



# School-based Management Challenges and Coping Strategies in the Secondary Educational System of Puerto Princesa City and Palawan during the COVID-19 Pandemic

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## Authors' contributions

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## ABSTRACT

Educators' coping methods are becoming more widely recognized worldwide as a critical element of a resilient educational system. This study aimed to assess the educational challenges faced by school heads, teachers, and parents during the COVID-19 pandemic, focusing on the four aspects of school-based management (SBM) practices, and to evaluate the different coping strategies

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adopted. A triangulation research design and a cross-sectional study approach were used, utilizing the Brief Coping Orientation to Problems Experienced (COPE) Inventory. The study was conducted in the Divisions of Puerto Princesa City (PPC) and Palawan secondary schools with a total of 735 respondents. The findings revealed that challenges were fairly evident across all four aspects of SBM practices in the PPC and Palawan Divisions. The non-parametric Wilcoxon test showed significant differences in the level of challenges encountered by secondary school heads between the two Divisions, specifically in "leadership and governance" ( $W=45$ ,  $p$ -value=0.010), "curriculum and instruction" ( $W=114$ ,  $p$ -value=0.000), "accountability and continuous improvement" ( $W=56$ ,  $p$ -value=0.012), and "management of resources" ( $W=16$ ,  $p$ -value=0.028). Results from Brief COPE indicated that the most used coping mechanism by school heads and teachers was "active coping," with  $3.65\pm 0.42$  and  $3.85\pm 0.69$  respectively, while for parents, "self-distraction" ( $3.33\pm 0.0$ ) accounts the most used domain. Parents and school heads had high coping skills in the domains of "active coping," "denial," and "behavioral disengagement," while "self-distraction" was also highly manifested by school heads. However, teachers had high coping skills in all 14 domains of the Brief COPE. The Wilcoxon test found no significant differences in the varying coping strategies of school head ( $W=97$ ,  $p$ -value=0.982), teachers ( $W=118$ ,  $p$ -value=0.370), and parents ( $W=119$ ,  $p$ -value=0.334) between PPC and Palawan Divisions. This study paves opportunities to implement a customized intervention program based on the perceived needs of these stakeholders as a starting point to address the challenges they faced during the pandemic.

*Keywords: Brief COPE; coping skills; COVID-19 pandemic; education; school-based management.*

## 1. INTRODUCTION

The COVID-19 pandemic is one of the most critical challenges for mankind which affected global health since the 2nd World War [1]. The education sector is one of the most affected areas during the stringent implementation of COVID-19 protocols due to the absence of crisis management [2], especially in developing countries like the Philippines.

In the Philippines context of education, the Department of Education (DepEd) Order No. 12, s. 2020 mentioned that the novelty of the COVID-19 emergency equally calls for a novel approach on the delivery of basic education in the public school system, in which social or physical distancing is indispensable to health and safety [3]. With the restrictions imposed by the "new normal", the DepEd crafted the Basic Education–Learning Continuity Plan (BE-LCP). However, according to Ho et al. [4], the sudden shift to online and modular learning would be difficult for developing and underdeveloped countries, like the Philippines, and educational authorities due to a lack of infrastructure and planning for the format that suits the new approach. The teachers and students are not familiar with the equipment and process of online learning due to a lack of technical understanding. The educational institutions will have to face various issues related to managing the learning activities and engaging the students. All of this will go back to

how the schools adopt and practically actualize school-based management (SBM) [5].

The school-based management (SBM) tool has been in existence in our educational system for quite a number of years, though existing for several decades in the educational systems of the other country [6]. Caldwell (2004) defines SBM in a system of public education as the systematic and consistent decentralization to the school level of authority and responsibility to make decisions on significant matters related to school operations within a centrally determined framework of goals, policies, curriculum, standards and accountabilities. It has proven effective in the realization of the desired goals and outcomes of schools in Australia, the United States, Indonesia, New Zealand, England and Wales, Thailand and others [7].

Being heavily affected by the virus, the Philippines has experienced significant changes in academic institutions and schools. Remote or online learning has become an alternative mode of education. However, this transition has posed challenges for teachers, and school heads, particularly in terms of parental involvement. With remote learning, parents have taken on new roles in supporting their children's education at home. However, the level of parental involvement varies, and factors such as work responsibilities, technological limitations, and lack of familiarity with digital tools can hinder effective support [8]. Teachers have had to find

solutions to bridge the digital divide and ensure equal learning opportunities for all students [2]. These challenges somehow have brought stresses to the schools' stakeholders such as the school heads, teachers and parents.

Stress among teachers and school heads is a global phenomenon that affects their overall performance. It has been identified as a major contributor to burnout, which can have long-term negative consequences. Recognizing the impact of stress on educators, research studies have focused on understanding academic stress and developing approaches to help teachers cope with anxiety [9]. Research has shown that enhancing teacher coping skills and well-being can lead to more innovative, challenging, and effective teaching practices, resulting in improved educational outcomes [10]. Multiple studies conducted between 2003 and 2014, as summarized by health executive research, have consistently found that teachers report high levels of stress, anxiety, and poor coping abilities [11]. Adding to the list are the parents who also suffered stresses due to the new roles they have taken during the pandemic.

As the current concerns about mental health and coping skills are on the rise, this study aims to contribute to the sustainable development goals 2021 that emphasize healthy lives to promote well-being. The present study explores level of school-based management challenges encountered by school heads, teachers, and parents in the secondary schools in Puerto Princesa City and the province of Palawan, Philippines during the COVID-19 pandemic. Moreover, this study also explores the coping strategies adopted by school heads, teachers, and parents to address these challenges.

## 2. MATERIALS AND METHODS

### 2.1 Study Participant and Sampling

Factors like location, work position, and institutional affiliation were taken into consideration in relation to the selection of samples and respondents, and relevance to the goals of this research. The respondents of this study were the parents, teachers and school heads in the public secondary schools within the jurisdictions of the DepEd Divisions of Palawan and Puerto Princesa City (PPC). Parents were identified as Parent-Teacher's Association's (PTA) President, Secretary, and Treasurer. The teachers are the regular teaching personnel of

the schools. The school heads are identified as either principal, officer-in-charge or teacher-in-charge. A random sampling technique was used to select the respondents of the study. The total number of teacher respondents for each division was sourced from the Planning Office of the DepEd Divisions of Palawan and PPC. This study utilized the Slovin formula to estimate a representative sample in every school with a 10% margin of error (Eq. 1) [12]:

$$n = \frac{N}{(1+Ne^2)} \quad \text{Eq. 1}$$

where  $n$  is the representative number of the population sample;  $N$  is the number of the entire population; and  $e$  is the level of error in sampling.

The parents, teachers and school heads were involved in an online survey. However, virtual interviews were also facilitated by the researchers. The data gathering was between March to May 2023. To comply with the ethical guidelines and the data privacy law in the Philippines, an informed consent was used, and the participation of the respondents were anonymous and voluntary, and the data collected were treated with high confidentiality.

### 2.2 Data Collection Tool and Technique

The research tool has three parts. Part I provides the data for the sociodemographic profile of the respondents. Part II explores the challenges encountered by school heads, teachers, and stakeholders in the secondary educational system in Palawan during the COVID-19 pandemic. It is a 30-item questionnaire and is categorized into four categories based on the school-based management practices of the DepEd. These four aspects include leadership and governance, curriculum and instruction, accountability and continuous improvement, and management of resources. Part II utilized a 5-point Likert scale: 5-strongly agree, 4-agree, 3-neutral, 2-disagree, and 1-strongly disagree. Each score was evaluated based on the level of how evident the challenges encountered are. "Highly evident" challenges are between the scores 4.0 and 5.0 while scores 3.0 to 3.99 means the challenges are "evident". Additionally, scores between 2.0 and 2.99 indicate "fairly evident" challenges, while 1.00 to 1.99 scores mean "less evident" and below 1.00 is "not evident". Part III includes the determination of coping mechanisms that the respondents

employed. It is based on the Brief Coping Orientation to Problems Experienced (COPE) inventory. With 14 subscales and 28 items, the Brief COPE is a modified version of the COPE Inventory [13]. Active coping, planning, positive reframing, acceptance, humor, religion, emotional support, instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame are among the subscales.

The Brief COPE scale was utilized to assess coping strategies. This scale consists of items that are rated on a four-point Likert scale, ranging from "I haven't done this at all" to "I have done this a lot." Each item represents a specific coping approach, and participants indicate the frequency with which they have employed that approach. To calculate a subscale score, the individual item scores corresponding to each coping approach within a subscale are summed. The higher the subscale score, the more frequently the person has used that particular coping approach. Participants in the study were approached at their schools at a convenient time. Prior to their involvement, they were provided with a comprehensive explanation of the study's purpose and procedures. Written informed consent was obtained from each participant, ensuring that they were fully aware of their participation and the confidential nature of their responses.

### 2.3 Data Analysis

The data were analyzed using a combination of descriptive and inferential statistics. To analyze the school-based management challenges, the responses were assigned numerical codes ranging from 1 to 5. Mean values were then calculated for each of the four categories of school-based management. Regarding the Brief COPE scale, which assesses coping attitudes, the 14 domains of the scale were combined into a single domain. The raw scores obtained were categorized using percentiles. Scores below the 10th percentile were classified as "poor coping skills," scores between the 10th and 90th percentiles were labeled as "moderate coping skills," and scores above the 90th percentile were classified as "high coping skills." Descriptive analysis of the data was conducted using SPSS version 20, a statistical software commonly used for data analysis (SPSS South Asia, Bangalore).

## 3. RESULTS

### 3.1 Socio-Demographic Profile of the Respondents

A total of 735 respondents were surveyed for this study. Of this number, 576 were teachers, 52 were school heads, and 107 were parents. A total of 52 secondary schools across Palawan and Puerto Princesa City participated in the whole survey. Table 1 provides an overview of the demographic characteristics of the respondents.

For school heads, the ratio of male and female revealed that at least 53.85% of the sample population represents female respondents, while 46.15% are males. In terms of age distribution, the majority of the respondents fall within the age bracket of 45-55, accounting for 38.46% of the total sample. Interestingly, none of the school heads interviewed from PPC belongs to the age categories of 26-35 and 56-65. Marital status data shows that a significant proportion of the school heads interviewed are married, comprising 73.08% of the total respondents. On the other hand, single respondents make up 21.15% of the sample population.

Regarding educational qualifications, at least 23.08% of the school heads have PhD units, indicating progress towards obtaining a PhD. However, only 11.54% of the respondents have successfully completed their PhD education. Moreover, a large percentage of the school heads have at least completed Master's degree units, suggesting a high level of educational attainment among the participants. In terms of geographical distribution, the majority of the PhD-holder school heads are from the Palawan division, accounting for four individuals, while only two individuals are recorded from PPC. The data also highlights the extensive years of service among the school heads. At least 55.77% of the respondents have served in the educational system for over 20 years, indicating considerable experience and expertise. About 28.85% have been in service for approximately 11 to 20 years, while only one person interviewed has been in the service for less than five years (Table 1).

For teachers, the data revealed a significant variation in sex between the Palawan and PPC divisions, with females being the dominant group in both divisions and overall. In Palawan, females account for a substantial majority, comprising

82.72% of the teachers, while males represent only 17.28%. Similarly, in the PPC division, females constitute 78.36% of the sample population, whereas males make up 21.64%. Thus, females emerge as the dominant respondents or teachers in this study, accounting for 81.42% of the total sample, while males account for 18.58%. When examining the age distribution, it becomes evident that the majority of interviewed teachers fall within the age bracket of 26-35, making up 42.26% of the total. The subsequent age group, 36-45, follows closely at 34.72%. These findings suggest that there is a relatively young workforce among the teachers in this study, which could have implications for their experience levels and perspectives. The data also provide insights into the marital status of the teachers, revealing that a large proportion, approximately 67.71%, are married. On the other hand, single teachers represent 29.17% of the

total sample. Turning to educational qualifications, the data indicates that only a small percentage of teachers hold a PhD-level qualification. Specifically, four (4) teachers (0.69%) in the sample population possess a PhD. Furthermore, 11 teachers (1.91%) have PhD units. In contrast, a higher percentage of teachers have a master's degree qualification (6.60%), while the majority have either completed Master's units or are currently pursuing a Master's degree (60.59%) (Table 1).

For parents, most of them fall within the age bracket 26-35 (35.51%) followed by 36-45 at 27.10%. About 67.29% are female and most are married (67.29%), but it is notable that 29.91% of the parents are single. The majority of the parents are professionals (75.70%), holding professions as either doctors in medicine, engineers, lawyers, or teachers (Table 1).

**Table 1. Frequency distribution (f) (with equivalent percentage) of the demographic characteristics of school heads, teachers, and stakeholders in the secondary school Divisions of Puerto Princesa City (PPC) and Palawan**

Profile	PPC (n=7)		Palawan (n=45)		PPC & Palawan (n=52)	
	f	%	f	%	f	%
<b>School heads</b>						
<b>Age</b>						
26-35	-	-	3	6.67	3	5.77
36-45	4	57.14	12	26.67	16	30.77
46-55	3	42.86	17	37.78	20	38.46
56-65	-	-	13	28.89	13	25.00
<b>Sex</b>						
Female	4	57.14	24	53.33	28	53.85
Male	3	42.86	21	46.67	24	46.15
<b>Civil Status</b>						
Single	1	14.29	10	22.22	11	21.15
Married	5	71.43	33	73.33	38	73.08
Separated	1	14.29	-	-	1	1.92
Widowed	-	-	2	4.44	2	3.85
<b>Highest Educational Attainment</b>						
Bachelor's degree Graduate	-	-	1	2.22	1	1.92
Master's degree with Units	2	28.57	24	53.33	26	50.00
Master's degree Graduate	-	-	7	15.56	7	13.46
PhD with Units	3	42.86	9	20.00	12	23.08
PhD Graduate	2	28.57	4	8.89	6	11.54
<b>Length of Service</b>						
0-5 Years	-	-	1	2.22	1	1.92
6-10 Years	2	28.57	5	11.11	7	13.46
11-20 Years	1	14.29	14	31.11	15	28.85
More Than 20 Years	4	57.14	25	55.56	29	55.77
<b>Tenure</b>						
Permanent	7	100.00	45	100.00	52	100.00
<b>Rank and Position</b>						
Head Teacher I	1	14.29	2	4.44	3	5.77

<b>Profile</b>	<b>PPC (n=7)</b>		<b>Palawan (n=45)</b>		<b>PPC &amp; Palawan (n=52)</b>	
Head Teacher II	-	-	4	8.88	4	7.69
Head Teacher III	-	-	2	4.44	2	3.85
Teacher-In-Charge	-	-	1	2.22	1	1.92
Principal I	1	14.29	16	35.55	19	36.54
Assistant Principal II	1	14.29	3	6.66	4	7.69
Principal II	2	28.57	6	13.33	9	17.31
Principal III	-	-	5	11.10	3	5.77
Principal IV	2	28.57	3	6.66	5	9.62
<b>School teachers</b>	<b>PPC (n=171)</b>		<b>Palawan (n=405)</b>		<b>PPC &amp; Palawan (n=576)</b>	
<b>Age</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>
25 and below	7	4.09	35	8.64	42	7.29
26-35	59	34.50	185	45.68	244	42.36
36-45	73	42.69	127	31.36	200	34.72
46-55	24	14.04	40	9.88	64	11.11
56-65	8	4.68	18	4.44	26	4.51
<b>Sex</b>						
Female	134	78.36	335	82.72	469	81.42
Male	37	21.64	70	17.28	107	18.58
<b>Civil Status</b>						
Single	38	22.22	130	32.10	168	29.17
Married	126	73.68	264	65.19	390	67.71
Separated	2	1.17	-	-	2	0.35
Widowed	39	23.39	11	2.71	16	2.77
<b>Highest Educational Attainment</b>						
Bachelor's degree Graduate	58	33.92	116	65.68	174	30.21
Master's degree with Units	83	48.54	266	65.68	349	60.59
Master's degree Graduate	19	11.11	19	4.69	38	6.60
PhD with Units	7	4.09	4	0.99	11	1.91
PhD Graduate	4	2.34	-	-	4	0.69
<b>Length of Service</b>						
0-5 Years	63	36.84	160	39.51	223	38.72
6-10 Years	59	34.50	145	35.80	204	35.42
11-20 Years	25	14.62	58	14.32	83	14.41
More Than 20 Years	24	14.04	42	10.37	66	11.46
<b>Tenure</b>						
Job Order/Temporary	9	5.26	3	0.74	12	2.08
Contractual	5	2.92	12	2.96	17	2.95
Permanent	157	91.81	390	96.30	547	94.97
<b>Rank and Position</b>						
LSB Teacher	8	4.17	-	-	8	1.39
Substitute Teacher	-	-	1	0.25	2	0.33
Para Teacher	-	-	2	0.50	1	0.17
Teacher I	66	38.60	22	55.06	289	50.17
Teacher II	24	14.04	59	14.57	83	14.41
Teacher III	52	30.41	89	21.98	142	24.65
CARMA	1	0.58	-	-	1	0.17
Head Teacher	4	2.34	9	2.22	13	2.26
Head Teacher III	-	-	1	0.25	1	0.17
Master Teacher	16	9.36	21	5.19	37	6.42
<b>Parents</b>	<b>PPC (n=15)</b>		<b>Palawan (n=92)</b>		<b>PPC &amp; Palawan (n=107)</b>	
<b>Age</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>
25 and below	-	-	14	15.22	14	13.08

Profile		PPC (n=7)		Palawan (n=45)		PPC & Palawan (n=52)
26-35	8	53.33	30	32.61	38	35.51
36-45	5	33.33	24	26.09	29	27.10
46-55	1	6.67	17	18.48	18	16.82
56-65	1	6.67	7	7.61	8	7.48
<b>Sex</b>						
Female	11	73.33	61	66.30	72	67.29
Male	4	26.67	31	33.70	35	32.71
<b>Civil Status</b>						
Single	3	20.00	29	31.52	32	29.91
Married	11	73.33	61	66.30	72	67.29
Separated	1	6.67	-	-	1	0.93
Widowed	-	-	2	2.17	2	1.87
<b>Occupation</b>						
Professional (e.g., Doctor, Lawyer, etc.)	8	53.33	73	79.35	81	75.70
Technical/Associate Professional	-	-	5	5.44	5	4.67
Public Servant	2	13.33	6	6.52	8	7.48
Clerical Support	1	6.67	1	1.09	2	1.87
Craft and Trade	-	-	1	1.09	1	0.93
Elementary Occupation	2	13.33	2	2.17	4	3.74
Service and Sale	1	6.67	2	2.17	3	2.80
Skilled Agricultural/Fishery	1	6.67	2	2.17	3	2.80

### 3.2 School-Based Management Challenges

Table 2 provides the details of the SBM challenges encountered by school heads, teachers, and parents during the COVID-19 pandemic, in relation to the secondary education system in Palawan and Puerto Princesa City. In terms of leadership and governance, the highest scores accounted for lack of preparedness due to poor mobilization, where scores 2.92, 2.65, and 2.54 were recorded for school heads, teachers, and parents respectively. In terms of curriculum and instruction, some notable challenges for school heads, teachers, and parents were also fairly evident. Challenges encountered by school heads include disruptions in instruction and learning (2.90) and the lack of personal interaction between teacher and student (2.94). For teachers, the highest scores were noted for less visibility which resulted in being unaccountable (2.91), followed by disruptions in instruction and learning (2.61). Finally, for parents, becoming less conscious or aware of health and safety (2.93) accounts for the highest aspect of challenge for them (Table 2).

Regarding accountability and continuous improvement, the most notable specific challenges encountered by school heads lie in “school staff, leaders, students, and families

feeling psychologically unsafe” whereas for teachers and parents, “fewer opportunities to attend training and seminars is most evident. Finally, for the management of resources, the notable challenge encountered by school heads and teachers is the limited resources. On the other hand, for parents, it is the nurtured human capital ineffectively. The non-parametric Wilcoxon test showed significant differences in the level of challenges encountered by secondary school heads between the two divisions, specifically in "leadership and governance" ( $W=45, p\text{-value}=0.010$ ), "curriculum and instruction" ( $W=114, p\text{-value}=0.000$ ), "accountability and continuous improvement" ( $W=56, p\text{-value}=0.012$ ), and "management of resources" ( $W=16, p\text{-value}=0.028$ ) (Table 3).

### 3.3 Coping Strategies by School Heads, Teachers, and Parents

The study found that school heads had high coping skills in the domains of active coping, denial and behavioral disengagement. Interestingly, teachers also had high coping skills in all the 14 domains of Brief COPE, including self-distraction, active coping, denial, substance use, emotional support, behavioral disengagement, venting, use of informational support, positive framing, self-blame, planning,

humor, acceptance, and religion. Parents only showed high coping strategies in the domains of active coping and denial (Table 4).

Most of the school heads had moderate coping skills in the domains of self-distraction, substance use, emotional support, venting, use of informational support, positive framing, self-blame, planning, and humor. On the other hand, parents have moderate coping in the domains of substance use, emotional support, behavioral disengagement, venting, use of informational support, self-blame, humor, and religion (Table 4).

Results from Brief COPE indicated that the coping mechanism most used by school heads and teachers was “active coping.” The mean scores obtained for all 14 subscales are illustrated in Table 4, mean±standard deviation (SD) (3.65±0.42 and 3.85±0.69), which involves concentrating efforts on doing something about a situation and taking action to try to make the situation better. However, results from the Brief COPE indicated that the coping mechanism most used by parents was “self-distraction” The mean scores obtained for all 14 subscales are shown in Table 5 (3.33±0.00) which includes practices such as trying to do something else to make the situation better.

**Table 2. Mean values of the school-based management challenges encountered by school heads, teachers, and stakeholders during the COVID-19 pandemic, in relation to the secondary education system in Palawan**

<b>School-Based Management Challenges</b>	<b>School Heads (n=52)</b>	<b>Teachers (n=576)</b>	<b>Parents (n=107)</b>
<b>Leadership and Governance</b>	<b>2.60</b>	<b>2.47</b>	<b>2.33</b>
1. Conflict or competition between leaders, agents, and followers.	2.76	2.66	2.11
2. Lacked preparedness due to poor mobilization.	2.92	2.65	2.54
3. Low public trust in leaders and governance.	2.61	2.44	2.32
4. Unable to speak authoritatively for health and safety.	2.53	2.44	2.26
5. Less focus on health, safety, quality, and service duty.	2.38	2.35	2.87
6. Slow adaptability with less focus on new protocols and goals.	2.44	2.35	2.31
7. Less transparent communication and weak collaboration.	2.51	2.38	2.21
<b>Curriculum and Instruction</b>	<b>2.69</b>	<b>2.53</b>	<b>2.23</b>
8. Fewer opportunities to attend training and seminars.	2.73	2.91	2.52
9. Less visibility which resulted in being unaccountable.	2.67	2.55	2.65
10. Had a sense of autonomy but lacked cooperation.	2.50	2.50	2.72
11. Increased competency with untrustful evaluation criteria.	2.53	2.42	2.22
12. Disruptions in instruction and learning.	2.90	2.61	2.41
<b>Accountability and Continuous Improvement</b>	<b>2.76</b>	<b>2.52</b>	<b>2.39</b>
19. Fewer relationships are characterized by relational trust.	2.76	2.56	2.43
20. School staff, leaders, students, and families feel psychologically unsafe.	2.84	2.39	2.44
21. Lesser demonstration of vulnerability, seeking feedback, and applying disciplined inquiry methods to test ideas and learn from failures.	2.78	2.46	2.65
22. Lesser prioritization support for teachers, leaders, students, and others.	2.71	2.52	2.78
23. Fewer opportunities to attend training and seminars.	2.78	2.77	2.85
24. Less visibility which resulted in being unaccountable.	2.67	2.51	2.65
25. Had a sense of autonomy but lacked cooperation.	2.72	2.46	2.53
26. Increased competency with untrustful evaluation criteria.	2.63	2.44	2.84
<b>Management of Resources</b>	<b>2.96</b>	<b>2.68</b>	<b>2.47</b>
27. Resources were limited.	3.23	2.88	2.32
28. Nurtured human capital ineffectively.	2.98	2.60	2.54
29. Limited diversification of resources.	2.92	2.67	2.31
30. Resources were used inefficiently.	2.71	2.56	2.04

**Table 3. Wilcoxon rank sum exact test to determine if the secondary educational system-related challenges encountered by the school heads, teachers, and stakeholders, during the COVID-19 pandemic, were significantly different or not between the Divisions of Puerto Princesa City and Palawan. A significant difference at an alpha level of 0.05 is denoted by an asterisk (\*)**

Category of Challenges	School Heads	Teachers	Stakeholders
	Wilcox Statistic (p-value)	Wilcox Statistic (p-value)	Wilcox Statistic (p-value)
Leadership and Governance	45 (0.010)*	12 (0.125)	13 (0.159)
Curriculum and Instruction	114 (0.000)*	33 (0.080)	59 (0.948)
Accountability and Continuous Improvement	56 (0.012)*	12 (0.039)*	24 (0.430)
Management of Resources	16 (0.028)*	3 (0.204)	8 (0.998)

The Wilcoxon test found no significant differences in the varying coping strategies of school head ( $W=97, p\text{-value}=0.982$ ), teachers ( $W=118, p\text{-value}=0.370$ ), and stakeholders ( $W=119, p\text{-value}=0.334$ ) between PPC and Palawan Divisions (Table 6).

**Table 4. Frequency distribution (f) (with equivalent percentage) of the level of the coping strategies adopted by school heads, teachers, and stakeholders in relation to the school-based management challenges during the COVID-19 pandemic in the secondary educational system in Palawan**

Brief COPE Domains	School Heads (n=52)		Teachers (n=576)		Parents (n=107)	
	f	%	f	%	f	%
<b>Self-distraction</b>						
High	24	46.15	450	78.12	-	-
Moderate	28	53.85	122	21.18	107	100.00
Poor	-	-	4	0.69	-	-
<b>Active Coping</b>						
High	41	78.85	459	79.69	62	57.94
Moderate	11	21.15	112	19.44	37	34.58
Poor	-	-	5	0.87	8	7.48
<b>Denial</b>						
High	36	69.23	441	76.56	56	52.34
Moderate	16	30.77	130	22.57	42	39.25
Poor	-	-	5	0.87	9	8.41
<b>Substance Use</b>						
High	19	36.54	313	54.34	31	28.97
Moderate	33	63.46	257	44.62	66	61.68
Poor	-	-	6	1.04	10	9.35
<b>Emotional Support</b>						
High	22	42.31	335	58.16	27	25.23
Moderate	30	57.69	235	40.80	74	69.16
Poor	-	-	6	1.04	6	5.61
<b>Behavioral Disengagement</b>						
High	36	69.23	423	73.44	46	42.99
Moderate	16	30.77	145	25.17	53	49.53
Poor	-	-	8	1.39	8	7.48
<b>Venting</b>						
High	20	38.46	286	49.65	30	28.04
Moderate	30	57.69	273	47.40	67	62.62
Poor	2	3.85	17	2.95	10	9.35

Brief COPE Domains	School Heads (n=52)		Teachers (n=576)		Parents (n=107)	
	f	%	f	%	f	%
<b>Use of Informational Support</b>						
High	3	5.77	394	68.40	6	5.61
Moderate	37	71.15	106	18.40	69	64.49
Poor	12	23.08	76	13.19	32	29.91
<b>Positive Framing</b>						
High	23	44.23	338	58.68	30	28.04
Moderate	28	53.85	227	39.41	69	64.49
Poor	1	1.92	11	1.91	8	7.48
<b>Self-blame</b>						
High	3	5.77	368	63.89	7	6.54
Moderate	25	48.08	141	24.48	55	51.40
Poor	24	46.15	67	11.63	45	42.06
<b>Planning</b>						
High	5	9.62	406	70.49	8	7.48
Moderate	44	84.62	143	24.83	15	14.02
Poor	3	5.77	27	4.69	84	78.50
<b>Humor</b>						
High	4	7.69	351	60.94	10	9.35
Moderate	34	65.38	164	28.47	78	72.90
Poor	14	26.92	61	10.59	19	17.76
<b>Acceptance</b>						
High	3	5.77	313	54.34	6	5.61
Moderate	20	38.46	181	31.42	57	53.27
Poor	29	55.77	82	14.24	44	41.12
<b>Religion</b>						
High	3	5.77	287	49.83	9	8.41
Moderate	23	44.23	220	38.19	50	46.73
Poor	26	50.00	69	11.98	48	44.86

**Table 5. Mean and standard deviation of the 14 domains of Brief Coping Orientation to Problems Experienced Inventory as the coping strategies for school heads, teachers, and parents during the COVID-19 pandemic, in relation to the secondary educational system in Palawan**

Brief COPE Domains	School Heads (n=52)		Teachers (n=576)		Parents (n=107)	
	Mean	SD	Mean	SD	Mean	SD
Self-distraction	3.44	0.43	3.84	0.72	3.33	0.00
Active Coping	3.65	0.42	3.85	0.69	3.27	0.82
Denial	3.55	0.48	3.82	0.73	3.20	0.85
Substance Use	3.06	0.53	3.40	0.73	2.87	0.75
Emotional Support	3.18	0.52	3.45	0.69	2.87	0.67
Behavioral Disengagement	3.48	0.47	3.76	0.75	3.14	0.76
Venting	2.97	0.72	3.26	0.78	2.84	0.77
Use of Informational Support	2.15	0.64	2.43	0.82	2.06	0.71
Positive Framing	3.12	0.63	3.49	0.78	2.90	0.79
Self-blame	1.97	0.71	2.31	0.84	2.05	0.78
Planning	2.59	0.60	2.87	0.72	2.45	0.75
Humor	2.18	0.74	2.81	0.86	2.38	0.76
Acceptance	1.88	0.86	2.30	0.96	1.94	0.76
Religion	1.84	0.75	2.19	0.96	1.96	0.76

**Table 6. Wilcoxon rank sum test, with continuity correction, to determine if the secondary educational system-related coping strategies of school heads, teachers, or stakeholders, during the COVID-19 pandemic, were significantly different or not between the Divisions of Puerto Princesa City and Palawan. The significant difference is tested at an alpha level of 0.05. <sup>ns</sup> means not significant**

Respondents	Wilcox Statistic	p-value
School Heads	97	0.982 <sup>ns</sup>
Teachers	118	0.370 <sup>ns</sup>
Stakeholders	119	0.334 <sup>ns</sup>

#### 4. DISCUSSION

The purpose of this study was to examine the coping strategies utilized by school heads, teachers, and parents in public secondary schools during the COVID-19 pandemic. The implementation of a new educational system has brought about a range of constraints and challenges for teachers and school heads due to significant changes. One particular challenge arises from the introduction of modular training as part of traditional learning continuity. This study has found that disruptions in instruction and learning are quite apparent, leading to the development of a long-distance learning platform. Modular training involves the provision of self-learning modules to students for independent completion. However, this approach poses challenges for teachers and school heads as they need to create comprehensive and self-explanatory modules that effectively cover the curriculum. They also need to ensure that students can comprehend and engage with the modules without direct teacher guidance [14]. Limited resources were also reported by school heads as one of the challenges encountered during the COVID-19 pandemic. According to Dangle and Sumaoang [15], a lack of school finance is one of the most significant issues identified during the preparation and execution of courses. Insufficient funding results in challenges for educational institutions in providing quality education and implementing effective teaching and learning strategies.

This study found that for leadership and governance, the highest scores accounted for lack of preparedness due to poor mobilization. According to Cardullo et al. [16] and Iglesias-Pradas et al. [17], teachers and school heads faced challenges and expressed surprise when suddenly required to provide emergency remote instruction. One of the main reasons for their surprise was a lack of competence in distant education and computer literacy. This study found fair evidence of this type of challenge. The

abrupt shift to remote instruction, prompted by the COVID-19 pandemic, caught many teachers and school heads off guard. They had to quickly adapt to new technologies, digital tools, and online platforms to deliver instruction to students remotely. However, the lack of prior training or experience in distance education made this transition particularly challenging for many educators. Teachers, school heads, and parents who were not familiar with digital tools and lacked computer literacy skills faced difficulties and stresses in navigating virtual classrooms, managing online learning platforms, and effectively utilizing various educational technologies. The sudden reliance on digital tools exposed the gap in their technological competencies, leading to feelings of surprise and frustration [17]. The lack of direct supervision and control over students' learning environments has also been a challenge. In a face-to-face classroom, teachers can monitor behavior and engagement more closely. However, in remote learning, teachers have limited ability to ensure student accountability and maintain a productive learning environment. Teachers have also had to consider students' emotional well-being and provide additional support to address the psychological impact of the pandemic [18].

The passage highlights the challenges and efforts involved in incorporating remote learning modes in the education system. While the previous school year may have ended without major incidents, various stakeholders, including teachers, school officials, parents, students, and others, still face barriers in implementing remote learning effectively [19]. Locally, it has been observed that although the schools are doing their best in managing the educational system to cope with the needs in challenging times such as during the pandemic, still declining results had been reported in school-initiated activities and school performance [20].

Given the constant evolution of the curriculum, teachers are required to come up with innovative

and imaginative approaches to ensure that children learning from home can effectively participate in the learning process. This may involve utilizing technology, designing interactive online materials, and providing engaging activities that can be done remotely. An important aspect mentioned is the involvement of parents and other family members as learning facilitators in their own homes. With remote learning, parents have had the opportunity to develop skills in supporting their children's education. They play a crucial role in creating a conducive learning environment, assisting with assignments, and monitoring their child's progress (Agaton & Cueto, 2021). Even before pandemic, some scholars and researchers alike assert that parental and community participation in schools has created more effective schools and improved student achievements [7].

This study examined the coping techniques of secondary school heads, teachers, and parents and the findings indicated that there was a range of coping abilities, varying from high to moderate, among the participants. Specifically, the findings of this study also suggest that most teachers possess a high level of coping skills in all domains. This result has revealed that when teachers encounter a high intensity of challenges in their practices and responsibilities during the pandemic, they are inclined to employ active coping strategies that demonstrate resilience and a more pragmatic approach to problem-solving. Additionally, qualitative data reinforces the notion that teachers require mental and emotional support in addition to physical, technological, and financial assistance [21].

Teachers also rely on different avenues to seek assistance and support [22]. They often turn to their senior colleagues for guidance and advice, recognizing the value of their experience and expertise. Additionally, teachers may seek support from their friends, who can provide a listening ear and emotional support. Furthermore, teachers may expand their support network beyond the school community by seeking guidance from resources outside of their immediate work environment. Staying connected with loved ones, friends and colleagues especially during physical isolation. Talking to somebody helps with the psychosocial well-being and coping mechanism (Smith & Robinson, 2020). This could involve engaging with professional networks or associations, consulting educational experts, or accessing external resources to gain different perspectives and

insights. The ability of teachers to exhibit strong coping skills and actively seek support demonstrates their proactive approach to managing the challenges they face [21]. By utilizing the available resources and seeking assistance from others, teachers can enhance their overall well-being and job performance [22].

In the current study, active coping emerged as the most commonly utilized coping mechanism among secondary school heads and teachers, while self-distraction was prevalent among parents. Active coping involves encouraging oneself to think positively about challenging situations, accepting the reality of stress, and devising strategies to manage and adapt to them. This finding aligns with a similar result reported by Rajesh et al. [23].

The finding suggests that cultivating gratitude and considering the potential benefits or positive aspects of a stressful situation can have a notable impact on teaching, particularly in the context of the COVID-19 pandemic. This indicates that teachers who adopt a mindset of gratitude and focus on finding silver linings or advantages in difficult circumstances may experience enhanced resilience and adaptability. By recognizing and appreciating the positive aspects, teachers may be better equipped to navigate the challenges posed by the pandemic and maintain a positive outlook in their teaching practices. The reference to Johnson et al. [24] implies that this finding aligns with previous research emphasizing the importance of gratitude and positive thinking in managing stress and promoting well-being.

Negative coping was consistently linked to negative consequences such as stress, anxiety, anger, unhappiness, and loneliness. In a study conducted in Europe by Fadhel and Adawi [25], the majority of participants used religion as a positive coping mechanism. Although for this study, teachers mostly used religion as a coping mechanism, for stakeholders and school heads, this is the least option they used. For many in the Philippines, religion plays an important role in coping with stress. Praying as an integral part of connecting to a higher entity that keep levels of worries and anxiety low as trust and faith started to build up [26-31]. The findings demonstrated that the impact of stress and coping was determined by how it was perceived, and that coping mechanisms were influenced by the social and cultural aspects of the participants' living environment.

The results of the survey showed some unique findings. However, it is important to acknowledge that the study had some flaws. These flaws may have impacted the reliability or validity of the findings, and caution should be exercised when interpreting the results.

## 5. CONCLUSION AND RECOMMENDATIONS

The study found that school heads, teachers, and stakeholders encountered challenges related to school-based management during the COVID-19 pandemic. Active coping and self-distraction were the most popular coping tactics reported by respondents in the study. The results highlight the importance of considering the psychological factors and coping skills of school heads, teachers and parents. Despite their significant impact on students' academic outcomes and well-being, these aspects have often received less attention than they deserve. Recognizing their importance, there is the need for intervention programs tailored to the perceived needs.

Thus, it is recommended that interventions including education on coping strategies for schools' stakeholders, focusing on both adaptive and problematic coping methods. This would aim to reduce stress levels and increase overall well-being. Such interventions could be a good starting point in supporting the psychological well-being of school heads and teachers. There is also the potential for further research in evaluating academicians from other fields of education. Conducting broader research involving a wider range of educational professionals could provide more explicit and comprehensive results, contributing to a better understanding of coping strategies and their impact on well-being.

## 6. LIMITATIONS

The study had several limitations that should be considered when interpreting the results. Firstly, the cross-sectional design used in the study prevents establishing a cause-and-effect relationship between exposure and outcomes. This means that it is challenging to determine whether coping techniques directly influenced the psychological well-being of the respondents or if other factors were involved.

Another limitation was the gender distribution of the respondents, with female participants forming

the majority. This skewed representation may affect the generalizability of the findings, as gender perceptions and coping strategies could differ between male and female respondents. This limitation should be taken into account when considering the implications of the study. Response bias could have influenced the results due to underreporting of certain attitudes. This bias might occur if participants were hesitant or unwilling to disclose certain information, leading to an incomplete understanding of their coping strategies and psychological well-being.

Given the complex relationship between coping and psychological well-being, policy changes should focus on supporting school heads, teachers, and parents in improving their coping abilities. This is a challenging task but could be crucial for their overall well-being. Empowering school officials, principals, teachers, and parents could be a positive strategy in this regard. By involving them as partners and offering support for their personal growth, policies can aim to enhance their psychological well-being.

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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