

# Effects of remote learning/working on individuals psychological wellbeing in the UAE

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**Objective:** Research about the effects of online learning/working in the UAE is scarce. It is vital to fill in that literature gap as most previous research suggests that there are various consequences to learning and working remotely such as depression, anxiety, loss of motivation, and poor psychological wellbeing.

**Methods:** This research focused on a sample population of 85 aged between 18-27+where 3 were male and 82 were female and all were Arab living in the UAE. The participants filled out an online version of the Ryff's

psychological wellbeing 42 item scale. Additionally, they had to answer 3 short answer questions about anxiety, depression, and motivation.

**Results:** Results revealed that half the sample population had poor psychological wellbeing and many expressed feelings of heightened anxiety, lack of motivation or drive, and feelings of sadness.

**Conclusion:** This research in no way suggests that working and learning remotely should be stopped; rather it needs to be improved for the sake of societies' mental health and wellbeing.

**Key Words:** Remote learning/work; COVID-19; Stress; Psychological wellbeing

## INTRODUCTION

According to the World Health Organization, the COVID-19 pandemic led to a disruption of mental health services by 93% worldwide. The pandemic put the whole world in lockdown and carved a path for a new way of living. Among the factors that were shifted onto this new path are working and learning. To minimize the spread of the virus and continue education/work, institutions opted to use the strategy of emergency online learning and working [1].

Although this strategy was the best for people's physical health, a number of studies suggest that it had the opposite effect on their mental health. Studying or working remotely means that people are now disconnected from each other and connected to their devices. This, for many, was the downfall of their mental health. Although working and learning remotely enables flexibility and being in the comfort of your own home, it also promotes isolation. Rush found that 68% of students studying online felt isolated and lacked connection or interaction. Hence, it is important to understand the influences and effects working/learning remotely have on an individual's psychological wellbeing. In doing so, institutions will have a better understanding and approach to designing a better online program that aids rather than damages people's mental health. This is vital as finding mental health support is difficult during this pandemic [2].

Accordingly, this research aims to understand how remote learning/working affects people within three aspects: anxiety, depression, and motivation. In order to do so, previous literature pre-pandemic and during will be critically discussed, while also comparing them based on the theme; learning and working. Additionally, it is important to note that research on this matter is scarce in the Middle East. As the first such study in the UAE, to our knowledge, this research aims to be a base for future research on psychological wellbeing and remote working/learning.

### Pre-pandemic

**Online learning:** As controversial as the idea of remote learning was, now it has become the new form of education. The structure of learning may differ between institutions but their effects are nonetheless the same. To

investigate the effects remote learning has on students, Owens, Hard castle, and Richardson used online interviews as their approach. Owens focused on studying the experience of students partaking in distance learning in a remote location in Australia. Additionally, the sample population comprised of university students both undergraduate and postgraduate. The overall sample size involved 49 students who were interviewed individually with the main subject revolving around their experience with online learning [3].

Owens concludes that online learning elicits common themes including feelings of isolation and lack of intimacy. Hence, humans being social creatures, such issues can lead to the deterioration of one's psychological wellbeing. An important note to include is the fact that online learning is a fairly new learning strategy, mainly implemented in 2020 during the pandemic. Thus, previous research is scarce but vital as it acts as a neutral point for comparison (before the pandemic) [3].

**Working remotely:** Working remotely was used and implemented within organizations long before COVID-19. Hence, it is important to understand the effects of working remotely in neutral conditions for comparison, pre-pandemic. Kelliher and Anderson, focused on remote working early on before it became common and studied its influence on employee job satisfaction. The hypothesis was tested through semi-structured interviews with 19 employees and used NVivo software for content analysis. Additionally, an online questionnaire was shared to help understand a wide range of themes including work-life balance and stress [4].

Responses suggest that the majority work longer hours with remote working and regularly go 5 hours above their weekly contractual hours. Regarding stress, it was discussed that participants felt that working in their home environment makes them associate that area with stress. Hence, it feels harder to escape from it. While by working in an office, you get away from all the stress by leaving [4].

Similarly, Koehne, Shih, and Olson also focused on remote working pre-pandemic by assessing its effect on team work through semi-structured interviews. The results conclude that working remotely had no human connection and made it hard for employees to establish social support, hence feeling isolated. Overall, regardless of remote working being a flexible option, it undoubtedly leads to social isolation and effects employee's psychological wellbeing [5].

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Comparably, discussed several themes regarding remote working; work-life balance, job effectiveness, and well-being. A qualitative thematic analysis of in-depth interviews was used within the study much like focused on participants from the UK and reported that they expressed feeling overworked and had no time to recuperate. However, Grant also suggests that results cannot be generalized due to the exploratory nature of the study and hence be used as a base for future research. All in all, regardless of the different strategies used to explore this issue, all results suggest that remote working effects employees' psychological wellbeing [5,6].

### During pandemic

**Remote learning:** Remote learning has become an ideal form of education during the COVID-19 pandemic. Thus, both Asanov and Raheim focused on its effects on students during the pandemic. Respectively, Asanov targeted high-school students and Raheim focused on university students. Together, both results can give a better understanding of remote learning within different age groups. Raheim, had a sample population of 80 university students from Jakarta. By partaking in this research, those students had to complete reflective essays and keep a diary for a deeper understanding of their experience. Additionally, they had to attend online focus group discussions. Results show that although some students were happy with the flexibility of online learning, they faced difficulties with deadlines and felt as though it was never ending. Furthermore, some also expressed that their home environment was very distracting due to the presence of family members and background noise [6,7].

Similarly, Asanov conducted phone surveys with 1,500 participants aged between 14-18 in Ecuador. Results proved that 16% of those students showed symptoms of depression. However, this study is also susceptible to errors as the survey was described as 'rapid response' and hence students might have made mistakes when answering questions. Furthermore, there also may have been confounding variables as people at the time were already stressed and anxious about the pandemic and therefore might be an influence to the flux of possible depression in students. Nonetheless, it is vital to understand students experiences and how remote learning can affect their psychological wellbeing [6].

To add, Chattaraj focused on emergency remote learning that was implemented during the COVID-19 pandemic and how the sudden shift affected students in India. The population sample comprised of university students both undergraduate and postgraduate. Chattaraj interviewed only 12 participants making it harder to generalize results and thus a limitation. Nonetheless, the results are still valuable. However, compared to other research. Chattaraj did focus on more specific aspects of online learning including "perception of learning and learning space", "lack of intimacy in learning and learning space". To conclude, a common theme was a sense of isolation and lack of intimacy with online learning [8].

### Working remotely

To our knowledge, research revolving around working remotely during the pandemic is limited. However, Prasad included a valuable contribution to research. Prasad concentrated on employees' psychological wellbeing during the pandemic with a specific focus on; self-acceptance, personal growth, purpose in life, environmental mastery, autonomy and positive relations with others. This was studied by spreading a survey throughout the lockdown period. It was concluded that isolation, difficulties communicating, working too much, and burn-out were common issues. However, the stress of the pandemic and lockdown itself may have influenced results and hence cannot conclude that such results are merely due to working remotely [9].

### Present study

The present study aims to understand how remote learning and working can affect ones' wellbeing by combining ideas from previous research. This will be achieved by administering a psychological wellbeing survey along with open ended questions focused on depression, anxiety, and motivation. In doing so, it would aid and give a deeper understanding of issues faced

with remote learning/working. It is predicted based on previous research, that results will conclude dissatisfaction and negative effects on psychological wellbeing on participants. With this understanding, further research can be conducted to find ways to better the modern way of learning and working with minimal negative effects. Additionally, it is important to note that to our knowledge, there is no present research in the Middle East or the UAE regarding this Matter. Hence, highlighting the importance of this research. Overall, this research will aim to fill in the literature gap and create a base for future research in the UAE.

## MATERIALS AND METHODS

### Research question and hypothesis

What are the effects of remote learning/working on individual's psychological wellbeing in the UAE?

**Hypothesis:** Online working/learning leads to negative effects on people's psychological wellbeing.

### Participants

Data was collected from a total of 85 participants of which 3 were male and 82 were female. On average, the majority of the participants were aged between 18-22(74.1%), while the remaining were between 23-27(16.5%) and 27+(2.4%). Additionally, 70% of the participants were university students and 13% were working employees. However, 17% of the participants listed their occupation as "Other".

Participants were recruited through the use of social media platforms such as WhatsApp, Instagram, and Snapchat. The link was shared throughout these platforms and contact information was attached in case the participant had any questions or wished to delete their data. It is also important to note that most students and employees recruited were part of the Zayed University community.

### Study design

This research will use a mixed approach of both quantitative and qualitative data through the use of a wellbeing questionnaire and 3 open ended questions. Working and studying remotely will be considered as the independent variable while the wellbeing scores are the dependent. The survey comprises of 42 multiple choice questions followed by 3 open ended questions. The 42 questions target 6 different themes: autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance. Henceforth, the total scores and scores within the themes will be compared between each participant and will be supported by their opened ended questions response.

### Measure

The measure used in this research was Ryff's Psychological Well-Being Scale (PWB) 42 Item version. The PWB measures six aspects of wellbeing and happiness: autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self- acceptance. According to a validation study of the PWB, Oprea, Buijzen and Van conclude that it is a reliable measure through testing for internal consistency, test-retest reliability, and construct validity. Hence, it is reliable to use in this research [10].

### Procedure

The survey will be spread across social media platforms such as Instagram, Snapchat, Twitter, and WhatsApp. Participants will have to sign the consent form and complete the survey online.

### Ethical clearance

All researchers partaking in this research have completed CITI training. Additionally, this research has been approved by the Research Ethics Committee in Zayed University.

## Data analysis

The data was analyzed by using the scoring key. Negative phrases were recoded; if the score was 6 it would have to be adjusted to 1. Additionally, data will be analyzed within the 6 dimensions of the scale. The software SPSS was used to aid in the process of categorizing, analyzing, and storing data. Data analysis such as correlations between total scores will be conducted and then supported by responses in the open-ended questions. Additionally, oneway-ANOVA was also used to compare between the different occupations and show any statistical significance.

## RESULTS

### Ryff's psychological wellbeing results

The data collected from participants was used to compute variables with the statistical and sum function to find the total scores. The participant's scores ranged between 94-190. The average score was  $M=149$  with a  $SD=19$  meaning that the values are mostly spread out from the mean. The maximum a person can achieve as a score is 210, hence with  $M=149$  the scores were fairly average but close to low.

A correlation analysis between total scores and age, occupation, and gender was also conducted. Results showed no significant correlation between any of the demographic factors and the total scores. However, it does highlight that there was a positive correlation between age and occupation but that is not significant or related to the hypothesis.

The Ryff's psychological wellbeing 42-item scale includes 6 dimensions that play a role in an individual's wellbeing; autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance. All 6 dimensions had a mean score between 22-27 and all had a low standard deviation meaning the data was clustered towards the mean. The total a person can score in one dimension is 35 and results suggested that some participants achieved a full score in 3 dimensions; personal growth, purpose in life, and positive relations. Additionally, some dimensions had participants with very low scores; self-acceptance, autonomy, and positive relations.

To further understand the relationship between the 6 dimensions, a correlation analysis was conducted between their total scores. In Table 1, it is apparent that the dimensions are significantly positively correlated. The only dimensions that were not correlated were autonomy and environmental mastery. Furthermore, the highest correlation was between purpose in life and personal growth  $r(83)=0.721$ ,  $p<0.01$ . Other high correlations included self-acceptance and personal growth  $r(83)=0.637$ ,  $p<0.01$  and self-acceptance and positive relations  $r(83)=0.644$ ,  $p<0.01$ .

**TABLE 1**

**Correlation analysis between 6 dimensions of Ryff psychological wellbeing scale**

Variables	M (SD)	Total autonomy	Total EM	Total PG	Total P	Total PL	Total SA
Total autonomy	23.58 (3.45)	-	0.176	0.410**	0.389**	0.439**	0.493**
Total EM	22.86 (3.06)	-	-	0.401**	0.506**	0.396**	0.571**
Total PG	27.82 (4.00)	-	-	-	0.569**	0.721**	0.637**
Total PR	25.79 (4.51)	-	-	-	-	0.497**	0.644**
Total PL	25.15 (4.52)	-	-	-	-	-	0.622**
Total SA	24.36 (4.99)	-	-	-	-	-	-

Total EM: Environmental Mastery; Total PG: Personal Growth; Total PR: Positive Relations; Total P: Purpose in life; Total SA: Self-Acceptance; \*\*  $p<0.01$ .

In order to understand whether an individuals' occupation affects their psychological wellbeing, a one-way-ANOVA was conducted. The occupations included were student, employee, and other (some participants did not wish to include such details for privacy reasons). In total, there were 60 participants who identified as students, 11 who identified as employees, and 14 who did not provide information.

The ANOVA analysis suggested that there was not a statistical significance or relationship between the participant's occupation and total score. Additionally, in the post hoc test, Tamhane's T2 was used as there is no equal variance. Even through multiple comparisons it is evident that an individual's occupation does not correlate with their psychological wellbeing score. The data suggested that on average, students had lower total scores than employees. Additionally, it is also clear that employees' results were more clustered together  $SD=16.6$  compared to students meaning that the majority of employees scored higher.

### Open ended questions result

**Motivation:** The question asked was "How did remote learning or working effect your motivation?" A common theme within the responses is that the participants' motivation decreased and online learning/working made it hard to concentrate on given tasks. Additionally, some participants started that having a routine in the morning and getting up to go to university or work helped start off their day on a positive note. However, online learning/working took away that routine and the made it hard to stay motivated to complete their work or task.

"At the beginning of the pandemic, my motivation wasn't very much effected. However, when they announced that remote learning will have to continue for the rest of the year, it has significantly demotivated me and has even affected my grades to worse."

Statements such as the previous quote from a participant were a common response. Many stated that when remote working/learning was first introduced it either instantly affected their motivation or gradually. Some of the reasons behind such statements is the fact that both students and employees are used to being in a physical working environment rather than a virtual one. Additionally, their homes were seen as a safe space to escape from work/university. However, with remote learning/working, that safe space is now compromised and has become a space of work and stress.

"I happened to change jobs at the start of COVID and the new company had just started working from home everything took double effort, time and motivation. I found it difficult to connect and build relationships with my new team and manager, and I found myself lacking the drive to build any relationships because of being in my comfort zone at home."

"It created a barrier in which I tend to ignore my responsibilities because they aren't right in front of me."

"I never feel motivated enough to sit in front of my laptop for hours and listen, I miss engaging in face to face discussions. I have ADHD, and it's hard for me to keep my focus on one thing for very long so it's been very stressful."

"It significantly affected my motivation I never have the energy to actually put effort in my classes."

The previous quotes from participants raise a lot of concern as to how much remote working/learning affected their motivation. However, on another note, some of the more positive responses include a reoccurring theme of self-discipline. Some stated that although it is a struggle to stay motivated and complete tasks, it pushed them to become more organized and disciplined in completing their work. Additionally, the state of online working/learning allowed participants to reevaluate themselves and create a new way of working.

## Anxiety

This question was targeted towards understanding whether online working/ learning increased or decreased participants anxiety and how. The responses collected were both a mix of positives and negatives towards online learning/working. However, it still raises a lot of concern.

A common theme among the responses is that both students and employees experienced an increase in workload and hence, increase in stress. Due to the nature of online working/learning, there was no way to escape the stress and anxiety as it followed them through all their devices.

"Increase, before when I get back from the university I leave all my stress there, I don't get back to home unless I'm done with all my work. But now both my home and education environment are mixed and my studies and assignments and any due dates are constantly in my head the second I wake up till I go back to sleep, this has increased my stress"

"Increased, I'm more pressured to do a lot of work per day, just because I am studying online and my professors may think that I'm free at all times."

"Increase, by working from home, there were no working hours. I found myself working and managing clients till late night because of the notion that everyone is free at all times, everyone is at home and has nothing to do so why not work."

"Yes, it increased my anxiety because I am a very social person and a visual learner, not being able to physically and interact with them makes it really hard to study."

On the other hand, there have been several positive responses regarding online working/learning. Most revolve around the notion of not worrying about getting to a certain place on time or not needing to socialize as much.

"Remote learning decreased my anxiety. I don't worry as much about public speaking and presentation, choosing members for group work, being on time. I gained new skills that improved my ability to plan all my assignments and coming exam, which reduced the constant anxiety I had each week to make sure I submit before the due date."

"It decreased my anxiety levels. I didn't have the stress of time management and getting to places in time, and I didn't get stressed from driving and being on the road. I even had more time to exercise."

"It decreased, I have been suffering from exam anxiety for a while and with remote learning it been less stress for me because I don't have to socialize much and I don't have to fear speaking up when no one can see me and I prefer it this way."

## Depression

This question asked whether remote working/learning increased or decreased feeling depressed or sad. Much like anxiety, it was both a mix of positive and negative responses. However, it is important to note that the majority of participants offered no explanation behind their response. Those who did expressed feelings of isolation and inability to communicate efficiently. On the other hand, other participants saw it in a more positive note and preferred not to socialize in person and expressed that being behind a screen gave them the strength to be expressive with their colleagues.

"Increased, i actually did end up being depressed and had to see a therapist."

"Sometimes I feel sad because I see people around me having fun and going out but I'm not able to because of remote learning."

"Neutral I would say. If I'm depressed or sad it's usually not about work. But I feel I have less time to myself as working from home there is no clear start or end to the day."

"Increased, i feel like during exams I don't want to hang out or speak to anyone, i would always sit in my room for weeks feeling sad."

"It honestly decreased it as I feel I have more time to myself to do things I enjoy doing." "It decreased feeling of depression; I was more depressed going to campus."

All in all, remote learning/working significantly affected participants psychological wellbeing. It raises a lot of concern regardless of receiving some positive responses especially since people feel overworked and have no motivation.

## DISCUSSION

Before discussing results, it is important to note that this study has no control variable. Online working/learning had already been implemented for almost a year in the UAE and hence its effects were present before the research was conducted and thus poses as a limitation. Additionally, the participants psychological wellbeing might have been affected by a confounding variable; COVID-19 pandemic. Overall, both act as a limitation to this study.

According to the results of Ryff's psychological wellbeing scale, the participants scores were average but more towards the low side. Additionally, the standard deviation of the scores was high thus meaning that the majority of the scores were more spread out from the mean. A total of 40 participants had total scores below the mean indicating that almost half the participants had low scores; poor psychological wellbeing. Therefore, meaning that online learning/working significantly influenced their psychological wellbeing in a negative way.

The Ryff's psychological wellbeing scale also specifically tests 6 dimensions that predict people's psychological wellbeing. Based on the participant's results, scores in the self- acceptance, autonomy, and positive relations dimensions were low. Meaning that these are the dimensions that were mostly affected by online working/learning. This is supported by various statements in the short answer responses where there is a common theme of disconnection which relates to the low scores in the positive relations dimension. Additionally, most participants expressed that they have no control over their workload and working hours which proves that they have no autonomy when it comes to working/learning remotely. According to Wheatley "autonomy over work manner increases leisure and life satisfaction, but only among women. Informal schedule control has positive impacts on job (men and women) and life (men only) satisfaction." This proves the influence autonomy has on employee's psychological wellbeing [11].

The ANOVA analysis conducted suggests that there was no statistical significance or correlation between an individual's occupation and total score. Thus, suggesting that both students and employee's psychological wellbeing were both effected in a similar manner but with different causes. Most employees related their lack of motivation and anxiety to work/life balance and long working hours. While students related it to their work environment and inability to concentrate during online lectures. An important distinction between them is the fact that students scored lower than employees. Additionally, in the short answer responses, the students expressed lack of motivation and increase in anxiety and depression more than the employees. Similarly, Wang, aimed to understand relationship between remote learning during the COVID-19 pandemic and students psychological wellbeing revealed that "mental load and mental effort were positively related to academic burnout, which was significantly negatively associated with student engagement in online learning." However, it is important to note that the majority of the results were collected from students. Hence, the employee's results are a limitation in this research as they were a minor part of the sample population [12].

As for the effects online learning/working had on individuals' motivation, anxiety, and depression, it is clear that the consequences of being remote were negative. There were a lot of concerning responses where participants expressed feeling extremely anxious and depressed because of being remote. Additionally, working or studying remotely created feelings of disconnection as the participants were always facing their computers. To add, with the conditions of the COVID-19 pandemic, the participants were unable to escape their stress in their typical way. Usually, by coming back home they are away from their working/stressful environment. However, with the pandemic, they are now forced to bring in that working/stressful environment in their homes and have no means of relief or escape outside their homes in fear of the virus.

It is vital to understand the influence online learning/working has on individual's psychological wellbeing. The COVID-19 pandemic led to a sudden shift where working and learning is all done online. As humans are social beings, it is undoubtable that such a change will affect their psychological wellbeing. This matter not only affects the UAE, but the whole world as we are now living in a digital age where it is possibility that working and learning remotely could be permanent. Hence, finding a way to proceed with this shift in a manner that minimally effects people's psychological wellbeing is vital.

## CONCLUSION

This research revealed that as a result of being remote, participants scored low on the Ryff's psychological wellbeing scale and expressed feelings of sadness, anxiety, and loss of motivation. With such effects, how are these individuals expected to work and study efficiently or have any passion? Thus, new strategies of working and studying remotely need to be explored, implemented, and studied. This research in no way suggests that working and learning remotely should be stopped; rather it needs to be improved for the sake of societies' mental health and wellbeing. Additionally, this research is not without its limitations. There is a large discrepancy between the sample populations; most were students hence it doesn't effectively represent employees but gives us an idea for future research. To add, the gender representation in this research was also unequal; there were much more females than males. That was due to the limitation of contacting and approaching participants during the pandemic. Nonetheless, this research still provides important information about the psychological wellbeing of students and employees. This research aims to be a base for future research in the UAE and start a movement to improve the state of remote learning and working.

## FUNDING

The authors have no funding to disclose.

## COMPLIANCE WITH ETHICAL STANDARDS

All procedures performed in this study which involved human participants were in accordance with the ethical standards of the Zayed University-Dubai Institutional Review Board and with the 1964 Helsinki Declaration and its later amendments.

## CONFLICTS OF INTEREST

The authors declare that they have no conflict of interest.

## INFORMED CONSENT

Informed consent was obtained from all individual adult participants in this study.

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