned a due date. Some students will not start doing their assignment until the last minute which means assignment due date itself becomes one of the extrinsic motivations.

I know I need to do it so like it depends if I am close to the due then I basically have to force myself to do it. (Chang)

Deadlines can serve positive functions as without them, many students might never even finish their work. Without the due dates, students lack the urgency and motivation to deliver their assignments. Having a deadline for an assignment can encourage students to start working on their assignment as they need to be completed to achieve a better grade and pass the course.

Similar to Tracy, setting her own deadlines for every work is her strategy to motivate her to start assignments.

I will set a deadline for every work that I do and every assignment that I was supposed to hand out. (Tracy)

Students will always need to find a way to cope with low motivation. The consequence of late submission of assignment after the due date will most probably lead to the need of retaking the whole module in order to graduate. Thus, having a deadline can motivate them in completing demands from the university.

Favourable learning environment. Students have to change their learning environment from school to home. Studying at home is not suitable for every student. However, this pandemic forced students to study in their own home for their own safety purpose.

Ya, basically, like I don't think its good for me to just stay in one location, I thinks it's better if I get to like go out and like sit in different locations. Cause like maybe I will

get like creative ideas from it somehow... (Chang)

Going out somewhere else to study rather than staying at home could be a good strategy to cope with low academic motivation. Different people have different favourable learning environments. Chang prefers to go out to study because it is easier for her to get some creative ideas from outside. Studying at home is too limited for students to brainstorm and get some creative ideas. For example, Jojo would like to go out to cafes or libraries to study.

Going outside like some place to study like a café or library which gives me an environment which is good for my studying. (Jojo)

Favourable learning environment is very important for students as it has an influence on the student's emotions and cognitive abilities, hence affecting the quality of their study session. It is notably one of the good coping strategies for students who struggle with low academic motivation.

Emotional support. Emotional support is important for everyone because not only will it help with academic motivation but also help with every life's stressor.

Family members have always been supportive in many ways and often cheer me up. Whenever I have problems with my studies, I always open up with my family members and they are always supportive and change the way they do things at home so that I could have a better study environment. (Qin)

Emotional support from family members helps Qin a lot. Whenever she has any problems, she would open up to her family and they are always supportive. The way that a family reacts to students really could help them with their academic motivation. Apart from family, support from their friends is also very important.

We kinda talk a lot and we play games....we also video calls a lot. They make me feel a bit safer if that makes sense. First, I always feel like I'm going to fail last semester...but my friends helped me a lot mentally and emotionally. (Lara)

Lara always video calls with her friends to make herself feel safer and better. A supportive friendship is a good way to cope with low academic motivation in this pandemic, it could help mentally and emotionally.

Instrumental support. This refers to getting help or assistance from others. It could be through physical form in order to assist you, such as financial aid, or helping someone do something. According to our participants, they have received a lot of help not only from friends, but also lecturers and family:

Contacted some of my close friends to study together as when I am doing it with a couple of my friends, I'm very motivated to improve myself along with my friends. (Qin)

According to Qin, she prefers to study with a group of friends together as she would be able to motivate herself when doing so. We think this is due to the peer pressure that students get when everybody comes together to do a study session. When seeing your peers studying, one will definitely feel the pressure and also the need to do the same, which is why some find it useful to study together instead of alone. Dio Da, on the other hand, had help from her family:

When I am living with my family and then I don't have to cook my own meals that leads to lesser things for me to worry about. (Dio Da)

Dio Da had help from family members in terms of meal preparations, which decreased the number of things she needed to worry about apart from her academics

during the lockdown. Simple things such as having prepared meals everyday can actually help lose up the tension or worries that a student is facing, especially during times like this.

Discussion

This study aimed to understand the challenges faced by Malaysian undergraduate students and their experiences in coping with low motivation in their academic studies during the COVID-19 pandemic. The research questions have been answered within the current research by collecting challenges and experiences in coping from 24 participants.

The data collected for intrinsic motivation in our study found that they were self-determined to overcome their low academic motivation because of the participant's strong desire to get good results and to obtain improvements. This idea is supported by the Self-Determination Theory (SDT), which has the first assumption that the behaviors are driven by the needs of growth.

The need to gain mastery over the challenges drives the participants to conduct behaviors such as following their schedule strictly to achieve their goals. People are more often motivated by external reinforcement, such as money, praises, and prizes, known as extrinsic motivation. However, SDT's primary focus is on the motivation from internal sources, such as the need to gain improvement or knowledge.

Furthermore, the struggles students face due to the lack of face-to-face interaction in their classes can be explained by the ARCS model developed by John Keller, a systematic way to determine and deal with learning motivation. ARCS abbreviated from Attention, Relevance, Confidence, and Satisfaction attributes (Keller, 2008).

Catching the attention of students is very crucial to gain and sustain the students' engagement in learning.

Comparison to Literature

Struggles

Participants encountered challenges in gaining academic motivation from the analytic results, regardless of intrinsic or extrinsic, primarily due to the learning environment's change. Similar findings were found from a research done by Lovrić et al. (2020), where participants were reported to have diminished motivation, attentional problem, and impaired memory attributable to the COVID-19 crisis, making learning difficult for them.

In line with a study done by Gonzalez et al. (2020), current research reported that participants tend to procrastinate by putting off their work until the very day before the deadline to rush things up during the lockdown.

Apart from this, akin to a study that reported university students showed uncertainty about their assessments due to the internet and difficulty using online platforms (Moawad, 2020), the current study also reported some inherent challenges our participants faced regarding their uncertain future.

In this regard, participants in the present research revealed shifted attention towards the pandemic instead of their academics, which has led to their low academic motivations. They were anxious about the unpredictability of their future event due to the pandemic. Some even stated they breed doubts about their own potential in achieving their goals, mostly due to the fear of being defeated by the uncertainty's pandemic brings.

Surprisingly, none of the participants from this research claimed to be suffering from financial hardship, which is discussed by several past researchers, which was the most significant stressor that contributes to

their depression and anxiety (Aucejo et al., 2020; Islam et al., 2020; Kecojevic et al., 2020).

Coping

Regarding coping strategies for the low academic motivations, a contradiction was found. Kamaludin et al. (2020) showed that Malaysian students tend to use more maladaptive coping strategies than adaptive coping strategies in the COVID-19 pandemic, while current research found adaptive coping strategies as primarily use, which involve the behavior of active coping (i.e., having relaxation activities and seeking emotional support) to deal with low motivation. These adaptive coping strategies assist participants in recharging themselves before continuing to work.

In terms of emotional support, the current study indicates that seeking emotional and instrumental support from family, friends, and even lecturers is most widely used as a strategy for coping. According to participants, family members are good listeners and encouragement providers, whereas friends make them feel secure and entertained when conversing. These findings are consistent with research demonstrating that social support is one of the main coping strategies adopted by university students in Malaysia (Kamaludin et al., 2020).

Our findings have shown several novel and interesting responses from the participants regarding the factors contributing to lower motivation when studying online classes at home. Some students reported having a distraction from family members, such as noise disturbances, an invitation for other activities, and relaxed ambiances at home. These factors are reported as diverting students' concentration, interrupting their sustained attention, making it challenging for them to focus when studying in an uncondusive environment.

Similarly, a few students reported that peer pressure is crucial in motivating the

progression of work. The pressure can encourage individuals to complete their work on time to prevent embarrassment in group settings, thus promoting productivity (Bellemare et al., 2010). Due to the absence of a strong motivational force driven by peers during online learning, individuals with lower self-discipline might have demonstrated procrastination by slowing down their work progress.

From a cultural perspective on this situation, collectivistic culture could be an explanation to support these findings. Asian emphasized family-oriented collectivism, in which group goals, relational harmony, and interdependence are seen as most important (Oh & Lee, 2014). For Asian countries such as Malaysia, children often live with their parents even when they reach adulthood, contrasting Western countries that practice individualistic cultures.

By this account, perhaps cultural differences could be used to explain the lack of supporting information from prior research conducted in western countries, which focused on influences of family and peers on students' motivation.

Conclusion

In conclusion, educational institutions must understand and recognize students' needs and struggles during the pandemic and propose strategies to assist them in this period (see Table 2). Faculty should also recognize the difficulties of undergraduate, graduate, and professional students from low-income backgrounds, expand learning support services and provide other unique needs to reduce students' academic relevant challenges.

Simple things such as requiring students to have their camera on during online class, allowing them to make an effort to prepare for class, engaging in conversation, lecturers asking questions during class, or creating breakout rooms to have group discussions. Universities should also

provide more counsellors to constantly get in touch with the students to understand their needs in the first place.

Psychological intervention programs could focus on the individual's family, usually their parents. Intervention programs should anchor towards communication between family members. Clinicians can help the students be comfortable opening up to their parents about their struggles and advising parents to be good listeners. Furthermore, to allow parents to be more aware of the proper manner in which to speak with their children concerning their struggles surrounding the lockdown.

Both counsellors and psychologists can help guide students to construct their own conducive environment. If changing their location, such as going to the library or cafe, is impossible due to strict regulation, clinicians can suggest ways to make a therapeutic space at home. Helping the students find relaxation activities like playing music or doing sports activities when things get overwhelming, using headphones when the surroundings get too distracting, finding a desk or a table to work at, and avoiding working on the bed.

Recommendations for Future Studies

Four future studies suggestions would further the knowledge of our research based on the limitations of our report. The first suggestion is that future studies should consider cultural differences as they may influence the choice and use of coping strategies due to different cultural values and upbringing.

The second suggestion is to study the difference in coping strategies used by two different samples; those with mental health issues and those who do not have mental health issues. This is because the participant's mental health condition and quality would affect their cognitive abilities to cope.

The third suggestion is that since individuals have varying stress threshold

levels, the Perceived Stress Scale (PSS) can measure participants' perception of stress to gain further insight into the stress levels and coping strategies used.

The final suggestion is to include home school participants to assess the potential

difference in the stress levels and coping strategies used since they already have experience learning at home compared to those who went to traditional school and are now having a harder time adjusting to online learning.

Table 2

Intervention Programme: A Summary

Intervention	Intervention delivery	Description
Expand support services.	Faculty	Provide more counsellors to constantly get in touch with the students. Recognize the difficulties of undergraduate, graduate, and professional students from low-income backgrounds (e.g slow internet).
More interactive activities during classes.	Faculty	Requiring students to have: <ul style="list-style-type: none"> - Cameras on during online class allowing them to make an effort to prepare for class, - Engaging in conversation, lecturers asking questions during class. - Creating breakout rooms to have group discussions
Management of environment.	Psychologist/Therapist/Counsellors	Help guide students to construct their own conducive environment: <ul style="list-style-type: none"> - Helping the students find relaxation activities like playing music or doing sports activities when things get overwhelming. - Using headphones when the surroundings get too distracting. - Finding a desk or a table to work at, and avoiding working on the bed
Communication skills training.	Psychologist/Therapist	Communication between family members, (1) helping students be comfortable opening up to their parents about their struggles. (2) Advising parents to be good listeners and be more aware of the proper manner in which to speak with their children concerning their struggles surrounding the lockdown.

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References

- Abdullah, J. M., Wan Ismail, W., Mohamad, I., Ab Razak, A., Harun, A., Musa, K. I., & Lee, Y. Y. (2020). A critical appraisal of COVID-19 in Malaysia and beyond. *The Malaysian Journal of Medical Sciences: MJMS*, 27(2), 1–9. <https://doi.org/10.21315/mjms2020.27.2.1>
- Abubaker, M., & Bagley, C. (2016). Work–life balance and the needs of female employees in the telecommunications industry in a developing country: A critical realist approach to issues in industrial and organizational social psychology. *Comprehensive Psychology*, 5, 1–12. <https://doi.org/10.1177/216522>
- Al Meajel, T.M., & Sharadgah, T.A. (2018). Barriers to using the blackboard system in teaching and learning: Faculty perceptions. *Technology, Knowledge and Learning*, 23(2), 351–366. 2816648075
- Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Education and Information Technologies*, 1–20. <https://doi.org/10.1007/s10639-020-10219-y>
- Aucejo, E. M., French, J., Araya, M. P. U., & Zafar, B. (2020). The impact of COVID-19 on student experiences and expectations: Evidence from a survey. *Journal of Public Economics*, 104271. <http://doi.org/10.1016/j.jpubeco.2020.104271>
- Baloran, E. T. (2020). Knowledge, attitudes, anxiety, and coping strategies of students during COVID-19 pandemic. *Journal of Loss & Trauma*, 25(8), 635–642. <https://doi.org.ezproxy.taylors.edu.my/10.1080/15325024.2020.1769300>
- Bar-Anan, Y., Wilson, T. D., & Gilbert, D. T. (2009). The feeling of uncertainty intensifies affective reactions. *Emotion*, 9(1), 123–127. <https://doi.org/10.1037/a0014607>
- Bellemare, C., Lepage, P., & Shearer, B. (2010). Peer pressure, incentives, and gender: An experimental analysis of motivation in the workplace. *Labour Economics*, 17(1), 276–283.
- Deci, E. L., & Ryan, R. M. (1985). Conceptualizations of intrinsic motivation and self-determination. In E. L. Deci & R. M. Ryan (Eds.), *Intrinsic motivation and self-determination in human behavior* (pp. 11–40). Springer, Boston, MA.
- DeJonckheere M., Vaughn L.M. (2019). Semistructured interviewing in primary care research: A balance of relationship and rigour. *Family Medicine and Community Health*, 7, e000057. <http://doi.org/10.1136/fmch-2018-000057>
- Dwyer, A. L., & Cummings, A. L. (2007). Stress, self-efficacy, social support, and coping

- strategies in university students. *Canadian Journal of Counselling and Psychotherapy*, 35(3).
- Fullana, M. A., Hidalgo-Mazzei, D., Vieta, E., & Radua, J. (2020). Coping behaviors associated with decreased anxiety and depressive symptoms during the COVID-19 pandemic and lockdown. *Journal of Affective Disorders*, 275, 80–81. <https://doi.org/10.1016/j.jad.2020.06.027>
- Goldman R. D. (2020). Coronavirus disease 2019 in children: Surprising findings in the midst of a global pandemic. *Canadian family physician Medecin de famille canadien*, 66(5), 332–334.
- Gonzalez, T., de la Rubia, M. A., Hincz, K. P., Comas-Lopez, M., Subirats, L., Fort, S., & Sacha, G. M. (2020). Influence of COVID-19 confinement on students' performance in higher education. *PloS one*, 15(10), e0239490. <https://doi.org/10.1371/journal.pone.0239490>
- Hsieh, H. F., Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288. <http://doi.org/10.1177/1049732305276687>
- Islam, M. A., Barna, S. D., Raihan, H., Khan, M. N. A., & Hossain, M. T. (2020). Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: A web-based cross-sectional survey. *PloS one*, 15(8), e0238162. <https://doi.org/10.1371/journal.pone.0238162>
- Kamaludin, K., Chinna, K., Sundarasan, S., Khoshaim, H. B., Nurunnabi, M., Baloch, G. M., Sukayt, A., Hossain, S. F. A. (2020). Coping with COVID-19 and movement control order (MCO): Experiences of university students in Malaysia. *Heliyon*, 6(11), e05339. <https://doi.org/10.1016/j.heliyon.2020.e05339>.
- Kecojevic, A., Basch, C. H., Sullivan, M., & Davi, N. K. (2020). The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study. *PloS one*, 15(9), e0239696. <https://doi.org/10.1371/journal.pone.0239696>
- Keller, J. M. (2008). First principles of motivation to learn and e-learning. *Distance education*, 29(2), 175–185. <https://doi.org/10.1080/01587910802154970>
- Khiat, H. (2013). A Qualitative Study of Coping Strategies in Secondary Level Mathematics Learning: A Psycho-Analytic Perspective. *Turkish Online Journal of Qualitative Inquiry*, 4, 1–18.
- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, 1(3, Spec Issue), 141–169. <https://doi.org/10.1002/per.2410010304>
- Liefoghe, A. P. D., & Olafsson, R. (1999). "Scientists" and "Amateurs": Mapping the bullying domain. *International Journal of Manpower*, 20(1/2), 39–49. <https://doi.org/10.1108/01437729910268623>
- Lovrić, A., Farci, N., Vcev, A. (2020). Studying during the COVID-19 pandemic: A qualitative inductive content analysis of nursing

- students' perceptions and experiences. *Education Sciences*, 10(7), 188. <http://doi.org/10.3390/educsci10070188>.
- Moawad, R. A. (2020). Online Learning during the COVID- 19 Pandemic and Academic Stress in University Students. *Revista Romaneasca Pentru Educatie Multidimensionala*, 12(1Sup2), 100–107. <https://doi.org/10.18662/rrem/12.1sup2/252>
- Oh, J. H., Lee, J. H. (2014). Asian values, ethnic identity, and acculturation among ethnic Asian wives in South Korea. *Int. Migration & Integration* 15, 73–91. <https://doi.org/10.1007/s12134-012-0269-x>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>
- Pietkiewicz, I. & Smith, J.A. (2012). Praktyczny przewodnik interpretacyjnej analizy fenomenologicznej w badaniach jakościowych w psychologii. *Czasopismo Psychologiczne*, 18(2), 361–369.
- Soria, K. M., Chirikov, I., & Jones-White, D. (2020). *The obstacles to remote learning for undergraduate, graduate, and professional students*. SERU Consortium, University of California - Berkeley and University of Minnesota. <https://cshe.berkeley.edu/seru-covid-survey-report>
- Tang, W., Hu, T., Hu, B., Jin, C., Wang, G., Xie, C., Chen, S., & Xu, J. (2020). Prevalence and correlates of PTSD and depressive symptoms one month after the outbreak of the COVID-19 epidemic in a sample of home-quarantined Chinese university students. *Journal of Affective Disorders*, 274, 1–7. <https://doi.org/10.1016/j.jad.2020.05.009>.