



THE IMPACT OF FLOOD FROM THE NURSING PERSPECTIVE: A QUALITATIVE DISCOVERY

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Abstract:

Nursing profession is the second largest workforce after army according to the world statistic of labour. The profession portrays compassionate, committed and passion. Disaster Nursing (DN) requires a great deal of commitment and faced incredible work challenges. Nurses must have prepared to face any disaster such as flood, earthquake, landslide and tsunami which hit Malaysia. The important roles of nurses were truly critical when they were aiding the average 160,000 homeless due to post flood hit in Malaysia in December 2014. Malaysia has to spend billions of RM in each year in order to cover losses due to natural disasters. Which role of nursing care that is really reliable in handling disaster? How the nurses' groups would be able to develop and help the country in dealing with losses and damages to individuals, their families and their friends in real situation? Are there any guidelines which could be practiced? The purpose of this study therefore is to evaluate the factors impacting flood in global perspectives and develop functional disaster to nursing in Malaysia. The objectives of this study are to explore the impact of flood on health issue relating to life quality, to assess the reaction on economic turn down toward flood disaster in Malaysia and to evaluate the behaviour impact of flood disaster. This study also intends to implement and develop beneficial nursing subproject for practices as well as to improve health care and services on focus group of Felda Seberang Tayor people and to discover their attitude and behaviour their gearing towards generation of incomes. Nursing theory of success has been chosen to develop insightful understanding of disaster nursing practices in Malaysia. Qualitative approach using open ended questionnaires and in-depth interview were used in three different aspects of relevant importance (management view: medical view: personal involvement view). The focus group are of

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200-250 of Felda community people who have been experienced and involved in most tragic floods areas. A disaster post basic team was tailored to facilitate a pilot project. The plan focused on four subprojects, which were Subproject 1; To establish Nursing i- clinic and training team for basic health care and minor injury. Subproject 2; Nursing youth tour for healthy life style and nursing franchizing to stimulate positive activity and generate cost and family income. Subproject 3; Develop entrepreneur nursing in franchising sector of my healthy world tea project and healthy fresh mini plantation from home made for psychological impact. Subproject 4; nursing post basic for coronary care and disaster nursing. The results of data analysis on the four elements of focused samples selected for the study were presented accordingly.

Keywords: disaster nursing, entrepreneur nursing, economic, flood, guidelines

1. Introduction

Nursing profession is well established worldwide. Disaster and emergency nursing care commence during diseases, war, and conflict among Arabian community. According to Fletcher (2010), the chronology of nursing was explored by Rufaidah in her era in the 1st century AH/8 during prophet Muhamad S. A. W. Nursing profession was then continued by other perfectionists such as Florence Nightingale from 18-19th century. The profession had possessed a rich and important history of nurse entrepreneurships in business, social, corporate, and academic. For instance, nurse entrepreneurs have elevated the position of Islamic women as nurses by working within Islamic system.

According to World Health Organisation (WHO) Statistic there were 72,845 Malaysia nurses were registered from 2000-2010, Malaysia produce about 600-700 registered nurses in each year until 2016 Malaysia nurse reached up to 80-90 thousand in current. According to 11th Malaysia Planning (2016-2020) mentioned by Prime Minister YAB. Dato' Seri Mohd Najib Bin Tun Abdul Razak, the current ratio of Malaysia nurses would be 1:300 (with current 31 million Malaysia populations on May 2016) where there were approximately 100 thousand Malaysia nurses in current practice in worldwide. Emergency and disaster cares would be part of holistic care and intervention in nursing. Based on the disaster which occurred in Malaysia, how far the nurses develop in nursing knowledge, skill and competency in managing flood disaster? How would Malaysia nurses be able to take an effective role in managing disaster and the chaotic of the crowded people? Any best guidelines available for practice for future disaster reoccur. Yamashita (2014) mentioned that healthcare professional should continue to lobby out the government so that they may obtain the necessary information to assess the situation or disasters occurrences. Yamashita (2014) stressed on volunteerism group, nurse's role and plan, health hazard and volunteer aid. She came out with some of the initiative plans for aid, and acts for disaster. Yamamoto (2013) suggested on the development of nursing support and network in generating society. She generates guideline for practice for undergraduate and post graduate nurses in practice.

According to Malaysia disaster and risk profile recorded in 2014 average annual lost (AAL) by hazard USD million 1,271.06 due to flood disaster, which is 96.7 % of total lost damage compared to the other disaster occurrences. It is reported that 10 were killed in December 2014 however, there still unreported figure left behind. Creswell (2013) suggests that ontology concept of study may use social constructivism. This study focuses on multiple realities which are constructed through life experiences and interaction with others. The study focuses on the development of functional post basic nursing in Malaysia for practice. Malaysia as one of the developing countries has faced tremendous challenges and built the country with its own way. Malaysia has been facing wavering economic growth for many years due to many factors such as environment, climate loss and damage, instability of market value which is impacting the income and economic growth.

Japan was tremendously quick in recovery, Yamamoto's study (2013) had shown a group of Japan nurses which was one of the groups who took apart and served their own people in developing the country after the terrifying tsunami in the year 2004. Health care is a current issue and is not put behind in the interfaced economic wave in Malaysia and worldwide economic challenge and growth issue. It was reported that info line Malaysia meter 2016 through a statistic where Malaysia population was about 30,974,084 on November, 1. 2016 @ 11.53h. Nurses' play a role in maintaining the Nursing care quality of life (NcQoL) to Malaysia people who involved directly with flood disaster. Malaysia is faced with various types of disasters including disease and death. However, according to a statistic, it was recorded that flood occurrence was 62.5% compared to other types of disaster (typhoon, landslide, earth-quake) in Malaysia.

Berita Harian newspaper on 2nd January 2015 reported, Malaysia spent RM 1billion for loss and damage due to flood which hit Malaysia in December 2014. Almost a total of RM 30 billion was spent for disaster in a year. It was reported recently where several disasters had occurred in Malaysia. Sabah was hit on earth quake; Cameron Highland had experienced landslide which was also prominent at the east coast region such as Air Putih, Kemaman Terengganu and Karak highway Pahang. How would Malaysia deal with unsuspected and severity of flood and other disasters in emergency? How would flood be dealt with in nursing perspective and what would be the nursing role and care? How would Malaysia face a big number of flood victims who were exposure with diseases such as communicable disease, water and food disease, trauma and injuries? The victims could be those with low body immune such as the elderlies and babies. Malaysia had faced its people, who witnessed tragic deaths and suffered losses and damages, such as those in Kelantan, Terengganu and Pahang who experienced flood disaster in December 2014.

The purpose of this study is to evaluate the factors impacted flood in global perspectives and develop functional disaster nursing in Malaysia. According to online business dictionary (2015), develop can be defined as to train, evolve, and or progress an individual or idea for a more focused reason. In the case of individuals, some companies feel it is better to develop leaders from within a company, and allow

individuals the opportunity to rise, rather than to hire leaders from outside. Disaster nursing based on online medical dictionary (2015) can be defined as nursing care provided to prevent imminent severe damage or death or to avert serious injury. Activities that exemplify emergency nursing are basic life support, cardiopulmonary resuscitation, and control of haemorrhage. Flood can be defined as a temporary overflow of a normally dry area due to overflow of a body of water, unusual build up, run off of surface waters.

The objectives of the study are:

1. To explore the impact of flood on health issue relating to life quality.
2. To assess the reaction on economic turn down toward flood disaster in Malaysia.
3. To evaluate the behaviour impact of flood disaster.

The paper intends to implement and develop beneficial nursing subproject for practices. As depicted by Table 1, the paper also intent to implement and develops the best guideline disaster nursing in practice. The study were describe the chronology of flood occur in Malaysia, emphasize nursing role in managing flood in international nursing perspective use the applicable nursing theory, developing and recruit functioning disaster Malaysia nurses to ministry of health, explore the strategic plan, innovation and intervention available in managing flood and disaster preparation.

Table 1: Main questionnaires with scenario of evidence (theme)

Main questionnaires with scenario of evidence (theme)	Sub-questions Sub-theme
<p>Q 1. Disease Issue Nurses demonstrating positive attitudes concerning health care in prevalence disease occurred due to phenomenology flood in Malaysia and international view.</p>	<p>Sub-Q 1.1 How do attitudes concerning health care in nursing on prevalence diseases flood occur in nursing practice? Sub-Q 1.2 How to reduce the number of people suffering due to flood diseases. Sub-Q1.3. the impact and reaction on people due to: 1.3.1. Psychological stress impact. 1.3.2. Physically stress impact. 1.3.3. Emotional stress impact. 1.3.4. Behavioural stress impact Sub -Q1.4. geographical impact - Global warming. - Melty iceberg - (northern and southern). Increasing land disappearing. Increasingly pressure and temperature level inside the core of the earth. What is the relationship between attitudes concerning health care in disaster nursing, facing terrible flood in Malaysia / world view?</p>
<p>Q 2. Budget Issue.</p>	<p>Sub-Q 2.1</p>

<p>Nurses demonstrating positive subjective norms concerning health care in nursing will have positive intentions on economic crisis engaging in disaster environmental behaviours.</p> <p>Currently, Malaysia may face with economic stance expected grow slow In 2015: GDP growth below than 5% in 2015 from estimated 5.8% in 2014; According to Astro Awani August, 6. 2015 GDP drop to 3.9%. Ringgit Malaysia shown shrink in the current world market</p>	<p>How do subjective norms concerning health care in nursing vary between economic lens and health care cost in nursing practice?</p> <p>Sub-Q 2.2 What is the relationship between subjective norms concerning health care in nursing education and skill, facing flood disaster?</p>
<p>Q 3. Limitation & challenge in health care</p> <p>Nurses demonstrating positive perceived behavioural control concerning health care in nursing will have positive intentions limitation and challenge to engage in disaster environmental behaviours.</p> <ul style="list-style-type: none"> -management -workforce -time management -transportation -communication 	<p>Sub-Q 3.1 How do perceived behavioural control concerning health care in nursing leader and management between nursing groups?</p> <p>Sub-Q 3.2 What is the relationship between perceived behavioural controls concerning health care in nursing in flood disaster?</p>
<p>Q 4. Nurses demonstrating positive self-perceptions of health care knowledge (PSHC) will have positive attitudes, subjective norms, perceived behavioural control and behavioural intentions toward disaster in nursing in breaking strategic plan development and innovation outlook.</p>	<p>Sub-Q 4.1 How does vary between management processes in developing disaster nursing in delivery system, IT services, communication disaster nursing?</p> <p>Sub-Q 4.2 What can be the beneficial to people and country in developing plan.</p> <p>Sub-Q 4.3 What is the relationship between SPHC and nurses who have engaged in health care behaviours?</p>

1.1 Proposition option through reflection of study

1. The more effective and quality care we serve to people the more quality and effective life people get.
2. The more we discover new things, the newer things need to be discovered.
3. The more we are virtuous to people, the more virtuous comes around us
4. The faster you serve people, the faster a quality care will be cure.
5. The more terrifying test we face, the more value life we gain.
6. Embrace the quality of people's life, produces people who will embrace life for future.
7. Develop people with good health and humanity; create humans with developing minds and healthy outcomes.
8. Serving people means serving us.
9. The value of life is the value of healthy life outcome.
10. Maintain something can establish thing. Develop something can improve things, generate something can create something else.

Yamashita (2014) highlighted on the involved nurses group in the intervention of post tsunami in Japan, the researcher divided in two different groups. Group A:

managed the cleaning of junk of victim's homes whereas group B managed on the infection control activity. One lesson learn was that, the more activities we are involved and the more discoveries of the care intervention, the more things need to be discovered for the sake of future treatment and specific care in certain cases based on need and demands regardless of what kind of situations encountered. Yamamoto (2013) stressed on the development of network and collaboration among relevant organisations in managing disasters in Yamam.

1.2 Chronology of development of nursing career

Table 1.2: Notable Nurse Entrepreneurs

Notable Nurse Entrepreneurs

Nurse Entrepreneur	Entrepreneurial Initiative	Impact / Influence	Category
Rufaida Al-Aslmiya, (1st century AH/8th century CE) <i>(Kasule, 1998; Jan1986)</i>	Established the profession of nursing and first school for nurses as a Muslim female.	Elevated the position of women as healers and increased health to the people of that period.	Social & Intrapreneur
Florence Nightingale (1820 –1910) <i>(Palmer, 1984a; Palmer, 1984b; Smith, 1984),</i>	Founder of Western Nursing and nursing education.	Transformed the image of western nursing from derelicts, prostitutes, and drunkards to a respected position of professionals who were systematically educated.	Social & Academic
Lillian D. Wald (1867-1940) <i>(Christy, 1984; Visiting Nurse Service of New York, 2007),</i>	Co-founded the Henry Street Settlement that continues 115 years later as the Visiting Nurse Service of New York.	Created a model for visiting nursing care.	Social
Catholic nuns (between 1865 and 1915) <i>(Wall, 2002)</i>	Established and operated Catholic hospitals that were financially independent of their local dioceses.	Blended nursing knowledge and spiritual calling.	Social & Business
Mildred Montag (1952) <i>(Mahaffrey, 2002)</i>	Developed a research-based model for a new nursing role and education pathway to become a nurse.	Her research and demonstration project lead to the 2-year associate degree nurse.	Academic
Fran Lessans, RN, (1990's) <i>(Passport Health, n.d.)</i>	Founder, President, and Chief Executive Officer of Passport Health, a travel health franchise.	Transformed travel health services through innovative techniques.	Business
Sue Kinnick, RN (1992) <i>(Tucker & Carlson, 2004)</i>	Lead team member in the development of Bar Code Medication Administration within Veterans Administration Hospitals.	Resulted in a more efficient medication administration system that decreased medication errors.	Intrapreneur Corporate
Meredith A. Rowe, RN, PhD (2000's) <i>(University of Florida, College of Nursing, n.d.)</i>	Research with caregivers of cognitively impaired individuals led to the development of <i>Night Alert Prompting System</i> (NAPS).	A home monitoring system to prevent cognitively impaired individuals from wandering.	Academic
Ho Soon Michelle Cho, RN, PhD	Designed the post-mastectomy Papilla Gown	A hospital gown that promotes post-op self-	Academic
(2000's) <i>(Cho, Paek, Davis, & Fedric, 2008).</i>	with colleague Jae Un Paek that promotes comfort and modesty.	esteem, wound healing, and potentially decreased length of stay.	

Source: Adapted from Fletcher (2010).

1.2.1 Nursing Theory



Figure 1: Nursing Theory for Success

(Source: Adapted from Tele ICU Guideline (2000): Model for success)

1.3 Chronology of Flood in Malaysia

Natural disaster occurs in many phases and at any time. Natural disaster of flood occurs beyond the control of human beings and cannot be predicted accurately. Normally any disaster occurs with an early sign and climate change before it occurs such as flood, earthquake, landslide, cyclone, etc. However, human made events may precipitate flood occurrence as tragically or even badly.

According to Abdullah (2004), the common causes of flood in Malaysia are due to natural phenomena and human activities, natural phenomenon such as heavy rainfall and high tides. Human activities precipitate flood more badly such as a change in land use: uncontrolled land clearing and uncontrolled development. Abdullah (2004) stressed that there was a velocity increases of 190% in the quantity of development area which run off with inadequate drainage infrastructure, river obstruction and the construction works which caused constricting of river channel.

2. Malaysia Disaster and Risk Profile

10-year moving average 2005-2014	
Events	2
Deaths	10
Economic loss (,000 US\$)	127,400

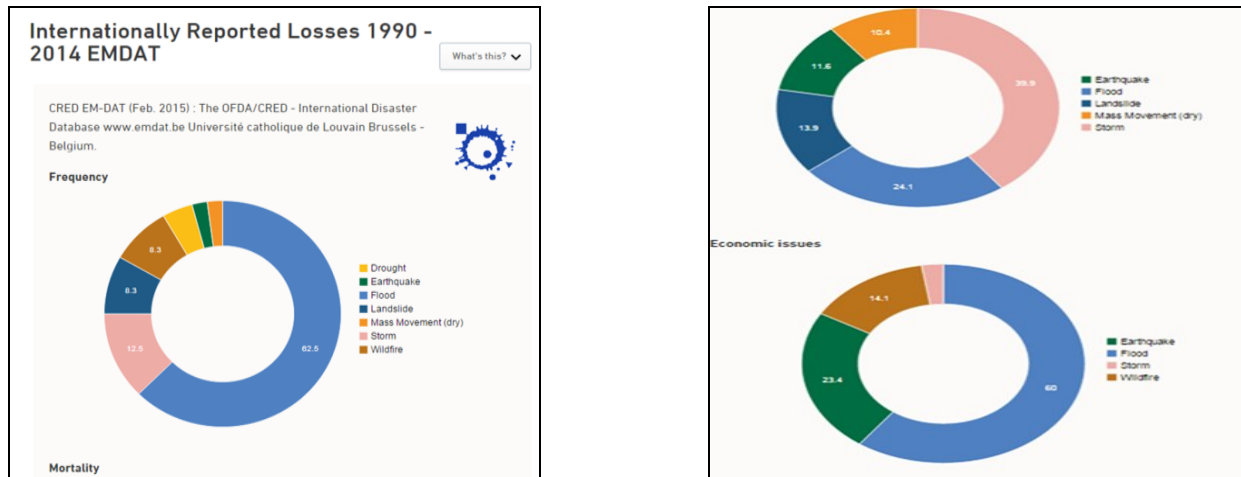


Figure 2: Basic Country Statistics and Indicators (2014)
 (Source: Adapted from statistic prevention web.net 2014)

Last major flood in Malaysia was in January 2003; however, the same kind of flood had hit Malaysia in December 2014. It was reported that 24 were killed (Malaysia – Thailand). Malaysia proposed strategic plan to overcome floods in curatives were measures by deepening and widening of the river. (Figure 1) report seem is not relies on what the actual happened truly evidence due some of EBP missed or not documented.

2.1 Floods in Nursing Studies in Malaysia

Currently, Malaysia is a prevalent country which faces flood disaster yearly which causes people to suffer a great deal of loses and damages. Many of its people have managed to cope with such disaster. However, it is not the case for those who come from low incomes and intermediate financial status.

Khan et al (2014) stated that there were two major floods that were normally faced by Malaysia which was monsoon flood and flash flood. Monsoon flood occur mainly from the northeast monsoon which prevails from December to March with heavy rainfall on the east coast state of the peninsular and also on the Northern part of Sabah as well as the southern part of Sarawak.

2.1.1 Year of major flood hit Malaysia

1926	1931	1947	1954	1957	1963	1065	1967	1969	1971
1973	1983	1988	1993	1998	2001	2006	2007	2010	2015

Table 2.1: The flood data in year of evidence in Malaysia

1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
2010	2010	2012	2013	2014	2015	2016	2017	2018	2019
2020									
2030									

Table 2.2: Flood data in year of evidence in difference view

(Source: Adapted from Khan (2014) page: 627)

According to Khan (2014), The Malaysia department of irrigation and drainage had reported that about 29000sq km or 9% of total land area and more than 4.82 million people (22%) were affected by the damages caused by flood annually where about RM 915 million was spent. However, from a mini interview which was participated by En Ali and family from Felda RKT (mini interview subject 5: 2015) it was said that flood occurred in year 2012, 2013, 2014 were the most terrible flood compared to the ones occurred 10 years back. Flood had hit Felda RKT. (Figure 2) from Khan (2014) study still missing in the statistic (red tags). The role and services of nursing profession should be expanded in order to assist those people who need appropriate services and care during disaster period.

According to WHO statistic (2011), it was reported that there were 72847 registered nurses and midwifery (2000-2010) in the nursing workforce serving almost 30 million Malaysian or in other words, the nurse ratio would be 1:300 population as mention by the Prime Minister of Malaysia in the 11th Malaysia Planning.

Radzi (2014) gave focus on flood in two states in Malaysia, which were Terengganu and Selangor, where he had identified the level of stress among flood victims and the religious coping skill used. Besides this study the researcher also investigated the relationship between Muslim religious personalities and the relationship in dealing stress disaster and the coping mechanism in facing flood loses and damages. The team tried to evaluate the culture view and the value of belief of people toward flood disaster.

Hazard	Absolute [Million US\$]	Capital stock [%]	GFCF [%]	Social exp [%]	Total Reserves [%]	Gross Savings [%]
Earthquake	10.49	0.001	0.012	0.038	0.008	0.011
Storm Surge	0.52	0.000	0.001	0.002	0.000	0.001
Tsunami	5.52	0.000	0.007	0.020	0.004	0.006
Flood	1,271.09	0.109	1.511	4.555	0.953	1.312
Multi-Hazard	1,287.62	0.110	1.531	4.614	0.965	1.329

Table 3: Malaysia hazard and disaster statistic 1999-2014
 (Source: Adapted table from Malaysia hazard and disaster statistic 1999-2014)

2.2 Economic Trend

Japan gives some inspirations in economic global view. Japan was faced with huge impact from the last tsunami disaster in 2004. Bloomberg news (2011) reported that the most estimates were that the hardest hit regions accounted for around 4%. Costs for reconstructions were estimated around 20-25 trillion Yen. This seems such a big number. However, Japan Government could definitely afford it through Japan gross debt of around 750 trillion Yen. It is not insurmountable by any measure to recover the previous loses and damages. What would be the secret behind all this that we can learn? Japan one of the great countries produces cars. People can see all types its luxury cars which are able to reach countries around the world. Currently, Japan stands out as one of the countries which have steadily economic growth in the world market. Japan manages to produce its products with have values, marketable, comprehensive which of the world class and high standard requirement despite of producing sophisticated and luxurious transportations, Japan's owns people prefer to use healthy and economic type of transportation to work place. Like world class thinker from my inaugural lecturer prof Dr Law.

Malaysia was almost faced with tremendous challenge with rigorous economic wave. Based, on Malaysia GDP statistic growth and development (2015) it was shown that the economy had gone down from 6.5 to 4.2 % in Jan 2013 and slight fluctuate to 4.3 % in 2016. However, Malaysia had recovered fast within six months later by increasing the number of GDP up to 4.5% from July 2013 onward until July 2014. Malaysia expected to reach up to 6.55%. Unfortunately, according to the statistic, Malaysia had grown slow down to 5.6 % in January 2015 but according to news reported in TV3 on July 2015 ringgit Malaysia had shrink in GDP growth of about 5%. Many contributing factors lead to instable GDP figure and ringgit Malaysia, such as instability of oil and gases in the international market and internal issue of Malaysia airline with missing MH370, crashing MH17 give some impact to Malaysia growth. For the issue of Sabah earthquake and flood in December 2014, Malaysia had to spend trillions for loses and damages. Malaysia trying to recover the issue with application of the (good and services taxes) GST. GST charged in certain selected food and services. Whatever is it the delivery health care still requires services in delivery health. The Issue of GST impacted to people in Malaysia especially these with low incomes and financial instability whose seek for disease treatment, hospital and health care services indirectly

intern of cost in health care and disease treatment in hospital and health care services especially to those people with financial instability and low incomes.

Malaysia Budget 2017 was announced by Dato Sri Najib on the speech in Umno meeting 3 December 2016. Malaysia income margin reach to 1.3 trillion per year. Targeting up to 2 trillion in the future through the mega projects development plan impact the instability economic to stability by opening new job and career to a Malaysian seeking for the available and specialities post. Government still has an effort in given incentive via BR1M from 500 up to 1.2k in order to recover the issue to the respective group of focus. Hence, the government has their own Malaysia strategic future plan such as Malaysia blue oceans strategic plan, Malaysia strategic transformation plan, Malaysia mega transportation plan for Malaysia and future generation for a long-term development planning and target to deal with the issue.



Figure 4: Malaysia GDP Annual Growth Rate
(Source: Adopted from Malaysia Trading economic statistic)

Previously Malaysia handled a crisis on its own without international monetary finance (IMF) support. Malaysia was handling an economic stance and managed to recover event though there was still a wavering pattern on the domestic statistic (please refer to Graphic 1).

2.3 Social Trend

Malaysia is one of the developing and stabilizing countries which consist of different races, cultures, ethnics and belief. However, in the power of social strength and respect to others, a person in Malaysia grows in peace with social education and respect. Delivering nursing care and services in facing disaster requires strength and ability. Managing a huge number of loses and damages is an uneasily phenomena. A statistic had shown the total number in Malaysia which was 300.000. When the flood hit Kemaman and Kuantan after the flood incident in 2014, it was understood that Felda

Seberang Taylor had experience the most terrible flood where almost 300 of its people were displaced and almost 200 houses submerged. The only thing that we could see was the roof only. All property lost and damaged (appendix image portfolio). There were no clothes and food. There were no clean water supplies in a few days until the rescue units arrived. However, the rescue units were unable to reach to the affected area since the roads were not accessible due to the terrible flood. That the purpose of this study for nurses group need to come out with the advance technology which more effective in emergency situation such as drones nursing and nursing ambulance to the unreachable area involved.

The people there were also faced with danger and diseases. As a public, we could only help in a minimal scope such as supplying clothes, food and other basic needs. The study believed with a plan and proper budget, nurses groups would be able to develop disaster nursing for the area close to them and this effort could also be used to face future flood disaster in Malaysia. From the positive view on social trend we can see from the impact of flood people were helping each other with their own effort, assisted by the organization in-charge such as Health Department team, defence department and non-government groups as well as individuals. This is the unique of Malaysia where there are no differences nor biases when it comes to helping each other during an emergency.

2.4 Society Trend

Flood impacted people in many ways. Nursing found that society and community played the major role in supporting victims of any disaster and flood in Malaysia. In actual practice, some societies had shown support in reducing number of suffering people who were involve in flood. Representing a name of society is more beneficial compare than representing an individual in giving help and care to people. Refer to the flood incident in Sungai Isap Perdana Kuantan Pahang. Where there were about 200-500 of evacuees were placed to safety areas such as Hockey Stadium Kuantan, some multi-purpose hall and some of them temporarily stay with their own families in the area who were not affected by flood. They were also other internal supports from NGO, society team such as from Sabah team, IKRAM and individuals. The international support country such as United Arabian Emirate (UAE) donated about RM 30 billion to Malaysia which was converted in the form of items such as refrigerator, cooking items, mattresses and televisions. Other decent donation comes from individuals all those items were kept in nearby places and would be distribute to the evacuees. Some other sincere personal donations were in the forms of clots and pampers.

2.5 Political Trend

Malaysia is a democratic country. Politics and management must run in the same direction. Politics play a major role in managing flood, based on the personal proposition and belief. The most stable management in politics lens, may face with the most stable management in facing disaster. A report from Malaysia disaster which statistic (2015) Flood is the most prevalent disaster occurred in Malaysia which showed

the percentage of 62.5%. The trend of politics in Malaysia had shown that the most best and active political leader in charge in the area may bring changes to the development in health and life for that particular area. The development of health care and life may lead to a healthy nation and a healthy to growth up. The best leader may bring benefit to his people. According to Malaysia flood news 2014-2015, Malaysia received international donation of RM 30,000.000.00 from United Arabian Emirate (UAE): USD 100,000:00 from China Government: RM 500,000.00 from Japan Government: SD 100,000.00 from Singapore Government: USD 5,000.00 and from Taiwan: RM 525,000.00. The best and effective politics would be able to develop the growth of the country. Malaysia had also received internal donation of USD 83,000.00 from international federal of Red Cross Crescent Society (IFRC) and Islamic release in Rantau Panjang Kelantan.

3. Methodology

The study focused on qualitative approaches by using intensive care unit (ICU) model for success to study the nurses' roles in facing disaster / flood in Malaysia practice. The study had selected 30 primary articles and published journals to discuss the similar topic. Methods of the study design involved both qualitative and quantitative. For the validity of the study, 60% of literature review was within 10 years of publication.

3.1 Data Collection

The data collection was based on the structure of open ended questions which were focusing on four major issues which were disease issue, economic issue, limitation and challenge in managing flood, and plan innovation toward flood disaster in Malaysia. The researcher prepared the questions for different tangible groups. The researcher bracketed the questionnaires which focus on the impact of management view and challenge. The impact of flood on clinical expertise view point and the impacts of flood to people who were directly faced with the actual disaster were from view and experiences. The study had used a primary study from worldwide researchers based on the international outlook of opinion in bigger aspect of ideas and belief. All data and idea were analysed using meta-analysis to compare the similarity of the issue which discussed the different angles of ideas and beliefs.

Data search engines were selected from OUM e-library (EBSCOST), Google search journal, Google scholar, IIUM e-library search. The samples of the study were the people who involve in flood disaster and individuals who were impacted directly by the disaster. Felda RKT Seberang Tayor, the provenance area which was hit by flood, was selected for the target location.

3.2 Personal Bracketing on the Questionnaires and Codes

The study focuses on specific point to be analysed for the study. The specific points sketched into the interview on the phenomenology of current issue on the impact of flood which occurred in Malaysia as the subject in the study. The researcher had

decided to bracket three different perspectives. The first, was the data from the management of government view of point, second, the perspectives which came from clinical view of point and third. The data collections were collected from individuals who had directly faced the terrible flood which hit Malaysia.

The study had asked the subjects four themes:

A. Disease issue:

The study specified the diseases in four sub questions, which were sub theme one 1.1) indented to ask the subject on the prevalent disease occurred during flood; sub theme two 1.2) focused on how to reduce the number of suffering due to the tragic incident; sub theme three 1.3) intended to ask the opinion on the impact of the tragic flood on physical, psychology, emotional and behavioural; sub theme four 1.4) the study intended to ask on the idea of geographical factors on flood prediction. The flood disaster due to natural, human made, unfinished constructions and lack of drainage system. These four categories of health were crucial and may impact the quality of people's life, the surrounding and loved ones.

B. Economic issue: Sub theme 2.1) Budget and cost spent on flood disaster. What about the budget and the future plan? Where was our nursing team in the care of disaster which occurred? The majority of nursing groups could only be seen functioning inside hospital. Sub theme 2.2) What about the specific education for disaster nursing in preparing its value? Malaysia nurses were likely to be left behind to serve the public. Compared to Australian practice, it was not the case (from mini interview with Prof. Dr. Peter A. Leggat, 2015). The scope of Malaysia nursing practice was too limited in hospitals or clinics in serving their care and services. Were nurses not interested to get involved in disaster and emergency situation or is it because they are really being exposed on handling client during emergency care and making decision? Or, is it simple because the restriction in budget allocation is the main factor of the limitation for the nurses to further expand their practices? Therefore, the researcher intended to evaluate the reaction of financial status and basic economic needs of families in health perspectives during post flood in the respective areas.

C. Limitation and challenge

Sub theme engaging disaster toward real environment. How would a nursing leader manage a disaster in actual situation? Would there be any limitation in giving care and services? Would there be imitation in managing disaster? Would there be any face to face meeting with individuals who had personally involved in the terrible flood? Would there be any limitations dealing with people in disaster management? Were there any limitations in transportation and communication during disaster occurrence?

D. Strategic plan

Subtheme focuses on innovation in nursing practice. The study was looking for the potential in developing the best guideline for nursing in current and future practices. Currently, 10% of the disaster nursing original guideline was developed according to Malaysia practice. The study intended to develop positive and healthy activities for the focus group. The study focus in economic aspects to cater family needs from basic to commercial based on the interest and level of effort.

3.3 Clinical Practice in Nursing

Managing flood in Malaysia requires knowledge, skill and competency. Revel (2010) believed in nursing process in implementing nursing action and intervention. Whereas, Phalkey (2015) focused on the nursing management in curative and preventive healthcare services. Wu (2015) impressed his study in ethnography approaches. Wu (2015) stressed on health related to quality of life (HRQoL). However according to standard nursing process, it may commence the role in step 1: Interpret the diagnosis; what actually happened. What would be the problem that occurs in order to assess the arisen problem? Step two: setting the goals and objectives on what the actual objectives to be achieved.

The setting of goals and objectives must be reliable to the situation and into practice and time setting, the rationale to ensure the quality of outcomes at the end of the intervention. The intervention of action and set up must start with the assessment on the evidence of flood and disaster. Assessing the level of knowledge on flood issue such as how did the flood occurred. The types of flood; whether it was environmental type of flood or human made of flash flood. The severity of flood disaster; whether it was mild, moderate, or severe. The number of victims, the level of victims, who were the victims involved, type of community, financial level, facing people who had directly involved or the impact of flood, the rationale to plan and the intervention as well as action, whether, it involved a small community or a large number of people for the rationale in planning intervention and preparation.

Briske (2000) focused on four elements in their guideline approaches. The approaches were the clinical practice, skilled communication, optimal in technology and collaborative relationship in all the four approaches which required basic skills in leadership power and the authentic of individual strength to ensure the frame work approaches were established and well implemented into real practice in dealing with disaster occurrence. The researcher found that it was beneficial to implement theme.

Briske (2000, p 72 refer appendix 1) suggested the best guideline and preparation intervention for flood. Briske (2000) introduced flood response in three response actions which were flood response, grief and loss program and home visit. Flood respond focused on two key indicators which were immediate indicators and population status indicators.

3.4 Nursing Communication Tool and Devices

Communication is one of the most important elements in managing action in nursing. There are many types of communication available in the current market such as global positioning system (GPS), radio amateur, walkie-talkie, mobile phone, teleconference media, satellite system. However, some of the devices in the market require electricity energy to function. Moriet (2011) mentioned on tsunami survey inundation height and run up height wave survey by laser, GPS system in data collection and figure for validation of tidal correction. Whereas, Woodward (2014) believed on the intervention measurement in different flexibility intervention. The team focused on intelligent option and searched for the characteristic of the Non-dominated Sorting Genetic Algorithm II

(NSGAI) to evaluate the cost associated with the intervention and benefits. The system alleviated on engineering part of computerizing system.

Sangeun (2015) stressed on his global flood disaster risk indicators (GFDRIs) in two indicators which were hazards assessments and vulnerable assessments. Ravell (2010) believed in the assessment method of their model of practice as a blue print to structure post flood management, and directly communicate and collaborate with individuals and families who were personally faced with the disaster event. Yamashita and Kudo (2014) believed on the interaction and delegation of nursing group as a plan for aid in managing victims of big earth quake experienced by Japan. States in east-coast Malaysia such as Kelantan, Terengganu Pahang had also experienced a terrible flood. Electricity and water supply were disconnected for safety purpose. Several areas were also disconnected and far away from any information and news.

3.5 Collaborative Relationship in Nursing Practice

Most people believed that the occurrence of disaster was unpredictable. However, to those with education and knowledge believed that environmental climate change may give pre-signals or signs prior to what would happen. According to geological sciences, anything happened was planned and was known as called role of the world nature, as or the Muslims, all that happened and the climate changes were stated in the Al Quran. Currently the beliefs from Al-Quran and the findings and theories of sciences are still in the same tract and direction. Managing disaster and handling people in large number of people who suffered losses and damages required all categories of people. All people have their own tasks and responsibilities in developing their own countries damages and losses due to flood disaster. Malaysia had been encouraging any institution to involve in collaborative intervention for flood disaster.

Yamashita and Kudo (2014) mentioned that other than community health nurses (CHN), other volunteer communities aided 'care of public' The volunteers joined the aids effort to build up the countries function back as soon as they could. Rokkas (2014) mentioned on the collaborative groups which involved directly with disaster Public Health Nurse (PHN), Public Health Doctor (PHD), Epidemiologist (EPI), Environmental Mental Health Officer (EHO), Food Safety Officer (FSO) and CROSS Australia Public Health.

3.6 Optimizing Technology

Yamamoto (2013) developed nursing support network due to terrifying earth quake which hit Japan. She developed networking and collaboration among relevant organizations. Mori (2011) believed in laser implementation in real disaster for tidal data based in high density survey. Rokkas (2014) believed in the updating of technology and the latest finding was more to other opinions and updates of literature review in his study references through search engine such as Medlines, CINAHL, PubMed, Infomit, Factiva and Google Scholar.

3.7 Deferential Technique and Strategic Plan in Eco – Evaluation in Health Care Industry

3.7.1 Japanese Management and Strategic Plan

Japan was selected the country which was the best in plan and strategic technique in managing economic crisis in their country after the really bad incident happened to their country. Bloomberg news (2011) prepared that following the disasters, Japan built up with back up strategic and recovery actions. There were a lot of major reconstructions that had been done in order to re develop as the most giant industrial country in the world with high technology despite of suffering from major damage due to disaster. Even, though Japan lost its wealth, the reconstruction added new economic activity in the forms of jobs and orders placed for all sorts of goods. Over the next couple of years, we would see significant rebuildings of infrastructure, residences, and various sorts of economic facilities – factories, stores, service centres, banks, etc. We should expect an enormous amount of new building, at least in some of the affected areas, and a lot of retrofittings and cleanups. All those activities were pretty manpower-intensive, which would provide important job opportunities for skilled, semi-skilled, and unskilled workers, as well as create orders for manufacturers, both inside and outside the country.

Japan's economy is sustainable into global markets. Given that the country is a major producer or consumer in a variety of sectors, what international effects can we expect to see?

Although there were some areas in which Japanese manufacturers were in a critical link in the global supply chain, these manufacturers were not necessarily based in Tohoku, where the damage was worst. Nonetheless, because of uncertainty over electrical power supplies and the difficulty of internal transportation, we would likely to see developing shortages in global supply chains. There were a number of factories that remained closed due to such issues. While we didn't yet know at what point Japanese manufacturing would resume, it seemed likely that most shortages would be addressed before they caused too much damages to global productions it was suspected that there would only be a few very specific supply chains that suffered long – term shortages.

Many countries in the world were running to work out their own strategies and shape for their country responsibility. The 11th Malaysia Planning 2016 – 2020 stated in Chapter 4: Improving Well Being for All: Achieving Universal Access to Quality Healthcare.

3.7.2 Malaysia Economic and Adjustment Crisis

Malaysia handled the crisis on its own, while avoiding International Monetary Financial (IMF) support. As in the case of the 1997-98 crises, the political imperatives of New Economic Policy (NEP) were the prime consideration behind this policy choice. Athukorala (2010) stated that government capital expenditure as a percentage of gross Domestic Product (GDP) declined from an average level of 23.5% during 1980-85 to 14.2% in the second half of the decade. Reflecting the combined effect of nominal

depreciation and low domestic inflation, the real exchange rate depreciated continuously from 1986: the degree of depreciation between 1984 and 1990 was nearly 40%. The policy package involved contraction fiscal policy and exchange rate devaluation, coupled with a notable policy shifted to favour the role of the private sectors.

There were many things Malaysia needed to learn from previous evidence in planning for the future in order to have better future outcomes. The equilibrium of economic may reflect on the equilibrium of health care and services.

Living in good health is essential for a good quality of life. Thus, the government remained committed to achieving universal access to quality healthcare during the Eleventh Plan by continuing efforts to improve the fundamentals of the health system. The Malaysia Budget (2015) meant that every Malaysian would have equal access to affordable and good quality healthcare services, whether delivered by public or private providers.

This aspiration would be realised through four strategies:

Strategy A1: strengthen health and community - Impressing in enhancing targeted support, particularly for underserved communities. Specific initiatives included the expansion of mobile healthcare, the improvement of primary healthcare teams, and domiciliary healthcare programmes. Malaysia government was concerning and focusing on some communities such as in the rural areas which lacked in proper health care services, received unhealthy basic needs and water supply, underserved community, lacked immunization services, basic medication need and proper medication for chronic and critical illness and unstructured family lacked in proper guardian. Besides that, unserved community in high prevalence occurrence areas were far from the modern and urban communities.

Strategy A2: strengthening health care team - Improving delivery system for better health outcomes. Measures had included the introduction of lean management practices in public hospitals to release latent capacity, and better enforcement of health regulations to improve transparency and health outcomes. Improved delivery system for better outcomes required certain expert in knowledge and skill which must be developed. Developed knowledge by continuing studies, upgrading and updating more new knowledge and new strategies in learning of services. Skill and competency must update with renewal test in order to release latent capacity for better enforcement of health to improve quality of health care and services. Health care services on the specific field and the expert. Micheal (2013) presented his innovation finding in 3 important elements to adopt innovation into practice setting. He focused on identifying technique: evaluation technique: and investing technique of innovation. Micheal (2013) impressed his research on three elements.

Strategy A3: Impact on the Individual or Patient - Patients and caregivers were partners in care and innovation. Their active engagement would not only enable the development and adoption of new innovations, but they would also be the key factor in determining their success. The measures of extending a patient's life, improving the quality of life, increasing access to therapies/services, making service delivery safer,

patient convenience, and patient satisfaction were all key indicators of how innovation adoption can directly impact the individual patient.

Strategy A2: Impact on the Health System - The introduction of new products or processes must demonstrate an overall value, which meant it must also demonstrate an overall long-term cost saving to the system, which in turn led to sustainability. Ontario-based case studies showcased the value of innovation in devices, therapeutic products, and health IT-systems which showed that the adoption of innovation by the health system could result in overall value for the health system.

Strategy A2: Impact on the Economic growth - Assessment, evaluation and adoption of the best innovative products and technologies would lead to a more efficient health system that could show accountability and return-on-investment to the public. Tax payers would receive better value and a higher return on investment. In addition, if Ontario was able to create an open and transparent mechanism for adopting new value-added innovations, then local companies would be enabled to further invest and develop priority products and systems. Local market adoption would help to retain these companies as they grew and prospered which would lead, in turn to export opportunities. In the same vein, attraction of foreign products and companies to the province would also ensure that the best products were available to Ontarians, thus improving the chances that these companies would establish a long-term presence in the province.

4. Findings

The paper stated the finding or the result of the study based on the evidence from the major problems arose in actual practices based on mini interview with:

The finding of subject 1 was on (8/7/2015@1500H) from Government Health Department Disaster outlook on the flood disaster occurrence. The researcher bracketed the point on the difficulties of transportation services during disaster. The team mentioned that it was difficult for them to reach the focus area since they did not have suitable transportation to do so and this was made even more difficult when the areas were inaccessible. Hence, in the future they would like to have more sophisticated transportation such as speed boats, four wheel drives and heli-rescue.

The finding of subject 2 was on (29/7/2015@10am) from the clinical experts' opinion. The subject found out that the major problems arose in 30 years' experience in managing flood disaster in his country and some other countries in the world. Subject 2 mentioned on the communication break down during emergency was the most terrible situation. The team was unable to get the access to the actual location in the attempt to deliver services to the focus group.

The finding of subject 3 nursing group was on (29/7/2015@1400H) which was the nursing education group. The team stressed on the cost or budget. In order to have the new team to function, that would require preparations, skills, supports and budget. Strategic plan would have to be really prepared to be implemented. The specific skills to disaster nursing should also be provided and not to leave out, the support from the

institution for the team to develop. The team must have an effort and willingness in the task and responsibility. The most crucial factor to generate the team would be the basic costing in order to commence activities.

The finding of subject 4 was at (No.52 RKT Felda Seberang Tayor Kemaman) – It was found out that family economic fragility and there were even more negative activities conducted by small groups in the community during post flood. The Felda workers were facing the destroying period of old plantation and the re-implantation of new rubber tree (*Hevea Brasiliensis*) and palm oil tree (*Elaeis Guineensis* – Sawit). They had no job and only depended on the money given by Felda for each family which was only RM500. Many Felda young generations were successful in education and careers. However, that was not the fate for small groups in Felda community where they were unable to get jobs or to further studies. They ended up having too much of free time and thus, this small group might get involved in all kinds of negative activities such as house breakings, smoking and drug abuse. There was unreported evidence on house breaking whereby 20 to 30 houses in Felda were broken in and this happened mostly during post flood. Sadly, there was nothing much to be done to overcome the situation.

Finding of subject 5 was at (No.74 RKT Felda Seberang Tayor Kemaman). It was found out that there were income instabilities and cracking houses. The subject stressed on the income instability with post major surgery coronary artery bypass graft (CABG) two months ago in a private hospital. Health education given was as follows:

- Breathing exercise in relation of blood supply to the heart.
- Rational of doing spirometry.
- Education on stitch and suture post operation.
- Coughing post operation and side effect of medication (ACE- inhibitor effect).
- Educate on medication and completion of antibiotic as prescribe by physician.
- Advise an early preparation for next coming flood.

The subject mentioned that the flood was like water falls running down from the back of these houses No.52, No.74 and house No.75 (no family).

Finding subject 6 was at (No.53 RKT Felda Seberang Tayor Kemaman). The first meeting was held with the subject's family. The subject was actually did not want to open the door. The researcher had to change strategies; instead of interviewing the researcher was just doing Hari Raya visit. There was little information gained from the subject. The subject had stressed on the major impact from the post flood where there were severe income instabilities and the needs for education. The subject also stressed on the issue where her husband had no stable job and there were no fixed incomes. The subject had to work in a school canteen which was 17 miles away from home. The husband had to look after their four small kids (The photo session was not able to be done due to technical problem).

4.1 The Impact of Flood

- Lost kitchen side and half of the house were gone in December 2014.
- The family had lost the whole properties including basic needs and equipment.

- The family needed some changes for their future life and education for their children. (Please refer to the photo collection attachment).
- The researcher was able to see the stress from their face reactions from both husband and wife.

5. Discussion

The researcher decided to discuss some of the burning issues on the impact of flood in nursing perspectives in developing disaster nursing in Malaysia. The subjects responded by mentioning the impact on disease towards the flood disaster in global perspectives. Yamashita and Kudo (2014) focused on various aspects of disease from flood. They found that the impacted health hazard and mental health were the major problems due to disaster which smashed Japan in 2004.

Yamamoto (2013) intended to develop nurses group in care and provision on health disease which was due to disaster in Japan. Woodward (2014) found an interrelated system and opportunity times to make intervention toward post flood diseases that gave future uncertainties. Rokkas and Steenkam (2014) believed on the involvement of the field expertise such as Public Health Nurse (PHN), Public Health Doctor (PHD), Epidemiologist (EPI), Environmental Health Officer (EHO), Food Safety Officer (FSO) in managing disease care prepared toward disaster. Ravell and Mccurry (2010) focused on nursing care plan toward diseases in post flood management and care. Holcer (2015) discovered the disease and the victim toward exposures to a variety of hazards of flood disaster such as general hazard, biological hazard and chemical hazard.

Sangeun (2015) focused on flood hazards and the affected people. The team believed on the assessment indicator to assess the data on diseases. Wu (2015) stressed on health related quality of life (HRQOL). The team studies on HRQOL score toward respective group of flood in China. Crabtree (2012) focused on climate change and mental health. He stressed on the prevalent diseases on Post-Traumatic Stress Disorder (PTSD), General Anxiety Disorder (GAD), Panic Disorder (PD), and Acute Stress Disorder (ASD). Crabtree (2012) showed that 19.5% of major depressions disorders were due to flood disaster. 492,000 adults in Honduras had PTSD due to hurricane Mitch. Leonard and Dorothy (2013) mentioned on flood which killed both men and women. Women suffered more emotional and psychology traumas. The victims could bounce back to normal life after flood. However, some of them suffered with permanent psychological impact and scar which needed an assistant and therapist. Atern (2005) studied the impact of flood on health. The team focused on faecal oral disease, vector disease and mental health exchange due to mortality rate to their family.

The researcher brought readers on the second burning issue for discussion which was on the economic perspectives, cost and liability commitment. New South Wales (NSW) Ministry of Health (2011) mentioned on the economic evaluation. The models recommenced guidelines for practice in economic view and trend. Mori and Takashi (2011) triggered the study with high economic and cost demands with 300 researchers

involved. The survey had 2,000km stretch of the Japan coast and discovered 5,200 disaster locations. The team believed in high technology survey by GPS and laser to search tidal data base. Kuntz (2008) mentioned on one million nurses working in community health and stated that 2.2 million nurses had been registered in response to disaster occurrence. Significantly, the United State needed to spend up to a trillion USD in managing wages of the nurses instead of managing loses and damages during disaster occurrence.

Aerts (2013) studied on the assessment cost of six different flood management. The team showed that the investment cost strategies varied between \$11.6 to \$23.8 billion in managing hybrid solution and the combination of critical infrastructure and resilience measure of disaster in storm surge barrier that may become cost effective. Malaysia news flood (2015) reported that Malaysia spent RM30 billion every year for losses and damages. Malaysia spent more on the reconstruction processes. Ara (2014) studied on post disaster of tsunami recovery and reconstruction. The focus was on two dimensions; which were decentralization and citizen participation.

Felda Global Venture (FGV) research (2015) highlighted on the impact on people and plantation damage. FGV (2015) reported on the number of people impacted by flood; Kelantan 31,441; Terengganu 32,736; Pahang 29,423; Perak 7,774; Johor 328. FGV (2015) reported that the nine estates were damaged. The area estate was flooded by 23,730 ha. Meanwhile, the number of foreign workers affected was 6200. Daily harvest dropped to 50%. However, the workers had been given incentive by Felda with the amount RM 150 per family of and RM 50 per foreign worker.

Subject 2: mini interview 2015, Prof. Dr. Peter A. Leggat pointed out the average of higher prevalent communicable disease occurred in the world through WHO statistic which proved that almost 72,000 thousand Malaysians affected with dengue. The figures increased tremendously during post flood disaster. Reacher (2004) showed the impact of flood on psychological distress was 95.4%. 95% for Earache and 95% for Gastroenteritis in Lewas United Kingdom from flood in year 2000. Kondo (2002) reported that malaria cases had increased during post flood which occurred in Mozambique in the year of 2000. Kunit (2002) reported on fever which accounted 42,8% and diarrhoea 26.6%. 13.9% from 3,109 family members in Bangladesh experienced respiratory due to flood disaster in 1998.

Limitation and challenge would be the most discussed issues on the impact of flood in nursing perspectives through global point of view. That would be based on common issues from the subject on transportation issue, family income, education, safe and security in own house. Bitch (2011) stressed on physical, behavioural impact and emotional and cognitive impact. Khan (2014) stressed on the assessment on people affected by flood in the east coast, one of the most badly flooded areas in Malaysia. Hajat (2005) pointed that on people with low income maybe more vulnerable to the effect of flood. They may have no adequate insurance or financial capacity to recover from the flood incident.

The researcher was inspired by the current Japan practice. The third burning issue for discussion in global outlook would be Japan faced with huge impact from

tsunami in 2004. Bloomberg news (2011), reported that the most estimates were that of the hardest hit regions which accounted for around 4%. The cost for reconstruction was estimated around 20-25 trillion Yen. This seemed such a big number. However, Japan Government could definitely effort it with Japan's gross debt of around 750 trillion Yen. It was not insurmountable by any measure to recover the previous losses and damages. What would be the secret that we could learn from this?

The researcher was still seeking for the best opinion for strategic plan and preparing innovation for practice. Any plan needed to be tested in order to know the credibility of the plan value traits. Based on proposition No.7, people with healthy humanity, would born human with developing minds and healthy outcomes. The best guidelines, the best team and safety should be developed for practice. Developing healthy life style with generated stable income for basic needs for family would create valuable generation in future.

6. Recommendations

The researcher uses nursing theory tele ICU model for practice in managing and developing process of disaster. The researcher believes the model was useful to be implemented into practices in emergency situation in mini clinic in disaster nursing and be included in the project proposal. The model focuses on optimal patient care and outcomes. To achieve the optimal care and patient outcomes, the model introduces four points.

Point 1: Developing clinical practice, updating competency skill in the specific field such as education and procedure in disaster nursing.

Point 2: The model states on skill of communication and trend in a new generation for practice. Mori (2015) suggested on GPS, radio amateur, walkie-talkie, mobile phone, teleconference media, satellite system, however some of the devices in the market require electricity energy to function. Mori (2011) mentioned on tsunami disaster survey, inundation height and run up height wave survey by laser and GPS system in data collection and the figure for validation of tidal correction. Whereas, Woodward (2014) believed in intervention measure in different flexibility intervention. The team focused on intelligent option and characteristic of the NSGAI to evaluate the cost associated with the intervention and engineering computerizing and benefits.

The researcher suggests the used of international guidelines for disaster plan template and guidelines for nursing practice. However, the guidelines would still need to be updated according to Malaysia practice. The researcher is able to develop about 10 % from the original copy in order to align with Malaysia practices.

The researcher belief on the beneficial in implementing the disaster nursing guidelines of the original copy from Materlifeway (2008) in progressing updates (10%) by Transnexus Management and Services (2015) for Malaysia practices. The guidelines recommend nine of nursing skills for disaster nursing. The guidelines introduce the guidelines and sample form skills for practice. The guidelines introduced the preparation in the plan facility, communication plan and resources. The surge capacity

plan guideline and template: emergency power plan; The pet preparation form: Procedure and Policy in Specific Disaster; The evacuation: Post Disaster Recovery.

Develop mini clinic on long term centre (LTC) community disaster. Fire policy and procedure; severe weather policy and procedure. Winter storm and safety precautions; Boob Treat Policy and Procedure. Emergency during discontinue of water supply. Electrical power outage policy, evacuation procedures in the case of radiology accident, chemical pills, bioterrorism threats and internal disaster plan.

The study recommends World Health Organisational (WHO) to strengthen health system emergency preparation tool kit for the assessment of health system capacity for crisis management.

The researcher generates an intensive idea from nursing strategy and development plan based on the major problem statement which comes from the focus community group in the respective areas. The summary of the three mini nursing projects in progressing would be:

- Mini Project 1: **strengthen nursing team.**
 - 1.1 **Advance Nursing training:** competency nursing life survival course, post basic courses.
 - 1.2 **Nursing i-clinic** was located in a safe area (respective area) collaborated with Jabatan Kesihatan Malaysia and Lembaga Jururawat Malaysia and Open University Malaysia (OUM) educational centre.
Rational: to provide basic to advance health care clinic, treat minor diseases. physical assessment, treatment for minor injury, managing first aid, trauma life support, drone nursing and robotic nursing.
Start with basic clinic setting to advance.
- Mini Project 2: **strengthen family economic and health communities plan.**
 - 2.1 **Nursing Mini Sundew Trips & Challenge:** strenuous youth club. Collaborate with business education expertise (PKNT/ PKNP)
Rational: create healthy life style and positive activity to energetic group of community. Generate economy transformation among Felda communities.
Encourage External visitor from educational institution, or any interested institution.
Educate Felda community in business activity; to generate family incomes.
 - 2.2 **Nursing francizing project:** healthy business station; my world tea house.
- Mini Project 3:
 - 3.1 **Nursing Mini fresh vegetable plant project from Kitchen:** collaborative with 'Jabatan Pertanian & Perikanan Malaysia'. Mini fresh vege project provides clean air environment in the kitchen. Mini fresh vege project provides fresh source item for cooking. Mini fresh vege project safe, simple, smart, and salubrious. Short term plan: mini fresh vege projected kitchen plant for basic house kitchen use. Long term plan: mini herb kitchen plant for commercial

7. Conclusion

The researcher concentrated to study the impact of flood on health in global nursing perspective. The study discovered four important elements to assess the impact on disease. They were economic, limitation and challenge, planning and innovation. Disease issues in nursing perspective may focus on physical health, psychological health, emotional health and behaviour health.

The economic issues covered on the impact of basic needs of family incomes that may give some impact for those families who ensure from low income after faced with the terrible flood disaster. The challenge that could be faced of flood was how to survive from disastrous period which involved high cost items. Malaysia had faced economic wavering and the instability of Ringgit Malaysia in the global market. For example, Felda faced with destroying of palm tree and rubber tree period to give way for the new plantation to be place that may take about 5 to 6 years before the trees grow up and mature.

Thus, Felda workers did not have a stable job and faced with difficulties in seeking new jobs in order to cater the family needs. Besides that, they were also facing stress and struggling for life. Some of small groups in the community may involve with negative activities such as house breaking, robberies, drugs abused and etc. However, many cases were not reported the community of the affected areas had to face such unsolved situation yearly. Based on complaining from the community, there are 5 to 6 cases with last three month reported and some of the cases are not reported.

For plan and innovation actions, they based on the findings from the mini interviews. The most obvious issue voiced out by the impact people and families were on psychology stress, emotional stress, and economy contributed stress. The strongest reason to develop the guidelines for advanced nursing into practices was to create intent awareness. The researcher must have some ideas to develop functional disaster nursing in Malaysia for future actions. This functional disaster nursing might function especially in the affected areas. Lastly, to develop pilot project for early intervention to stimulate education in health as well as to stimulate people to create more available jobs and generate incomes for their families and to encourage young generations to involve with healthy activities.

Government plan 2017

- 1) RM 10 million grant for entrepreneur online for youth.
- 2) RM 18 billion food imported from other country.

References

Abdullah, K (2004) Flood in Malaysia; Department of Irrigation and Drainage Malaysia. Date retrieved 15/8/2015 (Departmental manual).

- Aerts, J. C., Botzen, W.W., Moel, H., & Bowman, M. (2013). Cost Estimates For Flood Resilience and Protection Strategies In New York City. *Annals of the New York Academy of Sciences*, 1294(1), 1-104. doi:10.1111/nyas.12200
<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=7&sid=3e60c193-52cf-48ef-9dfe-be056c073303%40sessionmgr113&hid=112>
Date retrieved 12/7/2015.
- Ahern et al (2005) Flood Study In United State America.
<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=6&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>
Date retrieved 2/8/2015.
- Ara, C. (2014). Post-Tsunami Recovery and Reconstruction: Governance Issues And Implications of the Great East Japan Earthquake. *Disasters*, 38(Supp 2), S157-S178. doi:10.1111/disa.12068.
- Athukorala, P. C (2010) Malaysia Economy In 3 Crises: Australia National University
https://crawford.anu.edu.au/acde/publications/publish/papers/wp2010/wp_econ_2010_12.pdf Date retrieved 3/7/2015.
- Bloomberg (2011) Japan Economic Shrink, More Than Forecast after Record Quake
<http://www.bloomberg.com/news/articles/2011-05-19/japan-s-economy-shrinks-more-than-forecast> Date retrieved 26/6/2015.
- Basic Country Statistics and Indicators (2014):
<http://www.preventionweb.net/countries/mys/data/> Date retrieved 7/8/2015.
- Business dictionary updates 2015
<http://www.businessdictionary.com/definition/develop.html> Date retrieved 13/7/2015.
- Butt, A., Khan, A., Syed. A.S. (2015) Evaluation of Increasing Susceptibility of Area Surrounding Kala Bath Dam. *Middle East Journal*.10(2) pp27-32.
- Briske, L., Killer, L.O., Strohschein, S (2000) Public Health Nurses Practice For The 21th Century. National Satellite Learning Conference Guide
http://www.health.state.mn.us/divs/opi/cd/phn/docs/0001phnpractice_learningguide.pdf Date retrieved 19/7/2015.
- Bitch, T.H., Quang, L.N., Thanh ha, L.T. Hanh, T.T.D., Sapir, D.G. (2011) Impact on Flood on Health Epidemiologic Evidence from Hanoi, Vietnam. *Global Health Action Journal*. pp1-8.
- Creswell, J. W (2012) *Qualitative Enquiry and Research Design: Choosing Among Five Traditions*(3rd ed) thousand Oaks. CA.Sage.
- Crabtree, A. (2012) Climate Change And Mental Health Following Flood Disasters In Developing Countries, A Review Of The Epidemiological Literature: What Do We Know, What Is Being Recommended? *Australia Journal of Disaster and Trauma Studies*. (1) 21-30
http://trauma.massey.ac.nz/issues2012-1/AJDTS_2012-1_cabtree.pdf
Date retrieved 26/6/2015.
- Chizewer, D.M. (2013). New Challenges for Urban Areas Facing Flood Risks. *Fordham Urban Law Journal*, 401739.

<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=15&sid=3e60c193-52cf-48ef-9dfe-e056c073303%40sessionmgr113&hid=112>

Date retrieved 13/7/2015.

Disaster plan and guidelines (2008)

[http://www.state.in.us/isdh/files/PREPARE Disaster Plan Template IN 8 08.pdf](http://www.state.in.us/isdh/files/PREPARE_Disaster_Plan_Template_IN_8_08.pdf) Date retrieved 28/7/2015.

Disaster Preparedness: Preliminary Observations on the Evacuation of Hospitals and Nursing Homes Due to Hurricanes: GAO-06-443R. (2006). *GAO Reports*, 1.

<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=10&sid=65378f97-aa61-4f26-877b-6e804a7d1%40sessionmgr111&hid=112> Date

retrieved 12/7/2015.

DeDonder, J., Feldman, J., & Hamlin, L. (2007). A Report From ANA's 2007 Quadrennial Policy Conference Nursing Care In Life, Death, And Disaster. *The Kansas Nurse*, 82(6), 3-6.

<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=13&sid=65378f97-aa61-4f26-877b-b906e804a7d1%40sessionmgr111&hid=112>

Date retrieved 12/7/2015.

Davies, K., & Moran, L. (2005). Nurses Need Advanced Skills in Disaster Health Care. *British Journal of Nursing*, 14(4), 190.

<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=14&sid=65378f97-aa61-4f26-877b-b906e804a7d1%40sessionmgr111&hid=112>

Date retrieved 12/7/2015.

Economic Crisis Definition <http://www.businessdictionary.com/definition/economic-crisis.html> Date retrieved 3/7/2015.

Felda Global Venture (FGV) Research and Development (2014). Malaysia flood 2014: preliminary damage and impact assessment to FGV. Date retrieved 18/7/2015.

Flecher, S.N.E (2010) Nurse Faculty and Students' Behavioral Intentions and Perceptions toward Entrepreneurship in Nursing

Johnson R. W (2009) Issue brief impact of the economic on health care

<http://www.academyhealth.org/files/HCF0/findings0809.pdf> Date retrieve 26/6/2015.

GDP: Dictionary Online

www.investinganswers.com/financial.../gross-domestic-product-gdp-1223

Date retrieved 28/6/2015.

Ghazali, S.R., Elklit, A., Yaman, K., & Ahmad, M. (2013). Symptoms of PTSD Among Adolescents in Malaysia 4 Years Following the 2004 Tsunami. *Journal Of Loss & Trauma*, 18(3), 260-274. doi:10.1080/15325024.2012.688703. Date retrieved 6/7/2015.

Health Care Services <http://medical-dictionary.thefreedictionary.com/health+care+services>

Date retrieved 26/7/2015.

Hajat, S.K.L., Ebi, R. S., Menne, B., Edward, A., Haines (2005) The Human Health

Consequences of Flood in Europe: A review. Europe. Springer verlag berlin Heidelberg. Date retrieved 12/7/2015.

- Hunter Revell, S.M., & McCurry, M.K. (2010). Postflood Disaster Management and The Home Health Nurse: Using Theory To Guide Practice. *Journal of Community Health Nursing*, 27(3), 126-136. doi:10.1080/07370016.2010.494454
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=6&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>
Date retrieved 12/7/2015.
- Janev, H.N., Jelicic, P., Bujevic, M.G.M. Vazanic, D (2015) Health Protection and Risk For Rescuers in Cass of Flood 66. pp9-13.
- Julien, P.Y., Ghani, A.A., Zakaria, N.A., Abdullah, R., & Chang, C.K. (2010). Case Study: Flood Mitigation of the Muda River, Malaysia. *Journal Of Hydraulic Engineering*, 136(4), 251-261. doi:10.1061/(ASCE)HY.1943-7900.0000163
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=2&sid=3e60c193-52cf-48ef-9dfe-be056c073303%40sessionmgr113&hid=112>
Date retrieved 12/7/2015.
- International Labour Statistic.
http://www.ilo.org/wcmsp5/groups/public/ed_mas/eval/documents/publication/wcms_383982.pdf Date retrieved 28/7/2015.
- Khan, M.M.I., Shaari, N.A., Bahar, A.M.A., Baten, M.A., Nazaruddin, D.A. (2005) Flood Impact Assessment In Kota Bahru Malaysia: A Statistical Analysis.
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=3&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>
Date retrieved 12/7/2015.
- Kuntz, S.W., Frable, P., Qureshi, K., & Strong, L.L. (2008). Association of Community Health Nursing Educators: Disaster Preparedness White Paper for Community/Public Health Nursing Educators. *Public Health Nursing*, 25(4), 362-369. doi:10.1111/j.1525-1446.2008.00717.x
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=3&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>
Date retrieved 12/7/2015.
- Kershner, M., Hoygaard, E., & Roehrs, C. (2007). Nursing Care in Life, Death and Disaster. ANA Atlanta Conference. *Colorado Nurse (1985)*, 107(3), 5-8.
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=7&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>
Date retrieved 12/7/2015.
- Key 2012 Goal: Turn Data Flood into Actionable Insights. (2012). *Controller's Report*, 2012(3), 1-13.
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=14&sid=3e60c193-52cf-48ef-9dfe-e056c073303%40sessionmgr113&hid=112>
Date retrieved 13/7/2015.
- Kondo et al (2002) Flood Study in Mozambique Year 2000.
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=6&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>
Date retrieved 7/8/2015.

Kunil et al (2002) Flood Study in Bangladesh In 1998.

<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=6&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>

Date retrieved 7/8/2015.

Laditka, S.B., Laditka, J.N., Xirasagar, S., Comman, C.B., Davis, C.B., & Richter, J.V. (2008). Providing Shelter to Nursing Home Evacuees in Disasters: Lessons From Hurricane Katrina. *American Journal of Public Health*, 98(7), 1288-1293. doi:10.2105./AJPH.2006.107748

<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=20&sid=65378f97-aa61-4f26-877b-06e804a7d1%40sessionmgr111&hid=112>

date retrieved 12/7/2015.

Leonard, I.U. & Dorothy, I.U (2013) Flood Study in Nigeria.

<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=6&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>

Date retrieved 7/8/2015.

Medical dictionary updates 2015

<http://medical-dictionary.thefreedictionary.com/emergency+nursing>

Date retrieved 12/7/2015.

Milligan, G., & McGuinness, T. M. (2009). Mental Health Needs In A Post-Disaster Environment. *Journal Of Psychosocial Nursing And Mental Health Services*, 47(9), 23-30. doi:10.3928/02793695-20090731-01

<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=12&sid=65378f97-aa61-4f26-877b-06e804a7d1%40sessionmgr111&hid=112>

Date retrieved 12/7/2015.

Mori, N., Takahashi, T. (2012) Tohoku Earthquake Tsunami Joint Survey, G. Nationwide Post Event Survey and Analysis of the 2011 Tohoku Earthquake Tsunami. *Coastal Engineering Journal*, 54(1), 1250001-1-1250001-27.

<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=24&sid=3e60c193-52cf-48ef-9dfe-e056c073303%40sessionmgr113&hid=112>

Date retrieved 12/7/2015.

MOH NSW (2011) An Economic Evaluation of Community And Residential Aged Care Falls Prevention Strategies in NSW. MSc in disaster health care. (2010). *Nursing Standard*, 24(29), 63.

<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=22&sid=65378f97-aa61-4f26-877b-06e804a7d1%40sessionmgr111&hid=112>

Date retrieved 12/7/2015.

Michael, P. (2013) Realizing the Promise of Health Care Innovation in Ontario: Ontario Biosciences and Innovation Organization. OBIO Distribution. KANADA

Michael, P. (2010) What is Value in Healthcare? *New England Journal of Medicine*, OBIO. KANADA.

Ministry of Finance Malaysia data Updates

http://www.treasury.gov.my/index.php?option=com_content&view=article&id=4296:economic-report-2014-2015&catid=262&Itemid=2478&lang=en

- Date retrieved 3/7/2015.
Medicine Net.Com Dictionary Online
<http://www.medicinenet.com/script/main/art.asp?articlekey=7924>
Date retrieved 27/6/2015.
- Ministry of Finance Malaysia: updates (2015)
http://www.treasury.gov.my/index.php?option=com_content&view=article&id=4296:economic-report-2014-2015&catid=262&Itemid=2478&lang=en
Date retrieved 15/7/2015.
- Phalkey, R., Shisir, R., Dash, Mukhpad, A., Ranzinzer, R. Micheal, M. (2012) Prepare To Reach Assessment The Functional Capacity Of The Primary Health Care System In Rural Orissa To India Respond To Devastating Flood Of September 2008.
- Phillips, C. (2009) Quality Adjusted Life Year.
<http://www.medicine.ox.ac.uk/bandolier/painres/download/whatis/qaly.pdf>
Date retrieved 27/6/2015.
- Qalys Definition Online Dictionary
https://en.wikipedia.org/wiki/Quality-adjusted_life_year
Date retrieved 27/6/2015.
- QALYs: The basic
<http://www.ispor.org/meetings/invitational/QALY/Paper2revised.PDF>
Date retrieved 28/6/2015.
- Radzi et al (2014) Demographic Influence on Muslim Flood Victim Wellbeing in Flood Prone Districts in Malaysia <http://ac.els-cdn.com/S1877042814033849/1-s>
Date retrieved 13/7/2015.
- Rokkas, P., Cornell, V., & Steenkamp, M. (2014). Disaster Preparedness And Response: Challenges For Australian Public Health Nurses - A Literature Review. *Nursing & Health Sciences*, 16(1), 60-66. doi:10.1111/nhs.12134
<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=9&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112> date retrieved 12/7/2015.
- Reacher et al (2004) flood in United Kingdom in 2000.
<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=3&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>
Date retrieved 12/7/2015.
- Rivera, A. (1986). Nursing intervention in a disaster. *International Nursing Review*, 33(5), 140.
<http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=23&sid=65378f97-aa61-4f26-877b-06e804a7d1%40sessionmgr111&hid=112>
Date retrieved 12/7 2015.
- Tele ICU model of success (2000).
<http://www.aacn.org/wd/practice/docs/tele-icu-guidelines.pdf>
Date retrieved 28/7/2015.
- Tsunami fact and figure (2015).
<http://www.tsunami2004.net/tsunami-2004-facts/>

- Date retrieved 28/7/2015 2015.
- Top News. [flood news](#) [click for video news channel]
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/detail/detail?vid=4&sid>
Date retrieved 12/7/2015.
- Saliba, D., Buchanan, J., & Kington, R.S. (2004). Function and Response of Nursing Facilities during Community Disaster. *American Journal of Public Health*, 94(8), 1436-1441.
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=5&sid=65378f97-aa61-4f26-877b-906e804a7d1%40sessionmgr111&hid=112>
Date retrieved 12/7/2015.
- Sangeun, Lee. B., Okazumic, T., Kwakb, Y. (2015) possible and challenges in the development of a global flood disaster risk indicator; Preliminary study 17 pp 208-227. Date retrieved 20/7/2015.
- Strengthening health-system emergency preparedness: Toolkit for assessing health-system capacity for crisis management: WHO guideline.
http://www.euro.who.int/_data/assets/pdf_file/0008/157886/e96187.pdf
Date retrieved 30/6/2015.
- Trading Economic Market; Malaysia Statistic
<http://www.tradingeconomics.com/malaysia/gdp-growth-annual>
Date retrieved 30/7/2015.
- Van Rooy, W., & Moore, L. (2012). Using Media in the Classroom: Learning and Teaching about the 2011 Japanese Earth-Quake, Tsunami and Nuclear Events from a Socio-Scientific and Science Literacy Perspective. *Teaching Science*, 58(3), 46-52.
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=21&sid=3e60c193-52cf-48ef-9dfe-be056c073303%40sessionmgr113&hid=112>
Date retrieved 12/7/2015.
- WHO Malaysia statistic 2011
http://www.who.int/whosis/whostat/EN_WHS2011_Full.pdf
Date retrieved 15/7/2015.
- Webster, G. (2011) Japan's Post Quake Economic Outlook: Recovery and Reconstruction
<http://www.nbr.org/research/activity.aspx?id=126>
Date retrieve 27/6/2015.
- Woodward, M., Kapelan, Z., & Gouldby, B. (2014). Adaptive Flood Risk Management Under Climate Change Uncertainty Using Real Options and Optimization. *Risk Analysis: An International Journal*, 34(1), 75-92. doi:10.1111/risa.12088
<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=6&sid=3e60c193-52cf-48ef-9dfe-be056c073303%40sessionmgr113&hid=112>
Date retrieved 12/7/2015.
- Wu, J. Tong , J.X., Xion Shan, L. Sun, H., Eric, P.F., (2015) a cross section survey on the health status and the health related quality of life of the elderly after flood disaster in Bazhong City Sichuan China.

Yamamoto, A. (2013). Development of disaster nursing in Japan, and trends of disaster nursing in the world. *Japan Journal Of Nursing Science*, 10(2), 162. doi:10.1111/jjns.12042

<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=19&sid=65378f97-aa61-4f26-877b-b906e804a7d1%40sessionmgr111&hid=112>

Date retrieved 12/7/2015.

Yamashita, M., & Kudo, C. (2014). How differently we should prepare for the next disaster?. *Nursing & Health Sciences*, 16(1), 56-59. doi:10.1111/nhs.12131

<http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/pdfviewer/pdfviewer?vid=21&sid=65378f97-aa61-4f26-877b-b906e804a7d1%40sessionmgr111&hid=112>

Date retrieved 12/7/2015.

Appendix



Image 2: Model of Optimal Patient Care
 (Adapted from Tele ICU Guideline (2000): Model for success)

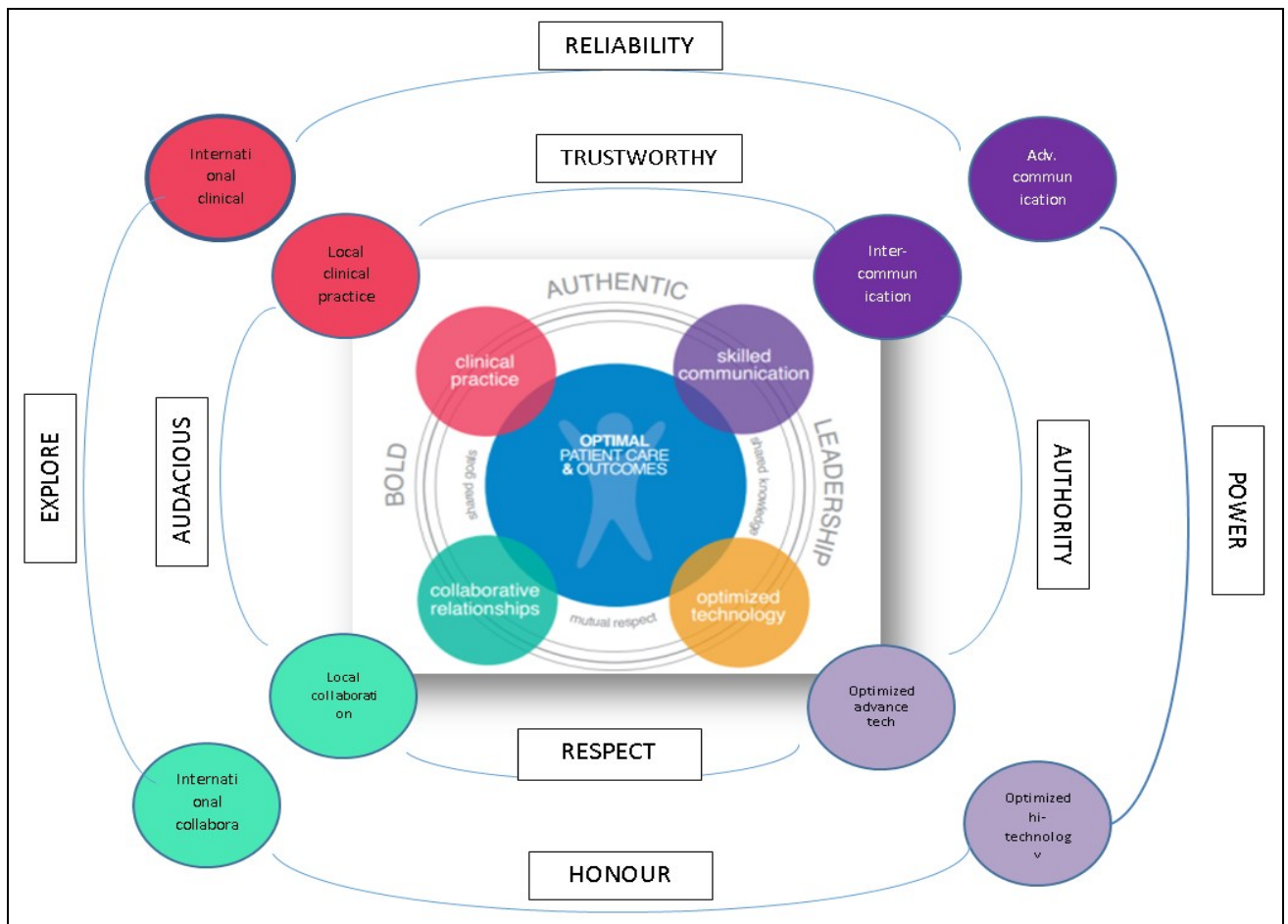


Image 3: Development of model spiral nursing for success theory
 (Source: Adapted from Tele ICU Guideline (2000): Development Model for success.
 Development of model spiral nursing for success theory)

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