



**Port-Said University  
Faculty of Nursing  
Nursing Administration Department**



<b>Model answer of Final term exam</b>	<b>Code: Sup E602</b>
<b>Disaster Nursing Fourth level \ first Term</b>	<b>Academic year: 2020/2021</b>
<b>Time allowed: 2 hours Total mark : 50 Date : 11 / 3 /2020</b>	<b>Examiner: Assist Prof. D.r / Rasha Anany &amp; Assist Prof. D.r / Hind Abdullah</b>

**Question No. (1): ( 15 marks):** Read the following statements and put (T) for true statement and (F) for false statement.

1.	<b>Epidemiology</b> is the study of the distribution and determinants of health in populations and the application of this study to improve health	<b>(T)</b>
2.	<b>Case-fatality rate (CFR)</b> is the proportion of cases that die from a particular disease	<b>(T)</b>
3.	<b>The crisis response</b> is what management does and says after the crisis hits	<b>(T)</b>
4.	<b>Scapegoat as one of reputation repair strategies</b> , the crisis manager blames some person or group outside of the organization for the crisis	<b>(T)</b>
5.	<b>In apology repair strategy</b> : crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness	<b>(T)</b>
6.	<b>Risk</b> is the characteristics and circumstances of a community, system that make it susceptible to the damaging effects of a hazard	<b>(F)</b>
7.	<b>Disaster is defined</b> as a significant threat to operations that can have negative consequences if not handled properly	<b>(F)</b>
8.	<b>Vulnerability</b> is physical conditions that have cause fatalities, injuries, damage to the environment, interruption of business, or other types of losses	<b>(F)</b>
9.	Risk control strategies used to reduce the severity of the loss	<b>(T)</b>
10.	Brainstorming is done with a group of people who focus on identification of risk	<b>(T)</b>
11.	The pre-crisis phase as one element of crisis communication include spokesperson,	<b>(T)</b>



	crisis management team and crisis management plan	
12.	Crisis communication divided into four phases	(F)
13.	Risk management process is a program directed toward identifying , analysis ,evaluate and taking corrective action against potential risks that could lead to injury to patients, staff or visitors	(F)
14.	Risk analysis and assessment need to be given a clear indication of priorities of action that based on just cost and type of action	(F)
15.	The crisis manager confronts the person or group claiming something is wrong with the organization in compensation reputation repair strategy	(F)

**Question No. (2): ( 12 marks):**

**Choose the correct answer:**

- Disasters can happen at any time. What is the first part of the disaster management cycle to consider?
  - Response
  - Mitigation**
  - Recovery
  - Preparation
- Mitigation in the disaster management cycle involves what activity.
  - Prevention of disasters if possible**
  - Caring for the birds injured
  - Responding to the disaster
  - Preparing for litigation after the event
- An appropriate strategy for responding to an individual experiencing acute distress?
  - Have the individual list everything that they lost in the disaster.
  - Have the individual receive disaster preparedness training.
  - Have the individual state their most urgent needs.**



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- d) Have the individual think about what they will need in the future.
4. What is an example of a natural threat?
- a) Aircraft incident.
  - b) Animal disease outbreak.**
  - c) Hazardous material release.
  - d) Workplace violence.
5. Disaster recovery efforts include:
- a) Conducting a hazard vulnerability analysis.
  - b) Reconnecting displaced populations with essential health and social services.**
  - c) Strategies for reducing the impact of disasters.
  - d) Training responders to strengthen capabilities.
6. What phase of emergency management includes exercises and drills.
- a) Mitigation.
  - b) Preparedness.**
  - c) Recovery.
  - d) Response.
7. Which statement about disasters is true?
- a) They can be natural or human-made.**
  - b) They can be relieved without assistance.
  - c) There is always injury and death when a disaster occurs.
  - d) The timing of a disaster does not influence the types of injuries that will occur.
8. Which is an example of a natural disaster?
- a) Transportation accident
  - b) Pollution
  - c) Communicable disease epidemic**
  - d) Fire
9. Which is an example of a human-made disaster?
- a) Structural collapse**



- b) Communicable disease epidemics
- c) Mud slides
- d) Floods

10. An example of community preparedness for a disaster is:

- a) **Assembling emergency supplies**
- b) Understanding the workplace disaster plan
- c) Taking a disaster training course
- d) Developing an evacuation plan to remove individuals from danger

11. The nurse attends a conference meeting regarding crisis intervention. Which of the following statements by the nurse requires follow-up.

- a) Crisis are personal by nature. What may be considered a crisis by one individual may not be so for another.
- b) **The development of a crisis follows a relatively unpredictable course.**
- c) Crisis are acute and will be resolved within a brief period".
- d) The therapist, or other intervener, becomes a part of the individual's life situation.

12. A disaster agent's ability to inflict damage and injury refers to

- a) **Intensity**
- b) Controllability
- c) Frequency
- d) Predictability

**Question No. (3) : ( 23 marks):**

1. Explain risk identification tools and techniques. (4)

**Documentation Reviews**

The standard practice to identify risks is reviewing

**Information Gathering Techniques**

The given techniques are similar to the techniques used to collect requirements.

**Brainstorming**

Brainstorming is done with a group of people who focus on identification of risk



— **Interviewing**

— An interview is conducted with project participants, stakeholders, experts, etc to identify risks.

— **Swot Analysis (STRENGTH, Weakness, Opportunities And Threats)**

Strengths and weaknesses are identified for the project and thus, risks are determined

— **Incident report or Accident report**

The tools should be constructed to collect complete and accurate data including : Name - Age - Condition of individuals involved - time - location, date of incident - physicians examination

— **Infection control**

— Measure area for quality control and risk management

— The infection control nurse should be report and investigation causes of nosocomial infection and use the procedure to prevent spread of infection.

2. List initial crisis response best practices that done by management after the crisis occurs.(4)

1. Be quick and try to have initial response within the first hour.

2. Be accurate by carefully checking all facts.

3. Be consistent by keeping spokespeople informed of crisis events and key message points.

4. Make public safety the number one priority.

5. Use all of the available communication channels including the Internet, Intranet, and mass notification systems.

6. Provide some expression of concern/sympathy for victims

7. Remember to include employees in the initial response.

8. Be ready to provide stress and trauma counseling to victims of the crisis and their families, including employees



### 3. Describe Phases of the disaster.(5)

**Phase 1, the pre-disaster phase**, the announcement of a disaster start. characterized by fear and uncertainty. The specific reactions a community experiences depend on the type of disaster. Disasters with no warning can cause feelings of vulnerability and lack of security; fears of future, unpredicted tragedies; and a sense of loss of control or the loss of the ability to protect yourself and your family. The pre-disaster phase may be as short as hours, or even minutes, or it may be as long as several months.

**Phase 2, the impact phase** is characterized by a range of intense emotional reactions. the specific reactions also depend on the type of disaster that is occurring. As a result, these reactions can range from shock to overt panic. Initial confusion and disbelief typically are followed by a focus on self-preservation and family protection. The impact phase is usually the shortest of the six phases of disaster.

#### **Phase 3, the heroic phase,**

is characterized by a high level of activity with a low level of productivity. During this phase, there is a sense of altruism, and many community members exhibit adrenaline-induced rescue behavior. As a result, risk assessment may be impaired. The heroic phase often passes quickly into phase 4.

#### **Phase 4, the honeymoon phase**

is characterized by a dramatic shift in emotion. During the honeymoon phase, disaster assistance is readily available. Community bonding occurs. Optimism exists that everything will return to normal quickly. As a result, numerous opportunities are available for providers and organizations to establish and build rapport with affected people and groups, and for them to build relationships with stakeholders. The honeymoon phase typically lasts only a few weeks.

#### **Phase 5, the disillusionment phase**

Is a stark contrast to the honeymoon phase. During the disillusionment phase, communities and individuals realize the limits of disaster assistance. As optimism turns to discouragement and stress continues to take a toll, negative reactions, such as physical exhaustion or substance use, may begin to surface.

**Phase 6, the reconstruction phase**: Is characterized by an overall feeling of recovery. Individuals and communities begin to assume responsibility for rebuilding their lives, and people adjust to a new "normal" while continuing to grieve losses. The reconstruction phase often begins around the anniversary of the disaster and may continue for some time beyond that. Following catastrophic events, the reconstruction phase may last for years.

### 3. Mention clinical features, laboratory examinations, and prevention of COVID – 19. (5)

#### **-Mention clinical features**

- Most common symptoms:



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- fever.
  - dry cough.
  - tiredness.
  - Less common symptoms:
  - aches and pains.
  - sore throat.
  - diarrhoea.
  - conjunctivitis.
  - headache.
  - loss of taste or smell.
  - a rash on skin, discolouration of fingers or toes.
  - Serious symptoms:
  - difficulty breathing or shortness of breath
  - chest pain or pressure.
  - loss of speech or movement.
  - Seek immediate medical attention if you have
  - serious symptoms.
  - Always call before visiting your doctor or health
  - facility.
  - People with mild symptoms who are otherwise
  - healthy should manage their symptoms at
  - home.
  - On average it takes 5–6 days from when someone is infected with the virus for symptoms to show, however it can take up to 14 days



**-laboratory examinations** In the early stage of the disease, a normal or decreased total white blood cell count (WBC) and a decreased lymphocyte count can be demonstrated. Interestingly, lymphopenia appears to be a negative prognostic factor.

Increased values of liver enzymes, lactate dehydrogenase (LDH), muscle enzymes, and C-reactive protein can be detected

Unless a bacterial overlap, a normal procalcitonin value is found.

The elevated neutrophil-to-lymphocyte ratio (NLR), derived NLR ratio (d-NLR) [neutrophil count divided by the result of WBC count minus neutrophil count],

and platelet-to-lymphocyte ratio, can be the expression of the inflammatory storm

The correction of these indices is an expression of a favorable trend.

increased D-dimer

In critical patients, D-dimer value is increased, blood lymphocytes decreased persistently, and laboratory alterations of multiorgan imbalance (high amylase, coagulation disorders, etc.) are found .

#### Chest X-ray Examination

Since the disease manifests itself as pneumonia, radiological imaging has a fundamental role in the diagnostic process, management, and follow-up. Standard radiographic examination (X-ray) of the chest has a low sensitivity in identifying early lung changes and in the initial stages of the disease. At this stage, it can be completely negative. In the more advanced stages of infection, the chest X-ray examination generally shows bilateral multifocal alveolar opacities, which tend to confluence up to the complete opacity of the lung. Pleural effusion can be associated

#### Chest Computed Tomography

Given the high sensitivity of the method, chest computed tomography (CT), in particular high-resolution CT (HRCT), is the method of choice in the study of COVID-19 pneumonia, even in the initial stages. Several non-specific HRCT findings and patterns can be found. Most of these findings may also be observed in other lung infections, such as Influenza A (H1N1), CMV, SARS, MERS, streptococcus, and Chlamydia, Mycoplasma. The most common findings are multifocal bilateral "ground or ground glass" (GG) areas associated with consolidation areas with patchy distribution, mainly peripheral/subpleural and with greater involvement of the posterior regions and lower lobes. The "crazy paving" pattern can be also observed. This latter finding is characterized by the presence of GG areas with superimposed interlobular septal thickening and intralobular septal thickening. It is a non-specific finding that can be detected in different conditions. Other findings are the "reversed halo sign" which is a focal area of GG delimited by a peripheral ring with consolidation, and the finding of cavitations, calcifications, lymphadenopathies, and pleural effusion.





Ultrasound can allow evaluating the evolution of the disease, from a focal interstitial pattern up to "white lung" with evidence often of subpleural consolidations. It should be performed within the first 24 hours in the suspect and every 24/48 hours and can be useful for patient follow-up, choice of the setting of mechanical ventilation, and for the indication of prone positioning. The main sonographic features are:

Pleural lines often thickened, irregular, and discontinuous until it almost appears discontinuous; subpleural lesions can be seen as small patchy consolidations or nodules.

### B lines

They are often motionless, coalescent, and cascade and can flow up to the square of "White lung". Thickenings. They are most evident in the posterior and bilateral fields especially in the lower fields; the dynamic air bronchogram within the consolidation is a manifestation of disease evolution. Perilesional pleural effusion

- Discuss crisis management (principals and technique).

### Prevention

#### -<sup>1</sup> Hand washing

- Wash hands often with and water for at least your 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing soap

- Avoid touching your eyes, nose, and mouth with unwashed hands

#### -<sup>2</sup> Personal protective equipment

- Everyone should wear a mask in public settings

- Masks should not be placed on young children under age 2, anyone who has trouble breathing

- Always cover your mouth and nose with a tissue when you elbow and throw cough or sneeze or use the inside of used tissues in the trash your

- Use face shield

#### -<sup>3</sup> Personal distance -:

- Continue to keep about 6 feet between yourself and others. The mask is not a substitute for social distancing

- Limit contact with others as much as possible.

**Avoid close contact with people who are sick**

- Remember that some people without symptoms may be able to spread virus.

#### -<sup>4</sup> Antiseptic solution -:

- Clean AND disinfect frequently touched surfaces daily. This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks



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• Use alcohol frequently to clean hands

5. Discuss crisis management (principals and technique) . (5)

**Principals**

- Be specific, use concise statements, and avoid over whelming the patient with irrelevant questions or excessive detail.
- Encourage the expression of feelings.
- A calm, controlled presence reassures the person that the nurse can help.
- Listen for facts and feelings- seeking clarification, paraphrasing and reflection are effective strategies.
- Allow sufficient time for the individuals involved to process information and ask questions.
- Help patients legitimize feelings by letting them know that others in similar situations have experienced comparable emotions.

**Technique**

- Catharsis:** The release of feelings that takes place as the patient talks about emotionally charged areas.
- Clarification:** Encouraging the patient to express more clearly the relationship between certain events.

**Manipulation:** using the patients emotions, wishes or values to benefit the patient in the therapeutic process.

- Reinforcement of behavior:** giving the patient positive reinforcement to adaptive behavior.
- Increasing self esteem:** helping the patient to regain feelings of self worth.
- Exploration of solutions:** examining alternative ways of solving the immediate problems.

Good luck