

# Stress Responses Of Sailors On Board Toward Covid-19 Pandemic

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## ABSTRACT

The aim of this research is to analyze stress responses of sailors on board toward Covid-19 pandemic. 411 sailors of PT. X whom distributed energy to all areas of Indonesia, involved in this research as subjects. Stress responses of sailors on board through online survey in pandemic era. Based on those survey, stress level and stressor toward Covid-19 pandemic well known. Data of survey analyzed by descriptive statistic. The result of this research shown that stress responses was dominated by mediate level (42.84%). In cumulative, stress response as mediate, high and very high level about 56.45%. It is means that majority of subjects feel stress when they on board and leave their family in pandemic era. Meanwhile 44.53% of sailors on board had perception about stressor came from work environment, whereas their concentration was disturbed by negative information about Covid-19 while on board. This condition connected to anxiety of sailors when they leave their family in land which is riskier than on board, like sailors.

**Keywords:** Stress; Stress Responses; Perception toward pandemic

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## INTRODUCTION

Many research that done to describe what was stress generally. From those definitions, we conclude that stress as a widely concept that covers condition caused by internal and external demand, real or not real toward our body has individual adaptation as some responses from our physiologic, behavioral and cognitive that different at each person. Stress assumed as a condition that ask an individual adaptation, physiologic or psychologic. When event occurred that cause stress, so our body will had react by secrete hormone that impact neuron system so that appear certain reaction. If stimulus causing stress assumed as not threaten, our body secreted just little hormone. But if stress stimulus that occurred assumed appear serious threat, our body will quick responses and secrete more hormones so blood pressure, heart beat and breathing increase, cold palm and sweating and dry skin. Those condition will trigger anxiety feeling, angry, uncomfortable and fear (Sarafino, 1990).

Based on Lazarus' Theory (Sarafino, 1990) explained that when person has stress, unconsciously that person will evaluate her/his self. This process known by cognitive appraisal, that mechanism shown by diagram below:

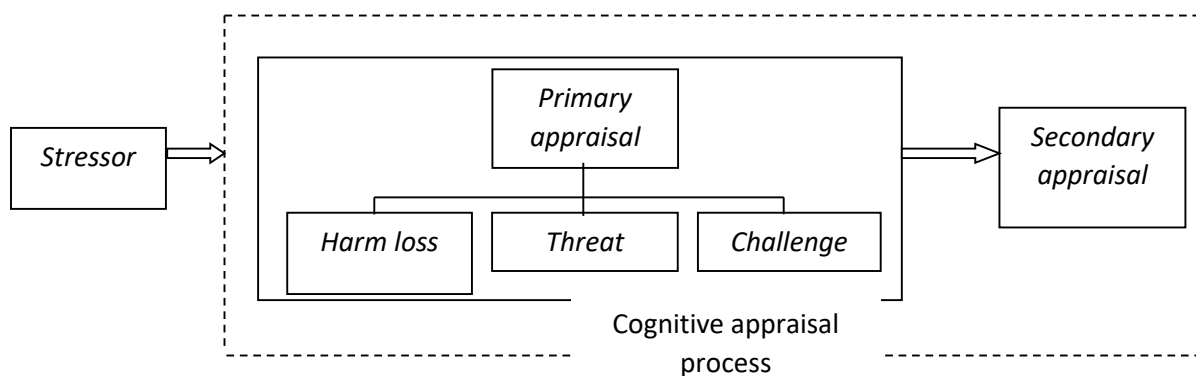


Diagram 1. Cognitive Appraisal Process

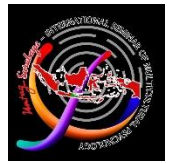
When persons facing stressor, they meaning automatic toward that situation and what are impact will appear. This process known by primary appraisal. This first stage produces 3 kinds of appraisals. First, *harm loss*, indicated that person over appraisal toward stressor which actually not too heavy level so the level of stress increase. *Threat* shown that stressor will be a threat for them. Meanwhile *challenge* indicated that they appraise those stress as an opportunity for more develop. Second stage, secondary appraisal as an individual appraisal toward ability to face that stressor. When someone feel that they have an ability to face stress, they have an optimum ability. However, if someone feels has not found the right source to tackle this, stress will arise.

Based on Cognitive – Phenomenological (CP) approach by Lazarus & Folkman (1984), indicated that stressor came from various sources. For modern society nowadays, stressor dominated by working environment and job itself; family and all problems (include financial problems); and social environment (neighborhood and friendship). As Lazarus & Folkman (1984), all kinds of stressor interconnected or separated. But we can point which stressor more dominate as a stressor.

In Psychology, known that human has union between soul and body. Both of them as a unity, so if human has stress, so that if someone has experiencing stress, symptom occurred by both of them. Symptoms of stress indicate not only on physical but emotional, intellectual and interpersonal too (Hardjana, 1994).

Sailors who leave their family as subjects who susceptible toward stress. Report of US Navy’s Personnel Command in 2012 indicated that 82% of the 2.800 respondents said they had “some” or “a lot” of stress in their jobs, compared with 74% in 2009 and 58% of respondents in 2005. The biggest increase was in the percentage of Sailors who said they had “some” stress – 44% that year, as compared with 30% in 2005. Sea or shire differences were also significant; 86% of sea-based enlisted Sailors report stress I the “some” or “a lot” categories compared to 74% shore-based enlisted.

That condition occurred too toward sailors PT. X who onboard leave their family in 6-9 months to distributed energy in all areas of Indonesia. They experienced symptoms of stress in low to high. This stress condition caused by working environment, family and social environment. In addition, they are facing Covid-19 pandemic era nowadays. Thus, the purpose of this research is to analyze stress level and kinds of stressor of Sailors PT. X in early pandemic era (April-May 2020) as a response toward Covid-19 pandemic.



## METHOD

### Research Design

This research used descriptive quantitative approach that analyze level of stress of someone in group assessment. All at once to describe stressor dominated which is consist of 3 stressors: working environment, family and social environment in pandemic era setting.

### Participants

411 Sailors of PT. X onboarding involved in this research as participants. The duration of boarding during over 1 month to get response of their stress toward pandemic condition.

### Instrument

This instrument of this research used one of dimension in Dimension of Stress Scale (DSS), especially on stressor properties dimension. DSS is an instrument that developed by Cognitive – Phenomenological stress theory by Lazarus & Folkman (1984). Meanwhile the questionnaire which became derivate from DSS, consist of working environment, family and social environment stressor.

### Research Procedures

In this research, participants gave by response stress scale through google form so data collected quickly.

### Data Analysis Technique

Data analyzed by descriptive statistic to know level of stress of participants and domination of stressor which perceived by participants.

## RESULT

Participants in this research were Sailors of PT. X onboard during over 1 month in Covid-19 pandemic era. During onboard will impact of their stress level. Maximum time of onboard before pandemic was 6 months. But in early pandemic era, the sailors assigned over 6 months and maximum time on 9 months. This condition caused by lock down policy on board to prevent Covid-19 transmission intrude to board. After June 2020, the crew change policy just done to change sailors on boarded over 6 months. The data collection done on May 2020 (2 months early after pandemic intrude to Indonesia).

The result of this research shown that stress responses was dominated by mediate level (42.84%). In cumulative, stress response as mediate, high and very high level about 56.45%. It is means that majority of subjects feel stress when they on board and leave their family in pandemic era.

Table 1. The Categories of Participants Stress

Categories	Number of People	Percentage (%)
Very High	7	1,70
High	49	11,92
Mediate	176	42,82
Low	126	30,66
Very Low	53	12,90
<b>Total</b>	<b>411</b>	<b>100</b>

The stress categorization based on stan-five categorization below:

Table 2. The Categorization of Stress Value in Stan-Five

Category Norm	Category
$X > 45$	Very High
$36 < X \leq 45$	High
$30 < X \leq 36$	Mediate
$23 < X \leq 30$	Low
$X \leq 23$	Very Low

Meanwhile 44.53% of sailors on board had perception about stressor came from work environment, whereas their concentration was disturbed by negative information about Covid-19 while on board. This condition connected to anxiety of sailors when they leave their family in land which is riskier than on board, like sailors.

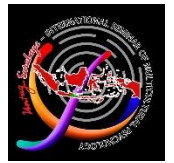
Table 3. Participants' Stressor

Stressor	Number of People	Percentage (%)
Working	183	44,53
Family	34	8,27
Social Environment	73	17,76
Working & Family	21	5,11
Working & Social Environment	30	7,30
Family & Social Environment	13	3,16
Working, Family & Social Environment	57	13,87
<b>Total</b>	<b>411</b>	<b>100</b>

In qualitative, participants gave feeling evaluation when they leave family, they felt more anxiety than before pandemic era. They felt anxiety when they thought their health while onboard and thought their family's health in pandemic era. Based on response of participants, their anxiety more increase when they heard negative information about Covid-19.

Meanwhile the participant response to evaluate feeling when extended onboard time by the company. The participants feel sad and disappointed but still accept for their safety and healthy. By Covid-19 pandemic era, like nowadays, the sailors on board gave suggests to management as follows:

- a. Asked to management to do crew change as soon as possible, so that the extended sailors go back home soon.
- b. Personal Protection Equipment (PPE) and medicines send to board soon to anticipate Covid-19 transmission.
- c. Asked to management to arrange health protocol which suitable with onboard condition. For example, to prohibit land crew or contractor to enter board. When emergency situation, they allow to board after their health checked by medical officer.
- d. Asked to management to do intensive communication with crew of board, so all problems' on board handled as soon as possible.
- e. No late payment because their family need it to survive in pandemic era.



## DISCUSSION

Based on Lazarus' Theory (Sarafino, 1990) explained that when person has stress, unconsciously that person will evaluate her/his self. This statement appropriate with the result of this research shown that stress responses was dominated by mediate level (42.84%). In cumulative, stress response as mediate, high and very high level about 56.45%. It is means that majority of subjects feel stress when they on board and leave their family in pandemic era. In according to Greenberg (2012), stress caused by some factors, such decision making process (especially in critical situation, like a sailor), to supervise mechanical tools continuously, work in uncomfortable condition or less of structured. Moreover stress related to working caused by anxiety toward family problems.

Based on Cognitive – Phenomenological (CP) approach by Lazarus & Folkman (1984), indicated that stressor came from various sources. For modern society nowadays, stressor dominated by working environment and job itself; family and all problems (include financial problems); and social environment (neighborhood and friendship). Even Lazarus & Folkman (1984) stated that all stressors have interconnected or separated. But we can determine which stressor more dominated as a stressor on person.

Meanwhile 44.53% of sailors on board had perception about stressor came from work environment, whereas their concentration was disturbed by negative information about Covid-19 while on board. This condition connected to anxiety of sailors when they leave their family in land which is riskier than on board, like sailors.

By stress toward Covid-19 pandemic, the sailors on board feel their working concentration decreased, so their performance affected by anxiety toward family at home. Based on random interview to participants, they began experiencing physical distraction, such breathing distraction when they worried about their family in this pandemic era. Thus for participants who experiencing anxiety distraction, we do meditation program with breathing process. Paced breathing has much in common with well-established focused-meditation practices that involve actively directing and focusing attention on specific areas of the body. This strategy requires focused attention, which involves actively choosing a stimulus upon which to focus while engaged with paced breathing practices, similar to strategies deployed within mindfulness-based stress reduction training (Kabat-Zinn, 2003).

According to Everly and Giordano (1980, in Munandar, 2008) stated that stress has impact toward mood, muscle and visceral. Stress which not good handle impacted to incapability of person to do positive interaction toward social environment. When we refer to more stress impacted to crew toward his performance, stress management must get attention and intervention from management to achieve organization goals.

## ACKNOWLEDGE

We thank to PT. X as a biggest energy distribution company in Indonesia whom issued permit for data collection, present the result in front of management and sailors on board for scientific issue. This data used by management to make decision for sailors of PT. X in facing Covid-19 pandemic nowadays.

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