

## Awareness regarding Disaster Management among Nurses in Tertiary Health Sector

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### Abstract:

**Introduction:** *This is universally accepted that nurses have inadequate awareness about disaster management due to a lack of knowledge about disaster dealing, lack of vital competences. The reason behind, knowledge deficit, the insufficient information transformed in nursing national curriculum particularly in general nursing education. This research explored nurses' awareness' regarding disaster dealing, level of understanding on the time of uncertainty, nurses response when they receive emergencies. It is globally recognized that Pakistan is one of the most vulnerable country in terrorism, where millions of peoples died, Thousands have been affected.*

**Material and methods:** *A quantitative, non-experimental, descriptive research design.*

**Result:** *Finding of the study show that Nurses in Pakistan have low awareness' regarding disaster dealing. Furthermore nurses indicate their interest to enhance their knowledge and practices. There is a need to upgrade course content that promotes their knowledge, training in all ranges of disaster management, significantly in their responsibilities to overcome disaster situation.*

**Conclusion:** *Nurses admitted that they are not well-prepared because of insufficient awareness and due to unavailability of drill exercise in their work place, a part from that nurse's show their willing to improve their abilities in disaster dealing if informative content and drill demonstration opportunities are being provided by hospital.*

**Key words:** awareness, disaster management, nurses, tertiary health sector

## 1. INTRODUCTION

Disaster can be defined as an uncertainty that can happen in anytime, anywhere which may leads to socio economic and human loss, disaster can lead to huge economic burden on the country to manage the disruption (Usher,2 010). According to National Disaster Risk Reduction, Pakistan is a disaster-doomed nation, with variety of hydro-meteorological, geo-physical and natural threats containing landslides, hurricanes and rainstorms, droughts, floods, earthquakes, tsunamis and epidemic risks to Pakistani peoples (Aleem, 2014 ).

In the last fifteen years the frequency of disasters are increase, it is therefore concluded that some northern areas as well as Sindh (Karachi) are more vulnerable for disasters, it including man-made disasters like, bomb blast, chemical terrorism, smoke, toxic effects, nuclear terrorism likewise multiple examples of natural disasters (Usher, 2010).

According to WHO Risk Reduction and Emergencies Preparedness Survey(2009) all types of disasters country bears

economic set back, resources, technology, human and animal loss as well as back in progress through masses of budget expends (consumption) to manage such types of uncertain situation.

According to (Saeed, 2013) from last fifteen years in Pakistan including minor to major environmental disruption like bomb blast in commercial and residential areas, causing huge destruction over and above trade and human loss likewise, in chemical terrorism at Marriot hotel in Islamabad, lost a millions of economy, Lahore blast in police rescue building, in Karachi fire in garments factory at buldia town kills up to 300 workers, Suicide bomber blast himself in Gulshan e Ravi Park Lahore kills up to 85 persons and hundreds of injured, in additionally natural disasters earth quake of 2007 kills thousands of peoples and hundreds of houses, flood damage every year hundreds of villages in Punjab and Sindh and many more area like this.

In 2009, pandemic disaster on the whole 570 patients were registered of dengue, in 2010, 5000 positive cases were reported (Fatima et al, 2011). A massive economic load can be reduce if all health care personnel particularly nurses and doctors equipped with adequate knowledge and appropriate skills to deal with disaster (Gebbe, 2012).

From last two eras disaster increases day by day, it means that responsibility of disaster management in accurate mood of action are increases in every health care member (Moabi, 2009). Every year state overhead a huge national budget expand on the name of disaster management that estimated in large figures, disaster management necessitates to rescue in timely with in less budget, this can be possible when every single health care supporter predominantly nurses awareness assures about the disaster management (Khalil, 2010).

Facts and figures strongly appeals that the day by day increases disaster incidence are needed to be manage well and

nurses are also prepared to deal efficiently with coast effective(Schultz &koeing, 2012).

Disaster management is the management of misshapen through resources human resources and material resources, in human resources Doctors, Nurses and health care workers by the large nurses' competences in disaster management need to be awareness for its management likewise nurses profession in this stretch of time there are great importance that nurses seeks and learn the disaster management in every level of health care (Koeing, 2012).

Furthermore nurses awareness consider as compulsory about the right response on the time of disaster precedes correspondently nurses awareness about the right action on right time that useful to rescue for the human life and helps to minimize the financial loss by their effective mood of action(Master,2011).

Cast effective and beneficial action can be learn through authentic knowledge, demonstration and practice ,Requirement of this time is that every nurse take interest to seeks the basic skills of disaster management, and be a part of rescue team(Khalaileh,2013). The justification to select the research topic is as the global perception from the nurses is unaware about disaster management. Nurses are needed to be work on such kind of sensitive managerial issue in developing countries (Veenema,2010).Nurses performs their skill with full competences and efficiency in receiving all types of emergencies in territory setups, in the same way nurses proof their best skills in last two decades in every health care level, but the demand of the nurses' skillful in disaster management is remains incomplete (Davise, 2010) .

Awareness of disaster management consider compulsory in this time period, nurses' accurate perception about the factors potentially considers causing impairment, coupled with fact that increases the severity of damage and loss of lives (Fung,2013).

Nursing profession is not limited between the boundaries of rescue dealing but the important role to rehabilitate and give psychological support to them that needs to be encourage after facing major disaster moreover nurses awareness regarding disaster management includes the early responsiveness, towards the site of disaster, first aid to the injured, in short nurses disaster management is significant to go through systematically with effective planning and implementation, and help the effected peoples to turn out from shock(Powers, 2010).

Requirement of the modern age is to making awareness of nurses in disaster management, and understands their responsibilities on the time of uncertainty whoever through disaster management awareness nurses make it possible secondly awareness includes to know about the fundamental rules consisting rapid response, management strategies stop or minimize the further damage, by the detection of risk factors (Bond, 2012).

According to (Chapman, 2013) the vital aspect of disaster awareness is to transformation the basic awareness among nurses that their first reaction to receive the call of disaster necessary steps are in which first of all to control their own nerves and response sensible manner it includes communicates the message to all authoritarian, alert the emergency staff and make sure the adequate availability of life saving drugs in trauma center.

## **2. LITERATURE REVIEW**

Universally accepted that nurses have unsatisfactory knowledge around disaster, Consideration due to lack of knowledge, taking of essential capabilities and the deficiency of disaster preparedness in nursing core curriculum (Murra, 2015). Literature strongly focuses that nurses awareness is a key factor that directly influence on the disaster management in government hospitals as well as in community setting, Study

on nurses awareness among disaster management is necessary to estimates the level of knowledge deficit, so the results will helps to making decision to enhance the awareness of nurses in tertiary health care sectors (Thobaity et al 2015).

Most recent study directed on nurses' capabilities in disaster management, in this research they judged the skillfulness of nurses in case of calamity befallen in the hospital sitting, data gathering on the bases of international council of nursing (ICN) four themes and ten demines of disastrous situation, results show that the majority of the nurses deliberately ignore the moral and lawful consideration in the disaster controlling, the importance of nurses skillfulness is essential for dealing with unpleasant situation in the health care sitting (Davies, et al 2018).

The comparison study in Saudi Arabia between the government hospital nurses and military nurse, literature support that strong relation between the two variable nurses awareness directly influence the disaster dealing capabilities, in broad-spectrum they determined that military nurses have more qualification as well as they have adequate knowledge regarding disaster management then civilian nurses, clearly mentioned the reason of poor knowledge of government hospital nurses is to less occurrence of uncertainty of disastrous situation, weak nurses' curricula, less interest to take knowledge and practices and un availability of drill practices in hospitals (Khalileh,2017).

Effective disaster coping ability can be possible when nurses are qualified and interested to seek the drill, results of this literature show that majority of the study participants have knowledge regarding disaster management and they are interested to know further about uncertainty management, Drill practices are not accurate as the requirement of management and needs to be refreshed (Moabi et al., 2016).

Nurses have poor knowledge regarding un certainty dealing, Furthermore literature show number of participants

know to deal with uncertainty in appropriate way by their own interest and qualifications, study result show that majority study observers' do not know to compact with harsh conditions chanced in health care setting, altogether they suggest to higher authority of the hospital is to make sure the disaster awareness and drill practice (Fung, &Loke, 2015).

According to (Loke, 2015) nurses' effective interpretation with skills is the key factor to success full dealing disaster management study outcomes shows that nurses have not enough awareness regarding hospital disaster and have inadequate ideal vigilance about to deal such kind of crises in hospitals, literature focuses that nurses must know the best strategies and planning with a wise supervision.

Disaster management is complete when all health care team knows their responsibility and work as a team, by command of the leader. Finding of the study passing to the health care administration for the planning the arrangement of teaching sections or classes to uphold the nurses knowledge and skill necessary to manage the disaster (Power, 2017).

It was recommended by the World Health Organization (WHO) that all nations, no matter how recurrent disaster frequencies they face, would get ready healthcare personnel for a disaster, nevertheless, most nurses were ineffectively equipped for disaster (WHO, 2015).

Incompetence to overcome the uncertain condition of the nurses in the health care setup, and there is strong need to work on the improvement in education and adeptness to effective management in disaster (Weiner. & Irwin 2015).

### **3. PROBLEM STATEMENT**

Nurses' awareness regarding disaster dealing is important; it develops systematic approach necessary to manage the disaster successfully, nurses understanding about chemical terrorism smoke, toxic gasses, nurses perception regarding disaster

management focusing accurate mood of action they apply to deal with disaster in case it happened inter hospital or out of hospital, with in less time and evidence their competence and skills (Veenema, 2013).

Study on nurses awareness among disaster management is necessary to estimates the level of knowledge deficit, so the results will helps to decision making for enhance the awareness of nurses in tertiary health care sectors in Lahore. This study health care institution will be able to estimate the level of nurses' awareness related to disaster occurrence. So this will helps for making decision to boost their knowledge by the use of various strategies like teaching program seminars or by arranging workshops.

#### **4. OBJECTIVE**

The objective of the study is:

1. To assess the awareness regarding disaster management among nurses in tertiary health sector.

#### **5. RESEARCH QUESTION**

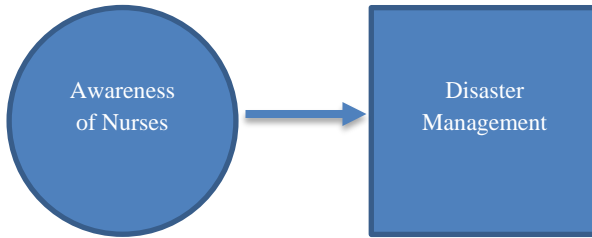
Are nurses aware regarding disaster management among nurses in tertiary health sector?

#### **6. SIGNIFICANCE**

The results of this study will be helpful for the hospital administration to estimate the nurses' awareness level to dealing with disaster. This study significance is to identification of various factors affecting on nurses awareness regarding disaster management. Results will helps to decision making for enhance the awareness of nurses in tertiary health care sectors in Lahore. This study health care institution will be able to estimate the level of nurses' awareness related to disaster occurrence. So this will helps for making decision to boost their knowledge by the use of various strategies like teaching program seminars or by arranging workshops.



## 7. THEORITICAL FRAMEWORK



*(Theory of planned behavior, 1980)*

The Theory of Planned Behavior (TPB) started as the Theory of Reasoned Action in 1980 to predict an individual's intention to engage in a behavior at a specific time and place. The theory was intended to explain all behaviors over which people have the ability to exert self-control. The key component to this model is behavioral intent; behavioral intentions are influenced by the knowledge and attitude about the likelihood that the behavior will have the expected outcome.

## 8. OPERATIONAL DEFINITIONS

### **Awareness:**

Information, knowledge or perception of nurses regarding disaster management.

### **Disaster Management:**

Management of any loss including disease management to sudden mishaps occurring in Pakistan.

## 9. MATERIAL AND METHOD

### **Study Design**

A cross-sectional study design was used.

### **Study Setting**

The setting for this research was Mayo Hospital Lahore.

### **Duration of the Study:**

This study was completed approximately 4 months (September 2018, to December 2018).

### **Study Population:**

The study population for this research was all nurses working in Mayo Hospital Lahore.

### **Sampling Technique:**

The simple random sampling technique was used to collect data from selected population.

### **Sample Size:**

The total population of nurses are, 500 nurses including male and female nurses. Sample size calculated through Thumb rule in which every question multiplied by ten times, there are thirteen questionnaires so sample size were 130, furthermore 20 more participants added to increase data validity

### **Sample Selection for Nurses:**

#### **Inclusion criteria:**

The subjects included in the study was:

- All staff nurses from emergency departments, medical ICU and surgical ICU
- Both male and female
- Those patients who were interested to participate in the study

#### **Exclusion criteria:**

The subjects who are excluded from the study:

- Head nurses and nursing assistant from emergency departments, medical ICU and surgical ICU.
- Nurses from other departments.
- Those who are not willing to participate

## **10. ETHICAL CONSIDERATION**

The rules and regulations set by the ethical committee of Lahore School of Nursing was followed while conducting the research and the rights of the research participants was respected.

- Written informed consent attached was taken from all the participants.
- All information and data collection was kept confidential.

- Participants remained anonymous throughout the study.
- The subjects were informed that there are no disadvantages or risk on the procedure of the study.
- They were also be informed that they was free to withdraw at any time during the process of the study.
- Data was kept in under key and lock while keeping keys in hand. In laptop it was kept under password.

## **11. DATA COLLECTION PLAN**

After taking informed consent, data was collected by the help of collection tool questionnaire adopted (Bond and Tichy, 2007).Data was collected from 150 staff nurses.

## **12. DATA ANALYSIS:**

Data was analyzed by using SPSS version 22.0 statistical software for data analysis.

- Demographic variables like age, gender, marital status, education etc. was analyzed by using descriptive statistics like frequency, percentage, mean and standard deviation. Percentages were calculated for categorical data while continuous data was analyzed through mean and standard deviation.

## **RESULT**

Data were analysis by using SPSS version21 each question mean and standard deviation calculated. First of all demographics of the participants discuss briefly with percentage mean and standard deviation, data explained through frequency tables and figures for easy understanding. Afterwards brief discussion of results related to each question done. Nurses' response defined with mean, frequencies, percentage with standard deviation, validity and reliability checked to confirm the data validation.

**Demographics:** Demographic variables age, sex, education, work experience of respondent are presented in Table 1-4 with full description.

**Demographic Analysis for Gender**

Data was collected from both genders. Statistics shows in table1 and figure1 that 11% responses were taken from the male nurses and 89% of respondents were female. Distribution can be seen in given table and graph.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	16	11.0	11.0	11.0
Female	129	89.0	89.0	100.0
Total	145	100.0	100.0	

**Figure-1**



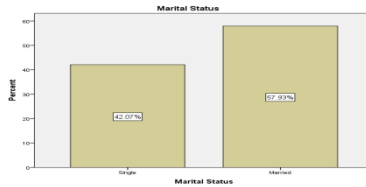
**Description of Marital status**

Table2 and figure 2 shows Participants single status about frequency 42.1% and married 57.9% with mean 1.58 SD .485.

**Table-2 Marital Status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	61	42.1	42.1	42.1
Married	84	57.9	57.9	100.0
Total	145	100.0	100.0	

**Figure-2**



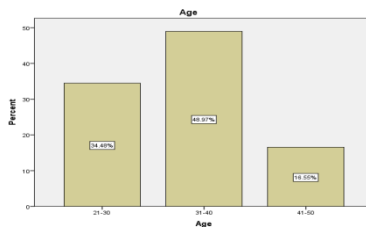
**Description of Age**

Table3 and figure3 show Participants’ age between 21-30 years frequency 34.5% age group between 31-40 years frequency 49.0%age41-50 years frequency 16.6% with mean 1.82 SD .694.

**Table-3 Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	50	34.5	34.5
	31-40	71	49.0	83.4
	41-50	24	16.6	100.0
	Total	145	100.0	100.0

**Figure-3**



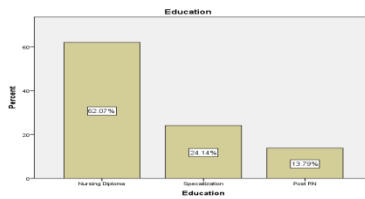
**Description of education**

Education of the participants are shown in table 4 and figure4 Nursing diploma 62.1% Specialization 24.1% Post RN 13.8%mean 1.52 SD .727.This ratio show nurses interest to taking higher education.

**Table-4 Education**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nursing Diploma	90	62.1	62.1
	Specialization	35	24.1	86.2
	Post RN	20	13.8	100.0
	Total	145	100.0	100.0

**Figure-4**



## Disaster management of nurses' awareness based question

### Question -1

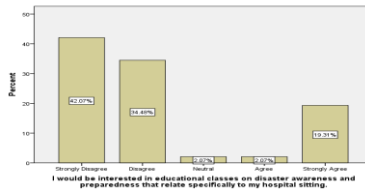
Table-5 graph and bar chart show that 42% respondents are strongly Disagree with '**would be interested in educational classes on disaster awareness and preparedness that relate specially to my hospital setting**', 34% are disagree, 2.1% are Neutral, 2.1% are agree and 19.3% are Strongly Agree with this statement.

**Table-5**

**I would be interested in educational classes on disaster awareness and preparedness that relate specifically to my hospital setting.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	61	42.1	42.1
	Disagree	50	34.5	76.6
	Neutral	3	2.1	78.6
	Agree	3	2.1	80.7
	Strongly Agree	28	19.3	100.0
Total	145	100.0	100.0	

**Figure 5**



**Question-2**

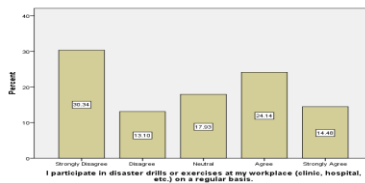
Table-6 and bar chart show that 30.3% respondents are strongly Disagree with **I participate in disaster drills or exercises at my workplace (clinic, hospital, etc.) on a regular basis**, 13.1% respondents are Disagree, 17.9% are Neutral, 24.1% are agreed and 14.5% are Strongly Agree with this statement.

**Table-6**

**I participate in disaster drills or exercises at my workplace (clinic, hospital, etc.) on a regular basis.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	44	30.3	30.3
	Disagree	19	13.1	43.4
	Neutral	26	17.9	61.4
	Agree	35	24.1	85.5
	Strongly Agree	21	14.5	100.0
Total	145	100.0	100.0	

**Figure-6**



**Question-3**

Table and bar chart show that 15.2% respondents are strongly Disagree with **I have participated in emergency plan drafting and emergency planning for disaster** 29.0%

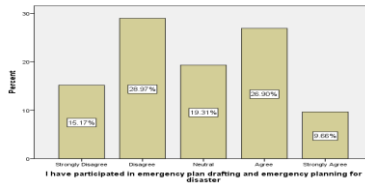
respondents are Disagree, 19.3% are Neutral, 26.9% are agreed and 9.7% are Strongly Agree with this statement.

**Table-7**

**I have participated in emergency plan drafting and emergency planning for disaster**

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	22	15.2	15.2	15.2
Disagree	42	29.0	29.0	44.1
Neutral	28	19.3	19.3	63.4
Agree	39	26.9	26.9	90.3
Strongly Agree	14	9.7	9.7	100.0
Total	145	100.0	100.0	

**Figure-7**



**Question-4**

Table-8 and bar chart show that 2.8% respondents are strongly disagree with **In case of a disaster situation, I think that there is sufficient support from local officials at the country, region and community.** 13.1% respondents are Disagree, 12.4% are Neutral, 17.9% are agreed and 53.8% are Strongly Agree with this statement.

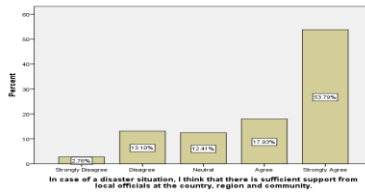
**Table-8**

**In case of a disaster situation, I think that there is sufficient support from local officials at the country, region and community.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	4	2.8	2.8	2.8
Disagree	19	13.1	13.1	15.9
Neutral	18	12.4	12.4	28.3
Agree	26	17.9	17.9	46.2
Strongly Agree	78	53.8	53.8	100.0
Total	145	100.0	100.0	



**Figure-8**



**Question-5**

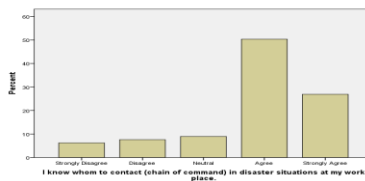
Table-9 and bar chart show that 6.2% respondents are strongly disagree with I know whom to contact (chain of command) in disaster situations at my work place.7.6% respondents are Disagree, 9.0% are Neutral, 50.3% are agreed and 26.9% are Strongly Agree with this statement.

**Table-9**

**I know whom to contact (chain of command) in disaster situations at my work place.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	9	6.2	6.2	6.2
Disagree	11	7.6	7.6	13.8
Neutral	13	9.0	9.0	22.8
Agree	73	50.3	50.3	73.1
Strongly Agree	39	26.9	26.9	100.0
Total	145	100.0	100.0	

**Figure-9**



**Question-6**

Table-10 and bar chart show that 6.2% respondents are strongly disagree with **I am aware of classes about disaster preparedness and management that are offered (for Example, at my workplace, the university, or the community).**22.8% respondents are Disagree, 11.7% are

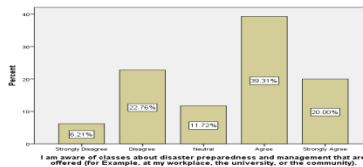
Neutral, 39.3% are agreed and 20.0% are Strongly Agree with this statement.

**Table-10**

**I am aware of classes about disaster preparedness and management that are offered (for Example, at my workplace, the university, or the community).**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	6.2	6.2
	Disagree	33	22.8	29.0
	Neutral	17	11.7	40.7
	Agree	57	39.3	80.0
	Strongly Agree	29	20.0	100.0
	Total	145	100.0	100.0

**Figure-10**



**Question-7**

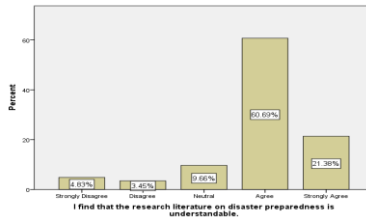
Table-11 and bar chart show that 4.8% respondents are strongly disagree with **I find that the research literature on disaster preparedness is understandable.** 3.4% respondents are Disagree, 9.7% are Neutral, 60.7% are agreed and 21.4% are Strongly Agree with this statement. This means that participants' have good interpretation through reading material.

**Table-11**

**I find that the research literature on disaster preparedness is understandable.**

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Strongly Disagree	7	4.8	4.8	
	Disagree	5	3.4	8.3	
	Neutral	14	9.7	17.9	
	Agree	88	60.7	78.6	
	<u>Strongly Agree</u>	<u>31</u>	<u>21.4</u>	<u>21.4</u>	<u>100.0</u>
	<u>Total</u>	<u>145</u>	<u>100.0</u>	<u>100.0</u>	

**Figure-11**



**Question-8**

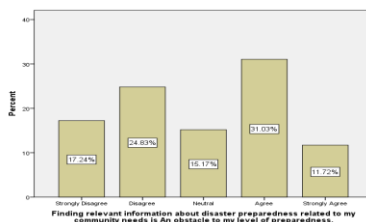
Table-12 and bar chart show that 17.2% respondents are strongly disagree with finding **relevant information about disaster preparedness related to my community needs is An obstacle to my level of preparedness.** 24.8% respondents are Disagree, 15.2% are Neutral, 31.0% are agreed and 11.7% are Strongly Agree with this statement.

**Table-12**

**Finding relevant information about disaster preparedness related to my community needs is An obstacle to my level of preparedness.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	25	17.2	17.2	17.2
Disagree	36	24.8	24.8	42.1
Neutral	22	15.2	15.2	57.2
Agree	45	31.0	31.0	88.3
Strongly Agree	17	11.7	11.7	100.0
Total	145	100.0	100.0	

**Figure-12**



**Question-9**

Table-13 and bar chart show that 17.9% respondents are strongly disagreeing with **I have a list of contacts in the**

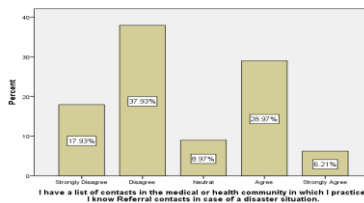
**medical or health community in which I practice. I know Referral contacts in case of a disaster situation.** 37.9% respondents are Disagree, 9.0% are Neutral, 29.0% are agreed and 6.2% are Strongly Agree with this statement.

**Table-13**

**I have a list of contacts in the medical or health community in which I practice. I know Referral contacts in case of a disaster situation.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	26	17.9	17.9	17.9
Disagree	55	37.9	37.9	55.9
Neutral	13	9.0	9.0	64.8
Agree	42	29.0	29.0	93.8
Strongly Agree	9	6.2	6.2	100.0
Total	145	100.0	100.0	

**Figure-13**



**Question-10**

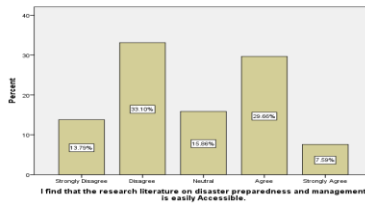
Table-14 and bar chart show that 13.8% respondents are strongly disagreeing with **I find that the research literature on disaster preparedness and management is easily Accessible.** 33.1% respondents are Disagree, 15.9% are Neutral, 29.7% are agreed and 7.6% are Strongly Agree with this statement.

**Table-14**

I find that the research literature on disaster preparedness and management is easily Accessible.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	20	13.8	13.8	13.8
Disagree	48	33.1	33.1	46.9
Neutral	23	15.9	15.9	62.8
Agree	43	29.7	29.7	92.4
Strongly Agree	11	7.6	7.6	100.0
Total	145	100.0	100.0	

**Figure-14**



**Question-11**

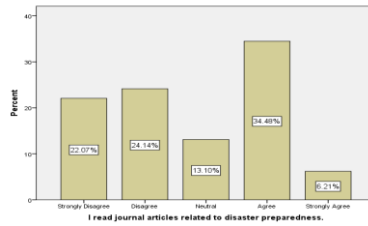
Table-15 and bar chart show that 22.1% respondents are strongly disagreeing with I read journal articles related to disaster preparedness. 24.1% respondents are Disagree, 13.1% are Neutral, 34.5% are agreed and 6.2% are Strongly Agree with this statement.

**Table-15**

I read journal articles related to disaster preparedness.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	32	22.1	22.1	22.1
Disagree	35	24.1	24.1	46.2
Neutral	19	13.1	13.1	59.3
Agree	50	34.5	34.5	93.8
Strongly Agree	9	6.2	6.2	100.0
Total	145	100.0	100.0	

**Figure-15**



**Question-12**

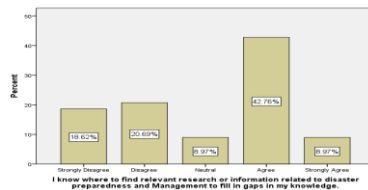
Table-16 and bar chart show that 18.6% respondents are strongly disagreeing with **I know where to find relevant research or information related to disaster preparedness and Management to fill in gaps in my knowledge.** 20.7% respondents are Disagree, 9.0% are Neutral, 42.8% are agreed and 9.0% are Strongly Agree with this statement.

**Table-16**

**I know where to find relevant research or information related to disaster preparedness and Management to fill in gaps in my knowledge.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	27	18.6	18.6	18.6
Disagree	30	20.7	20.7	39.3
Neutral	13	9.0	9.0	48.3
Agree	62	42.8	42.8	91.0
Strongly Agree	13	9.0	9.0	100.0
Total	145	100.0	100.0	

**Figure-16**



**Question-13**

Table-17 and bar chart show that 20.0% respondents are strongly disagreeing with **I participate in one of the**

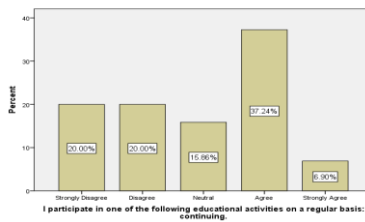
**following educational activities on a regular basis continuing** 20.0% respondents are Disagree, 15.9% are Neutral, 37.2% are agreed and 6.9% are Strongly Agree with this statement.

**Table17**

**I participate in one of the following educational activities on a regular basis: continuing.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	29	20.0	20.0
	Disagree	29	20.0	40.0
	Neutral	23	15.9	55.9
	Agree	54	37.2	93.1
	Strongly Agree	10	6.9	100.0
	Total	145	100.0	100.0

**Table-17**



Complete data analysis table-20 formulated in which every question mean standard deviation, kurtosis, skewness with frequency and percentage mention briefly.

### **RELIABILITY ANALYSIS**

Instrument reliability has been tested and shown in table18 and 19. It has been calculated through Cronbach's alpha that shows us the reliability that how much it is reliable to use and replicate it by different researchers under different conditions to get the reliable results. More the value of Cronbach's alpha near to 1 the more it is reliable constructs.

**Table-18 Case Processing Summary**

		N	%
Cases	Valid	145	100.0
	Excluded <sup>a</sup>	0	.0
	Total	145	100.0

a. Listwise deletion based on all variables in the procedure.

**Table-19 Reliability Statistics**

Cronbach's Alpha	N of Items
.987	13

The value of Cronbach's alpha for nurses awareness on disaster management tasted .987 that is near to 1 and it shows that these constructs are strongly reliable. It shows that these constructs are also reliable.

## OVERALL ANALYSIS OF FINDING

Regardless of the fact that nurses in tertiary hospitals are low level of awareness for disasters dealing, facts and figures show clearly that they are interested to actively involves in academics activities such as lectures, reading informative content and disaster exercises, demonstrative drills. The outcomes of this study show that Pakistani nurses are willing to learn and getting more education about disaster dealing. Items relating to disaster Awareness' response, planning and finding resources for gaining disaster knowledge had the lowest ratings by respondent. This aspect needs to be emphasis by the administrators' on the other words it means that, organization must be focus on the improvement of this fact. The highest ranking of disagreement, indicating the bottom most levels of information contributing in disaster management. Number of study participants mentioned that they getting awareness' on disaster management by their own or they have already participated in drill practices. Second most important sources of knowledge were participants already attend seminar or workshop by their interest to enhance their knowledge.



## DISCUSSION

The level of disaster awareness of nurses in tertiary health care setup of Lahore was revealed to be low. Results show that nurses have inadequately equipped to deal with disaster. This is redirected in the literature; various researchers have explained that nurses all over the world are underprepared for managing uncertain situation. According to Moabi et al (2010) takes as international issue and focuses to make nurses awareness' through knowledge and practice. This study clearly exposed that nurses in government hospitals are interested in enhancing their information related to disaster Preparedness and show their interest to learn the skill through drill prentices. Nurses' lack of awareness' may be a result of their low understanding in this area and the deficiency of nurses' curriculum and informal education in syllabuses and hospitals universally there are evidence that a very short information have been written related to nurses disaster management(Khalil,2010).

The result of the study shows that nurses in government hospitals are inadequate knowledge that required for disaster dealing in appropriate way. Reasons of inadequate awareness' of the nurses are due to knowledge deficit, lack opportunities of drill practices, unavailability of informative content related to disaster preparedness on the work place, lack of experience, unsatisfactory syllabus in diploma and graduation level, less interest to taking part of training program. This research finding also shows that availability of authentic knowledge must be assures in every educational program, including diploma graduation level, as well as post-graduation level of education the satisfactory syllabus helps strengthen nursing awareness 'to disaster management, for accurate mood of action need to be focused on drill and drafting practices helps to nurses' preparedness. According to Thobaity A, et al.(2015) says that in Saudi Arabia military nurses have skills and practice to

deal with uncertain situation as compared to civilian nurses, this because of their updated knowledge , regular basis workshops and drill enhance their knowledge. However, it is suggested that disaster management be included drill practices must be up dated every year for the continuity of accurate responsiveness, and it help to estimates the level of awareness' regarding disaster management. Furthermore the important factor of disaster awareness' is to read the relevant material to enhance the knowledge, study show strong response from participants that there is unavailability of such kind of material in the library or book shops. Suggestion are to make availability of content based on disaster responsiveness it will helps to increases the interest of drill participation. According to Loke (2010) they focuses globally nurses less knowledge on disaster management is because of unavailability of guidelines text books and protocol required for disaster dealing . Hospital administration makes sure about the accessibility of authentic literature in the work place.

Fung et al.(2009)discuss that nurses in Hong Kong thinks that disaster drills were very essential and necessary implements for building disaster skills. Interesting fact were found that nurses understands the impotence of disaster drill practices , but the unavailability of training and demonstration nurses are not able to improve their skills. Nurses of tertiary setups show interest to take participation if it plane in work place. Power (2010) stets focuses the importance of disaster drill workshops,It is suggested that contribution by nurses in actual or imitation drill involvement is an effective for understanding their responsibility on the time of disaster nursing management capabilities. Responsibility of government is to arrange the workshops and training program.

## **CONCLUSION**

Regardless of the fact that nurses in tertiary hospitals are low level of awareness for disasters dealing, facts and figures show clearly that they are interested to actively involves in academics activities such as lectures, reading informative content and disaster exercises, demonstrative drills. The outcomes of this study show that Pakistani nurses are willing to learn and getting more education about disaster dealing. Items relating to disaster Awareness' response, planning and finding resources for gaining disaster knowledge had the lowest ratings by respondent. This aspect needs to be emphasis by the administrators' on the other words it means that, organization must be focus on the improvement of this fact. The highest ranking of disagreement, indicating the bottom most levels of information contributing in disaster management. Number of study participants mentioned that they getting awareness' on disaster management by their own or they have already participated in drill practices. Second most important sources of knowledge were participants already attend seminar or workshop by their interest to enhance their knowledge.

## **SUGGESTIONS AND RECOMMENDATIONS**

The suggestion is that to arrange the classes for disaster dealing and managing situation, in which nurses participates with interest at their work place. For improvement of nurses' awareness there are needs to be making new policy to enhance the latest knowledge and arrange the workshops on regular basis to update the awareness.

Availability of informative material, at the work place helps to improve level of awareness' about disasters management in hospitals .Make sure the easy availability of literature, books or book let that guide the right response, preparation and systematic approach to deal with uncertainty.

Important factors are to improve the syllabus, which give fundamental information to proceed in a disastrous situation. In general nursing, graduation, specialization level, in short every level of education program national nurses course outlines must be improved.

This research work conducted on the nurses' awareness about disaster management in health care setup, nurses of tertiary health care setup have insufficient knowledge on disaster management; every nurse particularly for those nurses who work in emergency and ICU must have sufficient knowledge about uncertainty management. It is a necessary fact that they have authentic information and practices to overcome the uncertain situation inside and outside of the hospital.

### **Study limitation**

This study has a number of limitations that should be considered when interpreting the results. The first study limitation is Short time period makes barrier to work more perfectly.

Results are not generalizable, as they are specific to the hospital participating in the study.

Only nurses of emergency ICU and surgical wards were selected to consider as they are the key people in their areas of work were being studied.

In every aspect linked to related disaster management nurses may not have been dealt with during this research due to the shortage of time and being initial research. Cross-sectional design of this study does not allow us to draw any conclusions on causality. Our conclusions are not generalized to another population. During this study all aspects related to disaster management nurses' staff may not have been covered. Moreover this study finding and the instruments developed may help as a model for further research addressing aspects in this area.

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