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## Patient Safety in Selected Healthcare Facilities in Caraga Region: An Aiken Model Approach

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### ABSTRACT

This study aimed to determine the nursing organizational factors and patient safety in selected healthcare facilities in the Philippines. It utilized quantitative approach of research specifically descriptive correlational research design. The inclusion criteria of the entire population were composed mainly of 455 nurses employed among the five selected healthcare facilities in Caraga Region, Philippines within a period of 1 year and above offering inpatient and outpatient healthcare services. Results revealed that there was a positive response on organizational factors such as nursing foundations for quality care, nurse participation in hospital affairs, nurse manager leadership, ability and support and collegial nurse-physician relationships. Patient Safety with regards to supervisor/manager, work area/unit, frequency of events reported, and communications, patient safety grade, hospital and number of events reported were positively performed and practiced. The patient safety practices were directly affected by the organizational factors being tested.

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annually in the US alone per the ASEAN Patient Safety Congress in 2015. Many countries have recognized the benefits of patient safety improvement. A patient can receive treatment from various facilities and from various care providers from various disciplines. Adverse outcomes damage the lives of real people who are impaired, injured or dying because of this unsafe treatment. Patients and families. Unsafe treatment also puts a huge and excessive financial strain on patients as well as on the health care facilities that manage them ([World Health Organization, 2013](#)).

### INTRODUCTION

The World Health Organization (WHO) estimated that one in ten patients are being harmed during their hospitalizations in developed countries. Every one hundred patients hospitalized per any given period, among seven developed and ten developing countries will acquire nosocomial infections affecting hundreds of millions of patients worldwide each year ([World Health Organization, 2014](#)). This leads to an increase in health care cost and lost productivity amounting to 17 to 19 billion US dollars

In lieu, Patient Safety has become a global issue and a persistent healthcare challenge for decades. In the Philippines for instance, healthcare facilities has been a place rife with medication errors and hand-off communication errors. These errors serve as a serious danger and health threat to the safety of our patients which are among the most common medical faux pas harming 1.5 million lives per year while costing an estimated 887 million in additional medical costs which are predominantly preventable. Factors contributing to these errors were identified

to be primarily due to professional and organizational factors. No Philippine breakthroughs were freely available with regards to the status of Patient Safety in the country and no mention was made of a possible contribution of data (Drotz and Poksinska, 2014).

In order to advance a patient safety haven in response to the WHO Patient Safety movement, the Department of Health has declared an A National Policy on Patient Safety programme to ensure that patient safety is institutionalised as a basic concept of the delivery system of health care (DOH Administrative Order No. 2008-0023). As mandated, the Professional Regulation Commission through the Philippine Board of Nursing has also made the delivery of safe and quality care come as one of the core competencies of the nursing profession. Health care systems are increasingly complex and each point in the care process involves inherent risk, so many patient safety initiatives have been established that we have the Philippine Health Corporation, commonly known as PhilHealth, to assist in the process of providing accreditation programmes between healthcare facilities that allow seven performance areas with core competencies such as 'Secure Pracc (Department of Health, 2014).

On the emphasis of patient safety and advancement of healthcare delivery system, the Department of Health (DOH) has tapped several referral centers and hospitals throughout the country to bolster its preparations. It has been prevalent that these DOH stem hospitals were capable of rendering services at par with private hospitals due to PhilHealth Accreditation Program and the Philippine standard ratio of a hospital bed to a population ratio of 1000 patients in a year was addressed to effectively deliver quality patient services throughout the country yet in Caraga region, the average ratio was higher than that of the standard ratio and has ballooned to overcrowding of patients. This even resulted to the scenario that those hallways and improvised hospital beds were utilized to accommodate such surge. Patient census often surpasses the bed capacity of the hospital in addition to limited resources and manpower that were thinly distributed to cover every in-patient workload. However, meeting these standards in Caraga remains a challenge (Department of Health, 2014).

If the standard ratios have been met with positive organizational support for patient safety processes, nurses in particular are not heavily tasked and a high quality patient safety can be achieved. It is certain that patient safety is a quintessential aim of quality patient care delivery and achieving a high

quality of patient safety might push the standards of all healthcare facilities to develop patient safety systems (Department of Health, 2011). It will not be possible unless the perceptions of the frontline healthcare providers such as the nurses and the organization are positively directed and supported; this is the main reason why the researcher has a definite focus on nursing organizational factors to shed some light in the attempt to recognize the relationship of identified organizational factors and patient safety to address the mileage of patient care delivery in Caraga region. Significant related studies have established the important role of nursing organizational factors that most likely impact patient safety the nurse practice environment (Aiken *et al.*, 2014; Coetzee *et al.*, 2013). Furthermore, this thesis was made to establish a baseline data on the levels of nurse reported patient safety in Caraga region. This will serve as basis for measuring future interventions and research. The tool used to measure the levels of patient safety was the Hospital Survey on Patient Safety from the Agency for Healthcare Research and Quality [AHRQ]. Several studies (Ito *et al.*, 2011; Hannah *et al.*, 2008) conducted in various hospitals and institutions outside the country using this tool were reviewed and evaluated. Some of the studies (Adams-Pizarro *et al.*, 2008) used the tool to gauge differences between pre-intervention and post intervention in areas of patient safety. In searching for literature, it was established that there were limited and/or non-existent studies here in the Philippines on the application of the AHRQ Hospital Survey on Patient Safety, and most definitely no published studies was found involving hospitals of Caraga region. This thesis deemed significant in so far as it can be beneficial because of the society's growing keen interest on patient safety. The connection between the emergence of an evidence-based practice and the enactment of association accreditation standards and regulations, research initiative is much tighter for the implementation of strict patient safety practices. To contribute more fully to the patient safety initiatives, nurses believe that their voices must be heard to bring issues forward since information on nurse's perspective and contribution to patient safety has been limited to several factors; and so, those who fund research and researchers will find explicit wealth of potential research opportunities on the complexity of patient safety in the locality. Furthermore the thesis will provide a database that would open up for opportunities to initiate changes and promote future interventions on patient safety standards in the region (Ehsani *et al.*, 2006).

This study aimed to decide the nursing organiza-

tional factors and patient safety in selected healthcare facilities in Caraga Region. Specifically, it sought to describe the nurse respondent characteristics in terms of age, gender, designation, educational attainment, years of clinical work in the current healthcare facility, years of work in the current work area/unit, the number of working hours per week in the healthcare facility and nurse to patient staffing ratio; describe the organizational factors according to the Aiken Model (Nursing Organization and Outcomes Model) using the Practice Environment Scale of the Nursing Work Index (PES-NWI) and patient safety measured by the Agency for Healthcare Research and Quality (AHRQ) Hospital Survey on Patient Safety; correlate the organizational factors to the level of patient safety; and propose programs for patient safety.

## METHODOLOGY

The research used the quantitative method of explicitly descriptive correlational research design research. This design was considered acceptable since the principle of this study was to create a research body by defining the interaction and relationship of nursing organisational variables specifically the levels of nurse staffing and nurse practise environment across selected healthcare facilities in the Caraga Area towards patient safety levels.

### Participants of the Study

A total of 5 hospitals among the 7 healthcare facilities from Caraga Region were selected randomly. The respondents were registered nurses who were working currently among the selected healthcare facilities in Caraga Region. The inclusion criteria of the entire population were composed mainly of nurses employed among the five selected healthcare facilities in Caraga Region within a period of 1 year and above offering inpatient and outpatient healthcare services. The respondents were chosen through random sampling wherein the respondents were provided with equal opportunity to take part in the investigation. Respondents were employed and currently in service within the healthcare facility and were willing to participate in the investigation. Exclusion criteria did not include nurses who were on leave and on off duty during the data collection period.

### Research Instrument

In the last frame, this questionnaire consisted of 42 items grouped into subscales to determine 7 composite patient metrics as specified by Job Area/Team, Supervisor/Boss, Communications, Recorded Incident Frequency, Patient Safety Rank-

ing, Hospital, Number of Recorded Incidents, plus additional history questions. These 42 items used the 5-point Likert response scale of the agreement,

### Data Collection

This study utilized the Nurse Staffing Ratio, Nurse Practice Environment Scale of the Nursing Work Index and Hospital Survey on Patient Safety questionnaires and gathered responses from the nurse respondents among selected health care facilities since it offers the possibility of anonymity, reduced interviewer bias, and is cost effective. The data collection was done in a manner of utmost constraint to enhance objectivity, reduce bias, and facilitate analysis (Polit and Beck, 2012).

### Ethical considerations

This study observed cordiality and politeness in asking data from the respondents. Respects to their answers to each item were highly observed and their identity was kept with utmost confidentiality.

### Data Analysis

Using frequency distribution, weighted mean and Pearson- Product Moment Correlation, all the data collected was tallied, encoded and interpreted.

These instruments used were based on the study's goals. Moreover, to further evaluate the results of the analysis using 0.05 alpha levels, all data were handled using statistical software, PASW version 18.

## RESULTS AND DISCUSSION

### Organizational Factors

As presented in Table 1, Nurse Participation in Hospital Affairs Organizational factor indicated that there was an Overall Composite Mean of 2.87 with a verbal interpretation of 'Somewhat Agree' and gave a positive response from the majority population. Particularly, the Chief Nursing Officer [CNO] and Administration (3.03) "A chief nursing officer is equal in power and authority to other top-level hospital executives." Meanwhile, the indication for Staff Nurses involved in Governance had a composite weighted mean of 2.07 revealed a verbal interpretation of 'Somewhat Disagree' which gave a negative response on Staff nurses involvement in the internal governance of the hospital (i.e. practice and policy committee), Staff nurses opportunity to participate in policy decisions and opportunity to serve on hospital and nursing committees. Conversely, the Career Development indicator revealed a composite weighted mean of 3.51 which gave a verbal interpretation of 'Strongly Agree' or a high positive response rate from the majority population which meant that "there were opportunities for advancement and the

**Table 1: Organizational Factors in terms of Nurse Participation in Hospital Affairs**

Indicators	Weighted Mean	Verbal Interpretation	Rank
<b>CNO and Administration</b>			
A chief nursing officer is highly recognisable to nursing professionals and available to them.	2.96	Somewhat Agree	3
A chief nursing officer is equivalent to other top-level healthcare leaders with influence and authority.	2.95	Somewhat Agree	4
Administration that listens to employee complaints and reacts to them.	3.07	Somewhat Agree	2
Nursing supervisors work on regular topics and policies with workers.	3.12	Somewhat Agree	1
Composite Mean	3.03	Somewhat Agree	
<b>Staff Nurses Involved in Governance</b>			
The organisational administration of the hospital (i.e. procedure and policy committees) includes staff nurses.	2.06	Somewhat agree	3
Opportunity to share in management decisions for staff nurses.	2.07	Somewhat agree	1.5
In hospital and nursing boards, staff nurses have the ability to participate.	2.07	Somewhat agree	1.5
Composite Mean	2.07	Somewhat disagree	
<b>Career Development</b>			
Chances for progression are available.	3.51	Strongly Agree	1.5
Career progression / opportunity for the clinical ladder.	3.51	Strongly Agree	1.5
Composite Mean	3.51	Strongly Agree	
Over-all Composite Mean	2.87	Somewhat Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Somewhat Agree; 1.50 – 2.49 = Somewhat Disagree; 1.00 – 1.49 = Strongly Disagree

existence of a career development/clinical ladder opportunity”.

The results revealed that the nursing administrators consult their nurse subordinates to gather information on their daily problems and procedures adapted in their practices yet staff nurses were not involved with the decision making process and a few number of them were involved in hospital and nursing committees. This might hasten opportunities for advancement, career development/clinical ladder opportunity for the particular pool of nursing staff who were not involved in such committees. Equal opportunity of every nursing staff to voice out their views and perceptions geared toward solutions should be apprehended in every Nursing Managerial meetings and settlements.

There are various types of leaders within a health care organization and in order for process enhancement to be effective, commitment on leadership and action to change and development should be

required and engaged at all levels. Important roles should be imparted among all unit leaders and should become aware of the performance gap in their own organization ([Patient Safety Network, 2019](#)).

In terms of Nursing Foundations for Quality Treatment, Table 2 showed the Organizational Component, which indicates an average composite mean of 3.39 for a verbal understanding of something accepted or a positive response by the majority population. In fact, Qualified Nurses (3.28) “Working alongside clinically competent nurses” and offering “a preceptor service for newly recruited nurses,” “active staff development or continued education services for nurses” had a higher response rate of 3.50, where the majority public “Strongly Approve.” “In comparison, Quality Culture Suggests a composite mean of 3.29 that shows a verbal understanding of “Somewhat Accept” or a supportive response to” simple nursing theory that pervades the atmo-



**Table 2: Organizational Factors in terms of Nursing Foundations for Quality Care**

Indicators	Weighted Mean	Verbal Interpretation	Rank
<b>Competent Nurses</b>			
Working alongside clinically-competent nurses.	3.00	Somewhat Agree	3
For recently employed nurses, a preceptor service.	3.34	Somewhat Agree	2
Active staff learning services for nurses or continuing education.	3.50	Strongly Agree	1
Composite Mean	3.28	Somewhat Agree	
<b>Quality Culture</b>			
A simple nursing philosophy that pervades the milieu of health care.	3.00	Somewhat Agree	5
Strong nursing care quality are required by the administration.	3.34	Somewhat Agree	2.5
An successful network for quality assurance.	3.50	Strongly Agree	1
Instead of being medical, nursing care is based on a nursing model.	3.34	Somewhat Agree	2.5
Composite Mean	3.29	Somewhat Agree	
<b>Patient Care Management</b>			
Usage of diagnosis in nursing.	3.34	Somewhat Agree	2.5
Assignments in medical care that facilitate quality of care, i.e. from one day to the next, the same nurse cares for the medical.	3.50	Strongly Agree	1
Up-to - date written treatment schedules for all patients.	3.34	Somewhat Agree	2.5
Composite Mean	3.39	Somewhat Agree	
Over-all Composite Mean	3.32	Somewhat Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 –3.49 = Somewhat Agree; 1.50 – 2.49 = Somewhat Disagree; 1.00 – 1.49 = Strongly Disagree

sphere of patient care, high levels of nursing care are required by the administration, "there is a presence of" an aggressive quality improvement programme and nursing care is focused on a nursing rather than mm. Health Care Management shows a Combined Mean of 3.39 with a verbal meaning of "Somewhat Accept" or a supportive response to "the use of clinical diagnosis, patient care activities that encourage quality of care, i.e. the same nurse takes care of the patient from one day to the next, and written up-to - date care schedules for all patients."

The importance hospitals put on their citizens would be directly proportional to their devotion, trust and loyalty. In order to drive retention, enhancing culture and developing programmes to enhance these values is crucial. Hospitals think that retention is a "primary strategic imperative" but are reluctant to turn it into a structured strategic strategy. Concentrate on methods that strengthen society and eradicate those that do not. Hospitals need to develop retention capacity, handle vacancy rates, promote recruitment efforts and monitor labour

costs in order to improve the bottom line, thereby breaking through the myopic ways of hiring more workers to Band-Aid or using unnecessary overtime work that taxes the workers but reduces the quality of treatment and the degradation of patient safety. To navigate the evolving paradigm ([Nursing Solutions Incorporated , 2016](#)), creating and sustaining a quality workforce is crucial.

A sophisticated 2011 study showed that higher patient turnover was also related to an increased mortality rate, while total nurse staffing was considered satisfactory. Appropriate nursing staffing decision is a very complicated mechanism that differs on a shift-by-shift basis and requires strong coordination between management and nursing on the basis of patient acuity and attrition, the availability of support personnel and the mixture of expertise, and many other variables ( [Health Agency and Quality Research, 2011](#)).

According to a 2010 survey by researchers at the University of Pennsylvania, 29% of nurses in California reported high burnout, compared to 34% of

**Table 3: Organizational Factors in terms of Nurse Manager Leadership, Ability and Support**

Indicators	Weighted Mean	Verbal Interpretation	Rank
Nurse Manager			
The nurse manager is an outstanding manager and a good leader.	3.51	Strongly Agree	2
The nurse manager backs up the indecision of the nursing team, even though the argument is with a specialist.	3.51	Strongly Agree	2
Praise and acknowledgment for a well done work.	3.51	Strongly Agree	2
Composite Mean	3.51	Strongly Agree	
Supervisor			
Supervisors use errors, not judgement, as learning experiences.	3.51	Strongly Agree	1.5
A staff with supervision who is respectful with nurses.	3.51	Strongly Agree	1.5
Composite Mean	3.51	Strongly Agree	
Over-all Composite Mean	3.51	Strongly Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 –3.49 = Somewhat Agree; 1.50 – 2.49 = Somewhat Disagree; 1.00 – 1.49 = Strongly Disagree

**Table 4: Organizational Factors in terms of Collegial Nurse-Physician Relationships**

Indicators	Weighted Mean	Verbal Interpretation	Rank
Lots of cooperation with nurses and doctors.	3.35	Somewhat Agree	2
There are strong working partnerships between doctors and nurses.	3.36	Somewhat Agree	1
Collaboration between nurses and doctors (joint practise).	3.34	Somewhat Agree	3
Composite Mean	3.35	Somewhat Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 –3.49 = Somewhat Agree; 1.50 – 2.49 = Somewhat Disagree; 1.00 – 1.49 = Strongly Disagree

nurses in New Jersey and 36% of nurses in Pennsylvania, states without minimum staffing levels during the time of study. The study also showed that 20% of nurses in California registered disappointment with their jobs, compared to 26% and 29% in New Jersey and Pennsylvania. Within 30 days of hospital admission, a lower risk of in-patient death was associated with the rate of California nurse staffing than in New Jersey or Pennsylvania. There was also a lower risk of death in California from failure to respond to symptoms properly. There were 13.9% fewer surgical deaths in California than in New Jersey and 10% fewer surgical deaths than in Pennsylvania (Aiken *et al.*, 2012).

"As seen in Table 3, Organizational Variables of Nurse Manager, Leadership, Ability and Support

have shown that there is an overall Aggregate Mean of 3.51 with a verbal sense of "Strongly Accept" or a high positive response among the majority population that suggests that the Nurse Manager is "a good" support for decision-making by nursing staff, even though the dispute is with a specialist, the nursing manager is "a good". Furthermore, the results revealed that "errors are seen by administrators as learning aids, not criticism" and "Supervisory staff actively support nurses."

Nurse managers who carry out and administer performance evaluations of employee nurses should take measures to recognise and mitigate the possible adverse effects of their resolutions on patient safety by educating board members and The relation between management practises and safety is

**Table 5: Patients Safety as to Work Area/Unit**

Indicators	Weighted Mean	Verbal tation	Interpre-	Rank
People in this team support each other	3.51	Agree		13.5
We have ample manpower to support the workload	3.51	Agree		17.5
We work together as a team to get the job done when a lot of work has to be done fast	3.51	Agree		13.5
People treat each other in this unit with respect	3.51	Agree		17.5
Staff in this unit will function well with medical treatment within hours	3.51	Agree		13.5
In order to increase patient welfare, we are constantly doing stuff	3.57	Agree		1
We stop taking the right agency / temporary workers for patient treatment	3.51	Agree		13.5
Employees know like their errors are not taken against them	3.52	Agree		8
Errors have contributed to positive improvements here.	3.52	Agree		4.5
It is just by luck that there are no more serious errors around here	3.52	Agree		8
When one place gets very crowded in this unit, others help out	3.53	Agree		2
When an incident is registered, the matter is written up, not the individual	3.52	Agree		3
We test their efficacy after we make improvements to increase patient protection	3.51	Agree		13.5
We want to do too much, too fast, to stop operating in "crisis mode"	3.52	Agree		8
To have more job done, patient care is never lost	3.52	Agree		4.5
Employees are not concerned about the failures they make in their personnel file	3.52	Agree		8
In this facility, we should not have patient care concerns	3.51	Agree		13.5
Our processes and procedures are excellent at stopping accidents from occurring.	3.52	Agree		8
Composite Mean	3.52	Agree		

Legend: 4.50 – 5.00 = Strongly Agree; 3.50 –4.49= Agree; 2.50 – 3.49 = Neither Agree nor Disagree; 1.50 – 2.49 = Disagree;1.00 – 1.49 = Strongly Disagree

addressed by supervisory nurses, senior nurses and staff nurses and emphasises patient safety to the same degree as efficiency and financial objectives in core management planning and reports and in public stakeholder reports.

Health administrations might include tools for nursing leaders to plan the nursing work climate and care processes by eliminating mistakes, prevent heavy nursing practises, such as discovering and retrieving lost supplies and resources, researching for people, completing cumbersome and redundant data management, and compensating for bad communications (Hughes, 2008).

Table 4 demonstrates the number of Collegial Nurse-Physician Relationships, environmental characteristics reflected a total demand mean of 3.35 with a verbal measure of "Somewhat Agree" or a positive response from the majority population that reveals that "there is a lot of teamwork between doctors, physicians and nurses have good working relationships" and there are several collaborations between physicians and nurses. Cooperation (joint practise) between nurses and doctors".

Physicians were perceived—by patients and clinicians—as being the captain of the health care team, with good reason. But, physicians Even a crit-

**Table 6: Patients Safety as to Supervisor/Manager**

Indicators	Weighted Mean	Verbal Interpretation	Rank
When he/she sees a job done according to proven patient safety protocols, my supervisor / manager says a good word	3.44	Neither	3
My manager/supervisor strongly takes employee recommendations for enhancing patient welfare	3.43	Neither	4
My supervisor / manager wants us to work harder as pressure goes up, but advises us to stop taking shortcuts	3.55	Agree	1
My supervisor/manager stops issues with patient care from occurring over and over again	3.52	Agree	2
Composite Mean	3.49	Neither Agree nor Disagree	

Legend: 4.50 – 5.00 = Strongly Agree; 3.50 – 4.49 = Agree; 2.50 – 3.49 = Neither Agree nor Disagree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree

**Table 7: Patients Safety as to Communications**

Indicators	Weighted Mean	Verbal Interpretation	Rank
We are presented with input on changes made based on incident reports	3.40	Neither	1
When they see something that can adversely impact patient treatment, staff can openly speak out	3.36	Neither	2
We are mindful of mistakes that exist in this unit	3.34	Neither	4
Employees are free to challenge the choices or acts of someone of greater authority	3.33	Neither	5.5
We address methods in this unit to avoid errors from arising again	3.35	Neither	3
Employees are afraid to ask questions when something is wrong	3.33	Neither	5.5
Composite Mean	3.35	Neither Agree nor Disagree	

Legend: 4.50 – 5.00 = Strongly Agree; 3.50 – 4.49 = Agree; 2.50 – 3.49 = Neither Agree nor Disagree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree

**Table 8: Patients Safety as to Frequency of Events Reported**

Indicators	Weighted Mean	Verbal Interpretation	Rank
When a error is made, it is always recorded, but is caught and corrected before impacting the patient	3.54	Agree	1
When an error is made, it is always recorded, but it has no potential to affect the patient	3.53	Agree	2.5
Where a error is made that could affect the patient, it is also noted	3.53	Agree	2.5
Composite Mean	3.53	Agree	

Legend: 4.50 – 5.00 = Strongly Agree; 3.50 – 4.49 = Agree; 2.50 – 3.49 = Neither Agree nor Disagree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree



**Table 9: Patients Safety as to Patient Safety Grade**

Indicators	Weighted Mean	Verbal Interpretation
Overall grade on patient safety on work area/unit in the hospital	3.53	Acceptable
Composite Mean	3.53	Acceptable

Legend: 4.50 – 5.00 = Excellent; 3.50 –4.49= Very Good; 2.50 – 3.49 = Acceptable; 1.50 – 2.49 = Poor; 1.00 – 1.49 =failing

**Table 10: Patients Safety as to Hospital**

Indicators	Weighted Mean	Verbal Interpretation	Rank
Management of hospitals creates a working environment that fosters patient safety	3.51	Agree	10
Hospital departments are not well integrated with each other	3.40	Agree	11
When moving patients from one facility to another, items "break through the cracks"	3.51	Agree	9
There is excellent coordination between hospital departments that need to operate together.	3.51	Agree	7.5
During shift shifts, critical patient care information is held	3.57	Agree	1
Acting alongside employees from other hospital departments is also uncomfortable	3.51	Agree	7.5
Problems also emerge with the sharing of data across hospital units	3.52	Agree	5.5
Hospital administration activities indicate that patient care is a top priority	3.52	Agree	4
Hospital administration only appears to be involved in patient care when an adverse condition occurs	3.52	Agree	5.5
Health departments work closely together to provide patients with the best treatment	3.53	Agree	2
For patients at this facility, shift shifts are troublesome	3.52	Agree	3
Composite Mean	3.51	Agree	

Legend: 4.50 – 5.00 = Strongly Agree; 3.50 –4.49= Agree; 2.50 – 3.49 = Neither Agree nor Disagree; 1.50 – 2.49 = Disagree;1.00 – 1.49 = Strongly Disagree

**Table 11: Patients Safety as to Number of Events Reported**

Indicators	Frequency	Percentage (%)
6 to 10 event reports	214	47.03
3 to 5 event	211	46.37
1 to 2 event	22	4.84
No event	8	1.76

**Table 12: Relationship between Organizational Factors and Patients Safety**

Patients Safety in terms of	Organizational Factors			
	Nurse Participation in hospital affairs	Nursing Foundations for Quality Care	Nurse Manager Leadership, Ability & Support	Collegial Nurse-Physician Relationships
Work Area/Unit	0.595**	0.128**	0.990**	0.570**
Supervisor/Manager	0.261**	0.070	0.360**	0.262**
Communications	0.359**	0.081	0.570**	0.973**
Frequency of Events Reported	0.519**	0.122**	0.922**	0.526**
Patient Safety Grade	0.514**	0.125**	0.912**	0.521**
Hospital	0.322**	0.119*	0.595**	0.341**
Number of Events Reported	-0.340**	-0.084	-0.147**	-0.106*

\*\* . Correlation is significant at the 0.01level (2-tailed); \* . Correlation is significant at the 0.05 level (2-tailed)

ically ill hospitalised patient can spend just 30 to 45 minutes a day, while nurses are a constant presence at the bedside and communicate frequently with doctors , pharmacists, families, and all other health care team members. In every sector of the health system, nurses are active in the provision of health care: 24 hours a day , 7 days a week.

The availability of nurses with their sound competence provides all members of the health care team to play a key role in patient safety by documenting patients for clinical deterioration, identifying mistakes and near misses, observing care processes and deficiencies inherent in those schemes, and Performing numerous other activities to ensure that high-quality care is received by patients. Since nurses are the largest group of hospital personnel delivering patient care, the level of nurse staffing (e.g. nurse-to - patient ratio) plays an important role in patient safety outcomes (Aiken *et al.*, 2014).

Seven patient safety composite indicators indicated by Work Area / Unit, Supervisor / Manager, Communications, Frequency of Events Recorded, Patient Safety Rating, Hospital, Number of Events Recorded are included in the following tables.

### Patients Safety

Table 5 features the Patient safety composite measure in terms of Work Area or Unit which reveals a composite mean of 3.52 with a verbal interpretation of 'Agree' wherein the majority of the population confirmed that they are actively doing things to improve safety. This reveals that the majority of the population is aware of their work area or unit's intervention towards patient safety. Among the composite indicators of Patient Safety as to Work Area or Unit, there were 2 indicators having

weighted mean of 3.51 among the majority population and reveal as the least positive response among the indicators which means that "people treat each other with respect and that they had enough staff to handle the workload and in their unit".

Application of effective methods used to facilitate staffing elasticity should give preference to scheduling excess staff and creating cross-trained float pools within the nursing service administration. Furthermore, it is necessary to involve direct-care nursing staff in identifying the causes of nurse staff turnover and develop methods to improve skilled nursing staff retention.

In addition, nurse leaders of healthcare facilities should engage direct nursing personnel in the determination and review of interventions used to assess the required unit staffing ratio for each shift and allow for "elasticity" or "slack" staffing within the timetable of each shift to accommodate unexpected changes in the number of patients and visibility into the resulting workload. It will be appropriate to appoint unit nursing personnel and senior nurses to control unit workflow and set guidelines for unit closures for new patient arrivals and transitions as a nursing workload and staffing ratio (Aiken *et al.*, 2012; Hughes, 2008).

During the past decade, the adoption of evidence-based procedure, protocols, success metrics and feedback has characterised hospital patient care programmes. There are contradictory findings from assessments of interventional patient safety efforts, and multiple scholars have identified the need to better understand how operational variables relate to hospital quality of treatment and patient safety (Rivard *et al.*, 2010).

Table 6 apparently demonstrated the Patient Safety composite measure as to Supervisor or Manager showed a composite mean of 3.49, the supervisor or manager 'Neither Agrees nor Disagrees' that half of the majority population gave a positive response that whenever pressure builds up, supervisor/manager want them to work faster but remind them to avoid taking shortcuts, and overlooks patient safety problems that happen over and over. Moreover, half of the majority population gave a positive response that their supervisor/manager says a good word when he/she sees a job done according to established patient safety procedures with a weighted mean of 3.44. Furthermore half of the majority population gave a positive response that their Supervisor/Manager seriously considers staff suggestions for improving patient safety comprising the weighted mean of 3.43.

Hospital nurse managers and nurse administrators are accountable for improving the safety and quality of patient care, and one sure way of achieving this is through having a clear understanding of the problems that affects safety and quality. To gather enough data on this matter, hospital managers and administrators must not rely on their perspective alone, rather, they must be aware of the perceptions of those working in the frontline. Furthermore, safety officers being appointed should take responsibility for ensuring the safety of the hospital staff and the patients.

However, if an organizational culture emanating in the workplace is one that imposes punitive damages and harbors a blame culture instead of a just culture, it is less likely that someone will step up for fear of retribution and other sanctions (Tocco and Blum, 2013).

Based on Table 7 the Patient Safety composite measure as to Communications revealed a composite mean score of 3.35 with a verbal interpretation of 'Neither Agree nor Disagree'. This means that half of the majority population gave a high positive response that they were given feedback about changes being put into place based on event reports. Half of the majority population gave the least positive response towards the staff feeling free to question the decisions or actions of those with more authority and staff are not afraid to ask a question when something does not seem right.

The results revealed that there must be an established events or grievance committee to address immediate problems being brought about by staff nurses in collaboration with the Physicians, Chief Nurse and Nurse Managers. They should facilitate an open communication and a healthy discussion

between the concerned personnel.

The IOM (Smits *et al.*, 2010) reported 'Crossing the quality chasm' has also called for the development of a "culture of safety" among healthcare organizations. In the approach to better patient protection in healthcare organisations, a culture of safety plays an important part. Organizations with a positive culture of patient protection are distinguished by mutually trusted interactions, common views of the value of protection and confidence in the effectiveness of prevention measures (Singer *et al.*, 2007).

Table 8 shows that Patient Safety as to Frequency of Events reported had a composite mean of 3.53 with a verbal interpretation of 'Agree' which means that majority of the population had highly positive response that "it is often reported when a mistake is made, but is already caught and corrected before affecting the patient. This only means that whenever events are being reported, immediate interventions were already done before it could harm the patient, thus, keeping the patient safe from the possible harm (Wachter, 2008).

To minimise the occurrence of adverse events and to increase patient welfare, recognising organisational actions in incident reporting is fundamental. The achievement of a high degree of protection by avoiding patient injury is an important step in improving the standard of care (Vincent, 2010). In order to increase patient safety, within healthcare institutions, it is important to recognise "error and violation generating conditions" (Smits *et al.*, 2010). Organizational factors lead to large rates of adverse events (Barnsteiner, 2011).

Patient Safety as to Patient Safety Grade as depicted in Table 9 reveals an over-all composite mean of 3.53 with a verbal interpretation of 'Acceptable' or the majority population gave a positive response towards an Acceptable Patient Safety grade on their work area or unit in the hospital.

Among the chosen healthcare facilities in the Caraga region, the patient safety grade showed that the general expectations of patient safety in the region pervaded that processes and processes were successful at avoiding accidents and had less issues with patient safety. If they see something that may adversely affect a patient, staff can openly speak up, but otherwise they don't feel able to challenge others with more authority. The workers were told of errors accumulated during the implementation of their practise, but few were given input on improvements made and were allowed to explore means of preventing these errors.

There are different protocols and processes for

administration that are effective at reducing errors and reducing issues with patient care. If the operating hours and patient ratio are sufficient to provide the optimal treatment for patients, there could be enough workers to manage the workload. Supervisors / managers accept employee feedback to increase patient safety, applaud employee for upholding protocols for patient safety, and should not neglect patient safety concerns. To have the best treatment for patients, medical departments collaborate and communicate with one another. Finally, the final requirement must be that nursing workers support each other, treat each other kindly, and function as a team together.

Errors of the following forms should be reported: (1) errors caught and corrected before the patient is harmed, (2) errors that do not damage the patient, and (3) errors that could harm the patient but do not. Relevant information about patient treatment is communicated through hospital departments and during shift shifts. A work environment that encourages patient protection and reflects that patient safety is a top priority should be provided by hospital management. Staff may feel that their accidents and incident records will not be taken against them and that accidents are not kept as an offence in their staff register. Errors should lead to meaningful results and progress should be tested for efficacy (Sorra *et al.*, 2016).

Table 10 shows that Patient Safety as to Hospital composite measure revealed a composite mean of 3.51 with a verbal interpretation of 'Agree'. This means that the majority population gave a high positive response on "important patient care information is kept during shift changes" yet the majority population gave the least positive response that "there is good cooperation among hospital units that need to work together" and "it is often pleasant to work with staff from other hospital units."

The lack of nurses, increased difficulty of treatment, increased patient acuity and the implementation of modern technologies without adequate preparation and orientation are leading many registered nurses to face an increased speed of work and workload. At times, existing workloads are so intense that nurses feel they can not establish therapeutic partnerships, perform the requisite thorough examinations of their patients, or obtain advice from nurses and other healthcare professionals. They believe that these variables contribute to mistakes and incidents referred to as "failure to rescue and refer accordingly" in the nursing literature. When nurses have the time to monitor problems, identify them early and take action in a timely manner, patients

are rescued from complications that can occur in health care settings (Aiken *et al.*, 2014).

Patient Safety as to Number of Events Reported, as illustrated in Table 11 shows that the majority population of 47.03% had a positive response of reporting 6 to 10 event reports while 1.76% of the total population did not made any events reported in the past 12 months.

The results showed that staff nurses are well aware of the events reporting system in their hospital. There were nursing staff that may have made event reports for the past 12 months knowing that there is a need to address issues immediately yet some may adhere from reporting adverse events if it would deem detrimental to their part.

The goal of a culture of safety is to lessen harm to patients and healthcare providers through both system effectiveness and individual performances (Ellis and Hartley, 2012).

However, with mistakes arising in all facets of the recovery processes, such risks to patient welfare exist. Complex and risk-prone processes that create preventable adverse accidents are the common barriers to a secure system; lack of robust verbal, written and electronic communication systems; tolerance to stylistic activities and absence to uniform protocols; fear of retaliation, work protection, humiliation and legal consequences that hinder voluntary reporting of errors; and absence of voluntary reporting of errors (Ellis and Hartley, 2012; Hussain *et al.*, 1891).

### **Relationship between Organizational Factors and Patients Safety**

Table 12 depicts the association of organizational factors and patients safety. It was observed that there were significant relationship on work area and organizational factors since all computed p-values were less than 0.01 alpha level. This meant that a relationship exists and implies that the better are the organizational factors, the better are the patient safety practices.

Conversely, the findings showed that higher levels of patient protection and health care delivery are correlated with a healthier nursing work climate. Good work experiences also involve ardent involvement of nurses in hospital affairs, a solid base in nursing for quality of service, strong leadership of nurses, sufficient services, and effective working relationships between doctors and nurses.

Good patient effects and fewer adverse patient outcomes are correlated with operational variables. There are collections of proposals that suggest that desirable nursing practise settings provide

constructive results-related nurses with supportive administrators, sufficient staff, strong interdisciplinary relationships, and autonomy in practise. In the nursing practise environment, these main characteristics help nurses in their jobs, increase the level of treatment patients receive, and eventually contribute to superior patient outcomes, including lower mortality (Sorra *et al.*, 2016). In comparison, primary care training has also demonstrated that practise perspectives have improved, from the treatment of emergency care to more systematic and holistic care (Ekawati *et al.*, 2018).

With regards to supervisor/manager and communications, there were significant relationships observed except on nursing foundation for quality care. 'Safety Culture' of clinical practise refers to the degree to which companies emphasise and endorse safety enhancements. Organizations with a positive safety culture include mutually confidence-based dialogue, common perspectives on the value of safety, confidence in the success of prevention initiatives, and staff support (Vincent, 2010).

As to frequency of events reported and patient safety grade, there was also a significant relationship observed because all computed p-values were less than 0.01 alpha levels. In terms of number of events recorded, the computed R-values show weak negative correlation, however, a significant relationship exists. This means that the fewer events recorded, the better the organization practices.

Reporting of incidents and distribution of information on specific health care services at the level of individual nursing units and aggregate health care facilities should be regularly reported to the public. In restructuring, these include programmes to commit budgetary resources to assist nursing personnel in their continuing acquisition and management of patient protection and the enhancement of nursing operational variables, equivalent to a given percentage of funding. These services should be appropriate and used to enforce policies and practises provided by a well-established patient safety governing board and guidelines provided by a well-established patient safety governing board (Smits *et al.*, 2010).

## CONCLUSIONS

Overall, there was a favourable response to organisational considerations such as nurse engagement in patient affairs, quality care nursing foundations, leadership of nurse administrators, capability and encouragement, and partnerships between nurse and physician colleges. Patient protection was favourably conducted and exercised with respect to the work area / unit, supervisor / manager,

communications, and occurrence of reported incidents, patient safety rating, facility, and number of reported incidents. Patient care protocols were often specifically impacted by the operational variables being evaluated.

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## Conflict of Interest

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