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Perceived Health Risks among Teachers Working Remotely in the Era of Covid-19 Pandemic

Sheryl Haduca Ramirez

Universidad De Manila, Philippines

Abstract

The COVID-19 pandemic gained prominence and posed a threat to the traditional education system when quarantine was implemented. The teachers' workload increased as work from home was mandated. As a result of working remotely, the teachers experience challenges in their physical, mental, and socio-emotional health. This study evaluated the health risks as perceived by teachers in a tertiary educational institution working remotely during the era of the COVID-19 pandemic in terms of physical, mental, and socio-emotional health. It also aimed to describe the socio-demographic profile of the respondents and determined their current health problems. A cross-sectional descriptive study design was utilized. The respondents were selected using a non-probability convenience sampling technique and data were collected using a researcher-made Likert-type questionnaire. Content and construct validity were accomplished through expert reviews and reliability testing was established through a Cronbach alpha coefficient value of 0.950. Data were analyzed using descriptive statistics as well as Z-test and ANOVA for the test of difference. The demographic profile of the respondents indicated a majority belonging to the College of Arts and Sciences, mostly of married civil status, and predominantly female with ages ranging from 41 to 50. The dominant ranks showed Instructors I, II, and III while time engagement in educational technology ranged from 3 hours and above but not greater than 6 hours. The respondents' perceived physical, mental, and socio-emotional health risks revealed a moderate risk as supported by an overall grand mean of 2.629. The physical risk was primarily associated with musculoskeletal problems and had the highest grand mean of 3.038, signifying a moderate level of risk. On the other hand, mental and socio-emotional dimensions were both perceived as low risks, with corresponding grand means of 2.525 and 2.323 respectively. Further results highlighted that level of health risks has a significant difference when grouped according to age (p-value of 0.0012) and academic rank (p-value of 0.0019), thus rejecting the null hypothesis. Sex, marital status, college affiliation, and time engagement in education technology demonstrated no significant difference at all. Health Optimization Practices for Educators (HOPE) was crafted to address health risks by promoting health and wellness through knowledge enhancement. Future studies akin to teachers' health risks while working remotely need to be explored in the areas of ergonomics and occupational hazards.

Keywords: *Covid -19 Pandemic, Health risks, Teachers, Remote work, HOPE*

Corresponding author
Sheryl Haduca Ramirez, sherylramirez95@gmail.com
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INTRODUCTION

On March 11th, 2020, the World Health Organization (WHO) proclaimed the coronavirus (COVID-19) a global pandemic that triggered social distancing and quarantine protocols worldwide. Being one of the most critical public health emergencies, the battle against it had far-reaching effects in every aspect of human life that resulted in travel restrictions, school closures, global economic recession, political conflicts, misinformation, and controversies. As the pandemic advanced, quarantine was enforced, and traditional schooling was discontinued which resulted in working from home. Teachers started conducting classes, facilitating student activities, and addressing all educational concerns through an internet platform (Marquez, 2020). This created an uncertain scenario for teachers. The lockdown situation has accelerated the transition from traditional to online educational systems, and relationships have been disrupted by avoiding direct contact with others, with negative consequences to mental health (Aperribai et al., 2020). The health risks posed by the coronavirus, the unexpected change to remote teaching, and increased obligations at home have created a stressful and demanding environment for teachers. As a result, teachers' well-being and their capacity to teach remotely were challenged (Kraft M. & Simon N., 2020).

As a response to the global education crisis, the government has decided on the temporary closure of educational institutions. In the higher education sector, the Commission on Higher Education (CHED) ordered that HEIs have academic independence and make remote learning, e-learning, and other modes of delivery available to students (CHED, 2020). Teachers were mandated to shift to alternative teaching modes and were charged with adjusting and changing course syllabi and academic requirements from the comfort of their homes. The paradigm shift of teaching from home settings increased teachers' workload and posed threats to their physical, mental, and socio-emotional health and well-being.

The lack of health risks awareness among educators in a work-from-home setup and the knowledge gap on health risks in this work setting provided the impetus for the conduct of the study. This study intended to evaluate perceived teachers' health risks while working remotely at home. It served as a vital assessment in addressing issues related to physical, mental, and emotional health while coping with the impacts of the global pandemic.

LITERATURE REVIEW

Working from home is a new and difficult experience for many, especially for teachers. The very nature of this job requires being interactive and engaging and performing this setup on an online platform can be challenging. This requires unprecedented commitment for teachers which renders them incapable of prioritizing their health. This paradigm shift in educational continuity has put teachers vulnerable to health risks. These are difficult times for teachers and they have been struggling to adapt to the situations. As the country continues to struggle with the spread of the coronavirus, the COVID-19 global health crisis has affected people's physical, mental and psychological health and well-being. Teachers are not exempt. The article "Philippines: Teachers as learning front liners during a pandemic" notes that aside from the risk to the health brought by the pandemic, teachers in the Philippines are also faced with adapting their learning modalities to

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technology while being mindful of learners' well-being. The teachers have gone beyond the work and have become the front-liners of learning in the new normal (LEARNTech Asia, 2020).

The COVID-19 pandemic has forced teachers around the globe to work remotely. While the lockdowns have been critical to helping control the spread of the virus, it has not come without compromise. As the number of people working from home has increased, healthcare providers have seen a rise in work-related injuries unique to the home environment (Drummond, 2020). Teaching on any day can be difficult and involves the entire teacher, his physical body, mind, and heart. Several studies have shown that at the beginning of the pandemic, teachers accumulated high levels of stress accompanied by symptoms of anxiety, depression, and sleep disturbance, particularly as a result of having to teach online (Al Lily, 2020; Besser et al., 2020). The sudden change in the learning environment caused disparity and even depression among teachers, particularly the administrative heads of educational institutions (Ramberg, 2019). Musculoskeletal disorders topped the list as a result of prolonged exposure to devices. Geetha Suresh (2021) suggested in her study the need for proper workspace and ergonomic guidelines for computer users working from home to prevent MSDs or postural pain in the future. Shah & Desai (2021) indicated the beneficial effects of long-term ergonomic intervention in the prevention and reduction of symptoms of neck and back pain and stressed the frequency of breaks during lengthy use of computers to help reduce stress on the cervical and lumbar spine. Recently Lubkowska et al. (n.d) suggested the use of computer software programs to help configure computer workstations correctly and adopt the correct body position during work which reduces the risk of health problems. Many studies have found a significant relationship between the level of disability and intensity of pain and working hours in computer professionals, teachers included, with neck pain and back pain. While schools are trying to switch back to the new normal, work from home may still remain for longer. Hence, teachers need to be educated on ergonomic principles and practices to minimize health risks attributed to the work environment and conditions.

Mental health is one of the major issues teachers face right now as the pandemic has mental consequences (AlAteeq et al., 2020). The mental health of teachers in light of the impact of the global health crisis on the educational sector according to Vivas (2020) cannot be ignored. In a comprehensive study done by Calao & Yazon (2020) in the Philippine setting, it indicated that "stress" and "mental state" showed to be important factors influencing the overall preparedness of students and faculties to integrate with online learning for the new normal. Recent studies have shown that increased levels of stress, anxiety, and depression resulting from COVID-19 could be particularly prevalent among people with a history of health problems (Applegate et al., 2020). Strikingly, younger teachers and those with a previous history of chronic illness and with family members with chronic diseases are also expected to show higher levels of stress, anxiety, and depression with a higher percentage to manifest adverse psychological symptomatology (Santamaria et al., 2021). The use of ICT in work-from-home settings can also create feelings of tension, anxiety, exhaustion, and decreased job satisfaction (Cuervo et al., 2018). Further, Rayco (2020) described work-from-home as one that can be very stressful for educators as boundaries between work and home time have been blurred. Vivas (2020) supported it by conveying the need to set aside a specific time or schedule and a physical and psychological place for work at home

P- ISSN 2986-3058 | E-ISSN 2986-3376

(Vivas, 2020). Understandably, teachers need professional assistance to take care of their mental health in these pandemic times (Scheuch et al., 2015). Teachers can take measures to protect their mental health, such as taking care of their intimate interpersonal relationships, doing sports, not watching too much news, or doing relaxation exercises. Ciriaco (2020) advised teachers to assume the proper posture and perform relaxation and breathing techniques as they were encouraged to lend time for themselves to meditate to take care of their mental health amidst the challenges the school is facing because of the pandemic.

The emotional attachment between teachers and students is such a caring and genuine emotional connection that needs to be developed and nurtured for great learning to take place. Motivation and learning engagement, however, is highly rooted in a deeply trusting relationship. With the global pandemic lockdowns, it has caused the suspension of classes, resulting in the physical separation of the bond between the teacher and students making socio-emotional connection a challenging task. As the pandemic unfolds, the way of teaching is changing from face-to-face teaching to online teaching. This created huge problems for the teachers who are most likely to deliver better teaching in face-to-face classes. According to the study by Kraft & Simon (2020), the transition to remote teaching has been a major challenge and is likely to widen existing achievement gaps. It made work become even more difficult when this direct contact must be replaced by an online relationship coupled with many other factors to be considered. Teachers, in general, are not trained for e-learning programs and activities (Education Youth Policy Analysis Unit in the Education Audiovisual Culture Executive Agency, 2020). In addition, the teachers had to play additional and crucial roles. Aperribai (2020) indicated that teachers had to provide psychosocial support to learners. The teachers can create a safe and supportive interaction environment where students can express their emotions and experiences with the inclusion of specific structured psychosocial activities in the teaching/learning process. This is to help vulnerable students in these trying times. As such, teachers have so much on their plate and the workload can be considered quite high. It is no surprise that the teaching profession can be characterized by high levels of physical, mental, and emotional stress. Supportive working conditions matter more than ever to ride the disruptive challenges of the pandemic.

RESEARCH METHOD

The researchers used a cross-sectional descriptive research survey design to evaluate the perceived health risks of teachers working remotely during the pandemic. The setting is a locally funded public university in Manila. A purposive-convenience quota sampling technique was applied in selecting the respondents with the following criteria: a part-time or full-time teacher engaged in a remote work setup; a Final Teaching Assignment (FTA) of 15 units or more; and willingness to participate. The instruments utilized were checklist and Likert-type questionnaires adapted from DOLE- OSHA 2022. Content and construct validity were accomplished through expert reviews while reliability was established through a pilot test supported by a Cronbach alpha coefficient value of 0.95. Data were gathered through Google forms divided into three parts namely: the demographic profile, the current health problem tool, and the health risks questionnaire to assess the physical, mental, and socio-emotional well-being of the respondents.

P- ISSN 2986-3058 | E-ISSN 2986-3376

The health risk indicators were checked on a range of 1 to 5 scale, where 1 represents no risk at all, 2 for low risk, 3 for moderate risk, 4 for high risk, and 5 for very high risk.

Procedures employed to analyze the data were descriptive statistics including percentages, and weighted mean to process the demographic profile, the current health conditions, and perceived health risks relating to physical, mental, and social-emotional dimensions. Moreover, the z-test and ANOVA were used to determine significant differences in the perceived health risks of the respondents when grouped according to sociodemographic profiles. It determined the variability of the samples and tested the null hypothesis if there was a difference in means of their perception.

The ethical protocols observed in this study included respect for persons through informed consent, honoring voluntary participation, and the right to withdraw at any time. The researchers also made it an obligation to secure the well-being of the respondents when scenarios in the survey made them feel uncomfortable or triggered them emotionally. Data privacy and protection were strongly upheld.

FINDINGS AND DISCUSSION

Table 1 presents the respondents' demographic profiles beginning from the age groups: 41-50 years old garnered the highest frequency (39%), followed by 51- 60 years old (22%), 31-40 years old (20%), 61 years old above (12%) and the least, falling within the 20-30 years old (7%). Picaza et al. (2020) supported these findings by emphasizing that people over 47 have the highest levels of anxiety and stress. Teachers showed more signs of stress and anxiety resulting in higher burnout. This could also be the case that older people are feeling this symptomatology to a greater degree according to Corbin et al., 2019. The study by Li et al. (2020) during the pandemic, shows the prevalence of anxiety among teachers, with women being more anxious than men and the older ones being more symptomatic.

On sex distribution, female respondents (59%) outnumbered their male counterparts with 41%. They are predominantly married (60%), followed by single status with 33%, and with very few who have been widowed and separated (7%). According to Robles (2014), healthier people are more likely to get married and stay married, while less healthy people may become more likely to become single, separated, or divorced. Being in a happy marriage is related to better psychological and physical health.

Table 1. Demographic Profile of the Respondent

P- ISSN 2986-3058 | E-ISSN 2986-3376

Age	**Frequency**	**Percentage**
20-30 years old	8	7 %
31-40 years old	22	20 %
41-50 years old	43	39 %
51-60 years old	25	22 %
61 years old and above	13	18 %
Total:	111	100%
Sex	**Frequency**	**Percentage**
Male	46	41 %
Female	65	59 %
Total:	111	100%
Marital Status	**Frequency**	**Percentage**
Married	67	60%
Single	37	33%
Widowed	5	5%
Separated	2	2%
Total:	111	100%
College of Affiliation	**Frequency**	**Percentage**
College of Arts and Sciences	29	26%
College of Education	26	23%
College of Health and Sciences	21	19%
College of Business Administration	15	14%
College of Engineering and Technology	13	12%
College of Criminal Justice	7	6%
Total:	111	100%
Academic Rank	**Frequency**	**Percentage**
Instructor I,II,III,IV	77	69 %
Assistant Professor I,II,III,IV	20	18 %
Associate Professor I,II,III,IV	10	9 %
Professor I,II,III,IV,V	4	4 %
Total:	111	100 %
Time Engagement in Educational Technology	**Frequency**	**Percentage**
Less than 3 hours	8	7%
3 hours and above but not greater than 6 hours	50	45%
6 hours and above but not greater than 9 hours	42	38%
Above 9 hours	11	10%
Total:	111	100%

The college affiliation revealed the College of Arts and Sciences as the department with the most teacher participants with a total of 26%. This is closely followed by the College of Education with 23%, College of Health and Sciences with 19%, College of Business Administration with 14%,

P- ISSN 2986-3058 | E-ISSN 2986-3376

College of Engineering and Technology with 12%, and the College of Criminal Justice representing the lowest number of respondents with 6%. The table also exhibits that most of the respondents had ranks between Instructors I, II, III, and IV, with a total number of 69%. Majority of them had spent 3 hours and above but not more than 6 hours (45%) engaging in online teaching platforms. In a study by Pandya and Lodha (2021), prolonged screen time, especially among working adults is one of the severe issues in this pandemic and has been shown to have harmful consequences on health. As the pandemic peaked, instructors tend to have more workloads and shifting schedules to fill the gap in the lectures. Some teachers also resigned or retired, worsening the teachers' shortage and adding to the workload (Long, 2020).

Table 2.
The Current Health Problems while Working Remotely during the Pandemic

Health Problems	**Frequency**	**Percentage**
Eye strain with blurry vision	84	76%
Back Pain	73	66%
Neck Pain	59	53%
Shoulder Pain	50	45%
Sleep Deprivation	38	34%
Hypertension	28	25%
Carpal Tunnel Syndrome	11	10%
Diabetes Mellitus	11	10%
Rheumatoid Arthritis	10	9%
Asthma	8	7%
None of the above	8	7%
Stomach Ulcer	7	6%
Osteoarthritis	5	5%
Gastroesophageal reflux disease (GERD)	3	3%
Fatigue	1	1%
Kidney Failure	1	1%

Note: Data show multiple responses

Table 2 highlights the teachers' current health problems while working remotely during the pandemic. Eye strain with blurry vision is the most common health problem identified (75.7%). The result is supported by Aldukhayel et al. (2022) who emphasized that learning became increasingly visually demanding during the COVID -19 pandemic. It was further posited that digital device use has become a necessity to learn and communicate making teachers who spent prolonged periods working with online platform devices develop eye discomfort and vision problems.

Back pain is another health problem (65.8%), followed by neck pain (53%), and shoulder pain (45%). According to de Paiva Gomes et al. (2021), musculoskeletal pain results from repetitive

P- ISSN 2986-3058 | E-ISSN 2986-3376

strain, overuse, and work-related musculoskeletal disorders. With the surge of Covid-19 in 2020, the teachers were forced to adopt online learning modalities which exposed them to prolonged physical posture, making them susceptible to musculoskeletal conditions. Some of the teachers also experienced sleep deprivation (34%). The quarantine lifestyle has changed teachers' working methods, disrupting their lives and daily routines. Those teachers who have to do everything on their own hardly achieved the amount of sleep they need (Dey, 2021).

Hypertension is also stated to a large extent (25%). According to Mini et al. (2020), the physical body is exposed to different health risks as it adapts to the new normal set-up. Teachers' vulnerabilities to hypertension are due to lifestyle and work-related risk factors like unhealthy diet, overweight, obesity, and lack of or limited physical activity attributed to the restrictions of the pandemic. Eleven teachers (10%) have Diabetes Mellitus, some (10%) claimed to have experienced carpal tunnel syndrome and a few (9%) are suffering from rheumatoid arthritis. Seitz (2019) states that using a computer is not hazardous in itself but if there are any underlying joint or skeletal alignment problems, all those repetitive keystrokes can tip the scales toward pain. Other conditions that have been revealed included asthma (7%) as well as stomach ulcers and GERD (3%). In a study done by Ravich (2020), acid reflux occurs in people who spend more time staying at home, making them eat large meals or sometimes eat late which causes an abnormal relaxation of the sphincter. He further asserted that due to the community restrictions and remote work arrangements, people tend not to eat on time, and do not eat healthy foods. In addition, the teachers also suffer from osteoarthritis (4.5%) during the pandemic. Aggravating factors include teachers' postures during computer use, forceful keying, duration of computer use, workstation set-up, and the psychosocial work environment that makes them more prone to joint stiffing and muscle shortening (Rodriguez et al., 2020). One respondent (0.9%) specified fatigue. The World Health Organization (2020) suggests that fatigue is a common symptom of many medical conditions. Although there are many potential causes of fatigue, it can be lifestyle factors, physical conditions, and mental health issues due to the challenges of the Covid - 19 pandemic. A kidney disease (0.9%) was also reported and a good number (7%) denied having any health problems at all.

Table 3. The Level of Perceived Physical Health Risk

Physical Health Risks	Very High Risk (5)		High Risk (4)		Moderate Risk (3)		Low Risk (2)		No Risk at All (1)		Mean	Descriptive Interpretation
	f	%	f	%	f	%	f	%	f	%		
1. Experience neck pain from using a computer in faulty posture during an online class.	17	15.3	21	18.9	36	32.4	21	18.9	16	14.4	3.00	Moderate Risk
2. Back pain as a result of prolonged seating due to online classes.	16	14.4	29	26.1	34	30.6	26	23.4	6	5.4	3.20	Moderate Risk
3. Feeling of burned out due to excessive	16	14.4	25	22.5	41	36.9	20	18.0	9	8.1	3.17	Moderate Risk

P- ISSN 2986-3058 | E-ISSN 2986-3376

workloads in work from home set-up												
4. Strain from long working hours in a virtual class triggering shoulder pain.	13	11.7	29	26.1	35	31.5	23	20.7	11	9.9	3.09	Moderate Risk
5. Episodes of headache after a prolonged screen time exposure on a work-from-home set-up.	17	15.3	22	19.8	35	31.5	21	18.9	16	14.4	3.02	Moderate Risk
6. Loss of appetite due to the overwhelming amount of school work and high stress level.	6	5.4	16	14.4	26	23.4	28	25.2	35	31.5	2.36	Low Risk
7. Tendency for eye strain due to continuous readings and long exposure to online class devices.	27	24.3	29	26.1	31	27.9	20	18.0	4	3.6	3.49	High Risk
8. Tingling and painful finger joints due to repetitive movements of fingers and wrist while doing school-related activities for a long time.	13	11.7	23	20.7	33	29.7	24	21.6	18	16.2	2.90	Moderate Risk
9. Experience chronic fatigue caused by insufficient body rest and persistent levels of stress.	13	11.7	24	21.6	31	27.9	29	26.1	14	12.6	2.94	Moderate Risk
10. Sleep deprivation as a result of juggling schoolwork and family obligations.	18	16.2	29	26.1	27	24.3	27	24.3	10	9.0	3.10	Moderate Risk
						Grand Mean					3.04	Moderate Risk

Legend: 4.21-5.00 - Very High Risk, 3.41-4.20 - High Risk, 2.61-3.40 - Moderate Risk, 1.81-2.60 – Low Risk, 1.00-1.81 - No Risk at All

Table 3 unveils the perceived health risks in terms of the physical health dimension which indicated a moderate risk as backed by a grand mean score of 3.04. It is noteworthy that the indicator describing the tendency for eye strain obtained the highest mean of 3.49 implying a high risk. Home isolation and social isolation during the peak of the pandemic increased the use of digital devices leading to a higher chance of developing digital eye strain-related conditions according to Balsam (2021). All indicators described as moderate risks include back pain (3.20); feeling burned out due to excessive workloads (3.17); sleep deprivation (3.10); strain from long working hours in a virtual class triggering shoulder pain (3.09); headache episodes after a prolonged screen time exposure (3.02); the experience of neck pain from using a computer in a faulty posture during an online class (3.01); chronic fatigue caused by insufficient body rest and persistent stress levels (2.94); tingling and painful finger joints due to repetitive movements of fingers and wrist while doing school-related activities for a long time (2.90) and of loss of appetite due to overwhelming school work and high-stress levels (2.36).

P- ISSN 2986-3058 | E-ISSN 2986-3376

According to Fernandez (2020), long periods of home lockdowns have sparked a near-epidemic of poor posture, aggravated by longer-than-normal sessions at the computer without sufficient exercise or other physical activity to combat too much sitting. It has caused many people to modify their schedules, sleeping habits, and eating habits. All of which can trigger neuro-musculoskeletal symptomology. Lindberg (2021) states that prolonged screen time can trigger migraine episodes and screen headaches which can significantly influence personal and professional life. It has also been found that sleep difficulties are significantly associated with a self-assessed impact on quality of life and may be related to changes in habits, and self-isolation during the pandemic (Pérez-Carbonell et al., 2020).

Several studies have further revealed that sitting at a computer for extended periods while maintaining poor posture can cause neck and back pain in adults. Since the work-from-home culture is new, it is essential to learn about the causes of neck and back discomfort among computer users who work from home to maintain productivity (Shah & Desai, 2021). Also, the risk of chronic fatigue among teachers is seemingly possible due to insufficient body rest and persistent stress levels due to disruptive work demands. According to an article published by the American Psychological Association in 2018, muscles tense up all at once in response to the sudden onset of stress, then relax once the stimulation has passed. Among teachers, stress and anxiety symptoms result from higher burnout (Corbin et al., 2019) and it subsequently happens when workplace stress has not been successfully managed. The World Health Organization (2019) names three dimensions of burnout syndrome: emotions of tiredness, thoughts of negativism concerning one's career, and diminished professional efficacy.

Amid the pandemic, Muhlheim (2020) points out that emotional eating is a reasonable coping strategy. People turn to food for comfort. As people have to spend more time at home, access to food throughout the day coupled with less discipline around meal or snack times, it made eating likely even when one is not hungry (Oyer, 2022). Hence, loss of appetite is not expected as this study suggests.

Table 4. The Level of Perceived Mental Health Risk

Mental Health Risks	Very High Risk (5)		High Risk (4)		Moderate Risk (3)		Low Risk (2)		No Risk at All (1)		Mean	Descriptive Interpretation
	f	%	f	%	f	%	F	%	f	%		
1. Stress due to long working hours and unpredictable schedules.	12	10.8	23	20.7	29	26.1	29	26.1	18	16.2	2.84	Moderate Risk
2. Tendency for sadness and depressive moods due to repeated quarantine and limited activities.	9	8.1	18	16.2	27	24.3	31	27.9	26	23.4	2.58	Low Risk
3. Difficulty in concentration due to lack of sleep and rest	7	6.3	27	24.3	22	19.8	31	27.9	24	21.6	2.66	Moderate Risk

P- ISSN 2986-3058 | E-ISSN 2986-3376

4 Encounter anxiety due to prolonged school-related stress periods.	7	6.3	24	21.6	20	18.0	33	29.7	27	24.3	2.56	Low Risk
5. Experiences emotional outburst that leads to impulsive actions and decisions.	8	7.2	20	18.0	20	18.0	32	28.8	31	27.9	2.48	Low Risk
6. Mental fatigue related to heavy workload and school activities.	9	8.1	19	17.1	29	26.1	33	29.7	21	18.9	2.66	Moderate Risk
7. Experiences mood swings as a result of overthinking and sadness about the current pandemic.	6	5.4	19	17.1	27	24.3	30	27.0	29	26.1	2.49	Low Risk
8. Uneasiness due to low digital literacy that leads to delayed compliance to school academic requirements.	5	4.5	16	14.4	22	19.8	31	27.9	37	33.3	2.29	Low Risk
9. Experience a lack of motivation due to work pressure and school demands.	6	5.4	17	15.3	19	17.1	37	33.3	32	28.8	2.35	Low Risk
10. Slow thinking process and forgetfulness due to the stressful circumstances of online teaching that causes exhaustion.	5	4.5	13	11.7	31	27.9	30	27.0	32	28.8	2.36	Low Risk
Grand Mean											2.53	Low Risk

Legend: 4.21-5.00 - Very High Risk, 3.41-4.20 - High Risk, 2.61-3.40 - Moderate Risk, 1.81-2.60 – Low Risk, 1.00-1.81 - No Risk at All

Table 4 depicts the perceived risks in the mental health dimension with a grand mean of 2.53 interpreted as a low-risk level. Interestingly, the indicators with the highest means rated as moderate risks cover stress due to long working hours and unpredictable schedules (2.84); difficulty concentrating from to lack of sleep and rest (2.66), and mental fatigue attributed to heavy workload and school activities (2.66). Von Bonsdorff et al., (2017) demonstrated that prolonged work hours result in insufficient sleep, impair recovery from fatigue and contribute to persistent insomnia and psychosomatic problems. Mental fatigue and sleep deprivation result in decreased attentiveness and focus, impairing the capacity to complete tasks requiring logic or complex cognition like judgment. Peri (2021) supported these assertions indicating that making judgments is more challenging when one cannot appraise situations and choose the appropriate behavior because of mental stress. Although teaching is one of the most stressful occupations, this can be managed appropriately by introducing organizational and individual interventions to help

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minimize the adverse effects on the teacher according to the study by Abenavoli et al. (2016).

The indicator assessed under the low-risk level pertains to the tendency for sadness and depressive moods due to repeated quarantine and limited activities (2.58). During the pandemic, optimism was found to be inversely related to anxiety, somatization, and depression (Arslan et al., 2020) and that positivity mediated the relationship between perceived risk of distress and happiness (Yldrm & Güler, 2021). The respondents have also experienced anxiety due to prolonged school-related stress periods (2.56); mood swings as a result of overthinking and sadness about the current pandemic (2.49); and experiences of emotional outbursts that lead to impulsive actions and decisions (2.48). This is opposed to the findings of Wong et al. (2021) signifying that instructors' stress, anxiety, and depression levels are moderate. The study findings also detailed low risks in terms of slow thinking and forgetfulness due to the stressful circumstances of online teaching that cause exhaustion (2.36); a lack of motivation due to work pressure and school demands (2.35); and uneasiness due to inadequate digital literacy, leading to delayed compliance with school academic requirements (2.29).
To counter the mental challenges of the pandemic, it was previously reported that Filipino teachers positively viewed spending more time with their families during the quarantine (Talidong & Toquero, 2020). The COVID-19 pandemic helped them to be connected firmly with their family members which made their bonds stronger. Adaptively, teachers developed positive coping mechanisms to deal with the pandemic's mental stress (Pérez-Fuentes et al., 2020). It is suggested that teachers' occupational fitness and well-being can be improved by mindfulness which reduces depression, and anxiousness (Braun et al., 2019; Ma et al., 2021). Furthermore, instructors demonstrated beneficial and strong motivation to do e-teaching during the surge of the Covid-19 pandemic. The opinions of colleagues directly influence the emotions, and motivation of teachers that impacts their educational strategies (Fives & Buehl, 2016).

Table 5. The Level of Perceived Socio-Emotional Health Risk

Socio-Emotional Health Risks	Very High Risk (5)		High Risk (4)		Moderate Risk (3)		Low Risk (2)		No Risk at All (1)		Mean	Descriptive Interpretation
	f	%	F	%	f	%	F	%	f	%		
1. Limited socialization with friends, co-teachers, and students due to the pandemic strain causes an increase in anxiety levels.	11	9.9	20	18.0	31	27.9	26	23.4	23	20.7	2.73	Moderate Risk
2. Isolation associated to quarantine which only allows virtual interaction that limits the bond with life partners and peers.	7	6.3	18	16.2	30	27.0	28	25.2	28	25.2	2.53	Low Risk
3. Frustration due to low productivity levels in work and personal life.	7	6.3	17	15.3	24	21.6	31	27.9	32	28.8	2.42	Low Risk
4. Irritation and hostility in social situations that resort to blaming others or colleagues.	3	2.7	16	14.4	18	16.2	30	27.0	44	39.6	2.14	Low Risk

P- ISSN 2986-3058 | E-ISSN 2986-3376

5. Anxiety because of having no contact with friends for a long time.	2	1.8	18	16.2	24	21.6	28	25.2	39	35.1	2.24	Low Risk
6. Emotional breakdown due to extreme pressure and stress from both work and personal commitments.	5	4.5	14	12.6	21	18.9	36	32.4	35	31.5	2.26	Low Risk
7. Lack of motivation due to limited camaraderie caused by continuous quarantine	4	3.6	14	12.6	19	17.1	34	30.6	40	36.0	2.17	Low Risk
8. Feeling of loneliness due to lack of interaction with family and friends during the pandemic.	5	4.5	10	9.0	26	23.4	31	27.9	39	35.1	2.20	Low Risk
9. Feeling of resentment due to the spillover of work into their family and leisure time causing to exhaustion	5	4.5	15	13.5	24	21.6	33	29.7	34	30.6	2.32	Low Risk
10. Experience extreme sadness because of limited social gatherings due to high demand of workloads and exhaustion.	6	5.4	12	10.8	24	21.6	28	25.2	41	36.9	2.23	Low Risk
Grand Mean											2.32	Low Risk

Legend: 4.21-5.00 - Very High Risk, 3.41-4.20 - High Risk, 2.61-3.40 - Moderate Risk, 1.81-2.60 – Low Risk, 1.00-1.81 - No Risk at All

Table 5 presents the level of perceived health risk in socio-emotional health which garnered a grand mean of 2.32 described as low risk. Strikingly, the lone indicator classified as moderate risk (2.73) is limited socialization with friends, co-teachers, and students due to the pandemic lockdowns which may have increased anxiety levels. According to the study by Jakubowski & Sitko-Dominik (2021), the line between a professional job and family life may have been blurred due to distance work or work-from-home setup, and as such teachers' well-being may have deteriorated. The quarantine imposed has contributed to changes in social interactions, particularly close relationships. The rest of the socio-emotional indices conveyed a low-risk assessment level as follows: isolation associated with quarantine which only allows virtual interaction that limits the bond with life partners and peers (2.53); frustration due to low productivity levels in work and personal life (2.42); feeling of resentment due to the spillover of work into their family and leisure time, causing exhaustion (2.32); emotional breakdown due to extreme pressure and stress from work and personal commitments (2.26); anxiety from having no contact with friends for a long time (2.24); the experience of extreme sadness because of limited social gatherings due to the high demand of workload and exhaustion (2.23); the feeling of loneliness due to lack of interaction with family and friends during the pandemic (2.20); lack of motivation due to limited camaraderie caused by continuous quarantine (2.17); and of irritation and hostility in social situations that resort to blaming others or colleagues(2.14).

The findings conveyed that the respondents evaluated their socio-emotional health risk as low.

P- ISSN 2986-3058 | E-ISSN 2986-3376

According to the American Psychological Association, improving teachers' relationships with students have significant, beneficial, long-lasting academic and social development consequences. According to Waytz & Gray (2018), depending on characteristics like age, generation, and developmental variations in technology use, online communication can help deepen ties with friends and family. Some individuals benefit from being placed on lockdown since it allowed them to explore and come to grips with their purpose in life. Evidently, a household environment provided more opportunities for social connections and excellent social support associated with well-being to cope and survive the pandemic's stressful and uncertain nature. Okabe- Miyamoto et al., (2021) understand it very well when they highlighted the role of digital communication in allowing immense reconnections among friends and families through social media, and text messaging during the height of the COVID-19 pandemic.

To promote socio-emotional health, work and life balance should be encouraged. Lufkin & Mudditt (2021), stressed that long working hours harm one's health and well-being, and thus, harmony between the two should be achieved. Being productive as a teacher is also crucial. It is usually identified with work and duties that must be completed, but somehow can be applied to leisure time as well (Sharp Health News, 2021).

Table 6. Results of the Test of Difference in Health Risk Perception

Demographic profile	p-value	Interpretation	Decision
Age	0.0012	Significant	Reject the Null Hypothesis
Sex	0.5985	Not significant	Fail to Reject the Null Hypothesis
Marital Status	0.8502	Not significant	Fail to Reject the Null Hypothesis
College Affiliation	0.3762	Not significant	Fail to Reject the Null Hypothesis
Academic Rank	0.0019	Significant	Reject the Null Hypothesis
Time Engaged in EdTech	0.3255	Not significant	Fail to Reject the Null Hypothesis

Note: Significant if the p-value is less than the 0.05 level.

Table 6 summarizes the result of the test of difference when respondents were grouped according to age, sex, marital status, college affiliation, academic rank, and time engagement in EdTech. It is remarkable to note that perceived health risks demonstrated significant differences when respondents were clustered based on age (p-value = 0.0012) and academic rank (p-value = 0.0019). This result is congruent to the study of Meng and Wang (2018) emphasizing that professional ranking, age, and length of teaching make a difference in faculty members' occupational stress. According to Ozamiz-Etxebarria et al. (2021), advancing age specifically those over 47 years old reported higher levels of anxiety and stress. It is notable that both of these variables are indicators of health risk.

Interestingly, perceived health risks did not show any significant difference when categorized as to age (p-value 0.5985); marital status (p-value 0.8502); academic affiliation (p-value 0.3762); and time engagement in Edtech or online teaching platforms (p-value 0.3255). Summatively, these variables may not have a bearing on the level of health risk perception, thus, failing to reject the null hypothesis as scientifically calculated. A recent systematic review suggests otherwise signifying that

P- ISSN 2986-3058 | E-ISSN 2986-3376

female and male teachers differ in managing their work-related emotions (Olson et al., 2019), and differences in reported job demands between male and female teachers might have several implications (Stengård J. et al. (2022) including perceptions of health risks. In terms of marital status, it has been reviewed that the quality of a person's relationship plays a role in ensuring good mental health. The evidence varies as some studies found no association between marital status and psychological outcomes during the pandemic quarantine period (Braithwaithe & Holt-Lunstad (2017).

Hulick (2020), posits that educational screen time was linked to better school performance with no harmful health effects and that more passive screen time is one variable related to worse health and school achievement outcomes. According to Jain et al. (2020), administrative work, lifestyle, family duties, finances, competition, and changing norms are sources of stress. Other tasks are more stressful than teaching, and a fair distribution of these responsibilities may reduce teacher stress.

The HOPE initiative is an acronym for Health Optimization Practices for Educators. It is a health-promoting information packet covering three areas: a) ergonomic principles, guidelines, and practices to prevent or minimize musculoskeletal disorders, b) resilience and mental well-being resources for self-help routines, mindfulness programming, support groups, and counseling, and c) socio-emotional programs and activities for community connectedness in pursuit for personal relationships and social engagements. This is intended to prevent health risks among teachers while on remote work setup during the Covid -19 pandemic.

CONCLUSIONS

The respondents' perceived level of health risks in terms of physical, mental, and socio-emotional health indicated a moderate risk that requires necessary actions. Specifically, the risk for the physical dimension is consistently assessed as a moderate level while low-risk levels were deduced for both mental and socio-emotional dimensions. Perceived health risks among teachers significantly differ when grouped according to age and academic rank. In other words, age and academic rank impact the respondents' perception of their health risk levels. Advancing age and position perhaps have a vital role in how health risks are perceived and thus impact decisions for healthy lifestyles and behavior.

The study recommends that the university's administration first support implementing and reinforcing health policies and protocols related to promoting teachers' health and well-being in remote work setups. The pursuance of collaborative training efforts is vital to instill risk awareness and enhance teachers' knowledge of ergonomic principles and healthy lifestyle practices. Also, the promotion of health referrals and consultations for early detection and management with mobilization of resources to support ergonomics solutions to prevent or reduce health risks. Lastly, the dissemination and implementation of Health Optimization Practices for Educators (HOPE). Its significance is proactive health promotion for teachers to nurture and sustain wellness and well-being in work-from-home settings in the era of the Covid -19 pandemic.

LIMITATION & FURTHER RESEARCH

The study is limited to the exploration of health risks perception among teachers engaged in a remote work setup in a local university during the academic year 2021-2022. Further studies are suggested akin to the exact nature of this research in a new and larger setting with a broader context to gain wider perspectives and achieve a more significant sample power effect. Interesting variables

P- ISSN 2986-3058 | E-ISSN 2986-3376

to be explored that may impact teachers' health risks while in a remote work setup may include health status and lifestyle; ergonomics and occupational hazards. Also, to use highly objective risk assessment methods and randomized sampling techniques to minimize the possibility of bias.

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