

Work Arrangements, Work-related Stress, and Worker Mental Health of Public Sector Employees in the Time of COVID-19

Endee Kristel A. Lim
University of the Philippines

Abstract

With the advent of flexible work environments and the COVID-19 pandemic, this study looked into the stress and mental health of civil service workers by considering the impact of shifts in work arrangement as well as the overall effect of the health crisis. Through both quantitative and qualitative methods, results showed that work-related stress and worker mental health did not significantly vary in terms of work arrangement. Analysis of responses from the Focus Group Discussion, however, suggested differences in the kind of stress experienced by each group. Meanwhile, the impact of the COVID-19 pandemic was consistently significant across all demographic categories such as sex, age group, marital status, job role, designation, and length of service, and on both work arrangement types. Hence, support mechanisms, especially at this time, should be a priority. This paper recommends policy and program reforms at the national and organizational level, which include developing financial and health assistance programs and implementing compassionate work-related policies.

Keywords: COVID-19, Mental health, Public sector employees, Flexible work environment

Endee Kristel A. Lim earned her Master of Industrial Relations degree from the University of the Philippines School of Labor and Industrial Relations. She is a registered psychometrician and is currently teaching at the UPD Department of Psychology as a Senior Lecturer. Email: ealim@up.edu.ph..

Introduction

With the future of work right at our doorstep, examining the potential positive and negative impacts of a flexible work arrangement can yield significant results. Studies prior to the coronavirus pandemic have looked into factors affecting work arrangement and its implications on worker preferences and job satisfaction, among others. This paper aims to add to the pool of literature by exploring the possible effect of COVID-19 on work-related stress and worker mental health considering drastic but necessary changes in work arrangement.

To ensure the continuity of their operations, organizations must find ways to enable work-from-home setups due to the implementation of travel restrictions. While the work-from-home option may not be unfamiliar to private companies, especially given the recent passage of the Telecommuting Act in the Philippines, it is notably new to the public sector. There are limited resources that explore work in the government and this research also seeks to address that gap by focusing on the potential effect of the pandemic on the relationship between work arrangement, work-related stress, and mental health for civil service workers.

This study makes the following hypotheses:

1. Work-related stress and worker mental health vary by demographic characteristics.
2. COVID-19 significantly increases work-related stress and mental health impairment across demographic categories.
 - a. The magnitude of the adverse effect of COVID-19 on work-related stress and worker mental health varies by demographic characteristics.
3. Mental health impairment is greater for people with higher levels of stress than those with lower levels of stress.
 - a. The magnitude of the adverse effect of COVID-19 is greater for those with high stress than those with low stress.

4. Workers who have mixed work arrangements have lower work-related stress and better mental health than workers who work from home.
 - a. The magnitude of the adverse effect of COVID-19 on stress and mental health is less for workers with mixed arrangement than those who work from home.

Another objective of the paper is to raise awareness regarding the importance of workers' mental health. Since the study has the potential to help public (and even private) institutions assess the best work arrangement for their workers in terms of cognitive well-being, the researcher hopes that the findings of the study will encourage the government and employers, in general, to pay attention to the mental health of their workers and to provide psychological support especially in the time of the COVID-19 pandemic.

Review of Related Literature

The coronavirus pandemic caught the Philippines and most of the world off guard. COVID-19 brought even more rapid transformations to the lives of both employers and employees at a time when the changing world of work was already underway. Flexible work arrangements were implemented to ensure the continuity of operations while safeguarding the health of workers. While these alternative work arrangements were familiar even before the pandemic, the drastic imposition of this set up to on-site workers could have negative implications instead of advantages especially in terms of their stress level and mental health. This review of literature will give a brief background on the concepts of work from home, work/job stress and mental health.

Flexible work arrangements may refer to several alternative work set ups including customized working hours and schedules. This study will focus on remote working or work-from-home arrangements, which Venkatesh and Vitalari (1992) very simply described as "any employment related work performed at home". The International Labour Organization (ILO, 2020) defined it as a "working arrangement in which a worker fulfills the essential responsibilities of his/her job while remaining at home, using information and communications

technology (ICT)” (p.5). Flexibility, autonomy, absence of interruptions, decreased commuting, and increased productivity are identified as the key reasons for the motivation of people to work at home (Kraut, 1989). In a study conducted by Mas and Pallais (2017), they found that job applicants are prepared to take an 8% pay cut just to have the choice to work from home. Despite seeming to be favored and favorable, the work- from-home arrangement also has its flaws.

Not all jobs can be done from home. For those who can work remotely, having adequate equipment and infrastructure such as internet connection and computers is vital. The sudden onset of COVID-19 and the quarantine protocols that followed made it difficult for employers and employees to prepare for work-from-home arrangements. Workers who did not have access to the internet, or did not possess computers, struggled to find ways to be able to work. Both the ILO (2020) and Venkatesh and Vitalari (1992) mentioned how employers ought to be mindful of providing proper and suitable structures for employees working from home. However, once resources are available, the issue then becomes that of working longer hours. In their study, Venkatesh and Vitalari (1992) found that on average, computer owners have approximately doubled supplemental work hours than non-owners. Similarly, Bathini and Kandathil (2015) found that employees who worked from home were compelled to work during odd hours and longer than they usually would if they were at the office. They suggested that presenting the work-from-home option as an employee benefit helps employers convince their workers to accept intensified work in exchange. Bathini and Kandathil further argued that the discussions on work-from-home set ups have been framing it as an employee benefit to the point that discourses have disregarded its costs to employees. At times when expenses are even mentioned, it refers not to employee costs but to the costs that employers must bear to enable remote working. Some of the burdens borne by workers include “employee unfriendly” practices such as unpaid overtime and rotating or twilight shifts (Fleetwood, 2007), work intensification (Kelliher & Anderson, 2010), blurring of lines between professional and private life (Messenger et al., 2017), social and professional isolation or team fragmentation (Kurland & Bailey, 1999), and work-related stress (Dockery & Bawa, 2014).

The World Health Organization (WHO), in its 2000 joint publication with the ILO, defined job stress as “the harmful physical and emotional response that occurs when the requirements of the job does not match the capabilities, resources or needs of the worker” (Harnois & Gabriel, 2000, p.6). Similarly, Goetsch (2011) described stress as the reaction of the human body to social, occupational, environmental, and psychological factors perceived as threats. The amount of stress that is felt, meanwhile, is dependent on one’s ability to handle the perceived threat. Subbulaxmi (2002) identified several sources of stress such as work overload, irregular work hours, loss of sleep, inability to socialize, and even just having a boring job. Work-related stress can also be a result of feeling the lack of personal control, the lack of psychological support from managers and co-workers, job security, home and family problems, and experiencing conflict in combining workplace and family roles (Goetsch, 2011; Harma, 2006; Levi, 1984). Given the many sources of job stress, addressing this issue is something employers should be concerned about because it has been found to have a negative impact on job performance (Ismail et al., 2015), on work productivity (Petreanu et al., 2013), and on attendance and health risk behaviors (Subbulaxmi, 2002). Loss of productivity and absenteeism could cost employees their jobs, leading to higher turnover rates and greater employer costs.

Work-related or occupational stress can also create long-term health effects (Harma, 2006). Health, as defined by the WHO in its Constitution, refers to the “state of complete physical, mental and social well-being”. Specifically, this study looks into mental health in the workplace as it is an often-overlooked factor which can lead to “burnout amongst employees, seriously affecting their ability to contribute meaningfully in both their personal and professional lives” (Rajgopal, 2010). While the clamor for mental health awareness has been getting louder, the need for employers to treat psychological issues as legitimate workplace concerns still exists (WHO, 2002). Because of the gap in addressing mental health problems at work, those who suffer from it are often unable to seek help, leading to debilitating conditions which affect their performance (Maulik, 2017). Reducing productivity loss due to illness can help organizations boost profits (Rost et al., 2014); hence, taking care of the employees’ well-being is a win for both parties.

Data and Methods

Independent and Dependent Variables

Work arrangement, as the independent variable of this study, was divided into two categories. Office work pre-COVID was the common baseline for respondents; they were then segregated into those who had mixed work arrangements (physical reporting and work- from-home regardless of the number of days per arrangement) and those who have been completely working from home after the pandemic struck.

The indicator of work-related stress was the intensity of distress felt by the respondents to each statement in the questionnaire. They could either disagree with the statements or agree and specify to what extent they feel distressed by it.

Meanwhile, the measure for worker mental health was the frequency by which the respondents experienced the primary and secondary symptoms of burnout. Primary symptoms are composed of questions relating to exhaustion, mental distance, cognitive impairment, and emotional impairment. These explore the motivational and energetic dimensions of burnout, as well as the effect of the lack of energy to the capacity of regulating cognitive and emotional processes. On the other hand, secondary symptoms include psychological and psychosomatic complaints.

Research Instruments

Work arrangement was identified using a demographic profile questionnaire which asked the respondents to choose whether they did office work before the pandemic and worked from home during the pandemic, or if they did office work pre-COVID-19 and shifted to a mixed work arrangement during the pandemic. Part of the profile questionnaire were questions regarding sex, age, marital status, employment status, designation, job role, length of service, and level of educational attainment.

As a measure of work-related stress, a shortened version of the questionnaire constructed by Smith et al. (2000) was used. Eight (8) negative statements were presented, with a 5-point response scale ranging from *Do Not Agree* to *Agree and distressed strongly by it*.

The work-related version of the Burnout Assessment Tool (BAT) crafted by Schaufeli, De Witte and Desart (2019) was administered to assess the mental health status of the respondents. The questionnaire was divided into two categories: Primary/Core symptoms (23 items) and Secondary symptoms (10 items). The Primary/Core symptoms category included questions measuring exhaustion (8 items), mental distance (5 items), cognitive impairment (5 items), and emotional impairment (5 items). The Secondary symptoms category consisted of statements regarding psychological (5 items) and psychosomatic (5 items) complaints. Possible answers were plotted on a 5-point scale which ranged from *Never* to *Always*.

To test for the effect of the coronavirus pandemic, the answer choices for the work-related stress and the worker mental health questionnaires were divided into two side-by-side tables: one for pre-COVID-19 responses, and another for during COVID-19 responses.

A few weeks after the survey was administered, a three-hour long focus group discussion (FGD) was conducted online via Zoom, a video and audio communications and conferencing platform, to gather qualitative insight into the result of the questionnaire responses.

Sampling Design

Employees from the University of the Philippines (UP) Diliman, a state university, were selected to participate in the study due to the increased diversity of their employment categories which, on top of their administrative workforce, include faculty or teaching personnel, and research staff.

A combination of convenience and snowball sampling methods was utilized in the study. The survey, which was administered via Google Forms, was sent to the email addresses of the initial set of participants selected by the researcher. The respondents were also asked to

forward the link to their friends and co-workers in UP Diliman. The target sample size was 60, with at least 30 respondents for each type of work arrangement.

A qualitative assessment was likewise used to enhance the quantitative data provided by the survey. The researcher facilitated an FGD where five UP Diliman employees were invited as participants. They were selected to represent various demographic categories – mixed work arrangement/work from home, male/female, ever married/single, and length of service less than five years/above five years. Though they were all administrative personnel of UP Diliman, two of the participants had previous experience as teachers. All of them were rank and file employees but at least two of the participants had a history of performing supervisory or managerial functions.

Results and Discussion

Descriptive Profile of the Study Sample

A total of 71 respondents participated in the survey, with 41 of them under mixed work arrangement and 30 working from home. Among the demographic variables, Job Role and Designation had the widest disparity in distribution; other characteristics such as Sex and Age Group had close to equal percent distribution. The breakdown is illustrated in Table 1:

Table 1. Distribution per demographic category

Characteristic	Percent Distribution (Mean) N=71	Characteristic	Percent Distribution (Mean) N=71
Sex		Length of Service	
Male	51.0	0 to 5 years	49.3
Female	49.0	Above 5 years	50.7
Total	100	Total	100

Age Group		Mean Length of Service	9.6
23 to 35	46.5	Designation	
36 to 62	53.5	Manager/Supervisor	25.3
Total	100	Rank-and-File	74.6
Mean Age	38.0	Total	100
Marital Status		Job Role	
Single	52.1	Administrative/ Technical/Healthcare	85.9
Currently/Ever Married	47.9	Teaching/Research	14.1
Total	100	Total	100
Work Arrangement			
Mixed	57.8		
Work From Home	42.2		
Total	100		

Independent and Dependent Variables

Hypothesis 1: Work-related stress and worker mental health vary by demographic characteristics.

The mean stress and mental health index by demographic characteristics are shown in Table 2 and Table 3. Table 2 details results according to socioeconomic characteristics.

Table 2. Socioeconomic characteristics

Control variable	Stress index		Total Mental Health Impairment index	
	Pre-COVID	COVID	Pre-COVID	COVID
All workers	1.38	2.04	2.33	2.74
Sex				
Male	1.54	1.95	2.36	2.61
Female	1.28	2.1	2.31	2.8
Difference	-0.25	+0.15	-0.05	+0.19

p-value	0.171	0.422	0.717	0.323
Marital Status				
Single	1.27	1.81	2.43	2.76
Currently/Ever Married	1.5	2.18	2.22	2.67
Difference	+0.23	+0.37	-0.256	-0.09
p-value	0.204	0.152	0.120	0.644
Age group				
23-35	1.6	2.03	2.53	2.94
36-62	1.41	2.05	2.16	2.53
Difference	-0.05	+0.026	-0.37***	-0.41**
p-value	0.784	0.889	.006	.037

***significant at .01 level; ** significant at .05 level

Sex

Stress and mental health impairment scores between males and females were not statistically different. However, an observation of the direction of the differences shows that after the pandemic struck, there was a larger increase in the stress and mental health impairment of women compared to the higher scores of men pre-pandemic. Personality trait distinctions may play a factor in this result. The idea that women are more likely to worry and to be more thoughtful of others, as well as the notion that they are more likely to be more expressive than men, were expressed in the FGD as follows:

“Siguro mas na-paranoid ang mga babae kasi ‘di lang sarili nila iniisip nila. Anak nila, magulang nila... samantalang tingin ko ah, sa akin sa lalaki, siguro masyado akong selfish. Iniisip ko lang sarili ko.”

(Maybe women are more paranoid because they do not think only of themselves. They also think about their children, their parents... on the other hand, I think, I’m too selfish. I think only about myself)

[Single male participant ID1]

“Yong sa babae kasi sila ‘yong mas maingay. Maingay na sinasabi pa talaga nasi-stress sila... kasi siyempre iisipin mo ‘yong mga anak mo, ‘yong mga magulang mo. ‘Yong mga babae kasi ‘yong madalas nagsasabi. Madalas ah, ‘di ko sinasabing ‘di rin ‘yon iniisip... iniisip din ‘yon ng mga lalaki pero ‘di nila sinasabi. Parang sinasarili na lang nila... iniisip nila ‘yong problema tapos iniisip na nila ‘yong pwedeng gawin.”

(Women are more vocal. They verbalize when they are stressed... because of course, you think about your children, your parents. Women often speak out. I’m not saying men don’t think about it, they do but they don’t say it. They keep it to themselves... they think about the problem and then they think of possible solutions.)
[Married female Participant ID5]

Marital status

There is an inversely proportional result between stress and mental health impairment in terms of marital status. Higher stress was registered for married participants yet lower mental health impairment was observed. An individual analysis of the test items shows that mental health for those who are single is significantly poorer pre-COVID because they have greater cognitive problems. They had trouble focusing or staying focused, they had their mind on other things, and they tended to worry. Explanations behind these differences which were drawn from the FGD conducted include the following: 1) that married people are more stressed because they have to think of others, 2) that married people have better mental health because they have support systems in the form of their spouses, and 3) that married people have clearer focus because they have their priorities sorted out better.

“Tingin ko ‘yong stress tumaas dahil hindi lang sarili nila iniisip nila. ‘Yong family nila, ‘yong anak nila. Pero bakit mas mataas yung mental health nila? Kasi ‘yong emotional support nandiyan... siyempre ‘yong mga single usually sinasarili lang nila. May emotional support man, hindi masyadong intimate kung masabi mo man sa pamilya mo ‘di ganon ka-intimate ‘di gaya ng sa married, masasabi mo mismo sa asawa mo kumbaga masinsinan

niyong na-tataackle 'yong stress...Ako single kasi ako. Mas madalas wala ako sa bahay... 'di tulad ng married magkakasama sila so... bakit ako mas worried kasi wala ngang emotional support..."

(I think stress worsened because they don't think only of themselves but also their family, their children. Why the better mental health? Because they have emotional support. People who are single usually just keep their problems to themselves. If there is emotional support, it's not as intimate if you tell your family unlike how you are able to thoroughly discuss stress with your spouse. I'm single and often outside the house. Unlike those who are married, they are together... so I'm more worried because there's no emotional support.)

[Single male participant ID1]

"Kaya siguro nasasabi natin na hindi focused yung single is because wala siyang sole responsibility doon sa isang halimbawa, wala siyang family. Kalat. Kalat yung responsibilities niya."

(Perhaps we can say those who are single are not focused because there's no sole responsibility, no family. Their responsibilities are dispersed.)

[Single male participant ID2]

"Meron kasi kaming ano, routine, na pinaguusapan namin 'yong mga problema so 'yong mental health namin, ano, hindi siya gaanong lumalala... kapag nasi-stress na ako napapansin na yan ng asawa ko... may mga gagawin siya na ano, magluluto siya mag-aano siya, tawag dito? 'o matulog ka muna.' Minsan, sabihin niya minsan 'ako muna bahala sa mga bata' so nagsi-share kami..."

(We have a routine where we talk about our problems, so our mental health does not worsen that much. My husband notices when I am stressed and he does things such as cook, tell me to take some rest... sometimes he says he will take care of the kids, so we share...)

[Married female participant ID5]

Age group

Significant differences were found between the two age groups in the study with respect to mental health impairment for both pre-COVID and during COVID periods. Those within the 23- to 35-years age group turned out to have poorer mental health scores, specifically in questions relating to enthusiasm, having their mind on other things, getting upset without knowing why, and tending to worry. As explained by an FGD participant, older people tend to have developed a tougher attitude towards problems.

“Yong older people naman hindi porket mas nakakatanda sila ay ‘di sila creative. Creative din sila in a way na mas lumalawak yung pagtanggap nila doon sa sitwasyon whereas doon sa mga younger people hindi masyado... mas vulnerable sila sa ganitong klaseng sitwasyon... yung mga older people kasi medyo ano e mas malakas yung kanilang loob to face this kind of problems...”

(Just because people are older does not mean they are not creative. They are creative such that they have a broader view on things unlike younger people...they are more vulnerable in this kind of situation. Older people are braver to face this kind of problems.)
 [Single male participant ID2]

Table 3 shows the mean stress and mental health index by demographic characteristics of the respondents, particularly according to their work-related characteristics.

Table 3. (b) Work-related characteristics

Control variable	Stress index		Total Mental Health impairment index	
	Pre-COVID	COVID	Pre-COVID	COVID
Designation				
Manager/Supervisor	1.76	2.28	2.30	2.64
Rank-and-File	1.26	1.96	2.35	2.75
Difference	-0.5**	-0.32	+0.05	+0.11

p-value	.017	.071	.715	.565
Job Role				
Admin/Tech/Healthcare	1.41	2.05	2.32	2.68
Teaching/Research	1.20	1.98	2.40	3.0
Difference	-0.21	-0.07	+0.08	+0.32
p-value	.384	.805	.710	.389
Length of service				
0-5 years	1.27	1.91	2.43	2.76
above 5 years	1.49	2.17	2.24	2.68
Difference	+0.22	+0.26	-0.19	-0.08
p-value	.213	.157	.177	.672

***significant at .01 level; ** significant at .05 level

Designation

Statistically significant differences in position or designation were only found pre-COVID and only pertained to stress. Managers or supervisors were found to have had higher stress due to a heavy workload ($p=.007$), many interruptions at work ($p=.025$), having a lot of responsibility ($p=.003$), and being under pressure to work overtime ($p=.000$). Despite the disparity in stress levels, no significant differences were found in terms of mental health impairment—suggesting the strong adaptive abilities of managers—nor a notable increase in the mental health problems of rank-and-file employees which match those of their superiors. Those in managerial or supervisory positions typically have clearer visions and more certain goals, hence their ability to understand the bigger picture behind highly stressful events. In cases where managers or supervisors have been in their positions for a while, stress also tended to become easier to manage because of work familiarity. However, when the pandemic struck, the difference in stress became statistically insignificant, hinting that the effect of COVID-19 impacted the rank-and-file employees more such that the stress level was equalized between them and their superiors. Differences between rank-and-file employees and managers or supervisors were described in the FGD. Factors such as leadership issues were also raised.

“Yong mga division heads/managers, kung matagal na sila sa work, they’ve been doing that for centuries eh...mental health-wise, medyo stable sila kasi kahit nakapikit sila kaya nilang gawin ‘yon...pagdating doon sa rank-and-file doon na bumubulusok ‘yong mental health issue kasi hindi na nila alam. Kasi ako na-experience ko na ‘yong alin ‘yong uunahin ko sa dami ng inuutos ‘di ko na alam ano ‘yong priority natin... nagsisimula sa taas ‘pag pinakaboss mo maraming gusto gawin pero walang natatapos ‘di mo alam ano ipprioritize mo tapos ibabato mo don sa division chief, si division chief ‘di rin alam ‘yong tatapusin niya so ibabato niya sa rank-and-file. So talagang nagddomino effect ‘yong stress tapos mabigat yung mental health....so talagang mahirap para don sa mga [rank-and-file] whereas ‘yong nasa gitna, mga division chief, ‘yong nasa taas medyo utos utos lang though nakikita naman natin nagttrabaho sila pero mahirap kasi kung ‘di organized ang isang kompanya... kung organized yung leader ‘pag binato mo sa gitna at organized din ‘yong gitna magddomino effect yan don sa rank-and-file...”

(When superiors have been doing the job for a long time, mental-health wise, they are quite stable because they can do their work even with eyes closed. For rank and file employees, mental health deteriorates because they don’t know. I have experienced not knowing what to do first because of several tasks handed to me, I don’t know the priority. It starts at the top. The boss wants many things to happen but nothing is finished. The tasks are then cascaded down to the division chief who also does not know which job to finish, who will then pass it on to the rank and file, giving this domino effect of stress and poor mental health. It’s hard for rank and file employees whereas those in mid-top management, they just give orders. Although we see them working, it’s hard if a company is not organized. If the leader is organized, when the tasks are thrown to the mid-level and the managers there are organized too, it will have this domino effect on the rank and file...)

[Single male participant ID2]

“Yong mga manager nag-dedelegate sila ng mga work so ‘yong vision nila o ‘yong goal nila tanaw nila... sa rank and file... medyo malabo sa kanila ‘yong nagiging goals ‘yon nga ‘yong bigger picture ‘di na nila nakikita...so nadi-disoriented sila sa ginagawa nila...”

(Managers delegate tasks so they know the vision or goal. For rank-and-file employees, goals are quite blurred because they don't see the bigger picture. They feel disoriented with their tasks.)
[Single male participant ID1]

“Tingin ko din kasi mas nai stress ‘yong sa mga manager position kasi ‘di rin lang din naman sarili nila iniisip nila ‘yung buong division nila iniisip nila...pag hindi na nagagawa noong mga analyst minsan si (manager) na ‘yong gumagawa so nadadagdag din sa stress niya pero sa mental health mas stable siya kasi mas stable ‘yong...sinabi ni (single male participant ID1) alam niya kasi ‘yong goal, ‘yong mas malaking picture na ‘pag natapos ito okay na pero tayo ang labo... minsan tinatanong ko kung ba’t pinapagawa ‘to ‘di mo alam para saan ba.”

(I think managers are more stressed because they do not think only about themselves. They think of the whole team. If the staff is unable to do a task, the manager does it so that adds to their stress. Mental health is more stable because as another participant said, they know the goal and the bigger picture when the tasks are accomplished. For us, it's unclear. Sometimes I ask myself why I'm being given a certain task, I don't know the purpose.)
[Married female participant ID5]

Job Role

Although no significant differences were found between groups with respect to stress and mental health impairment, a reversal of direction in the differences was observed. While stress is higher for those under the administrative/technical/healthcare cluster for both pre-COVID and during COVID periods, mental health is poorer for those under the teaching/research category. Specifically, stress is significantly different for administrative personnel in that they feel their promotion prospects are poor ($P=.006$). In the University of the Philippines,

merit promotions are granted to administrative and faculty personnel differently. Promotion for administrative staff results in the increase in horizontal steps in their respective salary grade while promotion for faculty members provide them with upward rank promotion and vertical jumps from one salary grade to another. Regular promotion opportunities for administrative personnel also involve the opening of a higher plantilla item—which often requires the retirement, resignation, promotion, or even the demise of the incumbent to vacate the item—and competing with other applicants. Promotion for faculty, on the other hand, focuses on personal development. By virtue of obtaining a graduate degree alone, they can already apply for promotion. Other bases of merit include publications and awards. Despite simpler promotion processes, faculty members turned out to have significantly poorer mental health specifically when it comes to having their mind on other things (pre-COVID $p=.017$, during COVID $p=.021$) and in overreacting unintentionally (pre-COVID $p=.037$, during COVID $p=.045$). Explanations for differences between administrative and teaching clusters were expressed in the FGD:

“Siguro mas naha-handle nila kasi gamay na gamay nila ‘yong mga lesson na ‘yan paulit ulit naman nila tinuturo ‘yan kaya lang iba lang ‘yong platform nila ngayon kasi online pero kasi ‘yong admin mas nakaka-stress... kailangan talaga may mag-PR (physical reporting) e pano kung walang mag-PR walang magpprint... ‘iniisip ko noong una e ‘yong mga ginagawa ko kaya nasaan na? tumakbo ba ‘yong mga tinype ko? Ano na nangyayari? Kaya minsan nagfa-follow up na...’yong mga college so ‘yan mga iniisip ko nakaka-stress...”

(They can handle things better because they have mastered the lessons which they repeatedly teach. This time, only the platform is different because it's online. For admin, it's more stressful because we have to report physically. What if no one does? No one will be there to print. I think about where my papers have gone, whether they have been processed. Sometimes other offices follow up, and I get stressed thinking about these things.)

[Married female participant ID5]

“Yong pag-gawa naman kasi ng syllabus, ng mga materials para sa mga tinuturo gamay naman na nila. Ang ‘di nila gamay ‘yong sa platform pero sa tingin ko sa una lang sila nastress pero ‘pag naka-adapt naman na sila okay na. ‘Yong sa admin naman kasi iba iba kasi ‘yong mga ginagawa natin ‘di tulad sa mga prof na, o eto naka-focus kunyari ikaw nagtuturo ka ng marketing management so eto naka-focus ako dito, eto lang ituturo ko sa lahat, ‘tas may materials ka na before..yong sa admin kasi ‘yong sa atin mas mataas ‘yong stress kasi iba iba tapos ‘yung proseso diba...”

(Making the syllabus, the materials for teaching – they have mastered this. What they have not mastered is the platform but I think they will only be stressed at the beginning. They will be okay once they have adapted. For admin, tasks vary unlike for profs who are focused on a specific subject to teach and they have previous materials ready. For admin, stress is higher because we have different processes.)

[Married female participant ID3]

“Siyempre nagturo ako for 13 years... magkaiba kasi ‘yong output ng admin sa pagiging guro. Ang output ng admin is ‘yong paperworks. ‘Yong accuracy nung paperworks mo and documents kung tama ba kasi kung tama walang problema, makakarating sa tao ng tama pero ang pagiging guro, ang output mo ‘yong bata. Kasi ‘pag walang natutunan sayo ‘yong bata ‘di ka effective na teacher....Ang pagiging guro mas mahirap kahit wala pang pandemic, body and soul tsaka mind pagod yan...depende pa ‘yan sa kung anong klaseng principal lalo na kung ‘di makatao principal mo ‘yong lesson plan mo lagi may mali.... At the same time you have to be creative in front of the children...’pag naging teacher ka mula ulo hanggang paa titingnan ka ng estudyante... whereas ‘yong sa admin kasi minsan most of the day nakaharap lang tayo sa harap ng computer...”

(I taught for 13 years. The output of admin personnel and teachers are different. For admin, the output is paperworks – the accuracy. If the documents are in order then there would be no problem, it will reach the designated receiver. But being a teacher, your output is the child. If the child learns nothing, you are not effective. Being a teacher is more difficult because even before the

pandemic, your body, soul and mind are tired. Factor in the kind of principal you have to deal with. At the same time you have to be creative in front of children. From head to toe, they will look at you. Whereas for admin, most of the day we just sit in front of the computer.)

[Single male participant ID2]

“Yong prof kasi iniisip niya rin kasi ‘yong mga estudyante niya... meron kasi sa’min ‘yong isang, siguro depende sa klase ng prof. May prof don na ano tinatawagan niya ‘yong mga kaklase kung ano kunyari ‘di nakasubmit si ganito ng output, pinagtatawagan niya kung ano ba ginagawa niya. Hinahanap kung okay pa ba siya kaya nakakadagdag din yun sa stress ng faculty kasi malay ba nila kung ano na nangyari sa bata kung bakit ‘di siya nagsubmit...”

(Profs also think about their students. Perhaps it depends on the kind of prof. There’s one in our area where the prof calls classmates if one of his students is unable to submit an output. The prof asks if the student is okay, so this adds to the stress of the faculty because they don’t know what happened to the student.)

[Married female participant ID5]

Length of Service

No significant differences were observed between those whose length of service were 0-5 years and those who have served for more than 5 years. Similar to the Job Role demographic, only a reversal in the direction of the scores was noted. Stress index is higher for those who have been working for 5 years and longer, while mental health impairment is greater for those who have been working for less than 5 years. Possible explanations for this include differences in mastery of work and self-efficacy, as expressed by FGD participants:

“Tingin ko ‘yong mastery ng ano ‘yan, ng work...’yong mga bago isang taon, dalawang taon pa lang baguhin mo lang ng konti parang ‘di na nila alam ano direction ng gagawin...doon sa mas matagal, ‘yong mastery nga kumbaga kahit nakapikit...”

mataas 'yong mental health nung mas matagal based doon sa productivity ng sa trabaho. Mas stressed sila pero 'yong mental health nila mas strong kasi alam pa rin nila pano so-solution-an 'yong problema...sa ano [less than 5 years], stressed na 'di pa nila alam pano issolve 'yong naging problem..."

(I think it's about mastery of work. Those who are new, when you switch their tasks a bit, they get confused about what to do. For those who have been working longer, they know what to do with eyes closed. They have better mental health based on their productivity. They are more stressed but they have stronger mental health because they know how to resolve their problems unlike those who are new, they are stressed and they don't know how to solve their problems.)

[Single male participant ID1]

"Hindi naman porket matagal ka na sa trabaho 'di ka na masstress. Siyempre nagiiba iba ng procedure, ng guidelines so mag-addapt ka pa rin don sa trabaho... mas [ok pagdating sa] mental [health] naman [kasi]... mas confident na sila doon sa sarili nila..."

(Just because you've been working for a long time does not mean you do not get stressed. Procedures and guidelines change, so you have to adapt. In terms of mental health, they are more confident about their ability.)

[Single female participant ID4]

Hypothesis 2: COVID-19 significantly increases work stress and worker mental health impairment and Hypothesis 2a. The magnitude of the adverse effect of COVID-19 on work stress and mental health varies by socioeconomic and demographic characteristics.

As shown in Table 4, the effect of the COVID-19 pandemic on stress and mental health impairment is strongly significant across all categories. This suggests that the pandemic greatly affected the stress and mental health of the respondents, regardless of age group, marital status, designation, job role and length of service. A notable increase was recorded between the pre-COVID scores and the during COVID scores.

Table 4 (c) COVID effect by demographic characteristics

Control variable	Stress index				Total Mental Health impairment index			
	Pre-COVID	COVID	Difference	p value	Pre-COVID	COVID	Difference	p value
All workers	1.46	2.13	+0.67***	.000	2.38	2.79	+0.41**	.026
Sex								
Male	1.54	1.95	+0.4***	.001	2.36	2.61	+0.2	.061
Female	1.28	2.1	+0.8***	.000	2.31	2.80	+0.5***	.000
Age group								
23-35	1.36	2.03	+0.7***	.000	2.53	2.94	+0.4***	.008
36-62	1.41	2.05	+0.6***	.000	2.16	2.53	+0.4***	.001
Marital Status								
Single	1.27	1.91	+0.6***	.000	2.43	2.76	+0.3***	.009
Currently/ Ever Married	1.50	2.18	+0.6***	.000	2.22	2.67	+0.5***	.001
Job Role								
Admin/Tech/ Healthcare	1.41	2.05	+0.7***	.000	2.32	2.68	+0.3***	.000
Teaching/ Research	1.20	1.98	+0.8***	.003	2.40	3.00	+0.6***	.007
Designation								
Manager/ Supervisor	1.76	2.28	+0.5***	.001	2.29	2.64	+0.3***	.009
Rank/File	1.25	1.96	+0.7***	.000	2.35	2.75	+0.4***	.000
Length of Service								
0-5 years	1.27	1.91	+0.6***	.000	2.43	2.76	+0.3**	.019
Above 5 years	1.49	2.17	+0.6***	.000	2.24	2.68	+0.4***	.000

***significant at .01 level; ** significant at .05 level

Sex

The magnitude of the effect of COVID-19 varies per variable, but the differences within groups are minimal. In terms of sex however, the difference in the scores of females double that of males. This is the case for both stress and mental health impairment, suggesting that the pandemic affected women more than men. Consistent with the earlier observation that there were larger increases in the scores of women than those of men, the FGD revealed some reasons for this outcome including differences in personality traits. According to the FGD participants, males could be more selfish, less likely to worry and overthink, and less likely to be expressive. These could explain why mental health differences either before or during the COVID-19 pandemic are significantly different for females but not for males, as the mental health questionnaire included questions about worrying, struggling to think clearly, and being forgetful and distracted.

Further analysis of the mental health sub-indices shows that several questions where women scored higher than men belonged to the exhaustion index. Statements such as “I want to be active at work but somehow I am unable to manage” and “After a day at work, I find it hard to recover my energy” were experienced more frequently by women. A possible explanation for this is that women are more likely to be involved with domestic roles and responsibilities, especially when people are working from home; it could be more tiring to be working and doing household chores at the same time. As shared by some female FGD participants:

“Kasi dito [sa bahay] siyempre magwork ka tapos magluto tapos ‘yong katabi mong nag-o-online class siyempre ‘pag may tanong i-aassist mo...”

(At home, you have to work, to cook, to assist your child who is attending an online class.)

[Married female participant ID3]

“Kung nakikita na niyang ‘di ko na kinakaya ‘yong stress, siya na umaako noong mga domestic [responsibilities] sa bahay na dapat ako ‘yong gagawa...”

*(When my husband sees that I am overwhelmed by stress, he offers to take on the domestic responsibilities that I should be doing.)
[Married female participant ID5]*

Job Role

Another category with a relatively wider gap between groups is job role. The effect of the pandemic on the teaching/research cluster was twice as heavy as compared to its effect on those under the administrative group. Investigation of the individual questionnaire items reveal that teaching/research staff have higher scores than their administrative counterparts mostly when it comes to emotional impairment and cognitive impairment. As one FGD participant puts it:

“ Magkaiba kasi ‘yong output ng admin sa pagiging guro. Ang output ng admin is ‘yong paperworks. ‘Yong accuracy noong paperworks mo and documents kung tama ba kasi kung tama walang problema, makakarating sa tao nang tama pero ang pagiging guro, ang output mo ‘yong bata. Kasi ‘pag walang natutunan sayo ‘yong bata, ‘di ka effective na teacher...”

(The output of admin personnel and teachers are different. For admin, the output is paperworks – the accuracy. If the documents are in order, then there would be no problem, it will reach the designated receiver. But being a teacher, your output is the child. If the child learns nothing, you are not effective.)

[Participant ID]

The distinction in the nature of the work of administrative staff and teaching personnel could have played a role in the difference in the pandemic’s effect on such groups in that teaching involves a relational aspect. Teachers do not just think about grades and lesson plans. They also think about their students. Worrying about one’s students on top of worrying about one’s own life, especially during a pandemic, may take its toll on the mental health of a person. They could feel emotionally drained and cognitively distracted.

Analysis and Discussion

Hypothesis 3: Mental health impairment is greater for people with higher levels of stress than those with lower levels of stress

To test the relationship between stress and mental health, the sample was divided into two stress levels: high stress refers to those whose mean stress scores are from 2.0-5.0; else, they were classified into low stress. Their scores pre-COVID and during COVID were then compared to the means of total mental health impairment and its sub-indices for both periods.

Table 5. (a) Stress and mental health

Key Independent Variable		STRESS							
		LOW		HIGH		DIFFERENCE		P VALUE	
		Pre-COVID	COVID	Pre-COVID	COVID	Pre-COVID	COVID	Pre-COVID	COVID
Overall mental health impairment	Pre-COVID	2.23	2.26	2.63	2.38	+0.4**	+0.12	.010	.292
	COVID	2.70	2.40	2.85	2.99	+0.15	+0.59***	.497	.001
Exhaustion index	Pre-COVID	2.69	2.73	3.67	3.09	+0.98***	+0.36	.000	.056
	COVID	3.27	2.84	3.70	3.77	+0.43	+0.93***	.054	.000
Mental Distance index	Pre-COVID	1.86	1.80	2.39	2.13	+0.53**	+0.33	.034	.069
	COVID	2.08	1.81	2.40	2.42	+0.32	+0.61***	.225	.002
Cognitive impairment index	Pre-COVID	2.12	2.13	2.23	2.16	+0.11	+0.03	.625	.878
	COVID	2.63	2.29	2.54	2.85	-0.09	+0.56**	.784	.031
Emotional impairment index	Pre-COVID	1.93	1.9	1.79	1.89	-0.14	-0.01	.428	.938
	COVID	2.22	1.93	2.13	2.4	-0.09	+0.47**	.782	.034
Psycho-logical complaint index	Pre-COVID	2.43	2.51	2.78	2.52	+0.35	+0.01	.127	.985
	COVID	3.12	2.84	3.32	3.41	+0.2	+0.57**	.445	.016
Psycho-somatic complaint index	Pre-COVID	2.05	2.1	2.41	2.17	+0.36	+0.07	.078	.687
	COVID	2.41	2.16	2.41	2.59	0	+0.43**	.989	.048

Overall total mental health impairment was found to be significantly different between those belonging to the high stress group and those who belong to the low stress group during COVID. The difference implies notably greater mental health impairment for highly stressed people but only after the pandemic struck. An investigation of the sub-indices of mental health shows that significant differences between the two stress groups were present across all components during the COVID-19 pandemic. These numbers propose that highly stressed people tend to feel more exhausted, less motivated, more mentally distracted, more emotionally unstable, and they experience more psychological and psychosomatic symptoms. One FGD participant narrates her experience of emotional impairment as follows: *“pag sobra na ‘yong stress level mo minsan ‘yong emotion mo lagi kang galit, nakakasigaw ka na... ‘yong temper ko... ‘di ko na ma-control...”* (when you are too stressed, sometimes you get angry and shout. I lose control of my temper.).

The fact that these differences were only statistically significant during the pandemic suggest its substantial impact. Table 6 illustrates the intensity of the effect of the pandemic on the stress level of workers.

Hypothesis 3a: The magnitude of the adverse effect of COVID is greater for those with high stress than those with low stress.

Table 6. (b) Stress level and COVID effect

	STRESS LEVEL							
	HIGH				LOW			
	Pre	During	Difference	p-value	Pre	During	Difference	p-value
Worker mental health	2.40	2.99	+0.59***	.000	2.25	2.36	+0.11	.366
Exhaustion	3.09	3.77	+0.68***	.000	2.73	2.84	+0.11	.547
Mental distance	2.13	2.42	+0.29***	.002	1.80	1.81	+0.01	.950
Cognitive impairment	2.16	2.85	+0.69***	.000	2.13	2.29	+0.16	.235
Emotional impairment	1.89	2.40	+0.51***	.000	1.90	1.93	+0.03	.787

Psychological complaints	2.52	3.41	+0.89***	.000	2.51	2.84	+0.33**	.028
Psycho-somatic complaints	2.17	2.59	+0.42***	.000	2.10	2.16	+0.06	.606

The impact of the COVID-19 pandemic on the mental health of workers across all sub-indices is strongly significant for those in the high stress level group but not for those in the low stress level group. This implies that the more stressed a worker was, the more likely it is that the pandemic greatly affected their mental health negatively. They have a higher risk of feeling exhausted, demotivated, distracted, emotionally unwell, anxious, and sickly. Given this finding, it becomes more imperative for management to step in and help lessen the stressors affecting their employees. The role of managers is crucial in that they hold a considerable amount of power which can either be used to support their staff or to induce more stress. Qualities such as leadership style, organizational skills, emotional intelligence, and general attitude become factors. The effect of management on stress and mental health was expressed by FGD participants:

“Hindi nila napapansin marami tayong kanya kanyang problema...basta lang sila nag-uutos...kung planado ‘yan itong week na ito, ito kailangan mo tapusin... edi marami pang time para sa sarili niya diba pero hindi. ‘di pa natatapos isang task meron na naman bago. Ano ba, robot ba kami? ...pagagalitan ka pa. na bakit ano ‘to, bakit ngayon lang. Bakit, lahat ba ‘yong kasalanan natin?... nakakastress din kasi nga na-stress ka na nga sa pandemic nastress ka pa kasi pinagalitan ka pa... ‘di mo naman kasalanan na may pandemic. Ayun nga lahat naman affected. Sila lang masyadong...parang kailangan ganito, kailangan ganyan. Parang hindi na nila naisip na ano ba ‘yong kalagayan ng mga tao kung okay pa ba sila...dapat talaga pag-isipan nila kung paano nila tutulungan ‘yong empleyado na maliban sa monetary compensation, hindi naman kasi mababayaran ng pera ‘yong ganong level ng stress diba. Minsan nakakaiyak na nakakaloka, parang mababaliw ka kakaisip. Mababayaran ba nila yon?...”

(They don't notice that we have our own problems. They just give you things to do. If tasks are planned, you can pace yourself and still have spare time left. But no, even if tasks are not finished yet, another assignment comes in. Are we robots? They even scold you about why the work is late. Is it always our fault? It's stressful because you're already stressed by the pandemic, then you're stressed because you've been scolded. The pandemic is not your fault, all of us are affected. They're just too... it has to be like this, it has to be like that. It's like they don't think about the condition of the people, if they are okay. They should think about how they can help their employees aside from monetary compensation because money can't pay for stress. Sometimes it makes me want to cry and it drives me crazy. Can they pay for that?)

[Married female participant ID5]

"Nakaka stress din siya kasi prone sa mistake...siyempre iisipin mo 'di lang naman 'yong sarili mo 'ah, nagkamali ako'. Siyempre iisipin mo 'yong taong ginawan mo ng (document) tas mali...'di ka na nakakatulog, 'di ka na nakakain kakaisip...tapos iisipin mo 'yong galit ni ma'am... matutuwa pa sila pag nakikita kang subsob sa trabaho..."

(It's stressful when you're prone to mistakes. Of course you don't just think that you made a mistake. You also think about the person who will be affected by your mistake. You can't sleep and eat just thinking about it. On top of that you think of how angry the boss will get.

They even take joy in seeing you flooded with work)

[Married female participant ID3]

"Kailangan nila i-address 'yong mental health issue ng mga employee o staff nila kasi magkakaroon ito ng effect sa productivity ng tao...kasi kung stressed na nga siya i-stress-in mo pa, lalo magkakamali 'yan"

(They have to address the mental health issue of their employees because it affects their productivity. If you add more stress to a person who is already stressed, they are likely to commit more errors)

[Single male participant ID1]

“Kung hindi i-address ng employer ‘yong mental health ng empleyado niya, magssuffer ‘yong productivity and... yung employee lagi ‘yang magabsent...”

(If employers do not address the mental health of their employees, productivity will suffer and absenteeism will be a problem.)

[Single female participant ID4]

“Kahit mabigat trabaho mo pero magaan katrabaho boss mo madadala ‘yun e noong stress mo e. ‘Pag sinabi niya, ‘o, stop muna tayo dito basta ‘pag natapos niyo ‘yan ok na’ tapos minsan sasabihin niya ‘o Monday ngayon relax lang tayo ha, relax lang tayo kung anong kaya niyo gawin ‘yon lang’... ganon ka-light ‘yong marinig mo lang na ganon, magiging ok ‘yong pakiramdam mo e pero ‘yong ‘oy ano (participant 1) kailangan matapos mo ‘yan ngayon ha kasi ‘yong mamaya may ganito pa tayong gagawin’ parang oh my God, parang ‘di mo pa nasisimulan natataranta ka na sa susunod mong gagawin.....’di natatapos ‘yong trabaho. At the end of the day, wala tayo natatapos na trabaho it’s because patong-patong ‘yong trabaho. Kulang sa organization, kulang sa planning... kailangan talaga maalagaan natin ‘yong mental health ng bawat kawani ng isang organization kasi ‘pag ‘di mo naalagaan ‘yan mababaliw ‘yan sa trabaho...’di mo pala alam ‘di lang ‘yan ‘yong problem niya sa buhay...”

(Even if workload is heavy, if your boss is easy to get along with, you will not be too stressed. If they say we can rest after we accomplish a certain task, or if they say we should take it easy since it’s a Monday, you will feel lighter. But if they say, hey, this work needs to be done now and then after that we will have to do this task, oh my God. You haven’t even started yet but you already have to worry about the next thing. The work never stops. At the end of the day we are unable to finish our work because the tasks are piled up. There’s the lack of organization, of planning.... We need to take care of the mental health of each staff because if we don’t, they will go crazy. They don’t even know that work is not the only problem of the employee in life.)

[Single male participant ID2]

Meanwhile, only Psychological Complaints turned out to have a notable increase for the low stress level group. Items under this sub-index include tending to worry, being disturbed by noises and feeling anxious. Given the pandemic, getting worried and feeling tense seem to be reasonable responses. Also, in work-from-home arrangements implemented during the pandemic, getting distracted by noises around the house because of the new work environment is reasonably expected.

Hypothesis 4: Workers who have mixed work arrangement have lower work-related stress and better mental health than workers who work from home.

No statistically significant difference was found between the two types of work arrangements as shown in Table 7. Observation of the differences in means reflect minimal disparity. Stress and overall mental health impairment, as well as most of its sub-indices, were very slightly higher for those working from home. However, for exhaustion and emotional impairment, those reporting to the office had higher scores (although barely). Exhaustion is expected to be higher for those physically reporting as they had to travel to and from the office. Emotional impairment, on the other hand, might be an after effect of exhaustion. Physically-reporting staff also have higher risk exposure and less emotional support in the office.

Table 7. (c) Work arrangement, stress, and mental health

Key Independent Variable	WORK ARRANGEMENT				
		MIXED	WFH	DIFFERENCE	P VALUE
Stress index	Pre-COVID	1.32	1.46	+0.14	.439
	COVID	1.98	2.13	+0.15	.428
Overall mental health impairment	Pre-COVID	2.30	2.37	+0.07	.536
	COVID	2.69	2.81	+0.12	.588
Exhaustion index	Pre-COVID	2.88	3.02	+0.14	.518
	COVID	3.39	3.37	-0.02	.944
Mental Distance index	Pre-COVID	1.90	2.12	+0.22	.256
	COVID	2.05	2.31	+0.26	.246
Cognitive impairment index	Pre-COVID	2.10	2.22	+0.12	.498
	COVID	2.49	2.77	+0.28	.327
Emotional impairment index	Pre-COVID	1.90	1.89	-0.01	.945
	COVID	2.18	2.23	+0.05	.851

Psychological complaint index	Pre-COVID	2.51	2.52	+0.01	.967
	COVID	3.17	3.18	+0.01	.956
Psychosomatic complain index	Pre-COVID	2.12	2.17	+0.05	.791
	COVID	2.33	2.52	+0.19	.405

Despite non-significant differences statistically, responses from the FGD provide qualitative distinctions between the two types of work arrangements. Both set ups are stressful in their own ways, hence their similar means. However, a qualitative probe into the nature of the stress experienced by those who work from home and those who physically report to the office reveals some differences and issues expressed by the FGD participants as follows:

“Ako ‘yong tipo ng tao na ayokong napapasok ‘yong personal life ko sa trabaho, lalo na yong oras...mas okay sa akin pumasok na lang kahit may pandemic pero ‘wag lang mapasok ‘yong personal space ko... naging stress sa akin ‘yon kasi siyempre bawal nga pumasok, hindi ko mapilit ‘yong sarili ko na kailangan kahit nasa bahay ka magtrabaho...dati okay lang, kaya, kasi ‘pag alis ko ng trabaho kinakalimutan ko na lahat ng about sa trabaho. Pero ngayon kahit nasa bahay ka na dala mo pa rin ‘yong trabaho, wala ng limit ‘yong oras. Inabot nga kami minsan alas dos na ng madaling araw trabaho pa rin...’pag work from home ka, ‘yong problema mo sa work minsan nadadagdagan din ng mga problema mo sa bahay...”

(I’m the type who does not like having my personal life intruded upon by my work, especially in terms of time. I prefer to go the office during the pandemic as long as it does not invade my personal space. It was stressful for me because we weren’t allowed to report physically. I could not force myself to work even when I was at home. Before the pandemic, it was okay, I could forget all about work once I leave the office. Now, even when you’re at home, you bring work with you and the hours are limitless. Sometimes we work until midnight. When you work from home, sometimes, your work problems are also aggravated by problems at home.)

[Single male participant ID1]

“Ngayon during pandemic na ito, nagwork from home, mas mabigat pala ‘yong stress kasi naririnig mo araw-araw ‘yong mga kasama mo sa bahay habang nagwork ka...minsan naririnig mo, ay may problema sila...”

(During this pandemic, working from home, stress seems heavier because every day you hear your household members when you work. Sometimes you hear them having problems.)

[Single male participant ID2]

“Itong pandemic, walang oras ang trabaho. Minsan Monday to Sunday. MagP-PR (physical reporting) ka, pag uwi mo magwork ka pa hanggang gabi...mas gusto ko nga ang PR e...aside from comfort mas focused ka. Kasi dito siyempre magwork ka tapos magluto tapos ‘yong katabi mong nagoonline class siyempre pag may tanong i-aassist mo so may mga distraction...mas okay sakin magPR although ‘yon lang nakakaparanoid siya kasi siyempre andiyan pa rin ‘yong virus diba...”

(During this pandemic, work hours are limitless. Sometimes, it takes Mondays to Sundays. You go to the office but when you go home, you still work until late at night. I actually prefer going to the office. Aside from the comfort, I feel more focused. At home when I work, I have to cook and to assist my child who attends online classes.)

[Married female participant ID3]

“Ngayon halo halo na, naghalo na ‘yong stress sa work tsaka sa bahay. Tapos ang dami mo pang iniisip. ‘Tas ‘yong oras nga... minsan ano parang ano ba, wala na bang oras ‘pag work from home. 24 hours ba? Ayun minsan nagaaway na kami {mag-asawa}...mas marami kong nagagawa ‘pag nasa office kaysa pag nasa bahay kasi nga ang gugulo ng mga bata...”

(Now, work stress and stress from home gets all mixed up. And you have a lot of things to think about. Then there’s the issue of time. Sometimes I find myself asking, are there no office hours when working from home? Is it 24 hours? Sometimes my husband and I argue already... I am able to do more work at the office than at home because the kids can be distracting.)

[Married female participant ID5]

“Dati pag pasok mo nakaupo ka na sa komportableng upuan, may aircon. ‘Pag nasa bahay ka ang sakit na nga pag tayo ko sobrang sakit na ng ‘yong mga balakang mo...Tapos ayun ang haba ng oras natin ngayon. Ang haba ng oras ng pagtrabaho hanggang gabi tas nakukuha pa ‘yong weekends...”

(Before, when you get to the office you get to sit in a comfortable chair and enjoy the aircon in the office. At home, my hips hurt when I stand after sitting for a long period of time. I also feel the long work hours which stretch until nighttime and even extend to weekends.)

[Single female participant ID4]

Preferences for a mixed work arrangement or physical reporting suggest that while the difference in means are not statistically significant, the quality of stress may be greater for those working from home. Among the issues raised, the most salient and recurring complaint was extended working hours. Regardless of work arrangement, workers explained that since the pandemic started, work hours became longer and the regular schedule was no longer observed.

Hypothesis 4a: The magnitude of the adverse effect of COVID-19 on stress and mental health is less for workers with mixed arrangement than those who work from home.

The effect of the COVID-19 pandemic on the stress and overall mental health of workers was significant for both types of work arrangement, as may be seen in Table 8. This is consistent for all mental health sub-indices for those under mixed work arrangements. For those working from home, only cognitive impairment, psychological complaints, and psychosomatic complaints yielded significance.

Table 8. Work Arrangement

	WORK ARRANGEMENT							
	MIXED				WFH			
	Pre	During	Difference	p-value	Pre	During	Difference	p-value
Stress	1.32	1.98	+0.66***	.000	1.46	2.13	+0.67***	.000

Worker mental health impairment	2.30	2.69	+0.39***	.000	2.39	2.79	+0.4**	.026
Primary symptoms	2.29	2.64	+0.35***	.000	2.40	2.76	+0.36**	.047
Exhaustion	2.89	3.39	+0.5***	.000	3.02	3.37	+0.35	.125
Mental distance	1.90	2.05	+0.15***	.006	2.12	2.31	+0.19	.206
Cognitive impairment	2.10	2.49	+0.39***	.000	2.22	2.77	+0.55***	.004
Emotional impairment	1.90	2.18	+0.28***	.003	1.89	2.23	+0.34	.052
Secondary Symptoms	2.31	2.75	+0.44***	.000	2.34	2.85	+0.51***	.009
Psychological complaints	2.51	3.17	+0.66***	.000	2.52	3.18	+0.66***	.003
Psycho-somatic complaints	2.12	2.33	+0.21***	.007	2.17	2.52	+0.35**	.039

Having disturbances and responsibilities at home likely triggered the feeling of being distracted and having difficulties concentrating (cognitive impairment). Feelings of anxiousness, being tense, and having trouble falling asleep (psychological complaints) could be a result of interactions within the house. Conflicts within the family are less avoidable given work from home setups. Lastly, psychosomatic complaints such as body aches may be a result of inadequate work equipment at home. Concerns of not having comfortable chairs or proper workspaces, or even having to suffer through the summer season without air-conditioning, could have contributed to feelings of body pains.

“Pag sa bahay andaming...utos. E sa bahay namin siyempre may baby ako. Ako ‘yong hinahanap niya bago siya matulog. So siyempre kakargahin ko muna, hihintayin ko muna bago ako makawork ulit...”

(At home there are a lot of tasks. I have a baby so of course, she looks for me before she falls asleep. I need to carry her, I have to wait until she falls asleep before I can get back to working.)
[Married female participant ID5]

“Yong inuupuan ko ngayon gamit ‘to sa dining table namin. Mahirap kasi nagccurve ‘yong likod mo...’di ka makafocus sa bahay kasi ‘yon nga marami ka naririnig...iba ‘yong nasa office ka talaga, iba ‘yong environment na nakakapagfocus ka kasi ‘yon lang ginagawa mo. ‘yon lang nakikita mo. Dito sa bahay lahat lahat kailangan mo intindihin, kailangan mong nagmmulti-tasking ka...”

(The chair I use now is from our dining table. It’s hard because I can’t sit straight. It’s also hard to focus because you hear a lot of things at home. At the office, the environment is different. You can concentrate on your work tasks. At home, you have to consider everything, you have to multi-task.)
[Single male participant ID2]

“Pag nasa office ka ‘yong chair and table na gamit mo suitable ‘yon sa paggawa mo ng work samantalang pag nasa bahay ka hahanapin mo pa ‘yong tamang pwesto mo...big factor talaga ;yong working environment...”

(At the office, your chair and your table are suitable for work. At home, you will still have to find the right position. Working environment is a big factor.)
[Single male participant ID1]

Summary, Conclusion and Recommendation

Summary and Conclusion

Stress and mental health are two important factors that affect worker productivity, yet limited studies have investigated these variables in the context of the public sector in the Philippine setting. This study aimed to contribute to that pool of literature with the hope that the

findings will raise awareness among employers in both the public and the private sectors, as well as encourage them to develop initiatives that will serve as support mechanisms for their employees. Further, this study also sought to add to the new collection of research exploring the effect of the COVID-19 pandemic on work-related stress and worker mental health.

Specifically, the researcher looked at how stress and mental health impairment vary from one demographic category to another and if differences in scores could be observed in two types of work arrangement: mixed (combination of work from home and physical reporting) and work-from-home (purely remote work). The concept of remote working is relatively new to employees in the civil service. Due to the pandemic's physical distancing requirements and the need to provide public service continuously, the implementation of work-from-home arrangements was rolled out in government agencies at a large scale for the first time in Philippine history. The researcher explored the possible effect of the COVID-19 pandemic on government workers' stress level and mental health as they shifted from a paper-based office setup to remote online services.

A mix of quantitative and qualitative methods were used for this research. A questionnaire was administered to 71 respondents followed by the conduct of a focus group discussion with 5 participants. Analysis of the survey results reveals barely significant differences in the means of stress and mental health impairment across demographic categories and work arrangements. Statistical significance was only found in age group and designation categories. Those belonging to the 23-35 years age group had poorer mental health both before and during the pandemic. The higher mental health scores of those belonging to the 36-62 years age group was attributed by an FGD participant to the tougher attitude in facing problems that older people tend to have developed. On the other hand, differences in designation yielded higher stress levels for managers or supervisors but only pre-COVID-19 or before the pandemic started. They felt pressure due to heavy workloads and having many responsibilities. The levelling of stress after the pandemic struck and the non-difference in mental health impairment suggests strong adaptation abilities of managers and supervisors and/or a notable increase in the mental health problems of rank-and-file employees.

Though stress and mental health impairment scores do not seem to significantly vary by work arrangement type, a qualitative analysis of the responses from the FGD shows differences in how stress is experienced by people working from home and by people physically reporting to the office. Stressors for people who work from home revolve around distractions, inadequate workspaces, extended work hours, and blurring of lines between personal and professional lives. For those who do office work, stress mostly comes from physical exhaustion and the risk of exposure to the COVID-19 virus.

Meanwhile, the impact of the pandemic consistently yielded significant differences across all demographic categories as well as in both work arrangement types. Regardless of sex, age group, marital status, designation, job role, or work arrangement, stress and mental health impairment scores significantly increased during the COVID-19 pandemic. This is indicative of how seriously the pandemic has negatively impacted workers. The magnitude of its adverse effect was close to equal within each demographic category, except for the sex and job role categories. Scores of women doubled during the pandemic compared to males. Explanations for this include the survey finding that women tend to worry and be distracted more, and that they feel exhausted more often, possibly due to domestic responsibilities coinciding with work. For the job role category, the impact of the pandemic on teaching or research personnel was found to be twice as intense than that on administrative staff. The relational nature of their work, where they interact with and are responsible for the learning and education of their students, could have taken a toll on their emotional and cognitive well-being. The fact that they also worry about their students' welfare on top of their own may have aggravated their mental health as well.

Apart from the survey results, further analysis of the responses in the FGD revealed a salient cause of stress for workers in the time of the pandemic: leadership. This applies to both work arrangements. Multiple accounts cited how management style plays a role in aggravating or alleviating stress, thereby affecting their mental health. Main issues were the observance of proper work hours, inadequate support mechanism, and poor organization skills.

Even before the COVID-19 pandemic struck, there were already factors which affected the mental health and stress of employees. The arrival of the pandemic brought new and unwanted additional hazards to their well-being. It is imperative for managers and employers to mitigate these stressors to take care of their staff and to secure their continued operations. Without support mechanisms in place, employees are bound to be more vulnerable to both physical and psychological illness. Not only will this disturb their performance as workers; it will also affect their personal, social, and civic life, threatening their potential to be high functioning members of society.

Recommendations

For further studies looking into work-related stress, work arrangement, and worker mental health, targeting a bigger and more diverse pool of respondents as well as conducting bigger and more focus group discussions are suggested. Looking into other types of government agencies aside from state universities and colleges will also provide a basis of comparison if the results of this study are consistent across public institutions. Further, developing or utilizing a more comprehensive stress and mental health questionnaire may yield more accurate and extensive data. Collection of demographic data can include more specific questions such as number of children, number of people in the household, and household income. Other aspects of work could also be explored aside from work arrangement such as work-life balance, productivity, job satisfaction and organizational commitment.

The study may also be extended to the private sector, exploring how the COVID-19 pandemic has affected different industries, from manufacturing to hospitality. Separate research dedicated to investigating the situation of contractual workers at the time of this pandemic is likewise recommended.

In terms of policy, the following are recommended in view of the results of this study:

1. At the national level, to strengthen the Civil Service Commission (CSC).

Government workers look to the CSC for the overall administration of personnel policies, programs, and plans in government. Given their mandate, the CSC is considered to be the HR of all civil service employees. This means that aside from handling training, recruitment, and discipline, it is also the institution responsible for managing employee benefits.

It would be valuable to come up with mechanisms to aid civil service employees during a pandemic. Aside from monetary assistance, the CSC can also explore the idea of permanently allowing flexible work arrangements. They can likewise help by offering subsidies for electricity or internet bills, providing access to psychosocial services, granting mental wellness leaves, and securing comprehensive healthcare packages for employees (including free swab testing), among others. Support coming from the national government can surely boost employee morale.

Furthermore, the CSC may conduct nationwide webinars and trainings to introduce and promote Joint Memorandum Circular No. 1, s. 2020 Occupational Safety and Health (OSH) Standards for the Public Sector which was released just prior to the implementation of the community quarantine measures during the onset of the pandemic. The CSC may also issue the necessary implementing guidelines, revisions, and clarifications to make sure that all government agencies are aware of and compliant with the provisions stated in the said Memorandum Circular.

2. At the organizational level, to enhance support mechanisms in UP Diliman.

When UP Diliman first released its guidelines on how to go about work at the time of the Enhanced Community

Quarantine, it sought to classify tasks that are essential and non-essential. This should have helped prioritize only work that is vital and critical to the operations of the University and reduced work-related stress. Despite this, workers still felt the weight of heavy workload coupled with additional stress brought about by lack in organization. Adjusting to the new normal can be hard for everyone which is why it is crucial to cultivate a culture of support.

Ways by which UP can improve safety by reducing workplace stress include:

- Providing stress management trainings for all employees and coaching seminars for managers and supervisors. Enhancing psychosocial services to include orientations may help managers and rank-and-file employees in transitioning to the new normal and in alleviating stress by levelling expectations. Genuine kumustahans, where no work-related topics are discussed, can likewise be continued to raise organizational morale.
- Providing financial support. The continuation of granting internet subsidy as well as extending assistance to cover travel allowances for those physically reporting given the limited transportation options are recommended. Considering the drastic rise of fuel costs among other goods and services, employees are also burdened with having to deal with these expenses on top of risking infection by going to the office.
- Giving employees medical assistance for COVID-19 cases. Free swab testing, assistance in admission to confinement or isolation facilities, monetary support, and the grant of additional leaves may be considered.
- Clearly defining work roles. To reduce stress caused by job ambiguity, assignments should be organized, and regular feedback should be given. If workload is still too heavy despite prioritizing tasks, perhaps delegation of responsibility or additional manpower is needed. An organizational or job

audit might be a good idea to check if there are job mismatches or if workload redistribution is necessary.

- Strictly observing proper workdays and hours. Employees need time to recharge and to attend to other aspects of their lives. If it is necessary to render overtime, the University could at least prepare to compensate employees for it.
- Conducting dialogues. Sometimes people just want to be heard. Giving the employees a venue to voice out their suggestions and concerns will not only make them feel valued but it will also let management know which issues need addressing.

While it is true that government workers are mandated to serve the public, it would also be good to remember that one cannot pour from an empty cup. By working to the point of exhaustion, they would be offering a tired, mediocre version of themselves who will not only be prone to committing errors but also be vulnerable to health problems. To provide efficient public service at crucial times such as during a pandemic, and even in the long run, putting support mechanisms in place for civil service workers is necessary.

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