

Effects of COVID-19 Pandemic on Service Delivery Performance and Behavior of the Health Care Workers

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Abstract— This study aimed to determine the effects of COVID-19 pandemic on service delivery performance and behaviors of health care workers in the Province of Sorsogon for fiscal year 2021. It used the descriptive-survey method and questionnaire was devised for the gathering of the primary data. The respondents were composed of 157 health care workers in the Province of Sorsogon who were purposively chosen. The statistical tools utilized were the frequency count, percentage, weighted mean, and Chi-square test for independence. The study revealed that majority of the health care workers are female, age 45 years old and below, married, and all are Roman Catholic. Likewise, they are nurses who are on permanent status, and assigned in different units. The health care workers agreed that they performed the delivery of services along patient communication, collaborative participation, initiative, responsiveness, and dedication. The religion and gender of the health care workers are significantly related to patient communication, collaborative participation, and initiative. Also, religion is significantly associated with responsiveness and dedication. The health care workers are neutral with the effects of COVID-19 on work behaviors along irritability, intolerance, social withdrawal, and institutional trust issues but they agree on paranoia.

Keywords— behavior, COVID-19, health care workers, performance, service delivery performance.

I. INTRODUCTION

The World Health Organization (WHO) declared a Global pandemic on March 11, 2020, the coronavirus disease (COVID-19). It became a substantial physical and mental health burden with major implications for public health. COVID-19 is a pneumonia-like disease caused by a novel coronavirus that emerged in the Province of Wuhan in China in November 2019. The confirmed cases of the disease in early periods reached 14,348,858 as of 23 July 2020. At the time of this writing, there were 366,915,895 million cases and 5,656,955 million deaths in more than 200 countries. In the Philippines, the total cases reached 3.49 million with 53,736 deaths and counting. Control efforts worldwide led to travel bans and restrictions as imposed by the government. President Rodrigo R. Duterte, the Philippine president at that time placed the entire Luzon archipelago on enhanced community quarantine on March 16, 2020. Various restrictions such as curfew time, checkpoints, and travel restrictions were implemented. Business and school activities were suspended indefinitely. People were forced to stay in their homes. The pandemic caused an extraordinary situation, leading to increased psychological stress among health care workers. The community realized that resiliency was not enough to overcome the catastrophe.

The Department of Health (DOH) imposed the use of interim guidelines set by the WHO for health workers' exposure risk assessment and management in the

context of the covid-19 virus. This tool is to be used by health care facilities that have either cared for or admitted COVID-19 patients (DOH, 2020).

The healthcare workers rely on personal protective equipment to protect themselves and their patients from being infected and infecting others. During the first few months of the pandemic, however, there was a disruption to the supply of personal protective equipment (PPE) caused by rising demand, panic buying, hoarding, and misuse.

Consequently, it resulted to mass resignation of health care workers in government and public hospitals. The DOH released Department Memorandum No. 2020-0153 which prescribes interim guidelines for emergency hiring of health personnel in selected hospitals and other health facilities.

Moreover, there was another Department Memorandum 2020-0152 dated March 24, 2020. It refers to the Guidelines on Temporary Re-deployment of Nurses under the Nurse Deployment Program from Rural Health Units/Health Centers/Health Stations to Department of Health (DOH) and Local Government Unit (LGU), due to the shortage of healthcare workers.

The government implemented under Section 4 of Republic Act 11469 "Bayanihan to Heal as One Act" that provides for the temporary engagement of human resources for health (HRH). The act helped complement

and supplement medical and allied medical staff to the current health workforce.

Furthermore, Section 5.4 of its Implementing Rules and Regulations (IRR) directs the DOH, in coordination with the Department of Budget and Management (DBM) and the Department of Labor and Employment (DOLE), to issue the supplementary guidelines to facilitate and operationalize the provision of life Insurance, accommodation, transportation and meals to public and private health workers under Republic Act (RA) 11494. It is otherwise known as the "Bayanihan to Recover as One Act" regardless of the community quarantine (CQ) status.

The Province of Sorsogon has implemented the guidelines from the Inter-Agency Task Force for the management of infectious diseases (IATF) and the (DOH). The transition from the pre-pandemic to the pandemic phase was a challenge to both local and national office. The nine Hospitals, including Sorsogon Provincial Hospital, Gubat District Hospital, Pto.Diaz Medicare Hospital, Irosin District Hospital, Matnog Medicare Hospital, Magallanes Medicare Hospital, Bulan Medicare Hospital, Castilla District Hospital, and Donsol District Hospital, made huge adjustments with scarce resources.

The Sorsogon Provincial Hospital (SPH) is a 100-bed capacity Hospital with 210 implementing beds. Some spaces were converted into COVID-19 facilities. One for COVID-19 probable ward with similar symptoms, COVID-19 ward for the confirmed cases, and other modifications depending on circumstances. The emergency rooms and out-patient unit revised their existing policy in terms of triaging. This is to limit the uncertainty related to transmissibility factors of the virus.

Moreover, in general, there were delays in in-patient testing and diagnostics, failure to provide efficient interventions, exposure to high patient morbidity and mortality, and inability to allow the therapeutic family presence at the patient bedside, among others affected not only the patients and relatives but also the HCWs.

Regardless of the result of the RT-PCR, the primary concern of the HCWs is to limit the transmission of the infection and merely implement health protocols. However, from perspectives of others, the families were deprived of the chance to mourn for their loved ones. Nowadays, financially stabled families can expedite the result at nearby molecular laboratory, but those who are financially abled are left with the abovementioned

options. These events may not only be stressors but may also induce moral injury to HCW.

The Joint administrative order No. 2020- 0001 of DOH, DOLE, and DBM, covers the implementing guidelines on the Grant of Compensation to Public and Private Health Workers. It is in accordance to Section 4(f) of Republic Act No. 11469 otherwise known as the "Bayanihan to Heal as One Act". It aimed to rationalize the grant of compensation to public and private health workers who contracted severe COVID-19 infection or who became COVID-19 casualties.

This authorizes the Philippine president to provide compensation of one hundred thousand pesos (P100,000.00) to public and private health workers who may contract severe COVID-19 infection while in the line of duty. There was a compensation of one million pesos (P1,000,000.00) to public and private health workers, who may die while fighting the COVID-19 infection.

The HCW with mild symptoms shall be provided with P15,000, more or less, which may vary in the period of confinement. The said compensation are considered not enough for the treatment of severe cases because treatment modalities are extremely expensive.

In relation to this, the researcher is motivated to conduct a study that emphasized and primarily focused on the service delivery performance and effects on the HCWs working behavior for the fiscal year 2021. This could be an eye-opener for every organization with existing policies being implemented related to health and streamline services.

The face of health facilities could be viewed as new to the eyes of the intern HCW because of many adjustments from the theories to the actual application. The pandemic situation put the health facilities into more precautions measures far from the usual practices. Through this research, Health institutions may be more aware and firmer in implementing programs and developmental plans that would consequently benefit the HCWs and others.

This study aimed to determine the effects of COVID-19 pandemic on service delivery performance and behaviors of health care workers in the Province of Sorsogon, for fiscal year 2021. Specifically, it aimed to (1) determine the profile of health care workers in terms of age, civil status, gender, religion, position, employment status, and area of assignment; (2) determine the service delivery performance of health

care workers during the COVID-19 pandemic along patient communication, collaborative participation, initiative, responsiveness, and dedication; (3) find out the significant relationship between the profile of the health care workers and their performance along with the identified variables; (4) determine the effects of the COVID-19 pandemic on the work behaviors of health care workers along irritability, paranoia, intolerance, social withdrawal, and institutional trust issues; and (5) propose an action plan could be proposed based on the results of the study.

II. METHODOLOGY

Research Design

This study used a descriptive research design and focused on the current condition of the adapted new norms. It showed differences by providing descriptions

and observations. This study determined changes in the effects of a pandemic on the HCW's service delivery performance and behaviors for the fiscal year 2021.

The respondents are physicians, nurses, and nursing aides assigned to different areas in the nine hospitals. The study used an online survey questionnaire and unstructured interview with a guide provided. The gathered data were statistically treated using tools and measures that include frequency-percentage, weighted mean, and Chi-square with association.

The Sample

The data was obtained from the nine government-owned hospitals in the Province of Sorsogon. The respondents are physicians, nurses, and nursing aides 20-60 years of age per hospital for the fiscal year 2021.

Table I: The Respondents

Respondents	f	%
Physician	26	16
Nurse	72	46
Nursing aides	59	38
Total	157	70%

As shown in table 1, 26 physicians participated in the study with a frequency of 26 or 16%. An additional 72 nurses participated which comprised the 46% of the respondents. Also, 59 nursing aides participated which totaled to 70% of the total respondents. They represented the Provincial, Districts, and Medicare hospitals. This study used a purposive sampling method in selecting the desired respondents.

effects on the service delivery performance of the HCWs during the pandemic along patient communication, collaborative participation, initiative, responsiveness, and dedication. Lastly, the third part contains questions on the effects of COVID-19 pandemic on the work behaviors of the HCWs along irritability, paranoia, intolerance of others, social withdrawal, and institutional trust issues.

The Supervising Chief Nurse who is also the head of the research committee oriented the personnel concern of the present stud, helped, and assisted the researcher during the data gathering, by disseminating the online survey. Since the avenue is a health facility, respondents were not revealed for confidentiality purposes.

After coordinating with the Supervising Chief of Hospitals and the Provincial Health Officer for their support of the study. To ensure the validity of the questionnaire, the dry run was conducted from May 4 to 10, 2022 to selected individuals who were not part of the study. The researcher provided 10 hard copies of the survey questionnaire, however some staff encountered confusion on the questionnaires specifically on the indicators that did not match with the scale provided and appeared to be misleading. After the findings, the researcher informed the adviser and immediately edited the questionnaire. Before the finalization of the online survey, their observations were properly addressed, and minor changes were done accordingly.

The Instruments

This study used an online survey designed, disseminated through Google form, to the respondents. A specific number of questions were provided, and their responses recorded.

Data Collection Procedure

Online survey questionnaires were distributed electronically via Facebook messenger. It contains three parts, with the brief profile of the respondents as the first part. The second is composed of questions related to the

The researcher distributed a request for permission from the Supervising Chief of Hospitals and the Provincial

Health Officer through a Letter of Intent before the conduct of research. Upon the approval, an Affidavit of Non-disclosure was provided before going further as per requirement of the PDMH’s research committee.

The researcher then distributed the online survey questionnaire via Facebook messenger on May 17, 2022. It was kept active until the required retrieval rate was achieved. The respondents had a hard time answering the survey questionnaire due to technicalities in using the online survey. Especially, those participants 50 years of age and above. The researcher assisted some on their responses. It took almost a month to achieve the required retrieval rate, which only reached 70%. This was considered an actual number of the respondents. The online survey was closed to respondents on June 15, 2022. The results were analyzed, interpreted, and tabulated accordingly, after gathering all the data.

Data Analysis Procedure

The data gathered were subjected to interpretation and thorough analysis with the use of appropriate and ideal statistical tools and measurements. They were treated based on the parts of the questionnaire.

Part I which consists of basic demographics, statistical tools, and measures used frequency and percentage. It was used to present the proper distribution of data that specifies the percentage of respondents according to the specific demographic required that are essential in grouping data points.

For part II, which consists of the work performance, the weighted mean is the most ideal. High percentage of

agree result provides positive implications. The gathered data consisting of numbers are treated equally and assigned equal weight. Upon completion, a weighted average assigns weights determined the relative importance of each indicator. However, a weighted average is most often computed to equalize the frequency of the values in a set of variables.

Part III is the significant relationship between the profile of the health care workers and their performance along patient communication, collaborative participation, initiative, responsiveness, and dedication using chi-square association. The purpose of this is to determine if the profile can make a significant difference in the given variables.

Part IV includes the effects of the COVID-19 pandemic on the work behaviors of health care workers along, irritability, paranoia, intolerance, social withdrawal, and institutional trust issues using the weighted mean. The same principle applied to the gathered data. It consists of numbers treated equally and assigned equal weight. When data is completed, a weighted average assigns weights determined the relative importance of each indicator. However, the agree result is likely to assert negative implications compared to part II.

III. RESULTS AND DISCUSSION

1. Profile of the Health Care Workers

Table 2 contains the frequency and percentage of the profile of health care worker in terms of age, civil status, gender, religion, occupation, employment status, and area of assignment.

Table 2: Profile of Health Care Workers

Variables	f (n=157)	%
Age (in years)		
20 to 29	39	25
30 to 39	68	43
40 to 49	26	17
50 and above	24	15
Gender		
Male	38	25
Female	116	74
LGBTQ	3	1
Civil Status		
Single	81	51
Married	72	46
Separated	1	1

Widow	3	2
Religion		
Roman Catholic	146	93
Non-Roman Catholic	11	7
Occupation		
Physician	26	16
Nurse	72	46
Nursing Aide	59	38
Status of Employment		
Permanent	83	53
Job Order worker	74	47
Area of Assignment		
Emergency Room	31	20
Delivery room/OB-Gyne	16	10
Medical Services	27	17
Covid Ward	8	5
Surgery/ICU/Health Emergency	11	7
	64	41

The data showed that relative to the age of health care workers, (25%) workers who are 20 to 28 years old, (43%) of them aged 29 to 37 years old, and the rest are 38 years old and above. Majority of the respondents are within the age of 29-37 years of age. In relation to gender, (25%) workers are male and (74%) of them are female. Also, there are (1%) workers who disclosed that they are LGBTQ. In terms of civil status, (51%) workers are single, (46%) of them are married, and the rest are either separated or widowed. Relative to religion, there are (93%) workers who are Roman Catholic and the rest are non-Roman Catholic such as Iglesia ni Cristo, Protestant, Islam, Jehovah Witness, etc. As to occupation of the health workers, (16%) of them are physician, (46%) workers are nurses, and (38%) of them are nursing aides. This means that almost half of them are working as nurses aside from the nursing aides that assist the physicians and nurses. In relation to the status of employment, there are (53%) workers who have permanent status and the rest are job order and casual status. In terms of area of assignment, there are (20%) workers who are assigned in emergency room, (10%) of them are working in the delivery room and OB-Gyne, and (17%) workers were given the assignment in the medical services. Similarly, the other workers are assigned in Covid ward (n=8) and surgery/ICU/ health emergency (n=11).

Also, there are (41%) workers were given assignments in different units including Operating room complex,

Out-patient unit, Newborn Screening room, Newbo Hearing screening room, Heart Station, and Neonatal Intensive care unit. Other personnel from the district and infirmary hospitals have selected others because they have no fixed area of assignment. They are assigned to different areas according to urgency. The practice of personnel appropriation in PDMH for the Clinical unit is a rotational scheme. A novice nurse and nursing aide applicant can be assigned to any area preferred by the Chief Nurse. It would imply that challenges come without warning. A HCW must be prepared and ready when urgency in certain areas call. Thus, the strategy to augment the workforce can have positive or negative outcome depending on the quality of services rendered because staff delegation could be inappropriate. However, others can easily learn versatility in every clinical area.

2. Service Delivery Performance of Health Care workers during the Covid-19 pandemic

This section discusses the service delivery performance of health care workers during the COVID-19 pandemic along staff/patient communication, collaborative participation, initiative, responsiveness, and dedication. The weighted mean was used in the data analysis. Patient Communication. Table 3A contains the weighted mean and description of the service delivery performance of health care workers during the COVID-19 pandemic along staff/patient communication.

Table 3A: Service delivery performance of health care workers along patient communication

Indicators	Weighted Mean	Description
1. I can effectively express ideas verbally.	4.32	Agree
2. I can clearly inform and guide patients.	4.41	Agree
3. I can use appropriate communication methods.	4.33	Agree
4. I can exhibit clear communication with covid-19 related symptoms.	4.15	Agree
5. I can render necessary instructions clearly	4.35	Agree
Overall	4.31	Agree

The data revealed that relative to patient communication, the health workers generally agree that they perform the services relevant to a specific designation determined by the PDMHs during the COVID-19 pandemic with an overall weighted mean of 4.31. Specifically, they agree that the information and guidance to the patients are clearly relayed with the highest weighted mean of 4.41. However, when it comes to exhibiting clear communication relative to Covid-19 related symptoms got the lowest weighted mean of 4.15 which is described as agree.

It would imply that communication can be seen as the main ingredient in medical care. Health workers rely on the subjective data given by the patient which is a subject for clinical diagnostics. Communication basically helps an individual share thought, experiences and emotion that is vital in our daily lives.

L.M.L. Ong, et.al, (2000) In this paper, they identified three different purposes of communication, namely: (a) creating a good inter-personal relationship; (b) exchanging information; and (c) making treatment-related decisions. They created a method called interaction analysis systems (IAS). These systems differ regarding their clinical relevance, observational

strategy, reliability/validity, and channels of communicative behavior. Several communicative behaviors that occur in consultations were discussed. Finally, a framework relating background, process and outcome variables were presented.

Esther Suter, et.al, (2009) discussed the ability to work with professionals from other disciplines to deliver collaborative, patient-centered care. However, a generally accepted framework for collaborative competencies is missing, which makes consistent preparation of students and staff challenging. Understanding and appreciating professional roles and responsibilities and communicating effectively emerged as the two perceived core competencies for patient-centered collaborative practice. For both competencies there is evidence of a link to positive patient and provider outcomes. They suggested that these two competencies should be the primary focus of student and staff education aimed at increasing collaborative practice skills. Collaborative Participation. Table 3B contains the weighted mean and description of the service delivery performance of health care workers during the COVID-19 pandemic along collaborative participation.

Table 3B: Service delivery performance of health care workers along collaborative participation

Indicators	Weighted Mean	Description
1. I display a pleasant manner with co-staff.	4.37	Agree
2. I offer support whenever needed.		
3. I cooperate by any means necessary to circumstances.	4.42	Agree
4. I assist colleagues up to the extent of my capacity.	4.42	Agree
5. I give consideration and tactful judgment.	4.34	Agree
Overall	4.39	Agree

It can be gleaned from the table that in terms of collaborative participation, the health workers agree that they offer support whenever needed and extend full assistance to their colleagues with the highest weighted mean of 4.42. Meanwhile, they agree that consideration and tactful judgment are given with the lowest weighted mean of 4.34. Generally, the health workers agree that

they perform the delivery of services with the overall weighted mean of 4.39.

This means that despite the transmissibility of COVID-19, HCWs are showing concern over the workload of each staff and are working together selflessly. Eventually, their work would become more productive and efficient. It would imply that turnaround time in

providing care to patients can be minimized because of combined efforts. It is not always an easy thing to achieve in the workplace, but the effort is worth it because it leads to a harmonious and productive space.

In a literature authored by C.J. Tang, et. el (2013) highlighted important aspects of physician–nurse collaboration. These include developing a comprehensive instrument to assess collaboration in greater depth, conducting rigorous intervention studies to evaluate the effectiveness of improvement strategies for physician–nurse collaboration, and examining the

role of senior physicians and nurses in facilitating collaboration among junior physicians and nurses. Implications of the study included inter-professional education to empower nurses in making clinical decisions and putting in place policies to resolve workplace issues.

Initiative. Table 3C contains the weighted mean and description of the service delivery performance of health care workers during the Covid-19 pandemic along initiative.

Table 3C: Service delivery performance of health care workers along initiative

Indicators	Weighted Mean	Description
1. I seek opportunities to improve my capabilities.	4.39	Agree
2. I volunteer willingly.	4.30	Agree
3. I accept challenges and take action accordingly.	4.38	Agree
4. I consider each step as an opportunity for professional growth.	4.42	Agree
5. I modify some steps to maximize my time.	4.38	Agree
Overall	4.37	Agree

It can be asserted from the table that relative to initiative, the health workers generally agree with an overall weighted mean of 4.37 that they generally adhere to seeking opportunities for professional growth and are willing to accept challenges present in the workplace. In particular, the steps in the procedures are considered as opportunity for professional growth as evaluated by them having the highest weighted mean of 4.42. On the other hand, they willingly volunteer if chances are given with the lowest weighted mean of 4.30 which is described as agree.

This means that HCWs are not dependent on the command of their immediate supervisors. The majority act willingly to continue learning and growing. It would imply that regardless of the responsibility, HCWs take the outright response required by the situation to avoid delays. It can be viewed as great value to the respective

unit as a member of the team and may be beneficial in some future events.

Boerner, et.al, (2008) discussed that charismatic leadership significantly predicted followers' initiative-oriented behavior. The study confirmed the moderating effect of job autonomy. The results of the investigation point at the positive impact that charismatic leaders have on followers' initiative-oriented behavior in the hospital. Thus, a suggestion for supervisor development from this is not only to provide professional training but also to intensify efforts in training specialized on charismatic leadership. Second, to support followers' participation in change processes, hospital managers should consider if and how the degree of followers' job autonomy can be enhanced. Responsiveness. Table 3D contains the weighted mean and description of the service delivery performance of health care workers during the COVID-19 pandemic along responsiveness.

Table 3D: Service delivery performance of health care workers along responsiveness

Indicators	Weighted Mean	Description
1. I do display strong commitment.	4.38	Agree
2. I follow protocols and management directives.	4.40	Agree
3. I take responsibility for my action.	4.51	Strongly Agree
4. I respond immediately to requests for specific assistance.	4.38	Agree
5. I anticipate possible worst scenarios.	4.36	Agree
Overall	4.41	Agree

The data showed that generally the health workers agree that they have the responsiveness as they perform their

delivery of services with overall weighted mean of 4.41. Specifically, they strongly agree that responsibility is

attached to their actions with the highest weighted mean of 4.51. Consequently, they agree that the occurrence of worst scenarios is anticipated with the lowest weighted mean of 4.36.

This means particularly in emergency situations, HCWs are vigilant in dealing worst circumstances which are necessary specifically in the emergency room without having an idea of the incoming patient’s illness. However, in anticipating the worst cases, basically, a HCW would think of benign rather than near-death adversity. The goal of an emergency response procedure is to mitigate the impact of the event on people and the environment.

In the study conducted by Shaqura, et. el, (2021), responsiveness is the ability of health system to satisfy

non-clinical people's expectations. Results have been proposed under five subtopics: level and distribution of responsiveness and its domains at hospitals, rank of domains according to the participants, and factors affecting responsiveness and its related domains. Socioeconomic status, organizational, systemic, and contextual factors have led to varied responsiveness, consequently, policymakers would benefit from these valuable results while planning for improving health system to accomplish its intrinsic goals.

Dedication Table 3E contains the weighted mean and description of the service delivery performance of health care workers during the Covid-19 pandemic along dedication.

Table 3E: Service delivery performance of health care workers along dedication

Indicators	Weighted Mean	Description
1. I follow punctuality guidelines.	3.97	Agree
2. I submit directly without a reminder.	4.13	Agree
3. I have a sense of urgency mindset.	4.37	Agree
4. I give value to quality services.	4.41	Agree
5. I follow the prescribed policies of the Institution.	4.34	Agree
Overall	4.24	Agree

From the table, it can be gleaned that the health workers agree that they give value to quality services with the highest weighted mean of 4.41. However, the compliance to punctuality guidelines was assessed with the lowest weighted mean of 3.97 which is described as agree. Generally, the health workers agree that they are dedicated in performing the delivery of services with an overall weighted mean of 4.24.

It would imply that HCWs have vital roles during the pandemic. It is manifested through their undying dedication to their jobs which in return is beneficial for the needy patients.

Positive outcomes of dedication include reduced hospital mortality rates, satisfaction with organizational policies, positive job outcomes management, and increase in the nurses' intention to stay.

Bogaert, et.al, (2012) discussed the important links between work environment factors, burnout, and organizational outcomes. The study investigated the relationship of nurse practice environment aspects and work engagement (dedication and absorption) to job outcomes and nurse-reported quality of care variables

within teams using a multilevel design in psychiatric inpatient settings. Favorable nurse practice environment aspects were associated with work engagement dimensions, and in turn work engagement was associated with job satisfaction, intention to stay in the profession and favorable nurse-reported quality of care variables.

The strongest multivariate models suggested that dedication predicted positive job outcomes whereas nurse management predicted perceptions of quality of care.

3. Relationship between the profile of the health care workers and their performance

This portion encompasses the relationship between profile of health care workers and their performance along the identified variables. The Chi-square test of association was utilized to determine whether the relationship is significant or not.

Age and Service Delivery Performance. Table 4A includes the statistical bases and statistical analyses of the relationship between age of health care workers and their performance along the identified variables.

Table 4A: Relationship between age of health care workers and their service delivery performance

Statistical Bases	Statistical Analyses				
	PC	CP	I	R	D
Degrees of freedom	6	6	6	6	6
Level of significance	0.05	0.05	0.05	0.05	0.05
c2critical value	12.59	12.59	12.59	12.59	12.59
c2computed value	4.75	5.75	4.92	5.05	4.70
Decision on H0	DNR	DNR	DNR	DNR	DNR
Conclusion	NS	NS	NS	NS	NS

Legend: PC-Patient Communication; CP-Collaborative Participation; I-Initiative; R-Responsiveness; D-Dedication; DNR-Do Not Reject; NS-Not Significant

The data showed that the age of health workers is not significantly related to patient communication, collaborative participation, and initiative since the c2 computed values of 4.75, 5.75, and 4.93, respectively, are less than the c2 critical value of 12.59 with degrees of freedom of 6 at 0.05 level of significance. Thus, the non-rejection of the null hypothesis which states that there is no significant relationship between the variables.

Similarly, the c2 computed values of 5.05 and 4.70 for responsiveness and dedication, correspondingly, do not exceed the c2 critical value of 12.99 at 0.05 level of

significance with degrees of freedom of 6. Thus, the null hypothesis is not rejected.

This means that age generally does not contribute to the service delivery performance. It would imply that HCWs regardless of age can efficiently carry out necessary services. Patients as primary recipients are not compromised and can develop trustworthy relationship between HCWs.

Gender and Service Delivery Performance. Table 4B includes the statistical bases and statistical analyses of the relationship between gender of health care workers and their performance along the identified variables.

Table 4B: Relationship between gender of health care workers and their service delivery performance

Statistical Bases	Statistical Analyses				
	PC	CP	I	R	D
Degrees of freedom	2	2	2	2	2
Level of significance	0.05	0.05	0.05	0.05	0.05
c2critical value	5.99	5.99	5.99	5.99	5.99
c2computed value	6.27	6.20	5.83	8.31	2.88
Decision on H0	Reject	Reject	DNR	Reject	DNR
Conclusion	Sig	Sig	NS	Sig	NS

Legend: PC-Patient Communication; CP-Collaborative Participation; I-Initiative; R-Responsiveness; D-Dedication; DNR-Do Not Reject; NS-Not Significant; Sig-Significant

From the table, it can be gleaned that the c2 computed values of 6.27, 6.20, and 8.31 for patient communication, collaborative participation, and responsiveness, correspondingly, are greater than the c2 critical value of 5.88 with degrees of freedom of 2 at 0.05 level of significance.

Therefore, the rejection of the null hypothesis which tell that there is a significant relationship between gender and the identified variables. This means that gender is significantly associated with patient communication, collaborative participation, and responsiveness whereas initiative and dedication are not related.

It would imply that gender differences have an effect on strategies and interventions. Both would create different approaches nevertheless looking forward to the same objectives. However, as shown in the result, women are more responsive in every situation. They tend to communicate openly versus males. Also, women most of the time collaborate with colleagues for a better outcome and efficient management of the situation.

This is related to the study of Taiwo, et. al, (2022). A cross-sectional survey on work and household burdens was conducted with a convenience sample of male and female HCWs. They used series of multilevel modified Poisson regression models to examine the associations

between gender and HCW work attendance. Result shows that males were more likely to report overworked than females (46.33% vs. 22.93%), and females were more likely to report with an increase in household burden (59.24% vs. 40.68%). Increased household burdens mediated 9 percent of the total effect between gender and HCW work attendance.

Civil Status and Service Delivery Performance. Table 4C includes the statistical bases and statistical analyses of the relationship between civil status of health care workers and their performance along the identified variables.

Table 4C: Relationship between civil status of health care workers and their service delivery performance

Statistical Bases	Statistical Analyses				
	PC	CP	I	R	D
Degrees of freedom	2	2	2	2	2
Level of significance	0.05	0.05	0.05	0.05	0.05
c2critical value	5.99	5.99	5.99	5.99	5.99
c2computed value	0.55	1.46	1.66	1.87	1.15
Decision on H0	DNR	DNR	DNR	DNR	DNR
Conclusion	NS	NS	NS	NS	NS

Legend: PC-Patient Communication; CP-Collaborative Participation; I-Initiative; R-Responsiveness; D-Dedication; DNR-Do Not Reject; NS-Not Significant

The data revealed that the civil status is independent with the service delivery performance along patient communication, collaborative participation, initiative, responsiveness, and dedication because the c2 computed values of 0.55, 1.46, 1.66, 1.87, and 1.15, respectively, are lower than the c2 critical value of 5.99 with degrees of freedom of 5 at 0.05 level of significant. Hence, the non-rejection of the null hypothesis which states that there is no significant relationship between the civil status and the identified variables.

This means that civil status has no necessary attribute in the conduct of services. There are many factors that vary. Generally, there is no negative effect on the service delivery performance because both qualities could be advantageous. The quality of service basically depends on specific behavior. Religion and Service Delivery Performance. Table 4D includes the statistical bases and statistical analyses of the relationship between religion of health care workers and their performance along the identified variables.

Table 4D: Relationship between religion of health care workers and their service delivery performance

Statistical Bases	Statistical Analyses				
	PC	CP	I	R	D
Degrees of freedom	2	2	2	2	2
Level of significance	0.05	0.05	0.05	0.05	0.05
c2critical value	5.99	5.99	5.99	5.99	5.99
c2computed value	15.65	10.18	10.32	20.66	11.07
Decision on H0	Reject	Reject	Reject	Reject	Reject
Conclusion	Sig	Sig	Sig	Sig	Sig

Legend: PC-Patient Communication; CP-Collaborative Participation; I-Initiative; R-Responsiveness; D-Dedication; DNR-Do Not Reject; NS-Not Significant; Sig-Significant

It can be asserted from the table that the religion of the health care workers is significant related to the service delivery performance along patient communication, collaborative participation, initiative, responsiveness, and dedication because the c2 computed values of 15.65, 10.18, 10.32, 20.66, and 11.07, correspondingly, are greater than the c2 critical value of 5.99 with degrees of freedom of 2 at 0.04 level of significance.

Thus, the rejection of the null hypothesis which states that there is significant relationship of religion and the identified variables.

As shown in Table 2, majority of the respondents are Roman Catholics (RC). It can be asserted that RC Christians fosters caring attitude towards the patients. They practice no gap in communication, collaborative participation, dedication to sworn oath, initiative, and responsiveness in worst cases. They prefer not to create

space between them and the patients for a greater clinical outcome. Occupation and Service Delivery Performance. Table 4E includes the statistical bases and

statistical analyses of the relationship between occupation of health care workers and their performance along the identified variables.

Table 4E: Relationship between occupation of health care workers and their service delivery performance

Statistical Bases	Statistical Analyses				
	PC	CP	I	R	D
Degrees of freedom	4	4	4	4	4
Level of significance	0.05	0.05	0.05	0.05	0.05
c2critical value	9.49	9.49	9.49	9.49	9.49
c2computed value	8.15	8.71	8.11	8.50	5.25
Decision on H0	DNR	DNR	DNR	DNR	DNR
Conclusion	NS	NS	NS	NS	NS

Legend: PC-Patient Communication; CP-Collaborative Participation; I-Initiative; R-Responsiveness; D-Dedication; DNR-Do Not Reject; NS-Not Significant

It can be inferred from the table that the c2 computed values for patient communication, collaborative participation, initiative, responsiveness, and dedication of 8.15, 8.71, 8.11, 8.50, and 5.25, respectively, do not exceed the c2 critical value of 9.49 with degrees of freedom of 4 at 0.05 level of significance.

Thus, the null hypothesis is not rejected which states that there is no significant relationship between occupation of the health care workers and their service delivery performance along the identified variables.

This means during the covid-19 pandemic, regardless of the specific job description HCWs performance is not affected because they carry the same weight as frontlines. They work collaboratively according to their jurisdiction.

Thus, disagreement on ideas is rare and could lead to a harmonious relationship. Employment Status and Service Delivery Performance. Table 4F includes the statistical bases and statistical analyses of the relationship between employment status of health care workers and their performance.

Table 4F: Relationship between employment status of health care workers and their service delivery performance

Statistical Bases	Statistical Analyses				
	PC	CP	I	R	D
Degrees of freedom	2	2	2	2	2
Level of significance	0.05	0.05	0.05	0.05	0.05
c2critical value	5.99	5.99	5.99	5.99	5.99
c2computed value	1.08	0.04	0.97	0.85	2.73
Decision on H0	DNR	DNR	DNR	DNR	DNR
Conclusion	NS	NS	NS	NS	NS

Legend: PC-Patient Communication; CP-Collaborative Participation; I-Initiative; R-Responsiveness; D-Dedication; DNR-Do Not Reject; NS-Not Significant

The table showed that the employment status of the health care workers is not significantly associated with the service delivery performance along patient communication, collaborative participation, initiative, responsiveness, and dedication since the c2 computed values of 1.08, 0.04, 0.97, 0.85, and 2.73, correspondingly, are lower than the c2 critical value of 5.99 with degrees of freedom of 2 at 0.05 level of significance.

Therefore, the null hypothesis is not rejected. It would imply that there is no significant effect to the service

delivery performance of HCWs. Nevertheless, they perform their duties with conviction regardless of the employment status. These qualities are essential in the health facilities.

Area of Assignment and Service Delivery Performance.

Table 4G includes the statistical bases and statistical analyses of the relationship between area of assignment of health care workers and their performance.

Table 4G: Relationship between area of assignment of health care workers and their service delivery performance

Statistical Bases	Statistical Analyses				
	PCC	CP	I	R	D
Degrees of freedom	10	10	10	10	10
Level of significance	0.05	0.05	0.05	0.05	0.05
c2critical value	18.31	18.31	18.31	18.31	18.31
c2computed value	10.88	10.71	10.27	11.21	15.49
Decision on H0	DNR	DNR	DNR	DNR	DNR
Conclusion	NS	NS	NS	NS	NS

Legend: PC-Patient Communication; CP-Collaborative Participation; I-Initiative; R-Responsiveness; D-Dedication; DNR-Do Not Reject; NS-Not Significant

It can be inferred that area of assignment of health workers is not significantly associated with their service delivery performance relative to patient communication, collaborative participation, initiative, responsiveness, and dedication because the c2 computed values of 10.88, 10.71, 10.27, 11.21, and 15.49, correspondingly, are less than the c2 critical value of 18.31 with degrees of freedom of 10 at 0.05 level of significance. Thus, the hypothesis that is stated in null form is not rejected.

It would imply that there is no huge effect on the service delivery performance because HCWs can easily adjust if ever they will be transferred. The adjustment would take only a few days since there is no significant change

in the working aspect. On their advantage, another technical learning could be developed in different areas.

4. Effects of the COVID-19 pandemic on the work behaviors of health care workers

This segment covers the effects of the COVID-19 pandemic on the work behavior of health care workers along irritability, paranoia, intolerance, social withdrawal, and institutional trust issues. The weighted mean was used in analyzing the data. Irritability. Table 5A includes the weighted mean and description of the effects of the Covid-19 pandemic on the work behavior of health care workers along irritability.

Table 5A: Effects of Covid-19 pandemic on the work behavior of health care workers along Irritability

Indicators	Weighted Mean	Description
1. I experienced sleep disturbances because of my work.	3.68	Agree
2. I am not satisfied with the working schedule.	2.74	Neutral
3. I don't feel comfortable wearing Personal Protective Equipment (PPE).	3.29	Neutral
4. I have been experiencing stressful tasks in my assigned working area.	3.31	Neutral
5. I unconsciously get rude to patients.	2.75	Neutral
Overall	3.15	Neutral

The data revealed that generally, the health workers are neutral when it comes to irritability as effect of Covid-19 pandemic in their behavior with an overall weighted mean of 3.15. They agree that sleep disturbances are experienced caused by their work with the highest weighted mean of 3.68. On the other hand, they are neutral with the non-satisfaction of the work schedule given to them with the lowest weighted mean of 2.74.

It would imply that sleep disturbances are evident based on the result as an effect on the behavior. Increased stress level could lead to it. It is caused primarily by the impending repeatedly experience in the hospitals specifically during pandemic.

Lei Xia, et.al, (2021) studied healthcare worker's high levels work stress experiences of during the COVID-19

pandemic, leading to a high risk of sleep disturbances. This meta-analysis aimed to explore the prevalence of sleep disturbances and sleep quality in Chinese. They found that the prevalence of sleep disturbances varied among frontline, infected, and non-frontline HWs. It was common in Chinese HWs during the COVID-19 pandemic, particularly in frontline and infected HWs. The results indicate the heavy mental health burden on HWs in China and can provide other countries with valuable information to assist HWs during the crisis.

Paranoia. Table 5B includes the weighted mean and description of the effects of the Covid-19 pandemic on the work behavior of health care workers along paranoia.

Table 5B: Effects of Covid-19 pandemic on the work behavior of health care workers along paranoia

Indicators	Weighted Mean	Description
1. I felt fear of the COVID-19 virus.	4.08	Agree
2. I experienced covid-19 related symptoms.	3.92	Agree
3. I fear family members have tested positive for COVID-19.	4.39	Agree
4. I have been very defensive recently with my ideas.	3.09	Neutral
5. I've been exhibiting obsessive-compulsive behavior.	3.04	Neutral
Overall	3.69	Agree

It can be asserted from the table that relative to paranoia, the health workers agree that they have the fear that the family members will be tested positive of the Covid-19 with the highest weighted mean of 4.39 but they are neutral with the scenario that obsessive-compulsive behavior is exhibited with the lowest weighted mean of 3.04. Generally, the health workers are Agree with paranoia as an effect of Covid-19 in their work behavior with an overall weighted mean of 3.69.

This means that paranoia is exhibited through their behaviors as an effect of covid-19 because of uncontrollable factors. Paranoia is generally defined as fear of the unknown. Basically, HCWs working in the hospital are at risk of acquiring the covid-19 virus which in turn could pass to their families and loved ones.

Suzanne Ho-waiSo, et.al, (2022) imparted an increase in paranoid thinking that was reported internationally. The

development of the Pandemic Paranoia Scale (PPS) was provided a reliable assessment of various facets of pandemic paranoia. The study aimed to identify classes of individuals with varying levels of general paranoia and pandemic paranoia, and examine associations between classification and worry, core beliefs, and pro-health behaviors. Individuals with a general paranoia tendency were more likely to respond to the global health threats in a suspicious and distrusting way. Findings suggested that worry and negative self/other beliefs may contribute to not just general paranoia but also pandemic paranoia. The preliminary finding of a link between pro-health behaviors and interpersonal mistrust warrants further examination.

Intolerance of Others. Table 5C includes the weighted mean and description of the effects of the Covid-19 pandemic on the work behavior of health care workers along intolerance of others.

Table 5C: Effects of Covid-19 pandemic on the work behavior of health care workers along Intolerance of Others

Indicators	Weighted Mean	Description
1. I rush home immediately after my duty.	3.25	Neutral
2. I have been experiencing distrust of others.	2.82	Neutral
3. I rarely talk to my colleagues.	2.57	Neutral
4. I get easily offended.	2.68	Neutral
5. I prefer being alone.	2.76	Neutral
Overall	2.82	Neutral

The data indicated that generally the health workers are neutral with the intolerance as an effect of Covid-19 to their work behavior with an overall weighted mean of 2.82. They are neutral with the act of rushing home immediately after duty with the highest weighted mean of 3.25. all the other indicators relative to this variable, the health workers are neutral with weighted mean ranging from 2.57 to 2.82.

This means that there is no significant effect on the intolerance of other individuals during the COVID-19 pandemic. The neutral result shows that one way or another the health care workers learned to adjust on the situation especially with colleagues and the society. Incoordination could not give Positive Avenue for them.

The study conducted by Del-Valle, et.al (2022) considered uncertainty due in part to the unpredictability of the future situation. The aim of this study was to longitudinally analyze the relationship between intolerance of COVID-19-related uncertainty and anxiety and depression symptoms. A non-probabilistic online snowball sampling method was used. The results suggest that anxiety and depressive symptoms increase over time, and that intolerance of uncertainty is a predictor of this variability even up to eleven months after the initial assessment. Gender and age-related effects were also observed (women and young people reported more psychopathological symptoms). The findings suggest the importance of intolerance of uncertainty for mental health and the importance of this

type of study for understanding the psychological impact of the pandemic.

Social Withdrawal. Table 5C includes the weighted mean and description of the effects of the Covid-19 pandemic on the work behavior of health care workers along social withdrawal.

Table 5D: Effects of Covid-19 pandemic on the work behavior of health care workers along social withdrawal

Indicators	Weighted Mean	Description
1. I prefer staying home after work.	3.58	Agree
2. I avoid crowded places.	3.64	Agree
3. I am not engaging in any sports activities as I used to.	3.18	Neutral
4. I rarely talk to family members and friends.	2.53	Neutral
5. I isolate myself after leaving the Hospital premise.	3.20	Neutral
Overall	3.23	Neutral

When it comes to social withdrawal, the health workers agree with the avoidance of crowded places with the highest weighted mean of 3.64 and just staying home after work with weighted mean of 3.58. On the other hand, they are neutral with the act of talking to family members and friends with the lowest weighted mean of 2.53. Generally, the health workers are neutral with the effect of social withdrawal in their work behavior with an overall weighted mean of 3.23.

This means that avoidance of social life was manifested during the pandemic. Others agreed that they withdraw from basic societal role like engaging in typical activities like sports, events, concerts, and even peer gatherings. This is due to the continuous rise in COVID-19 cases or fear of acquiring it. Most of the health workers switch to diversionary activities and platforms that does not require physical presence like online performances and gaming.

In an interview with one of the health care workers who acquired severe COVID-19 case. He was an outgoing person before and preferred drinking outside with friends and colleagues. He also engages in group activities like Tamiya car racing and sports like billiards. He often invites his friends over his home for social

gatherings. He was then a frequent smoker. After suffering near death in the hospital, the respondent decided to withdraw himself from social activities in contrary to what was mentioned. He began to develop distrust in the institution he is affiliated with. He even rarely replies to messages on Facebook messenger. It was indeed a total evolvement in his personality.

JianjieXu, et.al (2022) examined changes of well-being among people in distinct subgroups of social withdrawal – shyness, unsociability, and social avoidance in different phases of the COVID-19 pandemic. Results showed that, in general, well-being sharply decreased from the initial phase to the peak phase of the pandemic, but steadily recovered after the peak phase. People in different withdrawal groups displayed different levels and trajectories of well-being during a period of six months. The current study has implications for developing targeted interventions for vulnerable people in public health crisis

Institutional Trust Issues. Table 5E includes the weighted mean and description of the effects of the Covid-19 pandemic on the work behavior of health care workers along institutional trust issues.

Table 5E: Effects of Covid-19 pandemic on the work behavior of heath care workers along institutional trust issues

Indicators	Weighted Mean	Description
1. I don't feel secure and valued.	3.16	Neutral
2. I feel that am not provided with the necessary things needed.	3.24	Neutral
3. I am not given what is due.	3.23	Neutral
4. I am not satisfied with the implemented policies and protocols.	3.17	Neutral
5. I am not motivated by the current hospital settings.	3.31	Neutral
Overall	3.22	Neutral

It can be observed from the table that generally the health workers are neutral with the institutional trust issues as effect of Covid-19 to their health behavior with

overall weighted mean of 3.22. Specifically, they are neutral with the non-motivation of the current hospital settings having the highest weighted mean of 3.31.

However, they are neutral of the feeling of not secured and values with the lowest weighted mean of 3.16.

This means HCWs are neutral in their opinion about the trust in their institution. Generally, the organization is trusted by more HCWs in terms of management. The organizational could have provided what is due for them that are necessary in dealing with the pandemic.

This is supported by the study conducted by Lee (2020). The study examined the relationship between material adversities due to pandemic crisis, institutional trust, and subjective well-being and mental health among middle-aged and older adults aged. Regression analysis indicated perceived insecurity in employment and housing, worsening finances, and difficulty paying for necessities were significantly related to respondents' life satisfaction, happiness, self-rated health, mental health index, and psychological distress. Institutional trust partially mediated the relationship between perceived adversities and subjective well-being and mental health.

5. Proposed Output – Action Plan on the competency appraisal of the service delivery performance of the health care workers and their behaviors

This section presents the output which emerged based on the results of this study. It contains the key result areas, objectives, persons involved, budgetary requirements, time frame and expected outcome.

RATIONALE

The Provincial, Districts, and Medicare Hospitals (PDMH) of the large institutions were put together by the Local Government Unit (LGU) and their processes were combined. Thus, general policies generated are applicable to all levels. Hence, adherence to psychosocial support practices shall be formulated to reduce the stigma associated with mental illness among healthcare workers. It helps improve behavioral perspective and prevent possible unacceptable future practices in the hospital.

GENERAL OBJECTIVE

The main goal of this plan of action is to improve the service delivery performance of the health care workers and their behaviors.

SPECIFIC OBJECTIVES:

1. To alleviate stress and burn-out after being exposed to the COVID-19 virus.
2. To provide strategies to counter mental health effects on HWCs.

3. To provide a safe working environment that enables them to render services confidently.
4. To enhance the workforce with colleagues up to the extent of their capabilities.
5. To reduce the sleep disturbances currently experiencing by the health workers.
6. To detach the health care workers from the psychological effect of paranoia.

IV. CONCLUSION AND RECOMMENDATIONS

This study concluded that majority of the health care workers are female aged 45 years old and below, married, and Roman Catholic. Likewise, they are nurses who are on permanent status, and assigned in different units. The health care workers agree that they perform the delivery of services along patient communication, collaborative participation, initiative, responsiveness, and dedication. The religion and gender of the health care workers are significantly related to patient communication, collaborative participation, and initiative. Also, religion is significantly associated with responsiveness and dedication. The health care workers are neutral with the effects of Covid-19 on work behaviors along irritability, intolerance, social withdrawal, and institutional trust issues but they agree on paranoia. An action plan was proposed so as to improve the service delivery performance and work behavior of the health care workers. It was recommended that the health care workers may be given opportunity for promotion to avail and enjoy benefits, incentives, and other privileges. The hospital may provide appropriate seminars and training to their workers on sustaining the service delivery performance of health care management. The health care workers may be motivated in upscaling their profile through personality among male HCWs, particularly in the area of patient communication and collaboration. The health care workers may be prioritized to properly manage and equip for the effects of Covid-19 pandemic to their work behaviors. The action plan may be submitted to the concerned authorities for further review and evaluation prior to its implementation. Further study may be conducted which may cover the other front liners exposed to Covid-19 pandemic and other variables not included. Also, other studies may be conducted with focus on patients' perception on service delivery performance of healthcare workers.

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