**Challenges and Wellness Amidst the Pandemic by The Secondary School Mathematics Teachers in The First Congressional District, Division of Northern Samar**

**ABSTRACT**

This study explored the challenges and wellness amidst the pandemic among the secondary mathematics teachers and their relationship. A descriptive-correlational design was employed. A sample of 144 secondary school mathematics teachers in the first congressional district of Northern Samar participated in the study. Findings revealed that respondents had a moderate level of challenges (M=3.34) and a high level of wellness (M=3.77) during the pandemic. Teacher-related challenges were negatively related to occupational (r=-.293, p<.01), physical (r=-.203, p=.015), social (r=-.267, p=.001), and psychological wellness (r=-.269, p=.001). School-related challenges were negatively related to occupational (r=-.239, p=.004) and social wellness (r=-.198, p=.018), while environment-related challenges were negatively related to occupational (r=-.165, p=.048), physical (r=-.291, p<.01), and social wellness (r=-.181, p=.030). Teacher-related challenges have a significant impact on teachers' occupational, physical, social, and psychological wellness, implying that increased challenges have a slight adverse effect on their overall well-being. Similarly, school-related challenges affect teachers' occupational and social wellness, suggesting a harmful effect on their well-being. Additionally, environment-related challenges influence teachers' occupational, physical, and social wellness, indicating a slight decline in wellness when facing workplace problems.

**Keywords:** *challenges, wellness, experience, secondary math teachers, pandemic, descriptive-correlational*

1. **INTRODUCTION**

Many education stakeholders are now focusing on how schools should support mental health and wellness as they evaluate ways to improve school climate, school safety, and teachers’ well-being. Even before the pandemic, DepEd officials were paying more attention to teachers’ mental and emotional wellness. Teachers’ wellness has been related to consistency and steadiness in schools, teaching effectiveness, and student achievement.

To promote teacher wellness, it is essential to prioritize both physical and mental health, ongoing professional development, and access to necessary resources for effective classroom instruction. However, the sudden transition to distance learning had a negative impact on teachers’ wellness. Since the COVID-19 pandemic, the level of work-related stress and anxiety of teachers has increased, affecting their occupational wellness, particularly among mathematics teachers.

Teaching mathematics is very challenging, considering that some mathematics pedagogy and curriculum subjects depend heavily on manipulative materials. During the pandemic, Tosun Mıhcı and Bayzan (2021) found that the most prominent problems reported by teachers were the lack of devices and internet access among students, as well as a lack of experience among teachers with distance education. Salifu & Owusu-Boateng (2022) also found that mathematics pre-service teachers encountered challenges on the high cost of internet data subscription, lack of smart devices due to their high cost, and poor internet connectivity in remote areas. In the Philippines, Robosa et al. (2021) noted that the lack of resources significantly challenges most Filipino teachers, the management of students, and excessive workloads, which contribute to stress and burnout.

The sudden implementation of distance learning modality coupled with other stressors has contributed to the stress and anxiety of teachers during the pandemic, affecting their health and psychological conditions. According to the Alliance of Concerned Teachers (ACT) Philippines, more than 70% of teachers believe that their physical and mental health is being negatively impacted by the workload associated with distance learning and other demanding responsibilities.Alcera et al. (2022) disclosed that teachers manifested severe stress, moderate anxiety, and mild depression during the pandemic. Due to several problems, including a lack of school facilities, resources, and financial considerations, teachers already suffered moderate to high levels of stress before the epidemic. In the study of Alea et.al (2020), respondents also agreed that they faced problems managing the stress caused by community quarantine at home and between online classes demands

Understanding the health condition and psychosocial well-being of teachers remains crucial, even beyond the pandemic era. While the immediate crisis may have passed, the challenges faced by educators, particularly in maintaining their wellness, persist.

This study explored the challenges and wellness amidst the pandemic by the secondary school mathematics teachers in the first congressional district, Division of Northern Samar. Specifically, it determined the challenges encountered by respondents amidst the pandemic in terms of teacher-related, school-related, student and family-related, and environment-related challenges; determined the level of teachers’ wellness amidst the pandemic in terms of occupational wellness; physical wellness; social wellness, and psychological wellness; and examined if there is a significant relationship between the challenges encountered by the respondents during the pandemic and their level of wellness.

1. **METHODOLOGY**

**2.1 Conceptual Framework**

This scientific investigation determined the challenges and wellness amidst the pandemic by the secondary school mathematics teachers in the first congressional district, Division of Northern Samar.More specifically, this study pointed out the challenges encountered by respondents amidst the pandemic in terms of teacher-related challenges, school-related challenges, student and family-related challenges, and environment-related challenges; and measured the level of teachers’ wellness amidst the pandemic (i.e., occupational wellness, physical wellness, social wellness, and psychological wellness).

In this study, the researcher assumed that the challenges encountered by the respondents during the pandemic affected their wellness.

**2.2 Research Design**

This study utilized the descriptive-correlational research design. The descriptive design was used to examine the challenges encountered by respondents amidst the pandemic in terms of teacher-related challenges, school-related challenges, student and family-related challenges, and environment-related challenges and to analyze the level of teachers’ wellness amidst the pandemic in terms of occupational wellness, physical wellness, social wellness, and psychological wellness. Moreover, this study is correlational since it determined if there was a significant relationship between the challenges encountered by mathematics teachers during the pandemic and their level of wellness.

**2.3 Locale of the Study**

The study was conducted in the public secondary schools in the first congressional district of Northern Samar. It is composed of thirty-seven (37) public high schools.

* 1. **Respondents**

Regardless of their length of service and area of specialization, 144 junior high school teachers who were teaching mathematics during the pandemic were included in the survey. These teachers came from the 37 public high schools in the first congressional district, Division of Northern Samar.

* 1. **Research Instrument**

A researcher-made instrument was used to gather data. Due to the lack of a standardized instrument, the researcher adapted item indicators from Duraku’s study and the Department of Education’s Basic Education-Learning Continuity Plan (BE-LCP) to assess the challenges faced by teachers during the pandemic. For measuring occupational wellness, indicators were drawn from the works of Poysa et al., Hallberg and Schaufeli, and Hallsten (2020). Physical wellness indicators were based on health tips from professionals at the University of New Hampshire. Social wellness items were modified from studies by Renger et al., Sackney et al.(2000), and Cares (2021), while psychological wellness indicators were adopted from Ryff's (2006) framework.

* 1. **Scoring and Interpretation**

The challenges encountered by the respondents and the level of teachers’ wellness were scored using a 5-Likert Scale. The mean scores of the challenges encountered were interpreted as follows: 4.20–5.00 (Most Challenging); 3.40–4.19 (More Challenging); 2.60–3.39 (Moderately Challenging); 1.80–2.59 (Less Challenging); and 1.00–1.79 (Least Challenging). On the other hand, the mean scores of the teachers’ wellness were interpreted as follows: 4.20–5.00 (Very High); 3.40–4.19 (High); 2.60–3.39 (Average); 1.80–2.59 (Fair); and 1.00–1.79 (Poor).

* 1. **Statistical Analysis**

The study utilized means to describe the challenges encountered and the level of teachers’ wellness. The Pearson product-moment of correlation was computed to determine the relationship between the challenges to the teachers’ wellness.

1. **RESULTS AND DISCUSSION**

**3.1 Challenges Encountered by Respondents Amidst the Pandemic**

Teacher-Related Challenges

Table 1 presents the challenges encountered by respondents during the pandemic in terms of teacher-related issues. The findings revealed that math teachers encountered moderately challenging problems in terms of low teacher readiness levels and capacity for distance learning modalities (M=3.27).In contrast, these teachers encountered less challenging problems, in terms of lack of commitment and dedication to teaching work (M=2.15).

The grand mean of 2.82 shows that the respondents encountered a moderate level of teacher-related challenges amidst the pandemic. Considering that the problems are moderately challenging, there is a likelihood that teachers coped reasonably well with the challenges, suggesting a certain level of adaptability and resilience in managing teacher-related issues during the pandemic. However, the moderate level of challenges also implies a need for targeted support or interventions to address specific areas where teachers have faced difficulties, emphasizing the importance of tailored assistance or resources to improve their teaching experiences during such crises.

The findings validate Soriano et al.'s (2022) research, affirming that teachers encountered notable teacher-related challenges in the new normal, particularly in aspects such as monitoring, providing feedback, and assessing student learning. In Anabo’s (2024) study, teachers expressed their readiness to switch to distance learning education; however, they felt hampered due to a lack of facilities, equipment, and capacity building for distance learning education.

**Table 1**

**Challenges Encountered by Respondents Amidst the Pandemic in Terms of Teacher-Related Challenges**

|  |  |  |
| --- | --- | --- |
| **Teacher-Related Challenges** | **Mean** | **Interpretation** |
| Low teacher readiness levels and capacity to facilitate modular distance learning modality, or online distance learning, or Radio/ TV-based instruction. | 3.27 | Moderately Challenging |
| Limited or failure to communicate with the students and parents. | 3.16 | Moderately Challenging |
| Lack of experience in online classes.  | 3.04 | Moderately Challenging |
| Poor ICT skills of teachers during the online distance learning modality. | 2.92 | Moderately Challenging |
| Lack of innovative teaching strategies in the new normal. | 2.88 | Moderately Challenging |
| Inadequate assessment methods and teacher evaluation of student learning and performance. | 2.86 | Moderately Challenging |
| Lack of or failure to provide feedback to parents and students. | 2.82 | Moderately Challenging |
| Lack of teaching practices and approaches that provide real and lasting learning and value for students. | 2.61 | Moderately Challenging |
| Being unable to guide learners in understanding lessons during the pandemic. | 2.44 | Less Challenging |
| Lack of commitment and dedication to teaching work. | 2.15 | Less Challenging |
| **Grand Mean** | **2.82** | **Moderately Challenging** |

School-Related Challenges

Table 2 presents the challenges encountered by respondents during the pandemic in terms of school-related issues. The secondary math teachers encountered more challenging problems regarding poor internet connection in school that could be used for online learning (M=3.80). On the other hand, the less challenging issue faced by the respondents was the lack of hygiene kits such as liquid hand soap, alcohol/sanitizer, face masks, etc. (M=2.57).

The grand mean of 3.19 indicates that the math teachers encountered a moderate level of school-related challenges during the pandemic. It implies that, despite difficulties, schools have shown tenacity in dealing with issues throughout the pandemic, demonstrating an ability to handle adversity.

Similarly to this investigation, Simbajon's (2021) qualitative study underscores that teachers encountered school-related challenges, including issues with time management, workload, and internet connectivity. In addition, Salifu & Owusu-Boateng’s (2022) study confirms that poor internet services in remote areas were a major challenge for mathematics pre-service teachers. The study of Robosa et al. (2021) also unveils a significant challenge faced by Filipino teachers—the lack of resources, particularly the absence of necessary equipment, posing hardships for both teachers and students. As highlighted by the American Psychological Association, the teachers in this study are significantly burdened by submission and workloads, contributing to elevated stress levels and burnout.

**Table 2**

**Challenges Encountered by Respondents Amidst the Pandemic in Terms of School-Related Challenges**

|  |  |  |
| --- | --- | --- |
| **School-Related Challenges** | **Mean** | **Interpretation** |
| Poor internet connection in the school that could be used for online learning. | 3.80 | More Challenging |
| Urgent submission and multiple workloads contribute to teachers’ stress and burnout. | 3.73 | More Challenging |
| Limited school health personnel. | 3.60 | More Challenging |
| Lack of printers, photocopy machines, computers, and other ICT gadgets that could be used for the reproduction of learning materials. | 3.53 | More Challenging |
| Lack of training and capacity building programs for teachers relevant to modular distance learning modality, online distance learning, and TV/Radio-based instruction. | 3.49 | More Challenging |
| Lack of online and offline learning resources such as textbooks, e-learning modules, printed learning modules, educational TV, and radio broadcast resources. | 2.99 | Moderately Challenging |
| Lack of supervisory and management skills of the school head in the multiple learning delivery modalities (e.g., modular distance learning, online distance learning, and TV/radio-based instruction). | 2.76 | Moderately Challenging |
| Poor implementation of safety measures, such as social distancing measures, regular and thorough handwashing with soap and water, and frequent use of alcohol and hand sanitizer. | 2.74 | Moderately Challenging |
| Non-availability or limited health facilities such as a school clinic, triage, isolation room, and hand-washing areas.  | 2.67 | Moderately Challenging |
| Lack of hygiene kits such as liquid hand soap, alcohol/ sanitizer, face masks, etc. | 2.57 | Less Challenging |
| **Grand Mean** | **3.19** | **Moderately Challenging** |

Student and Family-Related Challenges

Table 3 presents the challenges encountered by respondents during the pandemic in terms of student and family-related issues. As shown in the table, the mathematics teachers faced the most challenging problems in terms of unavailability of gadgets and other technologies for online learning at home (M=4.53) and lack of internet connection at home (M=4.26). Conversely, respondents faced more challenges, in terms of the non-participation or absence of parents during scheduled distribution and retrieval (M=3.68).Top of Form

The grand mean of 3.99 indicates that secondary math teachers encountered more challenging problems during the pandemic related to students and family-related issues. It implies that, despite difficulties, schools have shown tenacity in dealing with issues throughout the pandemic, demonstrating an ability to handle adversity.

 This confirms the study by Gaspar (2022), where the absence of parents during scheduled distribution and retrieval emerged as a significant challenge for teachers. Gaspar also highlighted additional problems, including issues with copy-pasted answers and non-submission of students’ outputs.

**Table 3**

**Challenges Encountered by Respondents Amidst the Pandemic in terms of Student and Family-Related Challenges**

|  |  |  |
| --- | --- | --- |
| **Student and Family-Related Challenges** | **Mean** | **Interpretation** |
| Unavailability of gadgets at home and other technologies used for online learning. | 4.53 | Most Challenging |
| No internet connection at home. | 4.26 | Most Challenging |
| The inability of students to learn online is due to a lack of knowledge and skills in ICT. | 4.03 | More Challenging |
| The inability of the students to learn independently, such as finding and collecting information, carrying out investigations or projects, completing homework, and the like. | 3.97 | More Challenging |
| Students copy and paste their answers from their classmates’ or online sources. | 3.97 | More Challenging |
| Low level of interaction between the students and teachers during online classes. | 3.94 | More Challenging |
| Lack of parental assistance and home supports. | 3.93 | More Challenging |
| Non-submission of students’ outputs. | 3.83 | More Challenging |
| Negative attitude of students towards virtual or at-home education. | 3.75 | More Challenging |
| Non-participation of parents or the absence of parents during the scheduled distribution and retrieval. | 3.68 | More Challenging |
| **Grand Mean** | **3.99** | **More Challenging** |

Environment-Related Challenges

Table 4 presents the challenges encountered by respondents amidst the pandemic in terms of environment-related challenges. As shown in the table, the mathematics teachers encountered more challenges in the hassle of travel during rainy days, which affects the distribution and retrieval of modules and learning materials. On the contrary, the indicator with the least mean score was on the safety risks that could be encountered in the rebel-infested community during the distribution of modules (M=3.10).

The grand mean of 3.37 shows that the mathematics teachers encountered moderately challenging environment-related issues during the pandemic. The moderate level of environment-related challenges implies a need for ongoing support and resources to assist secondary school mathematics teachers in adapting to changing educational environments.

Corollary to this, Honra's (2022) study also brought to light that teachers faced environment-related challenges, particularly issues related to technology. Similarly, Borreo and Alva (2022) found that module reproduction posed a significant challenge during the COVID-19 pandemic. Gaspar's (2022) research further echoes these challenges, shedding light on additional hurdles encountered by teachers, including the inconvenience of travel during bad weather and the risks associated with accessing cluster areas, impacting the seamless distribution and retrieval of modules and learning activity sheets.

**Table 4**

**Challenges Encountered by Respondents Amidst the Pandemic in terms of Environment-Related Challenges**

|  |  |  |
| --- | --- | --- |
| **Environment-Related Challenges** | **Mean** | **Interpretation** |
| The hassle of travel during rainy days affects the distribution and retrieval of modules and learning materials. | 3.68 | More Challenging |
| Power disruption or unavailability of a power source that could be used in the printing and reproduction of modules and other learning materials. | 3.64 | More Challenging |
| Inaccessible barangays or places due to slippery or rocky roads that affect the distribution and retrieval of modules and learning materials. | 3.42 | More Challenging |
| Very remote barangays or places that affect the distribution and retrieval of modules and learning materials. | 3.39 | Moderately Challenging |
| Strict implementation of COVID-19 protocols that affect the distribution and retrieval of modules and learning materials. | 3.37 | Moderately Challenging |
| Health risks as a result of a shortage of health professionals and facilities. | 3.35 | Moderately Challenging |
| Health risks due to the unavailability of anti-COVID-19 vaccines for school personnel and students. | 3.34 | Moderately Challenging |
| Lack of communication or less participation of barangay officials regarding the distribution of modules and the retrieval of students’ outputs. | 3.27 | Moderately Challenging |
| Non-availability of vehicles such as tricycles, motorcycles, jeeps, and the like. | 3.12 | Moderately Challenging |
| Safety risks that could be encountered in the rebel-infested community during the distribution of modules. | 3.10 | Moderately Challenging |
| **Grand Mean** | **3.37** | **Moderately Challenging** |

Summary of the Challenges Encountered by Respondents Amidst the Pandemic

Table 5 reveals that there was a moderate level of challenges encountered by the secondary math teachers amidst the pandemic in terms of teacher-related, school-related, and environment-related. On the other hand, they encountered more challenging problems during the pandemic related to students and family-related issues.

 In general, the overall grand mean of 3.34 shows that the mathematics teachers encountered moderately challenging problems during the pandemic. This implies a need for targeted support and resources for mathematics teachers. Furthermore, with a moderate level of challenges, it is evident that teachers have been grappling with adjustments required for effective teaching during the pandemic. This finding emphasizes the importance of adaptive teaching strategies. It implies a necessity for ongoing professional development opportunities that equip educators with versatile pedagogical methods, innovative approaches to remote or hybrid teaching, and effective ways to engage students in mathematical concepts regardless of the learning environment.

**Table 5**

**Summary of the Challenges Encountered by Respondents Amidst the Pandemic**

|  |  |  |
| --- | --- | --- |
| **Challenges Encountered Amidst the Pandemic** | **Grand Mean** | **Interpretation** |
| A. Teacher-Related Challenges | 2.82 | Moderately Challenging |
| B. School-Related Challenges | 3.19 | Moderately Challenging |
| C. Student and Family-Related Challenges | 3.99 | More Challenging |
| D. Environment-Related Challenges | 3.37 | Moderately Challenging |
| **Overall Grand Mean** | **3.34** | **Moderately Challenging** |

**3.2 Level of Teachers’ Wellness Amidst the Pandemic**

Occupational Wellness

Table 6 indicates that the respondents exhibited a notably high level of occupational wellness. The respondents manifested a very high level of occupational wellness regarding the positive interactions with their co-teachers and employees (M=4.24). Nonetheless, the mathematics teachers express an average level of appreciation and value for teaching mathematics using modular distance learning modality or online distance learning, or TV/radio-based instruction (M=3.08).

The grand mean of 3.72 shows that the respondents had a high level of occupational wellness, which further suggests a positive work environment. This could mean increased employee retention and satisfaction within the organization. When employees experience a high level of wellness in their work, they are more likely to stay with the organization, leading to greater stability and potentially improved productivity.

In contrast, the study of Poysa et al. (2020) revealed that many teachers experienced occupational stress as well as an increase in stress due to the pandemic. Also, the Alliance of Concerned Teachers (ACT) Philippines reported that more than 70% of teachers believe that their physical and mental health is being negatively impacted by the workload associated with other demanding responsibilities.

**Table 6**

**Level of Occupational Wellness amidst the Pandemic**

|  |  |  |
| --- | --- | --- |
| **Occupational Wellness** | **Mean** | **Interpretation** |
| The teacher had positive interactions with their co-teachers and employees. | 4.24 | Very High Level of Wellness |
| The teacher enjoyed and valued their relationship with their students. | 4.19 | High Level of Wellness |
| The teacher had a healthy relationship with their school head. | 4.18 | High Level of Wellness |
| The teacher had high levels of commitment, involvement, and resilience in their teaching occupation. | 4.11 | High Level of Wellness |
| The teacher had high levels of vigor (energy, effort) and dedication in terms of inspiration, pride, and a sense of significance. | 4.09 | High Level of Wellness |
| The teacher had a positive and fulfilling work-related state of mind. | 3.92 | High Level of Wellness |
| The teacher felt happy and contented with their then-current position and salary. | 3.74 | High Level of Wellness |
| The teacher found teaching math to be engaging and motivating. | 3.69 | High Level of Wellness |
| The teacher found their workload to be light, relaxed, and manageable. | 3.58 | High Level of Wellness |
| The teacher found their work-life balance. | 3.57 | High Level of Wellness |
| The teacher had a high level of job satisfaction. | 3.56 | High Level of Wellness |
| The teacher received various supports from their internal and external stakeholders. | 3.47 | High Level of Wellness |
| The teacher felt happy and satisfied teaching mathematics using the modular distance learning modality or online distance learning, or TV/radio-based instruction. | 3.29 | Average Level of Wellness |
| The teacher found their teaching occupation less stressful. | 3.13 | Average Level of Wellness |
| The teacher appreciated and valued teaching mathematics using modular distance learning modality or online distance learning, or TV/radio-based instruction. | 3.08 | Average Level of Wellness |
| **Grand Mean** | **3.72** | **High Level of Wellness** |

Physical Wellness

The findings presented in Table 7 revealed that staying hydrated to feel good and perform well (M=4.01) obtained the highest mean score, which is interpreted as a high level of wellness. On the contrary, engaging in yoga to enhance strength, balance, flexibility, and eventually alleviate stress, anxiety, and depression received the lowest mean score (M=2.23), interpreted as a fair level of wellness.

The grand mean of 3.09 shows that the mathematics teachers had an average level of physical wellness. An average physical wellness level suggests room for improvement in promoting healthier lifestyles among them. The finding could also signal the importance of emphasizing preventive healthcare measures. Encouraging regular health screenings, promoting awareness about healthy lifestyle choices, and providing resources for preventive healthcare can be instrumental.

As cited by Aperribai, et. al (2020), physical activity and exercise could help to mitigate the effects caused by the current pandemic on the mental and physical health of citizens worldwide. According to Slimani et. al (2020), being physically active should be highly recommended, considering that physical activity could help in preventing psychological or mood disorders.

**Table 7**

**Level of Physical Wellness amidst the Pandemic**

|  |  |  |
| --- | --- | --- |
| **Physical Wellness** | **Mean** | **Interpretation** |
| The teacher stayed hydrated to feel good and perform well. | 4.01 | High Level of Wellness |
| The teacher ate healthy meals such as fruits and vegetables. | 3.69 | High Level of Wellness |
| The teacher included grow, glow, go foods in their diet. | 3.65 | High Level of Wellness |
| The teacher kept a consistent sleep schedule and got 7 hours of sleep per night. | 3.54 | High Level of Wellness |
| The teacher did other types of physical leisure activities, such as planting, playing games, and household chores, to lessen stress and boredom. | 3.51 | High Level of Wellness |
| The teacher did physical exercises (e.g., jogging, walking, biking, weights, etc.) to strengthen muscles and bones. | 3.31 | Average Level of Wellness |
| The teacher did physical exercises to combat health conditions and decrease the risk of some health problems, such as heart disease, stroke, diabetes, and high blood pressure. | 3.28 | Average Level of Wellness |
| The teacher did physical exercises to control weights. | 3.23 | Average Level of Wellness |
| The teacher attended physical exercises to decrease boredom and keep their body working out. | 3.06 | Average Level of Wellness |
| The teacher participated in physical activities to help prevent and manage stress and promote mental wellness. | 3.05 | Average Level of Wellness |
| The teacher participated in physical activities to reduce feelings of anxiety and depression. | 2.97 | Average Level of Wellness |
| The teacher joined sports/athletic activities to keep the mind and body healthy. | 2.72 | Average Level of Wellness |
| The teacher joined sports/athletic activities to build camaraderie and a healthy environment. | 2.67 | Average Level of Wellness |
| The teacher joined sports/athletic activities (basketball, volleyball, soccer, badminton, etc.) to get exercise and have fun. | 2.60 | Average Level of Wellness |
| The teacher attended dance fitness/activities to have fun, enjoy dancing, and promote mental health. | 2.56 | Fair Level of Wellness |
| The teacher attended zumba classes and other dance activities to improve health, promote a healthy heart, promote flexibility, and decrease stress levels. | 2.52 | Fair Level of Wellness |
| The teacher did yoga to improve strength, balance, and flexibility, and eventually reduce the level of stress, anxiety, and depression. | 2.23 | Fair Level of Wellness |
| **Grand Mean** | **3.09** | **Average Level of Wellness** |

Social Wellness

 As presented in Table 8, the findings reveal that while respondents exhibited a very high level of wellness in valuing individual differences and treating others with dignity and respect, scoring the highest mean (M=4.28), their wellness in getting along with others, being comfortable and willing to express his/her feelings and opinion was comparatively lower at M=3.84, though still classified as a high level of wellness.

The grand mean of 4.10 shows that the respondents had a high level of social wellness. The high level of social wellness among mathematics teachers suggests a positive and supportive work environment within the teaching community. This indicates that these educators have strong interpersonal connections, fostering collaboration, mutual support, and the sharing of best practices.

 As Mumme (2021) suggests, nurturing social connections emerges as a pivotal strategy for bolstering social wellness, providing protective advantages for both health and longevity. This approach aligns with Gaspar's (2022) study, which sheds light on how teachers strategically leveraged social connections during the pandemic. Gaspar revealed that teachers reinforced their social support networks by staying connected with friends and family through calls and messaging. Moreover, they actively engaged in seeking and providing support, fostering a sense of camaraderie by sharing their experiences.

**Table 8**

**Level of Social Wellness amidst the Pandemic**

|  |  |  |
| --- | --- | --- |
| **Social Wellness** | **Mean** | **Interpretation** |
| The teacher valued individual differences and treated others with dignity and respect. | 4.28 | Very High Level of Wellness |
| The teacher had healthy social connections with his/her family, friends, neighbors, and others. | 4.26 | Very High Level of Wellness |
| The teacher had a strong and supportive network of family and friends. | 4.24 | Very High Level of Wellness |
| The teacher had a positive interaction with the social environment (i.e. colleagues, friends, and relatives). | 4.18 | High Level of Wellness |
| The teacher surrounded himself/herself with people who could be trusted and who knew and cared about him/her. | 4.18 | High Level of Wellness |
| The teacher was willing to ask for help when needed. | 4.12 | High Level of Wellness |
| The teacher created boundaries within relationships that encouraged communication, trust, and conflict management. | 4.11 | High Level of Wellness |
| The teacher let go of toxic relationships. | 4.11 | High Level of Wellness |
| The teacher checked in with his/her friends and family as often as possible. | 4.10 | High Level of Wellness |
| The teacher had happy and fulfilling relationships with others. | 4.07 | High Level of Wellness |
| The teacher engaged in opportunities that allowed him/her to interact and socialize with other individuals outside his/her workplace. | 4.06 | High Level of Wellness |
| The teacher spent enough time in face-to-face communication with family members and professional colleagues. | 4.04 | High Level of Wellness |
| The teacher created a safe and supportive environment where his/her students could express their emotions and experiences. | 4.03 | High Level of Wellness |
| The teacher shared my emotions with his/her close friends and dear ones. | 3.88 | High Level of Wellness |
| The teacher used to get along with others, being comfortable and willing to express his/her feelings and opinions. | 3.84 | High Level of Wellness |
| **Grand Mean** | **4.10** | **High Level of Wellness** |

Psychological Wellness

Table 9 presents the psychological wellness of mathematics teachers. Teachers demonstrated the highest level of wellness in having goals and a sense of direction for his/her life, with a mean score of M=4.38, indicating a very high level of wellness. Conversely, the lowest mean score (M=3.89) was observed for the indicator on resisting pressures to think or act in certain ways that were contrary to his/her values, though still interpreted as a high level of wellness.

The grand mean of 4.18 shows that the respondents had a high level of psychological wellness. This suggests that they possess effective coping strategies, resilience, and emotional regulation skills. This implication indicates that these individuals likely experience lower levels of stress, anxiety, and depression.

 The finding negates the observations of Alcera et al. (2022) that the teachers manifested severe stress, moderate anxiety, and mild depression during the pandemic. Talidong and Toquero’ (2020) study also revealed that Filipino teachers experienced psychological stress and anxiety. Additionally, Kamaruzaman and Surat (2021) uncovered that the psychological wellness of the respondents reached an alarming level after two weeks of the lockdown period.

**Table 9**

**Level of Psychological Wellness amidst the Pandemic**

|  |  |  |
| --- | --- | --- |
| **Psychological Wellness** | **Mean** | **Interpretation** |
| The teacher had goals and a sense of direction for his/her life. | 4.38 | Very High Level of Wellness |
| The teacher was aware of personal limitations and understood that he/she was an imperfect person. | 4.35 | Very High Level of Wellness |
| The teacher understood that relationships involved both giving and receiving. | 4.34 | Very High Level of Wellness |
| The teacher was open to new experiences, utilized talents, and strove to realize his/her potential. | 4.31 | Very High Level of Wellness |
| The teacher developed a meaningful life that fit with personal values and goals. | 4.26 | Very High Level of Wellness |
| The teacher empathized with others and acted in ways that promoted the welfare of others. | 4.24 | Very High Level of Wellness |
| The teacher held beliefs—whether spiritual, secular, or both—that guided his/her behavior and gave his/her life meaning. | 4.24 | Very High Level of Wellness |
| The teacher strived for continued development and improvement. | 4.24 | Very High Level of Wellness |
| The teacher held an encouraging attitude toward himself/herself. | 4.23 | Very High Level of Wellness |
| The teacher sought more knowledge about himself/herself. | 4.22 | Very High Level of Wellness |
| The teacher worked to improve effectiveness in various life areas. | 4.22 | Very High Level of Wellness |
| The teacher found or created meaning in events from his/her past and in his/her current life. | 4.22 | Very High Level of Wellness |
| The teacher lived life according to his/her personal beliefs and principles. | 4.21 | Very High Level of Wellness |
| The teacher felt positive about or could make peace with his/her past actions in life. | 4.19 | High Level of Wellness |
| The teacher used resources and opportunities available to him/herself. | 4.17 | High Level of Wellness |
| The teacher chose or created environments that fit his/her needs and values. | 4.16 | High Level of Wellness |
| The teacher had trusting relationships with other people that were caring, intimate, and satisfying. | 4.15 | High Level of Wellness |
| The teacher felt confident about his/her strengths. | 4.13 | High Level of Wellness |
| The teacher made choices and evaluated himself/herself based on personal standards rather than the judgments of others. | 4.11 | High Level of Wellness |
| The teacher was able to compromise, and he/she did so in ways that also protected his/her own worth in relationships. | 4.11 | High Level of Wellness |
| The teacher was independent in ways that fit within his/her cultural values. | 4.07 | High Level of Wellness |
| The teacher felt capable of managing the environment around himself/herself. | 4.06 | High Level of Wellness |
| The teacher used to talk with someone about his/her emotional concerns and share feelings with others. | 4.05 | High Level of Wellness |
| The teacher said "no" when he/she needed to without feeling guilty. | 4.03 | High Level of Wellness |
| The teacher could resist pressures to think or act in certain ways that were contrary to his/her values. | 3.89 | High Level of Wellness |
| **Grand Mean** | **4.18** | **High Level of Wellness** |

Summary on the Level of Teachers’ Wellness Amidst the Pandemic

Table 10 shows there is a high level of wellness among secondary math teachers during the pandemic in terms of occupational wellness, social wellness, and psychological wellness. On the other hand, they have an average level of physical wellness amidst the pandemic.

 Overall, the grand mean of 3.77 shows that the respondents had a high level of wellness during the pandemic. The high level of wellness among secondary math teachers during the pandemic suggests their resilience and adaptability. A high wellness level means that these educators navigated these challenges with strength, managed stressors effectively, and maintained their overall well-being.

**Table 10**

**Summary on the Level of Teachers’ Wellness amidst the Pandemic**

|  |  |  |
| --- | --- | --- |
| **Level of Wellness Amidst the Pandemic** | **Weighted Mean** | **Interpretation** |
| A. Occupational Wellness | 3.72 | High Level of Wellness |
| B. Physical Wellness | 3.09 | Average Level of Wellness |
| C. Social Wellness | 4.10 | High Level of Wellness |
| D. Psychological Wellness | 4.18 | High Level of Wellness |
| **Overall Grand Mean** | **3.77** | **High Level of Wellness** |

 **3.3 Test of Relationship between the Challenges Encountered by the Respondents during the Pandemic and their Level of Wellness**

Pearson Product-Moment Coefficient of Correlation at 0.05 level of significance was used to test the relationship between the challenges encountered by the respondents during the pandemic and their level of wellness.

Table 11 shows that the teacher-related challenges found a weak negative relationship with the teachers’ wellness in terms of occupational wellness r(142)=-.293, p<.01, physical wellness r(142)=-.203, p=.015, social wellness r(142)=-.267, p=.001, and psychological wellness r(142)= -.269, p=.001. This means that the teachers’ occupational wellness, physical wellness, social wellness, and psychological wellness are affected by teacher-related challenges. This suggests that as teachers face more challenges related to their role, there is a slight adverse effect on their overall well-being.

The aforementioned finding is consistent with the teacher-researcher's observation that as teachers encounter more challenging problems, their level of wellness tends to decrease. The finding also aligns with the Self-Determination Theory, indicating that challenges in the teaching role may impede teachers' satisfaction of psychological needs, affecting their overall well-being. To mitigate this impact, addressing challenges in ways that support autonomy, competence, and relatedness can positively contribute to teachers' well-being, as per the principles of SDT.

In terms of school-related challenges, a weak negative correlation was also found to the teachers’ wellness in terms of occupational wellness r(142)=-.239, p=.004 and social wellness r(142)=-.198, p=.018. This means that the teachers’ occupational wellness and social wellness are affected by school-related challenges. This implies that as teachers experience more challenges within the school environment, there is a slight harmful effect on their occupational and social well-being.

The finding agrees with Maslow's Hierarchy of Needs, proposing that challenges within the school environment can disrupt the fulfillment of diverse needs, thereby exerting a detrimental impact on the occupational and social well-being of teachers. This alignment underscores the intricate interplay between the challenges faced by educators and the foundational elements of Maslow's hierarchy, such as safety, social connections, esteem, and self-actualization. Addressing these challenges becomes imperative not only for the professional growth and fulfillment of teachers but also for fostering a supportive environment that promotes their social well-being within the school community.

As regards student and family-related challenges, it shows no significant relationship to the teachers’ wellness amidst the pandemic.

As observed in Table 11, the environment-related challenges had a weak negative relationship with the teachers’ wellness in terms of occupational wellness r(142)=-.165, p=.048, physical wellness r(142)=-.291, p<.01, and social wellness r(142)= -.181, p=.030. This means that environment-related challenges influence teachers’ occupational wellness, physical wellness, and social wellness. This implies that teachers' occupational, physical, and social wellness suffer slightly when they deal with workplace problems.

The assertion that environment-related challenges influence teachers' occupational, physical, and social wellness aligns with the principles of the Self-Determination Theory (SDT). In this context, challenges in the educational environment may compromise teachers' autonomy, competence, and social connections. Addressing these challenges in ways that support these psychological needs becomes crucial for preserving and enhancing teachers' overall wellness, as per the tenets of SDT.

**Table 11**

**Relationship between the Challenges Encountered by the Respondents during the Pandemic and their Level of Wellness**

|  |  | Occupational Wellness  | Physical Wellness  | Social Wellness | Psychological Wellness |
| --- | --- | --- | --- | --- | --- |
| Teacher-Related Challenges | *Pearson Correlation* | -.293\*\* | -.203\* | -.267\*\* | -.269\*\* |
| *Sig. (2-tailed)* | **.000** | **.015** | **.001** | **.001** |
| *Interpretation* | **Significant** | **Significant** | **Significant** | **Significant** |
| School-Related Challenges | *Pearson Correlation* | -.239\*\* | -.138 | -.198\* | -.148 |
| *Sig. (2-tailed)* | **.004** | .099 | **.018** | .077 |
| *Interpretation* | **Significant** | NotSignificant | **Significant** | NotSignificant |
| Student and Family-Related Challenges | *Pearson Correlation* | -.141 | -.119 | .010 | .014 |
| *Sig. (2-tailed)* | .093 | .154 | .909 | .871 |
| *Interpretation* | Not Significant | NotSignificant | Not Significant | NotSignificant |
| Environment-Related Challenges | *Pearson Correlation* | -.165\* | -.291\*\* | -.181\* | -.109 |
| *Sig. (2-tailed)* | **.048** | **.000** | **.030** | .193 |
| *Interpretation* | **Significant** | **Significant** | **Significant** | NotSignificant |

\*Significant at p<.05

1. **CONCLUSIONS**

Findings revealed that secondary mathematics teachers faced a moderate level of challenges during the pandemic, with student- and family-related issues being the most difficult. This indicates a need for targeted support for math teachers and stronger engagement between families and the educational system.

There was a high level of wellness among secondary math teachers during the pandemic. This implies that, despite the challenges of the pandemic, secondary math teachers maintained strong occupational, social, and psychological wellness. However, the average level of physical wellness suggests the need for initiatives promoting better health practices to ensure overall well-being in future crises.

Teacher-related challenges have a significant impact on teachers' occupational, physical, social, and psychological wellness, implying that increased challenges have a slight adverse effect on their overall well-being. Similarly, school-related challenges affect teachers' occupational and social wellness, suggesting a harmful effect on their well-being. Additionally, environment-related challenges influence teachers' occupational, physical, and social wellness, indicating a slight decline in wellness when facing workplace problems.

1. **RECOMMENDATIONS**

Based on the findings, the following recommendations are forwarded:

1. Given that teachers encountered more challenging problems during the pandemic related to students and family-related issues, schools should consider implementing support measures such as counseling services, family engagement programs, and additional training. These initiatives can help teachers better navigate and address the complex challenges arising from students' and families' situations during the pandemic.
2. The study highlights the importance of teachers' overall wellness. Hence, the school heads may organize workshops focusing on physical well-being, covering topics such as stress management, healthy lifestyles, and incorporating physical activity into daily routines. They may also invite healthcare professionals, nutritionists, or fitness experts to lead informative sessions.
3. Considering the adverse impact of challenges on teachers' wellness, it is crucial to establish robust support systems, which can be spearheaded by school guidance counselors or the DepEd Northern Samar Division. These include:
* Mentorship programs by pairing experienced teachers with newer ones to provide guidance and share insights on navigating challenges;
* Counseling services can be implemented to offer individualized support for teachers facing specific difficulties; and
* Organizing professional development opportunities focused on stress management, coping strategies, and work-life balance can empower teachers with the skills needed to effectively address challenges and maintain their overall well-being.
1. **LIMITATIONS**

This study was subject to some limitations. First, there was the lack of previous research studies exploring the wellness of mathematics teachers and the challenges they encountered during the pandemic. Second, the researcher collected information through self-reporting from colleagues and friends regarding their wellness and pandemic-related challenges. However, personal observations about teachers' wellness during the pandemic were not conducted. Third, the study was conducted only in the first congressional district of Northern Samar, limiting the generalizability of the findings to other districts or the entire division. Therefore, the conclusions drawn from the research may not apply to all teachers in Northern Samar. Finally, the study's reliance on a quantitative method using a structured questionnaire with closed-ended questions may have limited the depth of the outcomes. This method restricted respondents' responses to predefined indicators, potentially overlooking nuanced or unexpected insights that could have emerged from a more open-ended approach.

**Ethical Approval and consent:**

This study followed the appropriate research ethics guidelines. Consent from the respondents was provided, and participants were assured that the data provided would be kept confidential.

**DISCLAIMER (ARTIFICIAL INTELLIGENCE)**

This research utilized ChatGPT, a language model developed by OpenAI, for paraphrasing paragraphs and checking grammatical errors. The Free ChatGPT App was employed as a tool to enhance the grammar, clarity, and readability of the text.

Details of the AI usage are given below:

1. Used ChatGPT for paraphrasing for clarity and readability of paragraphs.
2. Used ChatGPT for checking grammatical errors.

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