



## Maritime Technology and Research

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Research Article

### Problems encountered by newly-hired seafarers onboard ship: The basis for a health intervention program

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#### Article information

Received: July 21, 2020

Revised: September 10, 2020

Accepted: September 17, 2020

#### Keywords

Problems encountered,  
Newly-hired seafarers,  
Province of Antique,  
University of Antique,  
Maritime graduates

#### Abstract

This descriptive-correlational study aimed at ascertaining newly-hired seafarers' problems encountered onboard ship as the basis for a health intervention program. A researcher-constructed questionnaire about the problems encountered onboard ship was administered to newly-hired seafarers. The computer-processed statistics used were means, frequency, and rank for descriptive analysis; and t-test was used for Independent Samples, and One-way ANOVA for inferential analysis. Alpha level was set at 0.5. The study found that, generally, newly-hired seafarers had highly common problems encountered onboard ship. They shared 5 most common problems: they experienced homesickness and seasickness within a few months; long distance relationships suffered; they hardly adjust to other crew onboard, and they suffered fatigue onboard ship. On the other hand, they also shared 5 less common problems: they were not reliable in performing tasks alone; they ignored "Safety First" while on duty; they could not be assigned to other tasks; they lacked relevant training, and they had no experience onboard any ship. Significant differences existed in the newly-hired seafarers' common problems encountered onboard ship when classified according to age and location of residence. No significant differences existed in the newly-hired seafarers' common problems encountered onboard ship when classified according to year of graduation.

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#### 1. Introduction

Seafaring is one of the most safety-critical jobs in the world. Many Filipinos who are in this field face problems that affect their whole career life (Lucero-Prisno III, 2011).

They work on different types of vessels, operating different trades, with a diverse range of work conditions. However, one thing that these individuals have in common is prolonged separation from their home and families, separations that are usually characterized by occasional opportunities for communication. As such, seafaring may be considered as an occupation rather than a lifestyle (Lamvik, 2012). Inevitably, it is a lifestyle that will impact both seafarers and their families dramatically (Michelle et al., 2009).

According to the International Labor Organization's data in 2012 (ILO, 2012), the Philippines is the biggest source of seafarers around the world, contributing 402,000 persons, or more than 30 %, in 2014 (Richter, 2016; Lehmann, 2016). It is estimated that one out of 5 seafarers

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is Filipino. Filipinos have a long tradition of working at sea to financially support their families (Bagoulla & Guillotreau, 2017; Chaumette, 2017).

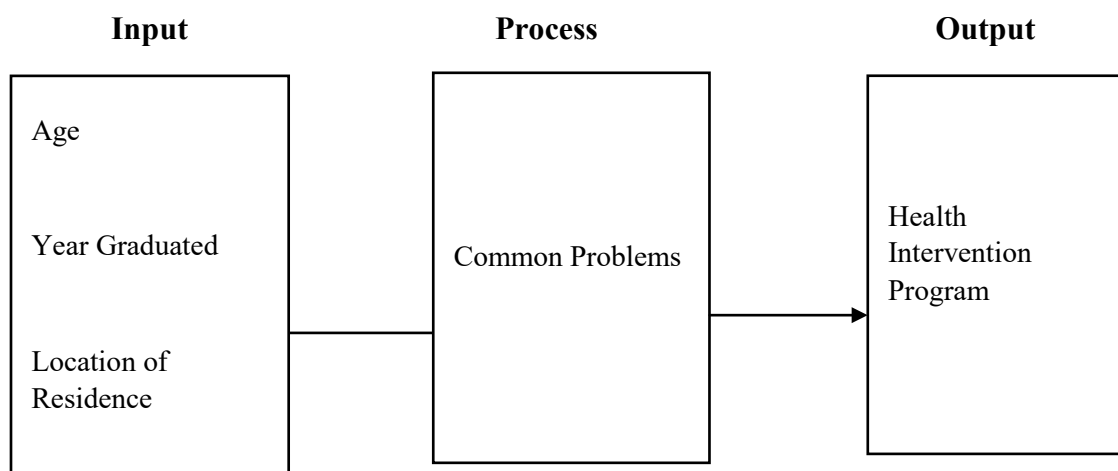
Factors such as low labor costs, high proficiency in the English language (Benaldo, 2019), and better work habits (Galicia, 2019a) contribute to the high demand for Filipino seafarers. Hence, the Philippines is projected to supply this demand for seafarers globally in the next 10 years. A high level of awareness and a perceived relevance of maintaining healthy well-being among Filipino seafarers is a manifestation of their healthy working habits onboard ship (Galicia, 2019b).

However, the trends in supply and demand of officers and ratings in the maritime industry have changed drastically. The Manpower Report (2015) revealed that China is now the leading supplier of seafaring officers in the world, beating other countries like the Philippines, the Russian Federation, the Ukraine, and India (BIMCO & ICS, 2015). Concerted efforts and measures should be used to address key manpower issues, such as poor safety practices (Galicia, 2019a), depression (Fernandez et al., 2018), and problems (Manalo et al., 2015) of seafarers usually encountered by those during their first time onboard. This study aims to determine the problems encountered by newly-hired seafarers onboard.

### 1.1 Theoretical framework of the study

This research is anchored by Problem Solving Theory by Dostal (2014), which proposes the analysis of the problem-solving process itself. It specifies the ability to perceive a problem, the perceptibility of the problem, the willingness to solve the problem, the awareness of the existence of the problem, or strategies of problem-solving (Dostal, 2015). Thus, newly-hired seafarers should properly observe the common problems usually encountered onboard ship and adapt strategies to solve those problems to work efficiently and effectively (**Figure 1**).

In determining these common problems, a healthy approach can help seafarers improve the safety of life at sea.



**Figure 1** Illustration in graphic form of the paradigm of this research.

### 1.2 Objectives of the study

The objectives of this study were to ascertain the common problems related to physical and mental health encountered by newly-hired seafarers onboard ship; to determine the significant differences in the common problems encountered by newly-hired seafarers onboard ship when classified into categories; and to formulate a health intervention program that will promote healthy well-being among maritime students at the University of Antique.

## 2. Materials and methods

### 2.1 Research design

The descriptive method of research was employed in this investigation, since the data were collected to answer questions concerning the common problems encountered by newly-hired seafarers onboard ship. Descriptive research, according to Gay et al. (2018), involves collecting data in order to answer questions and determines and reports the way things are.

### 2.2 Participants

The participants in this study were 50 randomly-selected Bachelor of Science in Marine Engineering graduates from the College of Maritime Studies of the University of Antique, the only school in the Province of Antique offering the program during the conduct of the study, retrieved from the College of Maritime Studies - Onboard Training Office (OBT), formerly known as Shipboard Training Office (STO), in charge of onboard training monitoring, assessment, and evaluation (Joint CHED, 2019).

Simple Random Sampling Technique was used to select the specified number of respondents from each of the years of graduation from marine engineering program of the University of Antique.

### 2.3 Instrument

Data was collected using a questionnaire-checklist which posed various questions surrounding the common problems encountered by newly-hired seafarers onboard ship. This checklist was validated by a jury of 5 members and was constructed on the basis of their past onboard experiences as senior marine officers, manning various types of vessels and working with different nationalities.

All items in the instrument had factor loads of 0.920 for common problems encountered onboard ship, under the valid constructs intended for the study. The instrument consisted of 2 parts: Part I elicited information on the newly-hired seafarers' age, year graduated, and location of residence. Part II elicited data on the newly-hired seafarers' common problems encountered onboard ship.

The score of an individual respondent in the instrument was determined by adding the numerical equivalent of the option chosen, and then the mean was computed. The mean was transmuted into a numerical scale with assigned values and descriptions, as follows:

Scale	Response/Description	Value
3.50 - 4.00	Always a problem	4
2.50 - 3.49	Often a problem	3
1.50 - 2.49	Sometime a problem	2
1.00 - 1.49	Not a problem	1

### 2.4 Procedure

The researcher requested permission to administer the research instrument from the Office of the Dean of College of Maritime Studies, Onboard Training Office, Office of the Vice President for Academic Affairs, and Office of the Registrar of the University of Antique. Upon approval of the permit, meticulous oral instructions, both in English and Tagalog, were given to make certain that the participants understood the questionnaire properly.

## 2.5 Data analysis

The completed questionnaires were scored and subjected to appropriate computer-processed statistics using the Statistical Package for the Social Sciences (SPSS) software version 23. Means, frequency, and rank were the descriptive statistical tools employed in the study. t-test and One-Way ANOVA set at 0.05 alpha level were the inferential tools used.

## 3. Results and discussion

### 3.1 Ranks of common problems encountered by newly-hired seafarers

**Table 1** presents newly-hired seafarers' common problems encountered onboard ship.

The results revealed that the top 5 highest means of the newly-hired seafarers' common problems were: they experience homesickness within a few months (Mean = 3.26), rank 1; they experience seasickness within a few months (Mean = 3.14), rank 2; their long distance relationship suffers (Mean = 3.12), rank 3; they hardly adjust to other crew onboard (Mean = 3.08), rank 4; and they suffer fatigue onboard ship (Mean = 2.96), rank 5. The results reveal that the respondents are homesick, seasick, have difficulty in maintaining long distance relationships, have adjustment problems, and suffer from fatigue.

**Table 1** Ranks of common problems encountered by newly-hired seafarers onboard ship.

Items	Mean	Description	Rank
1. I experience homesickness in my first few months onboard ship	3.26	Always a problem	1
2. I experience seasickness in my first voyage at sea	3.14	Often a problem	2
3. I have a long distance relationship	3.12	Often a problem	3
4. I hardly adjust to other crew onboard	3.08	Often a problem	4
5. I am tired and exhausted after long work	2.96	Often a problem	5
6. I am not familiar with the ship's parts and types	2.92	Often a problem	6.5
7. I experience insomnia in my first few months onboard	2.92	Often a problem	6.5
8. I experience an inferiority complex with nationalities onboard	2.76	Often a problem	8
9. I am being reprimanded by my senior officers and crew all the time	2.68	Often a problem	9
10. I do not ask any relevant questions related to work for professional advancement	2.64	Often a problem	10
11. I have no experience in joining any type of ship	2.60	Often a problem	11
12. I have insufficient relevant training	2.52	Often a problem	12
13. I am not ready to be assigned to other duties or tasks	2.34	Sometimes a problem	13
14. I ignore safety practices while on duty	2.30	Sometimes a problem	14
15. I am not reliable in performing tasks alone	2.18	Sometimes a problem	15
<b>Total</b>	<b>2.76</b>	<b>Often a problem</b>	

**Scale:** Always a problem 3.50 - 4.00; Often a problem 2.50 - 3.49; Sometimes a problem 1.50 - 2.49; Not a problem 1.00 - 1.49.

However, the following were lowest ranked as newly-hired seafarers' common problems: they had no experience onboard any ship (Mean = 2.60), rank 11; they lack relevant training (Mean = 2.52), rank 12; they cannot be assigned to other tasks (Mean = 2.34), rank 13; they ignore safety while on duty (Mean = 2.30), rank 14; and they cannot be reliable (Mean = 2.18), rank 15. The results reveal that respondents have experience onboard any ship, they are equipped with relevant training, they can be assigned to other tasks, they practice safety measures at all times, and they can be reliable in performing other duties.

### 3.2 Difference in newly-hired seafarers' common problems when classified according to age

**Table 2** presents the difference in newly-hired seafarers' common problems when classified according to age. The results reveal that significant difference existed in newly-hired seafarers' common problems when classified according to age  $t(48) = 7.09$ ,  $p > 0.5$ . This result implies that with personal factors such as age, newly-hired seafarers have encounter different problems in their respective lives.

**Table 2** t-test results for difference in newly-hired seafarers' common problems.

Category	Mean	t-value	df	2 tail Sig.
Age				
below 26	2.99	7.09	48	2.145
27 and above	1.95			

**Table 3** One-Way ANOVA results for difference in newly-hired seafarers' common problems when classified according to location of residence.

Category	Sum of Squares	df	Mean Square	F	Sig.
Location of Residence (Beach Area Plain Area, & Mountainous Area)					
Between groups	3.177	2	1.589	8.08	0.00
Within groups	8.257	47	0.197		
<b>Total</b>	<b>11.435</b>	<b>49</b>			

### 3.3 Difference in newly-hired seafarers' common problems when classified according to location of residence

**Table 3** presents the difference in newly-hired seafarers' common problems encountered onboard ship when classified as to the location of residence. The results show that significant difference existed in the newly-hired seafarers' common problems when classified according to location of residence  $F(2,49) = 8.080$ ,  $p < 0.05$ . This result suggests that the newly-hired seafarers, regarding of the location of residence, have dissimilar problems encountered onboard ship.

On the other hand, no significant difference existed in newly-hired seafarers' common problems when classified according to year of graduation  $F(2,49) = 2.266$ ,  $p > 0.05$ . This result suggests that newly-hired seafarers, regardless of year of graduation, have similar common problems encountered onboard ship (**Table 4**).

**Table 4** One-Way ANOVA results in difference in newly-hired seafarers' common problems when classified according to year of graduation.

Category	Sum of Squares	df	Mean Square	F	Sig.
Year of Graduation (2013, 2014 & 2015)					
Between groups	1.114	2	0.557	2.266	0.11
Within groups	10.321	47	0.246		
<b>Total</b>	<b>11.435</b>	<b>49</b>			

### 3.4 Proposed health intervention program

#### *"halUngAn ang Ika-ayong Lawas": A Care for Inner and Outer-Self Program*

This is a proposed health intervention program of the University of Antique - College of Maritime Studies (UA-CMS) to address prevalent problems encountered by newly-hired seafarers onboard ship. It aims to improve the physical fitness of maritime students through regular exercises by providing physical fitness and wellness facilities at school. Further, it enhances emotional and psychological awareness of coping with challenges, stress, depression, and other onboard-related problems through regular seminars and training. Furthermore, it inculcates the importance of physical, emotional, and psychological health for maritime students who will be working onboard ship (**Table 5**).

The results of this study revealed that significant difference existed in the common problems encountered by newly-hired seafarers onboard ship when classified according to age and location of residence. Hence, the results of the study will serve as basis in the formulation and definition of objectives and strategies, address key manpower issues in the maritime industry by promoting careers at sea, enhance maritime education and training, address the retention of seafarers, and continue to monitor the supply of and demand for competent seafarers in the Philippines.

In the next 5 years, from 2020 to 2025, a health intervention program will achieve the specific objective of improving the overall well-being of maritime students in the University of Antique.

**Table 5** Presentation of proposed health intervention program.

Program/Components	Name of agency	Key responsibilities
halUngAn ang Ika-ayong Lawas: A Care for Inner and Outer-Self Program	College of Maritime Studies Local Government Unit through Public Health Unit (PHO) Maritime Industry Authority	Promote physical, emotional, and psychological well-being among maritime students in the University of Antique
United Nations' Sustainable Development Goals (SDGs) 2030: SDG 3 - Good Health and Well-Being		United Nations' Sustainable Development Goals (SDGs) 2030: SDG 3 - Good Health and Well-Being
AmBisyon Natin 2040: Health and wellness services		AmBisyon Natin 2040: Health and wellness services

#### 4. Conclusions

The survey has identified 5 common problems encountered onboard ship: newly-hired seafarers experience homesickness and seasickness within a few months, their long-distance relationships suffer, they hardly adjust to other crew onboard, and they suffer fatigue onboard ship. On the other hand, they also shared 5 less common problems: they are not reliable in performing tasks alone, they ignore “Safety First” while on duty, they cannot be assigned to other tasks, they lack relevant training, and they have no experience onboard any ships. Significant differences existed in newly-hired seafarers’ common problems encountered onboard ship when classified according to age and location of residence. No significant difference existed in newly-hired seafarers’ common problems encountered onboard ship when classified according to year of graduation. The researcher proposes a health intervention program titled “halUngAn ang Ika-ayong Lawas: A Care for Inner and Outer-Self Program” to promote good health and overall well-being among maritime students in the University of Antique.

#### 5. Recommendations

It is recommended that concerned agencies should provide and/or establish a system of psychological, emotional, and physical support to seafarers and their families. Also, concerned agencies should provide necessary support and assistance to graduate seafarers. They should conduct seminars such as a Pre-Departure Seminar (PDOS) to all graduates prior to their embarkation to prepare themselves emotionally, psychologically, and physically with real onboard scenarios. Further, the parents of newly-hired seafarers should give their all-out support and assistance to their children in inculcating positive motivation and encouragement on fulfilling their dreams. These recommendations are aligned with the United Nations’ Sustainable Development Goals (SDG) 2030: SDG 3 - Good health and well-being, AmBisyon Natin 2040: Health and wellness services.

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